

# Comodo Endpoint Manager

Software Version 6.24

## Administrator Guide

Guide Version 6.24.121218

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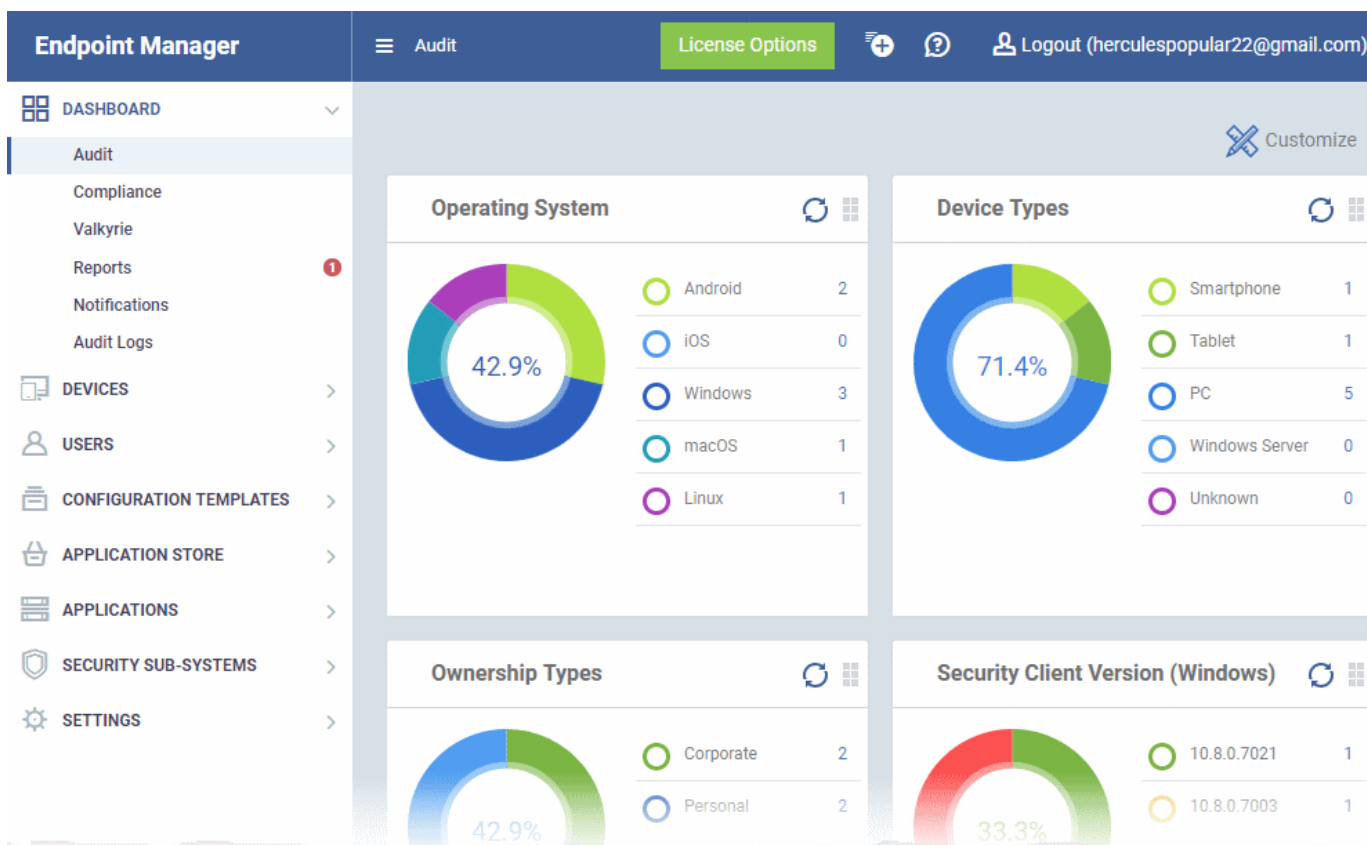
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## 1. Introduction to Endpoint Manager

Endpoint Manager (EM) lets you manage, monitor and secure devices which connect to your network.

- Admins must first add users to EM then enroll devices/endpoints for those users. Supported operating systems include Android, iOS, Mac OS, Windows and Linux.
- Once a device has been added, admins can apply profiles which determine the device's network access rights, security settings and other features.



- Each license covers one device per user. You will need additional licenses for each device you add for a user.

### Guide Structure

This guide will take you through the configuration and use of Endpoint Manager and is broken down into the following sections:

**Introduction to Endpoint Manager** - High level overview of the service which introduces the features and concepts that are discussed later in the guide.

### The Administrative Console

### The Dashboard

### Users and User Groups

- **Manage Users**
  - **Create New User Accounts**
  - **Enroll Users Devices for Management**
  - **View Details of a User**
  - **Assign Configuration Profile(s) to Users' Devices**

- **Remove a User**
- **Manage User Groups**
  - **Create a New User Group**
  - **Edit a User Group**
  - **Assign Configuration Profiles to a User Group**
  - **Remove a User Group**
- **Configure Role Based Access Control for Users**
  - **Create a New Role**
  - **Manage Permissions and Assigned Users of a Role**
  - **Remove a Role**
  - **Manage Roles Assigned to a User**

## **Devices and Device Groups**

- **Manage Device Groups**
  - **Create Device Groups**
  - **Edit a Device Group**
  - **Assign Configuration Profiles to a Device Group**
  - **Remove a Device Group**
- **Manage Devices**
  - **Add New Devices**
  - **Manage Windows Devices**
  - **Manage Mac OS Devices**
  - **Manage Linux Devices**
  - **Manage Android / iOS Devices**
  - **View User Information**
  - **Remove a Device**
  - **Remote Management of Windows and Mac OS Devices**
  - **Remotely Browse Folders and Files on Windows Devices**
  - **Remotely View and Manage Processes Running on Windows Devices**
  - **Apply Procedures to Windows Devices**
  - **Remotely Install and Update Packages on Windows Devices**
  - **Remotely Install Packages on Mac OS Devices**
  - **Remotely Install Packages on Linux Devices**
  - **Install Apps on Android / iOS Devices**
  - **Generate an Alarm on a Device**
  - **Lock / Unlock Selected Devices**
  - **Wipe Selected Devices**
  - **Assign Configuration Profile to Devices**
  - **Set or Reset Screen Lock Passwords**
  - **Update Device Information**
  - **Send Text Messages to Devices**
  - **Restart Selected Windows Devices**
  - **Change a Device's Owner**

- **Change Device Ownership Status**
- **Generate Device List Report**
- **Bulk Enrollment of Devices**
  - **Enroll Windows and Mac OS Devices by Installing the EM Communication Client Package**
  - **Enroll the Android and iOS Devices of Active Directory Users**
  - **Download and Install the Remote Control Tool**

## Configuration Templates

- **Create Configuration Profiles**
  - **Profiles for Android Devices**
  - **Profiles for iOS Devices**
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- **View and Manage Profiles**
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- **Editing Configuration Profiles**
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- **Manage Alerts**
  - **Create a New Alert**
  - **Edit / Delete an Alert**
- **Manage Procedures**
  - **View and Manage Procedures**
  - **Create a Custom Procedure**
  - **Combine Procedures to Build Broader Procedures**
  - **Review / Approve / Decline New Procedures**
  - **Add a Procedure to a Profile / Procedure Schedules**
  - **Import / Export / Clone Procedures**
  - **Change Alert Settings**
  - **Directly Apply Procedures to Devices**
  - **Edit / Delete Procedures**
  - **View Procedure Results**
- **Manage Monitors**
  - **Create Monitors and Add them to Profiles**
  - **View and Edit Monitors**

## Applications

- **View Applications on Android and iOS Devices**
  - **Blacklist and Whitelist Applications**
- **Patch Management**
  - **Install OS Patches on Windows Endpoints**
  - **Install 3rd Party Application Patches on Windows Endpoints**

- **View and Manage Applications Installed on Windows Devices**
  - **Uninstall a Windows Application from Selected Devices**
  - **Uninstall a Windows Application from All Devices**

## Application Store

- **iOS Apps**
  - **Add iOS Apps and Installing them on Devices**
  - **Manage iOS Apps**
- **Android Apps**
  - **Add Android Apps and Install them on Devices**
  - **Manage Android Apps**
- **Windows Apps**
  - **Install Windows Apps on Devices**

## Security Sub-Systems

- **Security Dashboards**
  - **View Security Events by Time**
  - **View Events by File**
- **View Contained Applications**
- **Manage File Trust Ratings on Windows Devices**
- **View list of Valkyrie Analyzed Files**
- **Antivirus and File Rating Scans**
  - **Run Antivirus and/or File Rating Scans on Devices**
  - **Handle Malware on Scanned Devices**
  - **Update Virus Signature Database on Windows and Mac OS Devices**
- **View and Manage Identified Malware**
- **View and Manage Quarantined Items**
- **View Threat History**
- **View History of External Device Connection Attempts**

## Manage Certificates Installed on Devices

### Configure Endpoint Manager

- **Email Notifications, Templates and Custom Variables**
  - **Configure Email Templates**
  - **Configure Email Notifications**
  - **Create and Manage Custom Variables**
  - **Create and Manage Registry Groups**
  - **Create and Manage COM Groups**
  - **Create and Manage File Groups**
- **Endpoint Manager Portal Configuration**
  - **Import User Groups from LDAP**
  - **Add Apple Push Notification Certificate**
  - **Configure the EM Android Client**



- **Configure EM Windows Client**
- **Manage Endpoint Manager Extensions**
- **Configure Endpoint Manager Reports**
- **Integrate with Sectigo Certificate Manager**
- **Set-up Administrator's Time Zone**
- **View and Manage Licenses**
  - **Upgrade or Add a License**
- **Viewing Version and Support Information**

**Appendix 1a: Endpoint Manager Services - IP Nos, Host Names and Port Details - EU Customers**

**Appendix 1b: Endpoint Manager Services - IP Nos, Host Names and Port Details - US Customers**

**Appendix 2: Pre-configured Profiles**

## 1.1. Key Concepts

**Mobile Device** - For the purposes of this guide, a mobile device is any Android or iOS smart phone or tablet that is allowed to connect to the enterprise network. Endpoint Manager allows network administrators to remotely configure device access rights, security settings, general preferences and to monitor and manage the device. Mobile devices may be employee or company owned.

**User** - An employee or guest of the enterprise whose device(s) are managed by the EM console. Users must be created before their devices can be added. Users can be added manually or by importing user groups from an AD server.

**Device Group** - An admin-defined grouping of Android, iOS, Linux, MAC or Windows devices. Configuration profiles applied to a device group will be deployed to all devices in the group.

**Quarantine** - Malware found on managed networks can either be deleted or isolated in a secure environment known as 'quarantine'. Files moved to quarantine are encrypted so they cannot be executed. Admins can review quarantined items and delete or release the files. Quarantined files can also be added to the local whitelist and submitted to Comodo as a potential false-positive.

**Configuration Profile** - A configuration profile is a collection of settings applied to managed devices which determines their network access rights, overall security policy, antivirus scan schedule, and other preferences. Profiles are operating system specific and can be applied to individual devices, device groups, users or user groups. Endpoint Manager ships with a 'default' profile for each supported operating system (iOS, Android, MAC, Linux and Windows). The default profile is automatically applied to a user/device **if** no custom profile exists.

**Comodo Client Security** - Comodo Client Security (CCS) is the remotely managed endpoint security software installed on managed Windows devices. It offers complete protection against internal and external threats by combining a powerful antivirus, an enterprise class packet filtering firewall, an advanced host intrusion prevention system (HIPS) and Containment feature that runs unknown and unrecognized applications in an isolated environment at the endpoints. Each component of CCS can be configured to offer desired security level by applying configuration profiles.

- CCS can be white-labelled with your own company branding and UI texts. You can customize the company name, company logo, product logo and more.

**Default Profile** - Default profiles are immediately applied to a device when it is first enrolled into Endpoint Manager. Default profiles are split into four types - iOS default profiles, Mac OS default profiles, Android default profiles and Windows default profiles. Multiple default profiles can be created and applied to a device or group of devices.

**Communication Client (a.k.a EM Agent)** - The communication client (CC) is an agent which needs to be installed on all devices so they can be managed by Endpoint Manager. The client is responsible for receiving and executing tasks. Tasks include implementing configuration profiles, fetching device details, running antivirus scans, adding or removing apps and wiping the device.

- CC can be white-labeled with your own company branding and UI texts. You can customize the company



name, company logo, product logo and more. You can also specify your support email, support website and support email in the CC 'About' dialog.

**Notifications** - Notifications are generated if a threat is found on a device, or if an app is installed or removed. You can choose to send notifications to admins only, to a mailing list, or to specific users. Threat notifications are also shown in the Endpoint Manager dashboard.

**Patch Management** - The patch management module lets you monitor and install updates for Windows and 3rd party software on Windows devices.

**Valkyrie** - Valkyrie is a cloud-based file verdicting service that tests unknown files with a range of static and behavioral checks in order to identify those that are malicious. CCS on managed Windows computers can automatically submit unknown files to Valkyrie for analysis. The results of these tests produce a trust verdict on the file which can be viewed from the EM interface.

**Active Directory** - Endpoint Manager allows administrators to add multiple Lightweight Directory Access Protocol (LDAP) accounts for the purpose of importing user groups and users.

## 1.2. Best Practices

1. 'Default' profiles are automatically applied to a device if no custom profile exists for the device. Endpoint Manager ships with default profiles for each supported operating system, but you can also mark any custom profile as 'default' if you wish.

See **Manage Default Profiles** for more information.

2. Though it is possible to save all settings in a single profile, an option worth considering is to create separate profiles dedicated to the implementation of a single setting group. You can apply multiple profiles at once to a device or group. For example, you could name a profile 'Android\_passcode\_profile' and configure only the passcode rules. You could create another called 'Android\_VPN\_settings' and so on. Adding or removing a profile from a device would let you quickly troubleshoot if a particular setting is causing issues.

See **Create Configuration Profiles** for more details.

3. Each license allows you to enroll one mobile device or one Windows / Mac / Linux endpoint for a single user. You will need additional licenses for each device you add for a user. We encourage admins to evaluate the average number of devices per user and to set max. enrollments accordingly.

See **Enroll Users' Devices for Management** for more details.

4. Creating a group of devices is a great time-saver if the policies applied to them are going to be the same.

See **Manage Device Groups** for more details.

5. The first level of defense on any device is to set a complex passcode policy. Endpoint Manager allows you specify passwords which are a combination of numbers, letters, special symbols and of a minimum length set by you. You can also set passcode lifetimes, reuse policy and define whether data should be automatically wiped after a certain number of failed logins.

6. Decide what restrictions are required for *your* company and *your* users. For example, disabling cell-phone cameras might be expected and mandatory in certain corporate environments but could be seen as a savage affront to liberties in more relaxed offices. Endpoint Manager offers flexible restrictions for Android devices over items such as Wi-Fi, packet data, bluetooth connectivity and use of camera. iOS restrictions are much more granular and also include App purchases, game center, voice dialing and more.

See **Profiles for Android Devices** and **Profiles for iOS Devices** for more details.

7. Keeps an eye on the apps you allow in your organization. Apps can be useful and productive to your employees but some may pose a malware or data-leak risk for your organization. EM provides you the ability to blacklist and whitelist apps, to govern how apps behave and to determine whether users are allowed to install apps from 3<sup>rd</sup> party vendors. You can also remotely uninstall unwanted applications from Windows devices.

See **Applications** for more details.

8. Keeping enrolled devices free from malware is vital to your organization's security. It is advisable to run antivirus scans on devices regularly per your company's needs. EM allows you to create a scheduled antivirus scan profile that automates the process of AV scans. If needed, AV scans can also be run instantly for selected devices or all enrolled devices.
9. You can create custom roles for users which determine their permissions within Endpoint Manager. See **Configure the Role-Based Access Control for Users** for more details.
10. Keep on top of your devices. Check device status regularly for compliance with deployed profiles, and take advantage of Endpoint Manager's detailed reporting system. See **The Dashboard** and **Manage Devices** and **Security Dashboards** or more details.

## 1.3. Quick Start

This tutorial explains how to add users and devices, create device groups and deploy configuration profiles.

**Step 1 - Enrollment and Configuration**

**Step 2 - Configure EM Communications**

**Step 3 - Add Users**

**Step 4 - Enroll User Devices**

**Step 5 - Create Groups of Devices (optional)**

**Step 6 - Create Configuration Profiles**

**Step 7 - Applying profiles to devices or device groups**

**Note** - Endpoint Manager needs to communicate with Comodo servers and managed devices in order to send commands and run updates. You need to configure your firewall accordingly to allow these connections. Required IPs, host-names and ports are provided in **Appendix 1**.

### Step 1 - Enrollment and Configuration

#### Existing Comodo One and ITarian customers

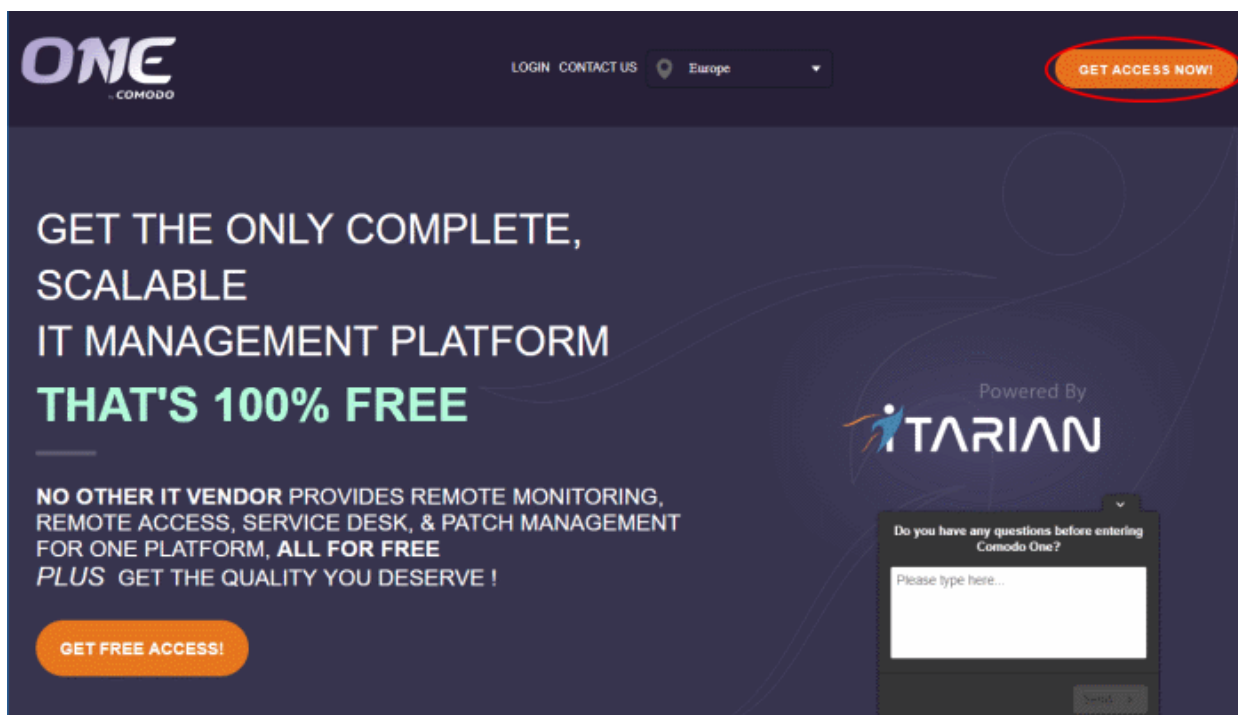
- Log in to your Comodo One / ITarian account
- Click 'Licensed Applications' > 'Endpoint Manager'.

#### New customers

You can subscribe for Endpoint Manager from Comodo One or ITarian. The enrollment steps are similar for both.

#### Comodo One:

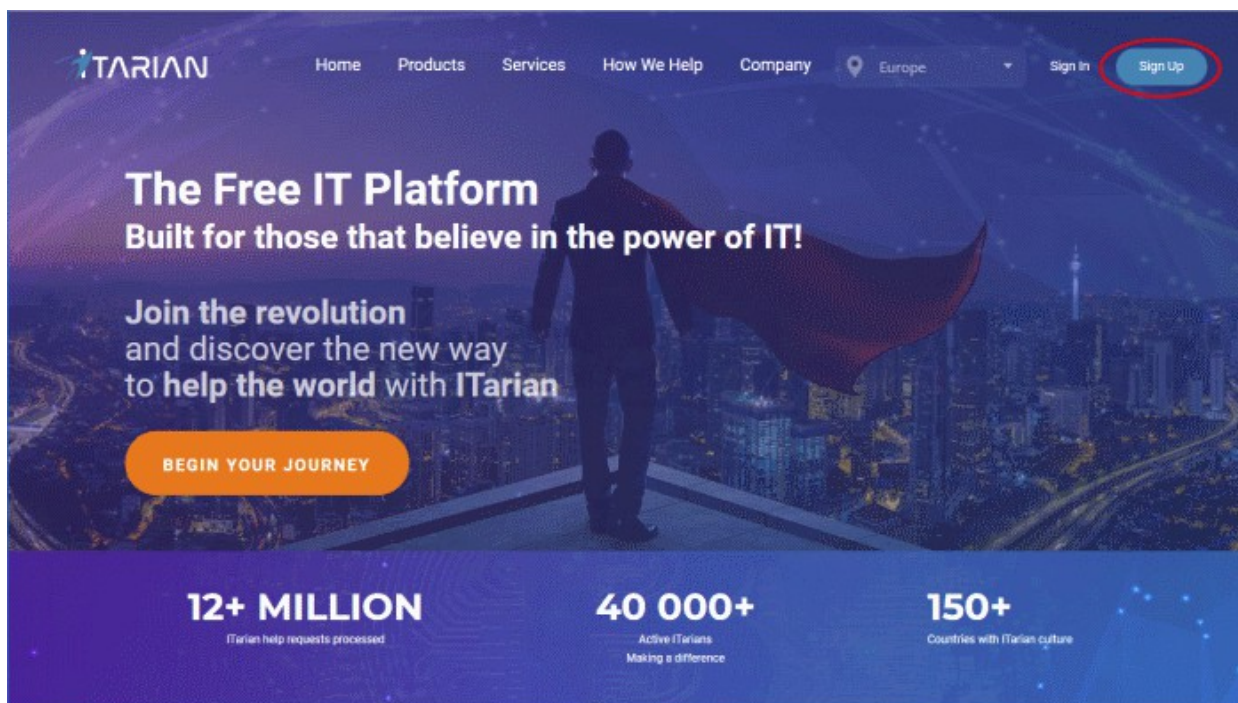
- Visit <https://one.comodo.com/>



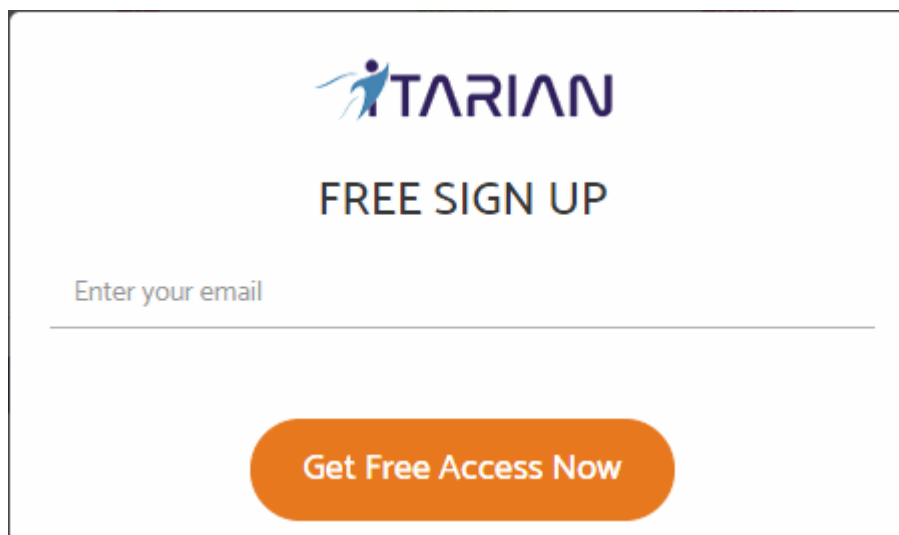
- Select your region and click 'Get Access Now'
- You will be taken to the **sign-up wizard**.

#### ITarian:

- Visit <https://www.itarian.com/>



- Select your region and click 'SignUp' on the top right
- You will be taken to the sign-up wizard:

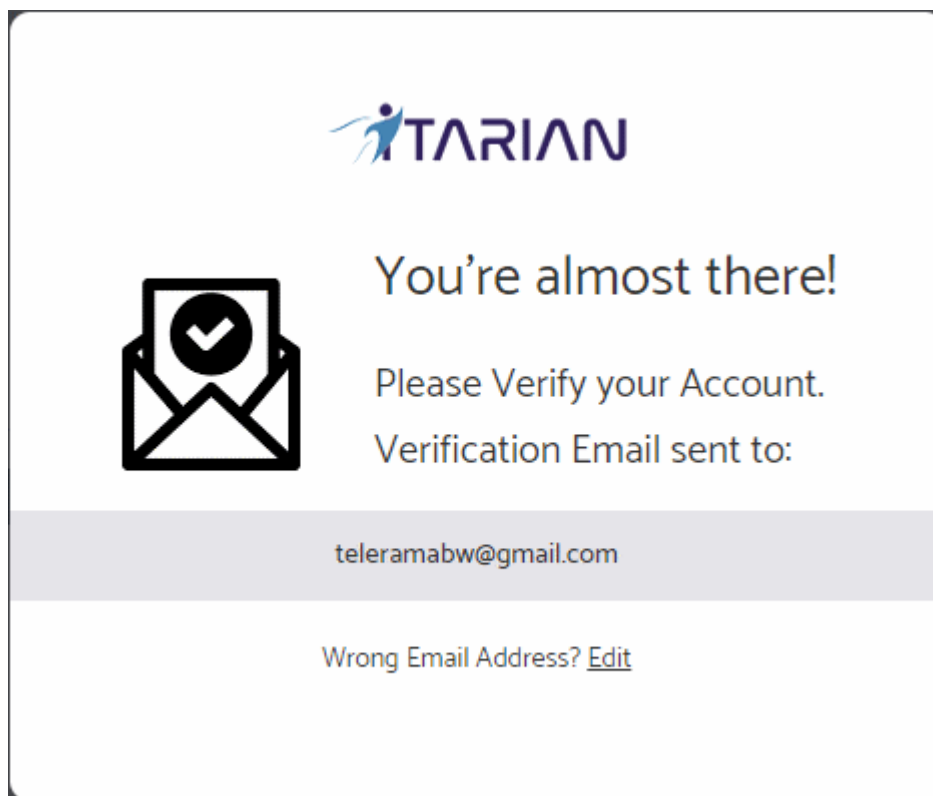


- Enter your email address and click 'Get Free Access Now'
- Next, complete the short registration form:

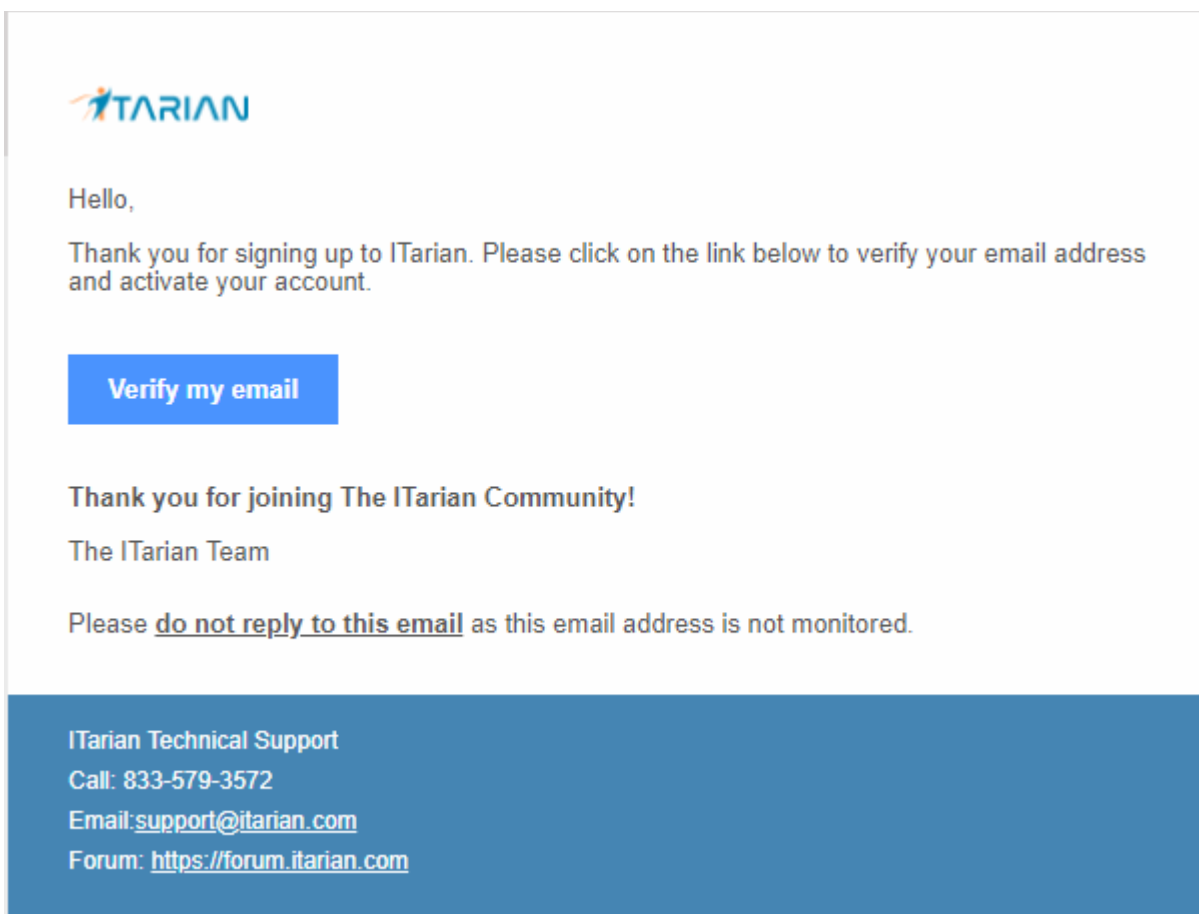
terms and conditions'." data-bbox="133 389 515 652"/>

- **Email** - This is pre-populated with the address you provided in the previous step. Enter a new email address if you wish to change it. You will receive the verification link to this email address.
- **Password** - Create a password for your C1 or ITarian account. Password rules:
  - At least eight characters long
  - Contain a mix off lower case and upper case letters
  - Contain at least one numeral
  - Contain at least one of the following special characters - '(!"#\$%^&\*")'
- **Telephone Number** - Primary contact number
- **End User License Agreement:** Read the EULA fully by clicking the 'terms and conditions' link.

Click 'Get Started Now'.



- A confirmation screen appears. If you want to change the email address, click 'Edit' and enter a new address. The verification email will be sent to the new address.
- You will receive a confirmation email to verify your account:



- Click the 'Verify my email' button in the mail to activate your account:

You will be taken to the C1 / ITarian login page after successful verification:

Great to have you back!

Welcome to Comodo ONE. You can now login with your email and password.

Username

Password

Remember Me [Forgot password?](#)

**SIGN IN**

New here? [Create an account](#)

Available on the **Apple Store**

Android App on **GOOGLE PLAY**

- Enter your email address and password and click 'Sign In'.
- You need to complete account registration after your first-login:



[Logout](#)

## Setup Account Details

**Business Type** \* [\(Compare Business Types\)](#)

Managed Service Provider

Enterprise

**Subdomain/Company**\* ?

Your custom support URL for your end-users:  
[ACME.servicedesk.comodo.com](#)

Submit

- **Business Type** - Choose the version of Comodo One / ITarian you require. The modules offered with each version are as follows:

MSP	Enterprise
<b>Modules included in the Base package</b>	
Service Desk Endpoint Manager (EM) Dome Shield	Service Desk Endpoint Manager (EM) Dome Shield
<b>Modules that can be added to the base package</b>	
Acronis Cloud Backup Quote Manager Customer Relationship Management (CRM) cWatch Comodo Dome Secure Web Gateway Comodo Dome Antispam MSP Comodo Dome Firewall Central Manager Comodo Dome Firewall Virtual Appliance cWatch EDR	Acronis Cloud Backup Quote Manager Customer Relationship Management (CRM) cWatch Comodo Dome Secure Web Gateway Comodo Dome Data Protection Comodo Dome Firewall Central Manager Comodo Dome Firewall Virtual Appliance Comodo Dome Antispam cWatch EDR

- More details on C1 modules - <https://help.comodo.com/topic-289-1-716-8478-Introduction-to-Comodo-One-MSP.html>.

- More details on ITarian - <https://help.comodo.com/topic-452-1-946-13050-Introduction-to-ITarian.html>.
- **Subdomain** - The sub-domain forms part of the unique URL you use to access EM. For example, if you enter the sub-domain 'dithers' then you will access EM at <https://dithers.cmdm.comodo.com>
- Click 'Submit'


The next screen shows a summary of your active services:



## ITarian MSP Logout

### Free Services Out of Box

- ✔ **Service Desk** READY ^
  - Automated Service Ticketing System
  - Multi-Site Help Desk Management
  - Fully Integrated One-View Dashboard for Our 3 Free Tool
- ✔ **Endpoint Manager** READY ^
  - Remote Device Monitoring and Management
  - Remote Device Control
  - Patch Management
  - Application Management
  - Advanced Endpoint Protection with the World-Best Containment Technology (Free for 1 month)
  - Mobile Device Management
- ✔ **Dome Shield** - Free up to 300k DNS requests per month READY ^
  - Cloud-delivered, DNS-based Security
  - Advanced Threat Protection (Malware, Phishing, Botnet and more)
  - Web-Filtering
  - Off-Network Protection
  - Mobile Device Coverage



**ITarian MSP Forum Subscription for FREE**

You are now a member of our MSP Forum partnership community where you can provide your insight, engage in discussion boards as well as gain support from a network of partners and highly skilled technology developers.

**Your [MSP Forum](#) username is your subdomain prefix that you've created. The password is the same as your ITarian MSP login.**

**OK**

- Click 'OK' to finish setup. You will be taken to the Comodo One / ITarian Dashboard
- Click 'Licensed Applications' > 'Endpoint Manager' to open the EM console

- This account will be given master 'Account Admin' privileges and cannot be deleted. You will be able to create administrators and staff under this account
- Admins/users who enrolled via C1 / ITarian can login at <https://one.comodo.com/app/login>
- Admins/users created in EM can login at <https://<company name>.cmdm.comodo.com/>

## Step 2 - Configure EM Communications

You need to install an Apple Push Notification (APN) certificate and a Google Cloud Messaging (GSM) token on your portal so Endpoint Manager can communicate with managed devices.

The following sections explain how to:

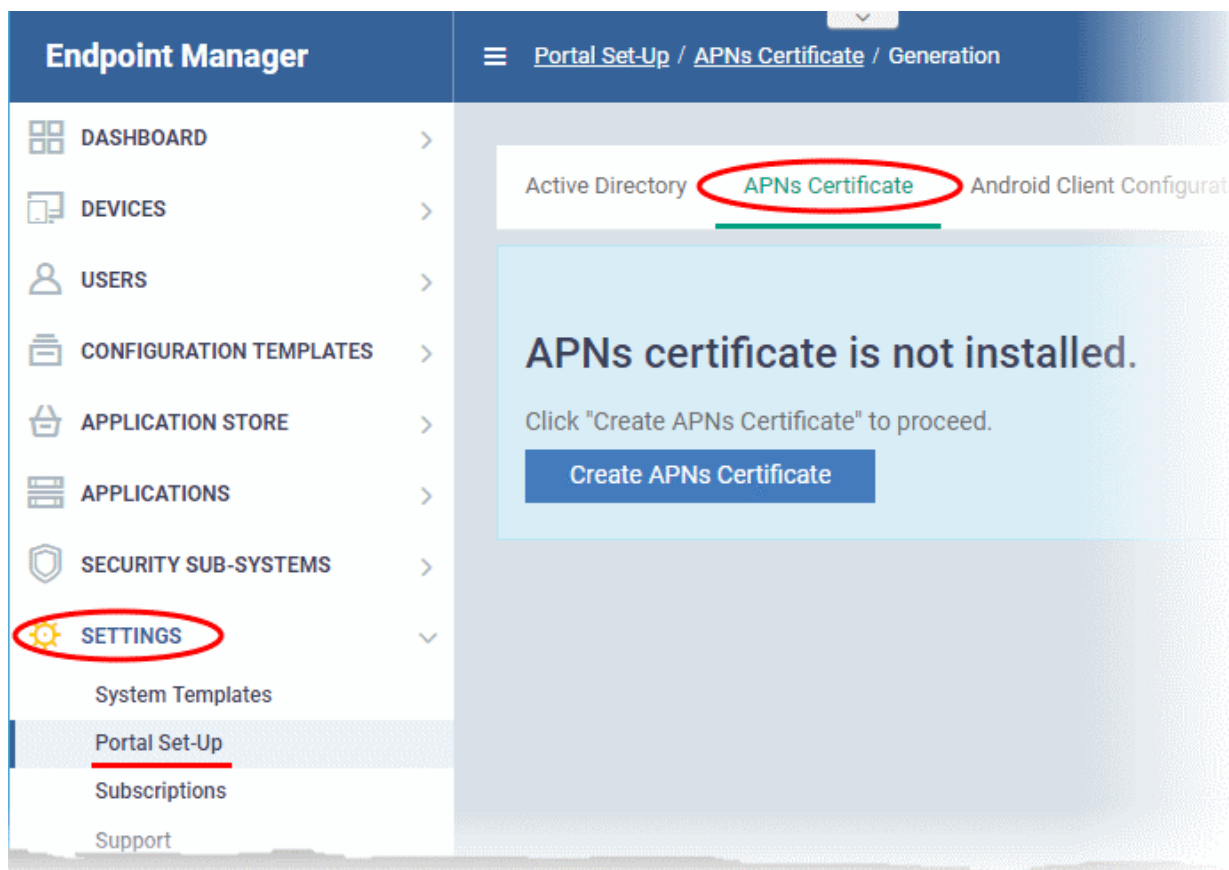
- **Add an APN Certificate**
- **Add a GCM Token**

### Add Apple Push Notification certificate

- You need to install an Apple Push Notification (APN) certificate on your EM instance if you wish to manage iOS or Mac devices.
- You can enroll for an APN certificate using your Apple account. If you do not have an Apple account then please create one at <https://appleid.apple.com>. A free account is enough.
- The certificate is valid for one year. Endpoint Manager will remind you when your certificate is nearing expiry. It is free to renew the certificate each year.
- Follow the steps below to obtain and install an APN certificate:

### Step 1- Generate your PLIST

- Click 'Settings' > 'Portal Set-Up'
- Click the 'APNs Certificate' tab.



- Click the 'Create APNs Certificate' button to open the APNs application form.

The fields on this form are for generating a Certificate Signing Request (CSR):

### Generation of APNs Certificate ✕

**Country name \***  
India

**Apple ID \***  
herculespopular22@gmail.com

**State or province name \***  
Tamilnadu

**Locality name (e.g, city) \***  
Chennai

**Organization name \***  
Saddle and Pedals

**Organizational unit \***  
Sales  
Organizational Unit Name (e.g, section)

**Common name \***  
herculespopular22.com  
(e.g., server FQDN or YOUR name)

**Create** **Reset**

- Complete all fields marked with an asterisk and click 'Create'. This will send a request to Comodo to sign the CSR and generate an Apple PLIST.
- You need to submit this to Apple in order to obtain your APN certificate:

## Upload APNs Certificate

Save

To get the certificate for communication between server and Apple devices you need to:

1. Download: [The Apple PLIST Signed by Comodo](#)
2. Login to the [Apple Push Certificate Portal](#) with your regular Apple ID (free account is enough).
3. Upload the PLIST from step 1 to the Apple portal. Apple will use this to generate your certificate.
4. Download your certificate from Apple. It will be in .PEM format.
5. Click 'Browse', select your certificate, and click 'Save' to upload it to ITSM

Select .PEM file

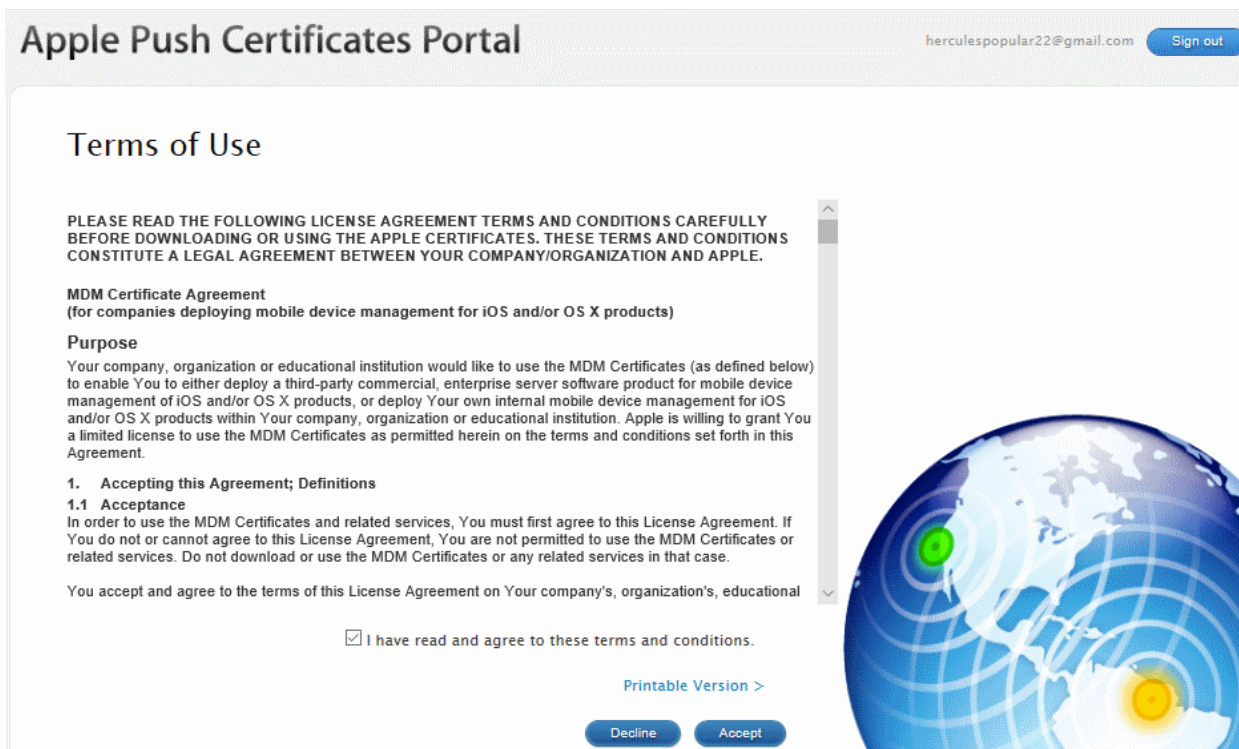
- Download your Apple PLIST from the link in step 1. This is a file with a name similar to 'COMODO\_Apple\_CSR.csr'. Please save this to your local drive.

### Step 2 -Obtain Your Certificate From Apple

- Login to the 'Apple Push Certificates Portal' with your Apple ID at <https://identity.apple.com/pushcert/>.
- If you do not have an Apple account then please create one at <https://appleid.apple.com>.
- Once logged in, click 'Create a Certificate'.

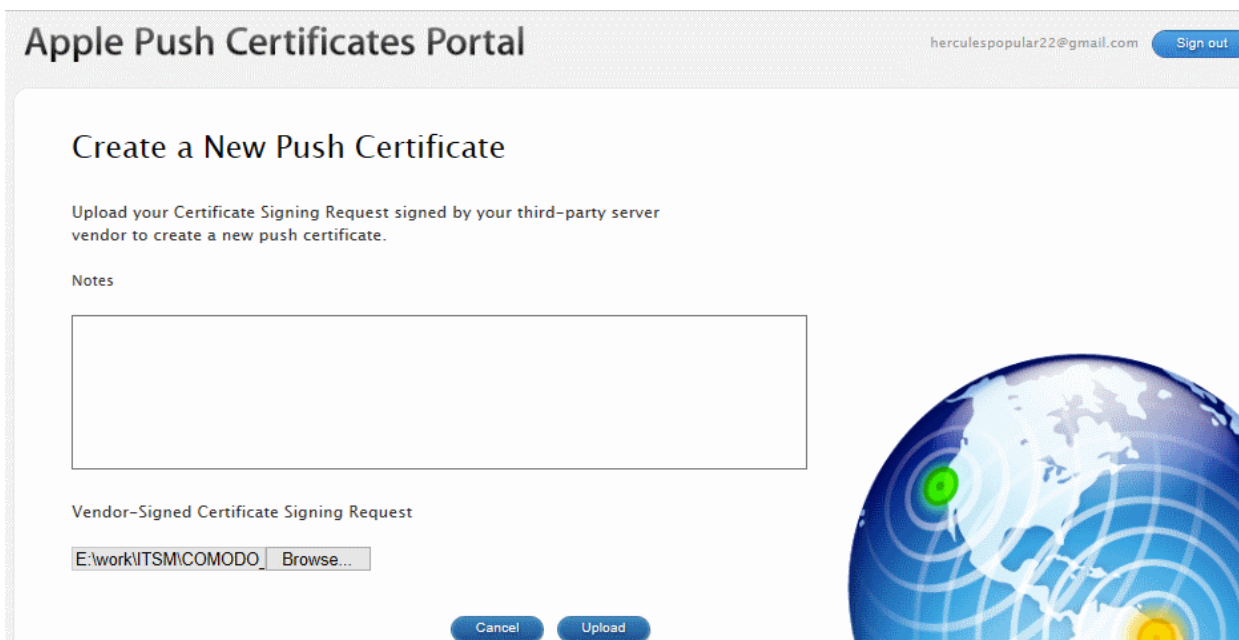


You will need to agree to Apple's EULA to proceed.



The screenshot shows the 'Terms of Use' page in the Apple Push Certificates Portal. At the top right, the user is logged in as 'herculespopular22@gmail.com' with a 'Sign out' button. The main heading is 'Terms of Use'. Below it, a warning states: 'PLEASE READ THE FOLLOWING LICENSE AGREEMENT TERMS AND CONDITIONS CAREFULLY BEFORE DOWNLOADING OR USING THE APPLE CERTIFICATES. THESE TERMS AND CONDITIONS CONSTITUTE A LEGAL AGREEMENT BETWEEN YOUR COMPANY/ORGANIZATION AND APPLE.' The section is titled 'MDM Certificate Agreement (for companies deploying mobile device management for iOS and/or OS X products)'. Under 'Purpose', it explains that the company wants to use MDM Certificates for mobile device management. Section '1. Accepting this Agreement; Definitions' includes '1.1 Acceptance', which states that users must agree to the license agreement before using the certificates. At the bottom, there is a checkbox labeled 'I have read and agree to these terms and conditions.' which is checked. Below the checkbox are buttons for 'Decline' and 'Accept', and a link for 'Printable Version >'. A globe graphic with a green dot and a yellow sun is on the right side.

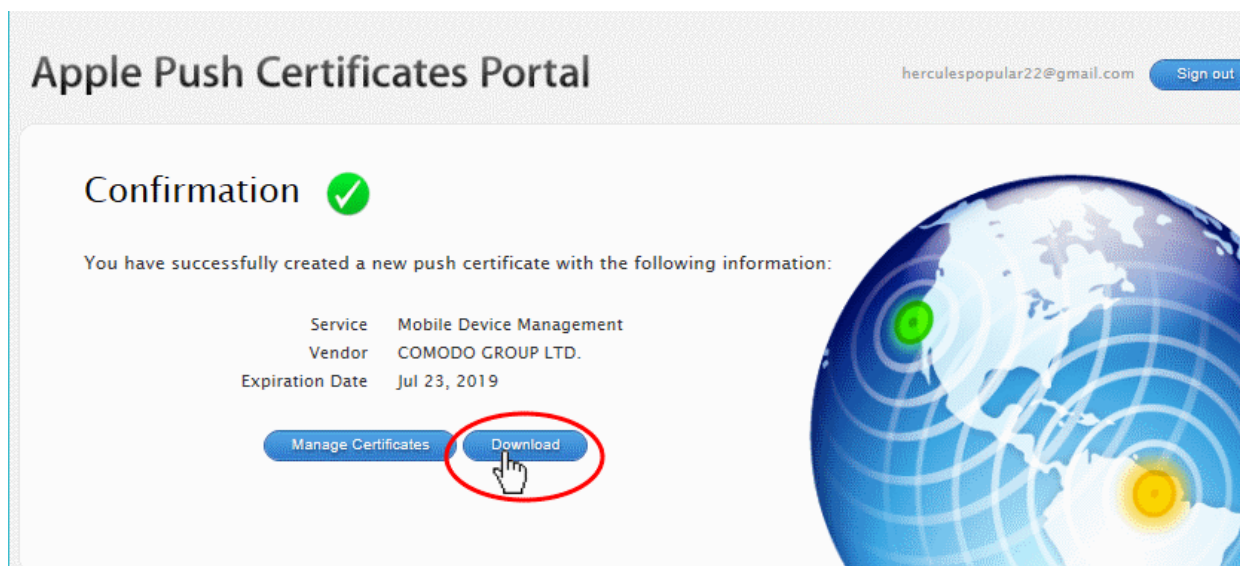
- On the next page, click 'Choose File', navigate to the location where you stored 'COMODO\_Apple\_CSR.csr' and click 'Upload'.



The screenshot shows the 'Create a New Push Certificate' page in the Apple Push Certificates Portal. At the top right, the user is logged in as 'herculespopular22@gmail.com' with a 'Sign out' button. The main heading is 'Create a New Push Certificate'. Below it, instructions state: 'Upload your Certificate Signing Request signed by your third-party server vendor to create a new push certificate.' There is a 'Notes' section with a large empty text box. Below that, the 'Vendor-Signed Certificate Signing Request' section has a file input field containing 'E:\work\ITSM\COMODO\_' and a 'Browse...' button. At the bottom, there are 'Cancel' and 'Upload' buttons. A globe graphic with a green dot and a yellow sun is on the right side.

Apple servers will process your request and generate your push certificate. You can download your certificate from the confirmation screen:

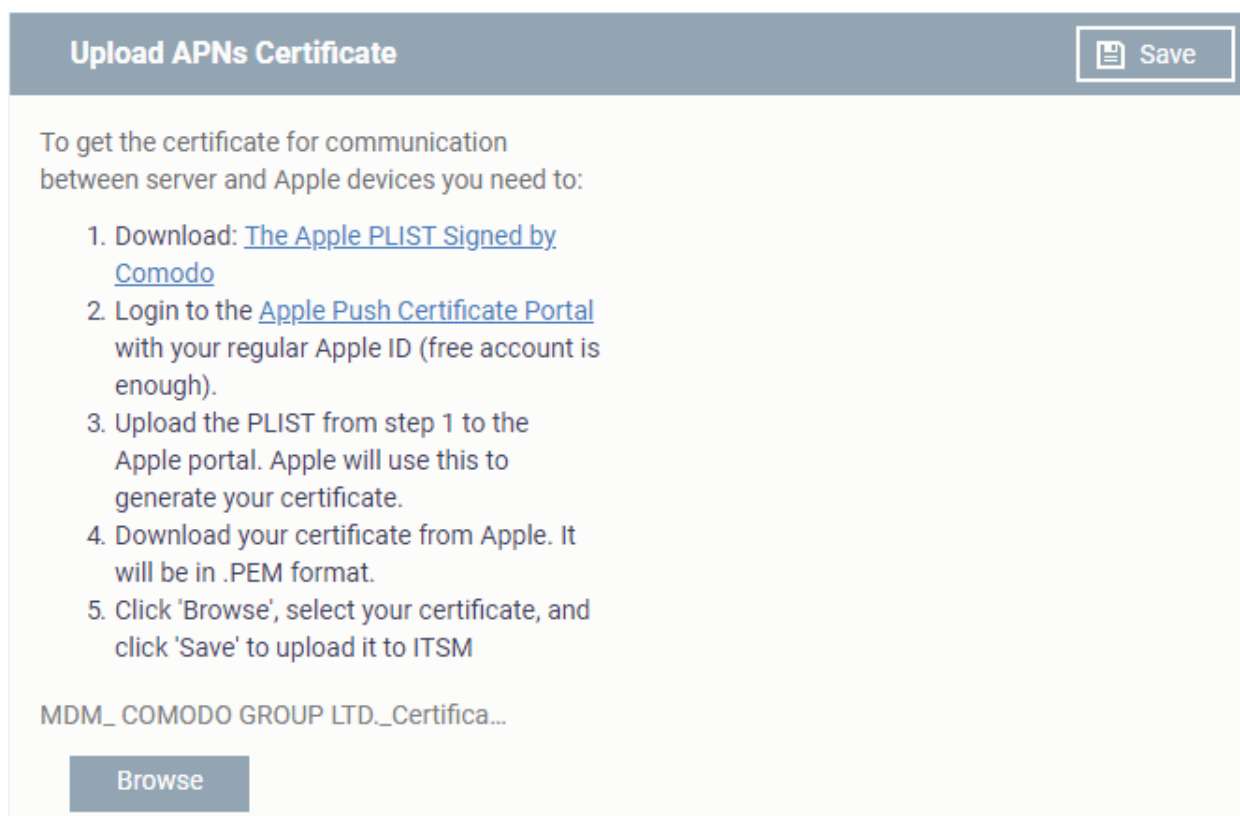




- Click the 'Download' button and save the certificate to a secure location. It is a .pem file with a name similar to 'MDM\_COMODO GROUP LTD.\_Certificate.pem'

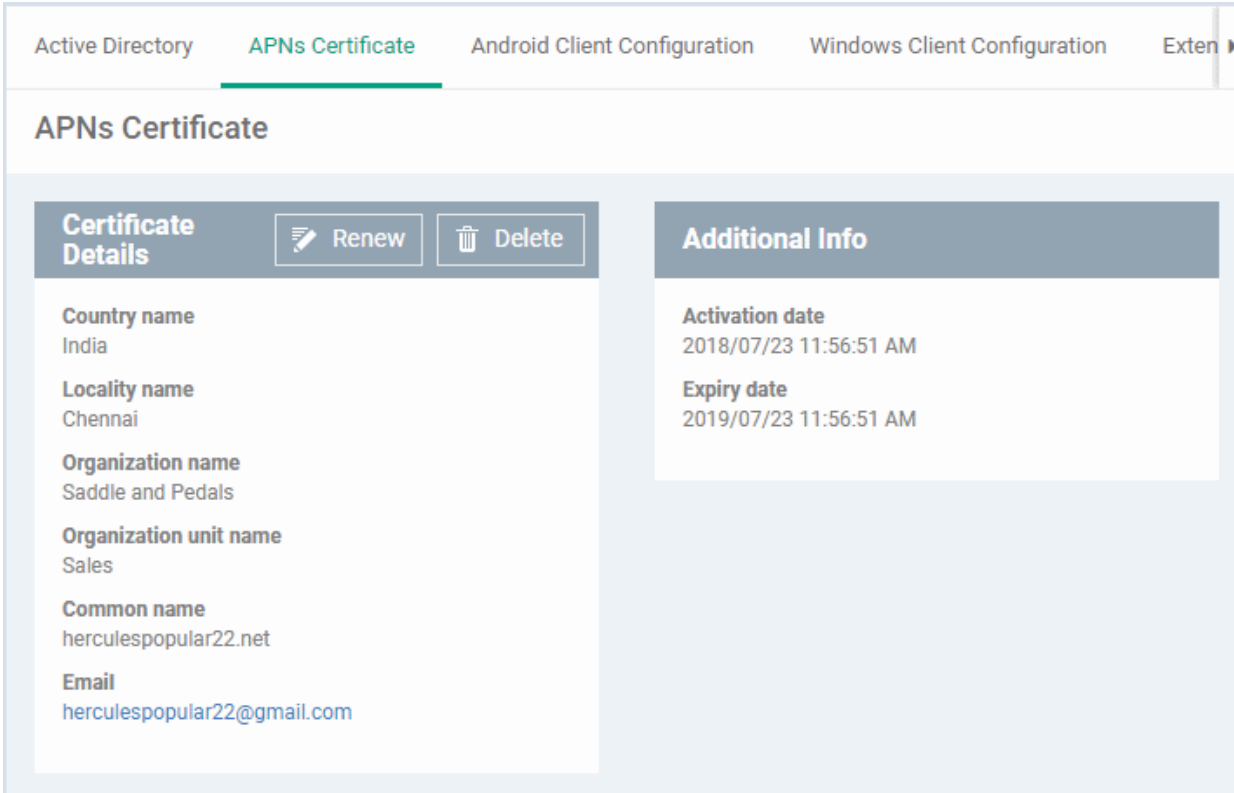
### Step 3 - Upload your certificate to EM

- Return to EM, click 'Settings' > 'Portal Set-Up' > 'APNs Certificate'
- Click the 'Browse' button, locate your certificate file and select it.



- Click 'Save' to upload your certificate.

The APNs Certificate details interface will open:



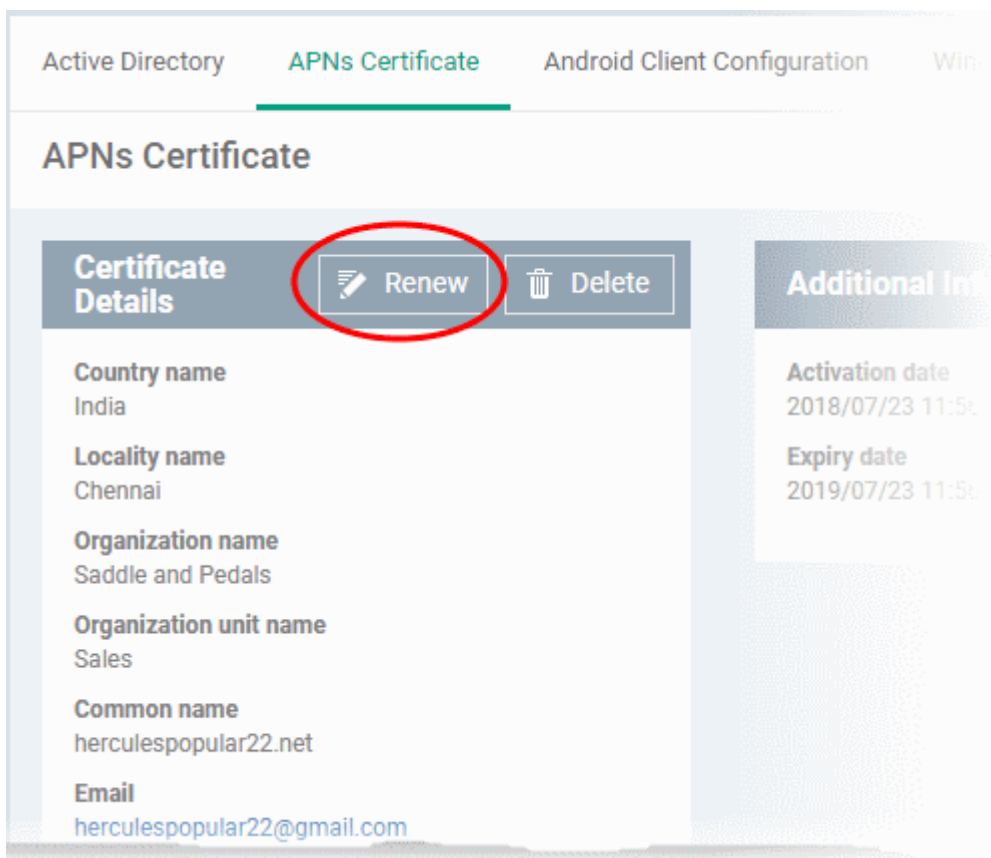
Active Directory   **APNs Certificate**   Android Client Configuration   Windows Client Configuration   Extensions ▶

## APNs Certificate

Certificate Details	Additional Info
<b>Country name</b> India	<b>Activation date</b> 2018/07/23 11:56:51 AM
<b>Locality name</b> Chennai	<b>Expiry date</b> 2019/07/23 11:56:51 AM
<b>Organization name</b> Saddle and Pedals	
<b>Organization unit name</b> Sales	
<b>Common name</b> herculespopular22.net	
<b>Email</b> herculespopular22@gmail.com	

Endpoint Manager can now communicate with iOS and Mac OS devices. You can enroll iOS devices and Mac OS devices for management.

- The certificate is valid for 365 days. EM will remind you when your certificate is due to expire.
- We advise you renew your certificate at least 1 week before expiry. If it is allowed to expire, you will need to re-enroll all your iOS and Mac devices.
  - Click 'Renew' in the APNs certificate details interface to renew the cert:

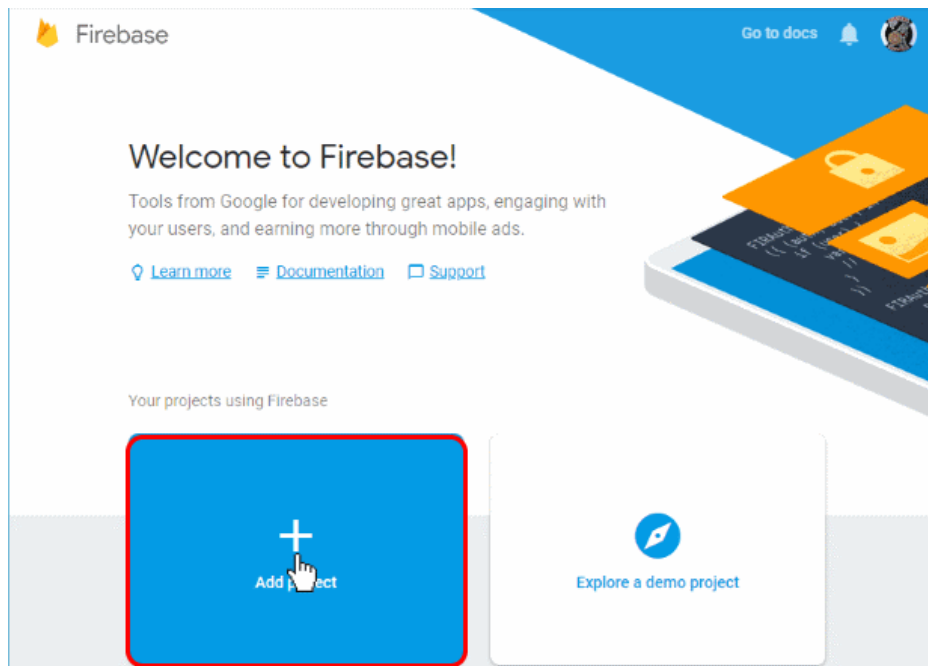


- Click 'Delete' only if you wish to remove the certificate so you can generate a new APNs certificate

## Add Google Cloud Messaging (GCM) Token

- Endpoint Manager requires a Google Cloud Messaging (GCM) token in order to communicate with Android devices.
- Endpoint Manager ships with a default token, but you can also generate a unique GCM token if required.
- To get a token, you must first create a project in the Google Developers console.
- Please follow the steps below to create a project and upload a token.
- **Step 1 - Create a New Project**
  - Login to the Google Firebase API console at <https://console.firebase.google.com>, using your Google account.





- Click 'Add Project'

**Add a project** ✕

Project name 📱 + iOS + </>

Hercules EM ▼ **Tip:** Projects span apps across platforms ?

Project ID ?

hercules-em ✎

Locations ?

United States (Analytics) ✎

us-central (Cloud Firestore)

Use the default settings for sharing Google Analytics for Firebase data

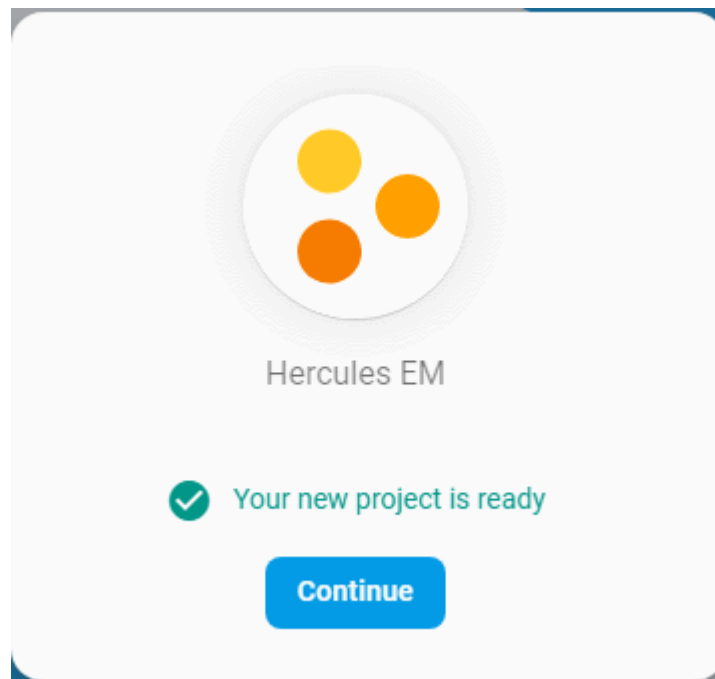
- ✓ Share your Analytics data with Google to improve Google Products and Services
- ✓ Share your Analytics data with Google to enable technical support
- ✓ Share your Analytics data with Google to enable Benchmarking
- ✓ Share your Analytics data with Google Account Specialists

I accept the [controller-controller terms](#). This is required when sharing Analytics data to improve Google Products and Services. [Learn more](#)

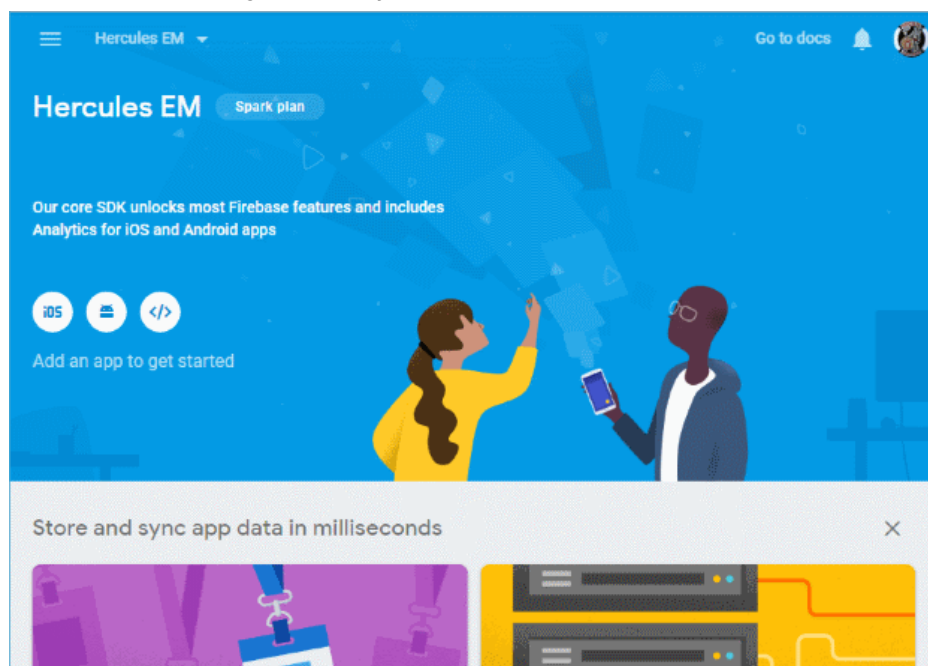
I agree that I am using Firebase services in my app and I agree to the applicable [terms](#).

Cancel Create project

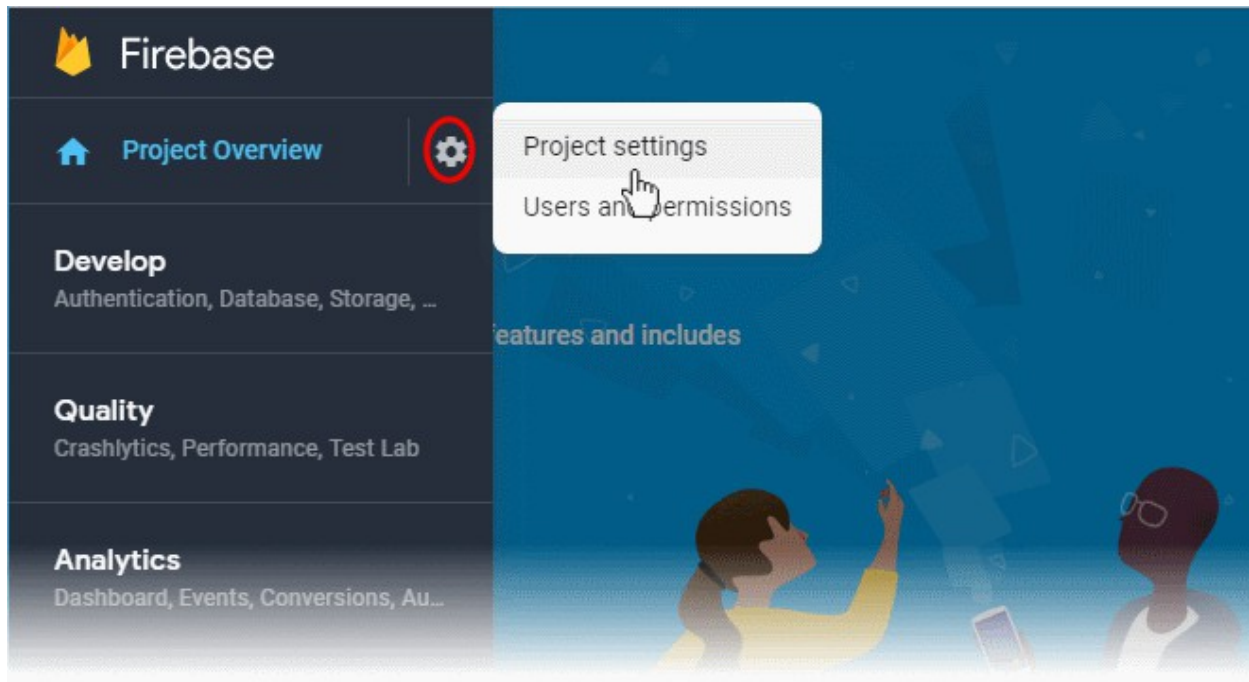
- Type a name for the new project in the 'Project name' field
- Click the pencil icon beside the 'Locations' field. Select your country and the Firestore server closest to you.
- 'Use default settings for sharing Google Analytics for Firebase data' - Leave this selected.
- Agree to the terms and conditions then click 'Create Project'.



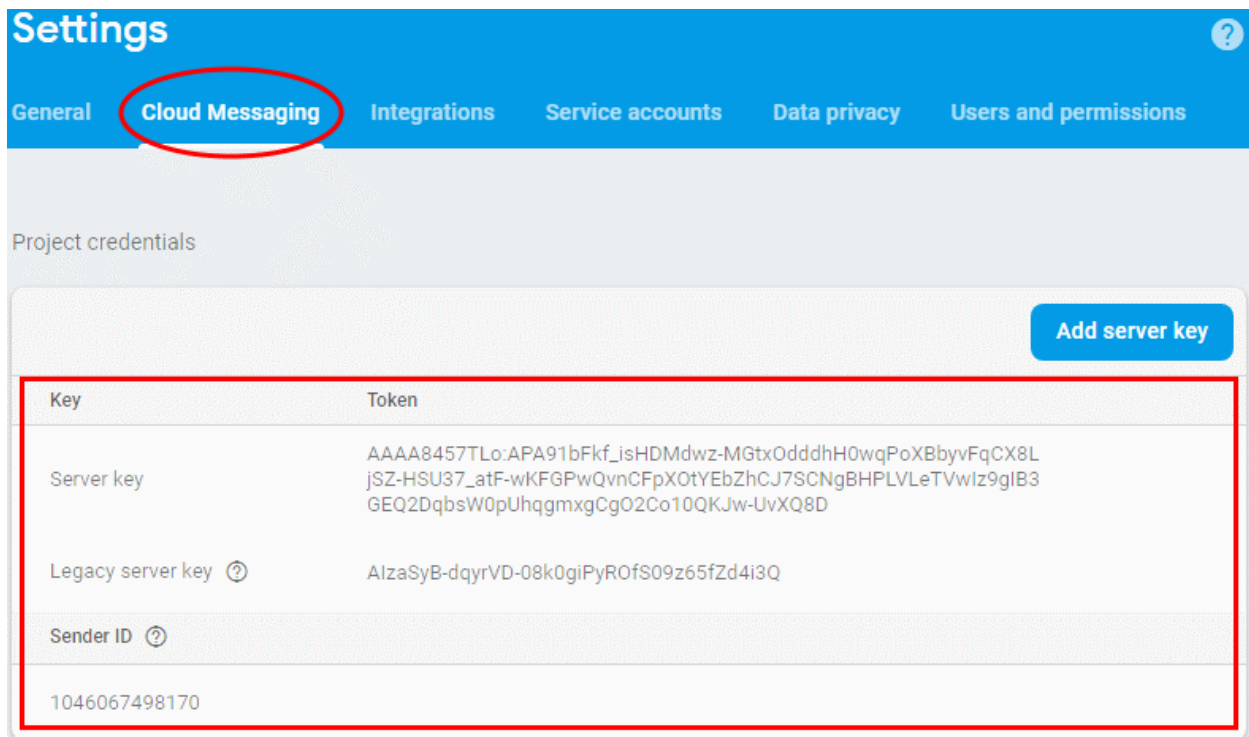
- Click 'Continue' to go to the project dashboard



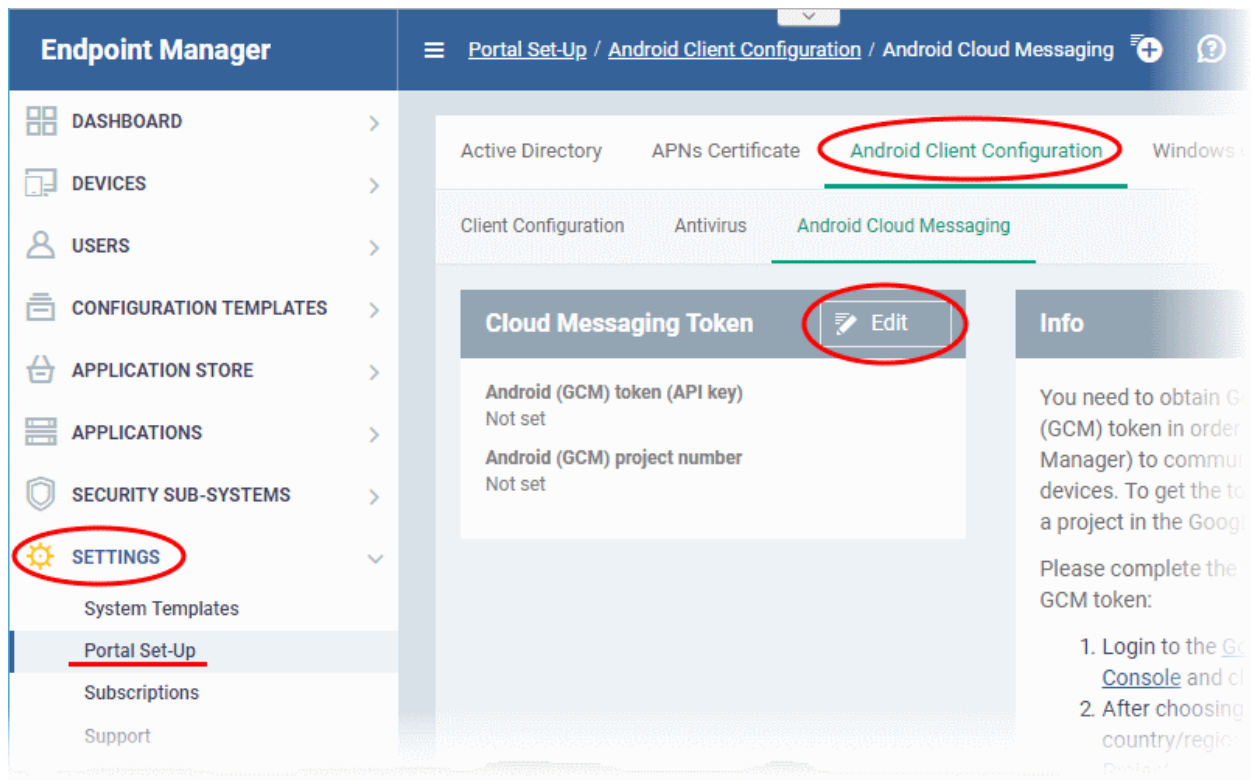
- **Step 2 - Obtain GCM Token and Project number**
  - Click the hamburger button at top-left
  - Click the gear icon beside 'Project Overview' and choose 'Project settings':

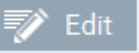


- The 'Settings' screen for the project will open.
- Click the 'Cloud Messaging' tab:



- Copy the server key and sender ID
- **Step 3 - Enter GCM Token and Project number**
  - Login to Endpoint Manager
  - Click 'Settings' > 'Portal Set-Up' > 'Android Client Configuration' and choose 'Android Cloud Messaging' tab



- Click the edit button  at the top right of the 'Cloud Messaging Token' column, to view the GCM token and project number fields

**Cloud Messaging Token** Cancel Save

**Android (GCM) token (API key)**

**Android (GCM) project number**

- Paste the 'Server key' into 'Android (GCM) Token' field.
- Paste the Sender ID into 'Android (GCM) Project Number' field.

**Cloud Messaging Token** [Cancel] [Save]

**Android (GCM) token (API key)**

AAAA8457TLo:APA91bFkf\_isHDMdwz-  
MGtxOdddhH0wqPoXBbyvFqCX8LjSZ-HSU37\_atF-  
wKFGPwQvnCFpXOtYebZhCJ7SCNgBHPLVLeTVwIz9gIB3GEQ2Dq

**Android (GCM) project number**

1046067498170

- Click 'Save'.

Your settings will be updated and the token/project number displayed in the same interface.

Endpoint Manager can now use the token to communicate with Android devices.

### Step 3 - Add Users


You can add users and staff via the C1 / ITarian console, or add them directly in Endpoint Manager (EM).

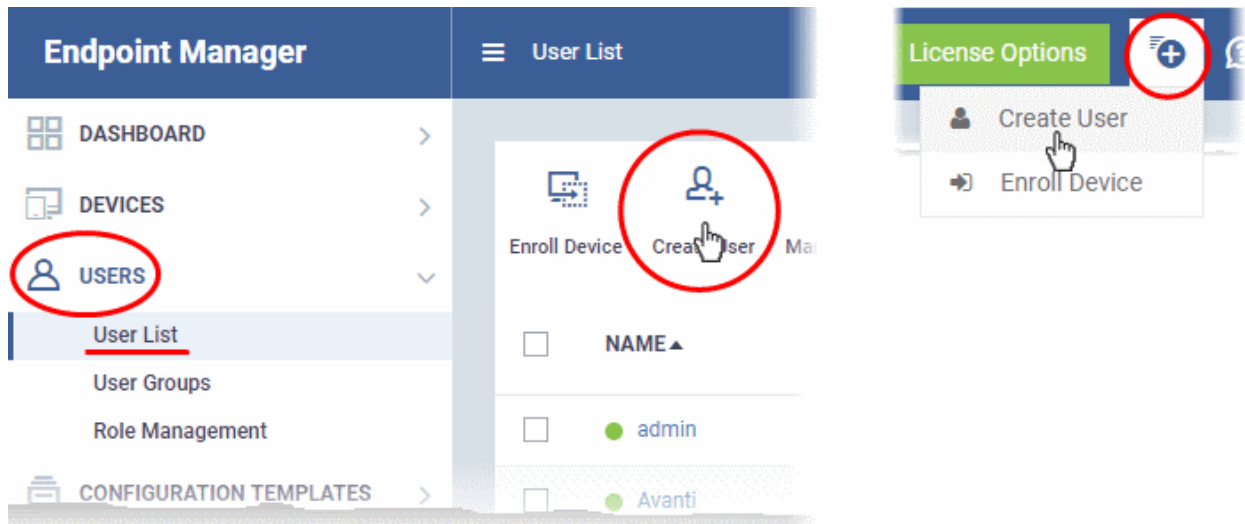
- Staff added in Comodo One/ITarian are universal to the platform. They will be available in Endpoint Manager and other platform applications like Service Desk, CRM and Quote Manager.
- Users directly added to Endpoint Manager are only available in Endpoint Manager.

You can add new accounts using any of the following methods:

- **Manually add users.** Add individual users to EM. You need to specify their name, email address, the company they belong to and their EM role.
- **Import users from a CSV file.** Bulk import users from a comma separated values file.
- Import users from Active Directory (AD) . [Click here](#) to see the help page on this method.

### Manually Add Users

- Click 'Users' > 'User List'
- Click the 'Create User' button
- or
- Click the 'Add' button  on the menu bar and choose 'Create User'.



The 'Create new user' form will open.

### Create New User

**User Name\***  
Oxford

**Email\***  
mmoxford@yahoo.com

**Phone Number**  
9876543210

**Company\***  
Default Company

**Assign Role**  
Users

**Submit**

- Type a login username (mandatory), email address (mandatory) and phone number for the user
- Choose user's company (mandatory)
  - Comodo One MSP and ITarian MSP customers can add users from Companies/Organizations enrolled in their account.
  - Comodo One Enterprise, ITarian Enterprise and EM stand-alone customers can only add users to the default company.



- Choose a role. A 'role' determines user's permissions within Endpoint Manager. The product ships with four default roles:
  - **Account Admin** - Can login to EM and access all management interfaces. You cannot assign account admin to a user. The role is automatically assigned to the person who opened the C1 or ITarian account. This role is not editable.
  - **Administrators** - Can login to EM and access all management interfaces. This role can be edited as required.
  - **Technician** - Can login to EM and access all management interfaces. The technician role has fewer privileges than the administrator role. This role can be edited as required.
  - **Users** - Cannot login to EM. If required, you can change role permissions to have access to the admin console. See **Configure Role Based Access Control for Users** for more details.

You can create custom roles which grant access to selected areas of EM. These roles can be assigned to users as required. All roles created in EM and C1 or ITarian will appear in the 'Assign Role' drop-down when adding a new user. See **Configure Role Based Access Control for Users** for more details.

- Click 'Submit' to add the user to EM.

The user is added to list in the 'Users' interface. The user's devices can be enrolled to EM for management.

- Repeat the process to add more users.

If you add a user with admin role then an account activation mail will be sent to their registered email address.

## Import Users from a CSV File

### Process in brief

- Create a CSV file containing the list of users you want to add.
- The file should contain the following, separated values: 'Username' (mandatory), 'Email address' (mandatory) and 'Phone number' (optional).
- The file should not contain column headers and each line should contain a single user.
- Click 'Users' > 'User List' > 'Import User' in the Endpoint Manager console.
- Browse to your CSV file.
- Select a company and a role for the imported users.
- Click 'Import users from the list'.
- The users will be imported and enrolled to EM.

### Requirements for .csv file

There are two mandatory fields and one optional field per user account:

- Username (mandatory)
- Email address (mandatory)
- Phone number (optional)
- Each line in the CSV file should contain one user entry
- The CSV file should not contain column headers

Example:

```
"james", "james@ditherscons.com", "9876543210"
```

### To import users from a list

- Click 'Users' > 'User List' > 'Import User'



**User import**

Uploading status: **Ready**

CSV file \*

Browse

Customer \*  Role \*

Do not send any enrollment notifications

Import users from list

Use this page to import multiple users from a user list in CSV format.

**Important:**

- use only comma (,) as a field delimiter;
- enter user names in the 1st column and email addresses in the 2nd column (both are mandatory), 3rd column is for phone numbers (optional);
- use no column headers.


- Click 'Browse' to locate and open the CSV file you want to import
- Choose user's company (mandatory)
  - Comodo One MSP and ITarian MSP customers can add users from Companies/Organizations enrolled in their account.
    - Start entering first few letters of the company name and select the company from the options
  - Comodo One Enterprise, ITarian Enterprise and EM stand-alone customers can only add users to the default company.
    - Enter 'Default Company' in the Company field
- Choose user role. See **above** if you need a recap on roles.
  - Type the first few letters of the role label and select from the suggestions.
- Click 'Import users from List'
- Imported users are added to the 'Users' interface. You can now add devices for the user.
- Users will receive an account activation mail if they are assigned a role that has access to the admin console. This includes the standard 'Administrator' and 'Technician' roles.
  - Tip - Enable 'Silent mode' in the import screen if you do not want to send these mails.

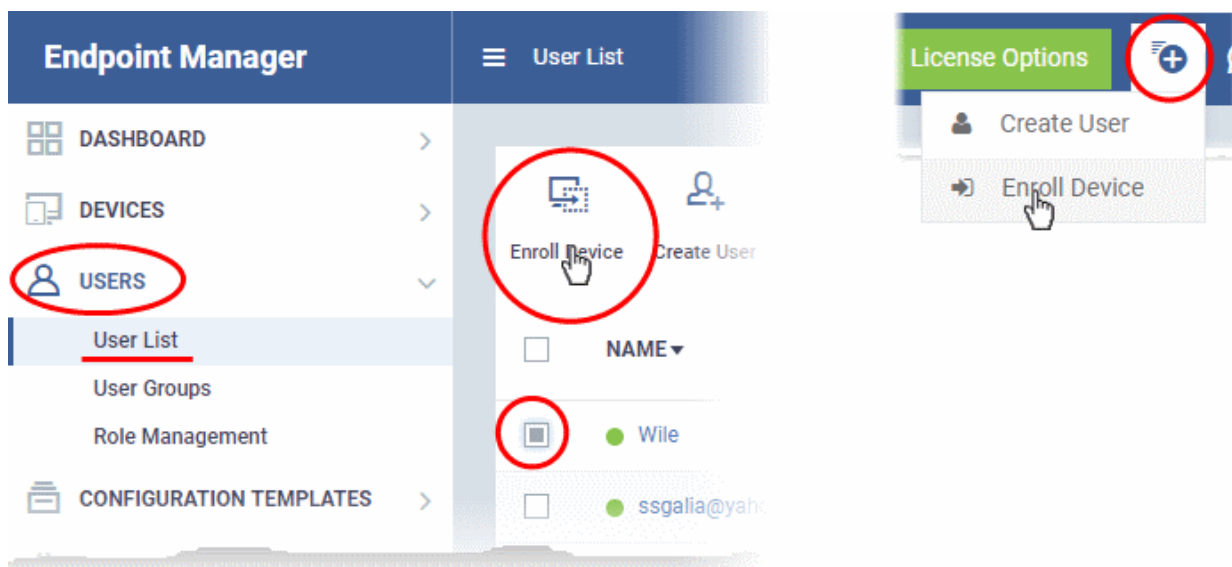
## Step 4 - Enroll User devices

The next step is to enroll user devices for management.

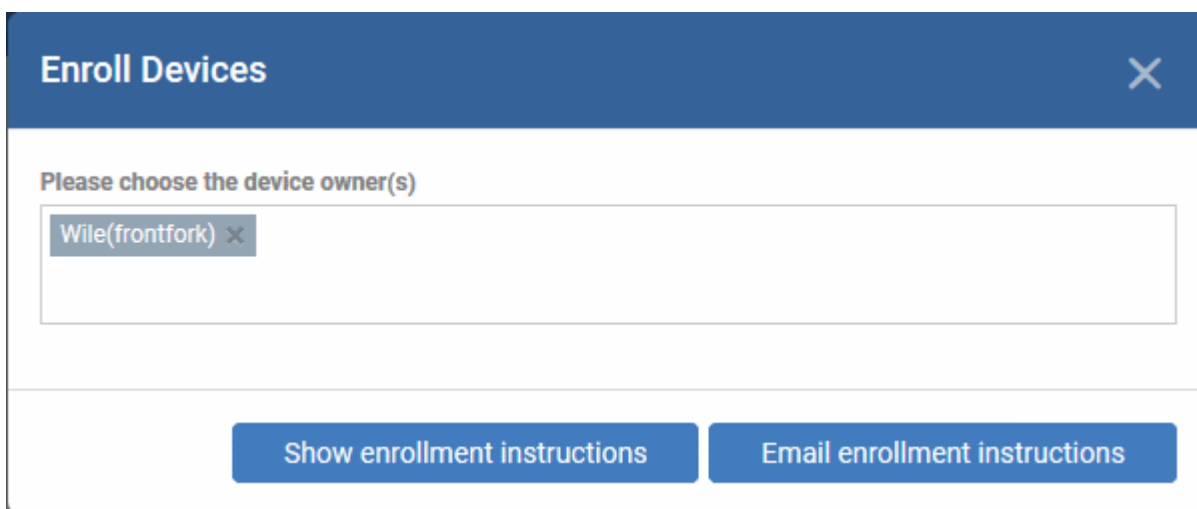
- Each Endpoint Manager device license covers one mobile device or one Windows / Mac / Linux endpoint per user.
- If you add more than one device for a single user then an additional license is required. Admins can purchase additional licenses from the Comodo website or C1 / ITarian purchase page. See [View and Manage Licenses](#) for more details.

### To enroll devices

- Click 'Users' > 'User List' on the left
- Select users for whom you want to enroll devices and click the 'Enroll Device' button above the table
- Or
- Click the 'Add' button  at the menu bar and choose 'Enroll Device'.



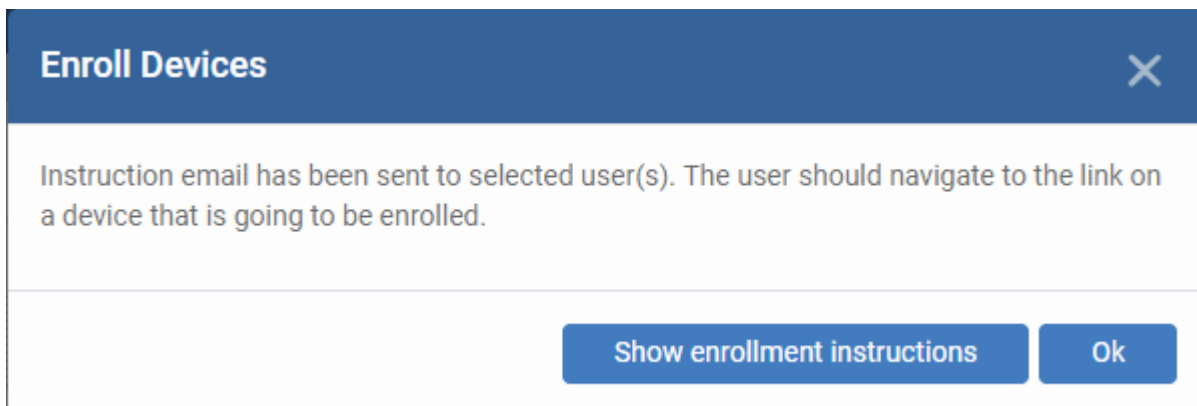
The 'Enroll Devices' dialog opens:



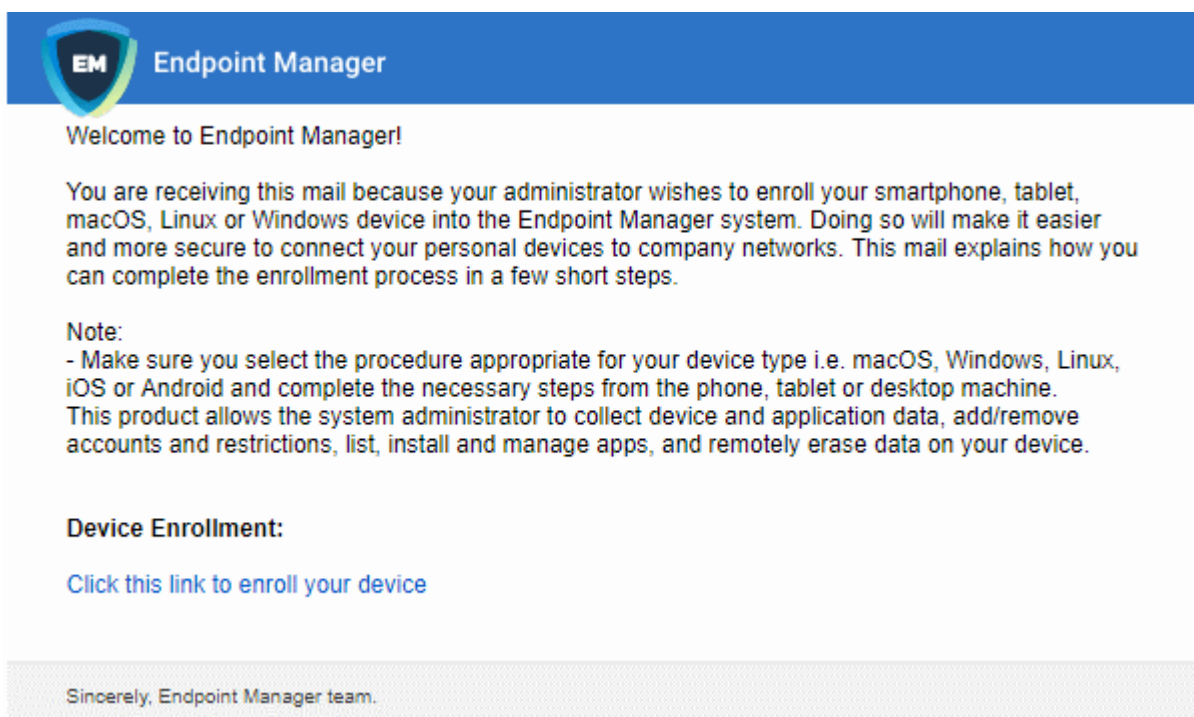
- **Choose device owners** - This is pre-populated with the users you selected in the 'User List' interface. You can add more users by typing the few letters of their name.
- **Show enrollment instructions** - Displays instructions on how to add devices to Endpoint Manager. This is useful for admins who want to enroll their own devices, or who just want to see an overview of the process.

- **Email enrollment instructions** - Sends an email to target users with instructions on how to enroll their device. Users should open the mail on the target device itself.

You will see a confirmation message as follows:




- An example mail is shown below:



- The link takes the user to a page which lets them download the communication client/profile:





## Welcome to Endpoint Manager!

You are receiving this mail because your administrator wishes to enroll your smartphone, tablet, macOS, Linux or Windows device into the Endpoint Manager system. Doing so will make it easier and more secure to connect your personal devices to company networks. This mail explains how you can complete the enrollment process in a few short steps.

**NOTE:**  
Make sure you select the procedure appropriate for your device type i.e. mac OS, Windows, Linux, iOS or Android and complete the necessary steps from the phone, tablet or desktop machine.

This product allows the system administrator to collect device and application data, add/remove accounts and restrictions, list, install and manage apps, and remotely erase data on your device.

### FOR WINDOWS DEVICES

Enroll using this link:  
<https://frontfork-frontfork-msp.dmdemo.comodo.com:443/enroll/windows/msi/token/1460571ef0c184504c02a9587c67ba36>

### FOR APPLE DEVICES

1) Enroll opening the following link with any browser on your device:  
<https://frontfork-frontfork-msp.dmdemo.comodo.com:443/enroll/apple/index/token/1460571ef0c184504c02a9587c67ba36>

2.a) [ONLY for macOS Devices]  
When you have installed *itsm.mobileconf* file, use this link to download and install Communication Client:  
<https://static.dmdemo.comodo.com/download/itsmagent-installer.pkg>

2.b) [ONLY for iOS Devices]  
When your profile has been enrolled, you will be requested to install Communication Client. Upon completion of the installation, tap the green icon labeled "Run after installation" and follow on-screen instructions to complete enrollment process.

### FOR ANDROID DEVICES

Download and install Communication Client by tapping the following link:  
<https://play.google.com/store/apps/details?id=com.comodo.mdm>

Upon completion of the installation, enroll using this link:  
<https://frontfork-frontfork-msp.dmdemo.comodo.com:443/enroll/android/index/token/1460571ef0c184504c02a9587c67ba36>

### FOR LINUX DEVICES

Download and install Communication Client by tapping the following link:  
<https://frontfork-frontfork-msp.dmdemo.comodo.com:443/enroll/linux/run/token/1460571ef0c184504c02a9587c67ba36>  
Use the same link for manual enrollment if required.

1) Change installer mode to executable:

```
$ chmod +x ($installation file$)
```

2) Run installer with root privileges.

```
$ sudo ./$($installation file$)
```

### MANUAL ENROLLMENT

Use the following settings:

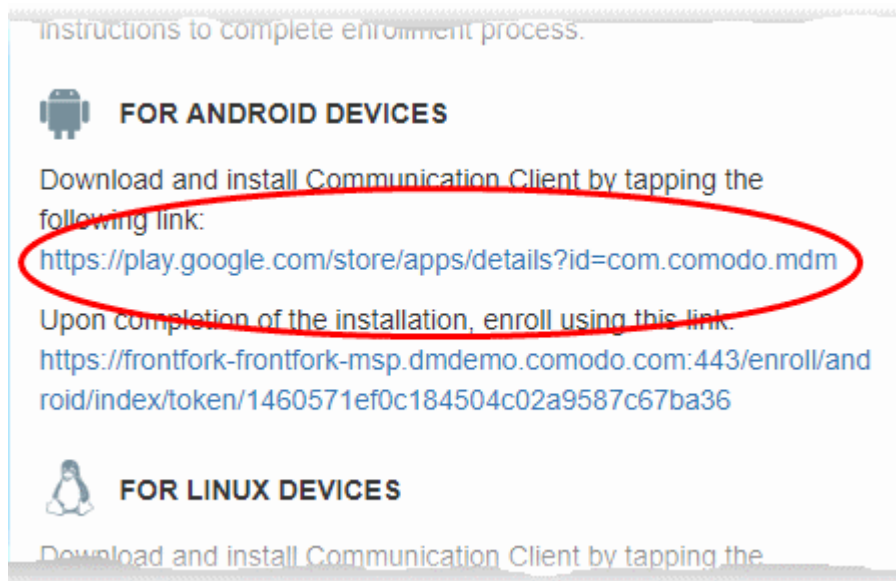
Host: **frontfork-frontfork-msp.dmdemo.comodo.com**  
Port: **443**  
Token: **1460571ef0c184504c02a9587c67ba36**

Sincerely, Endpoint Manager team.

The end-user should open the mail on the device you want to enroll. They should open the enrollment link suitable for their device.

## Enroll Android Devices

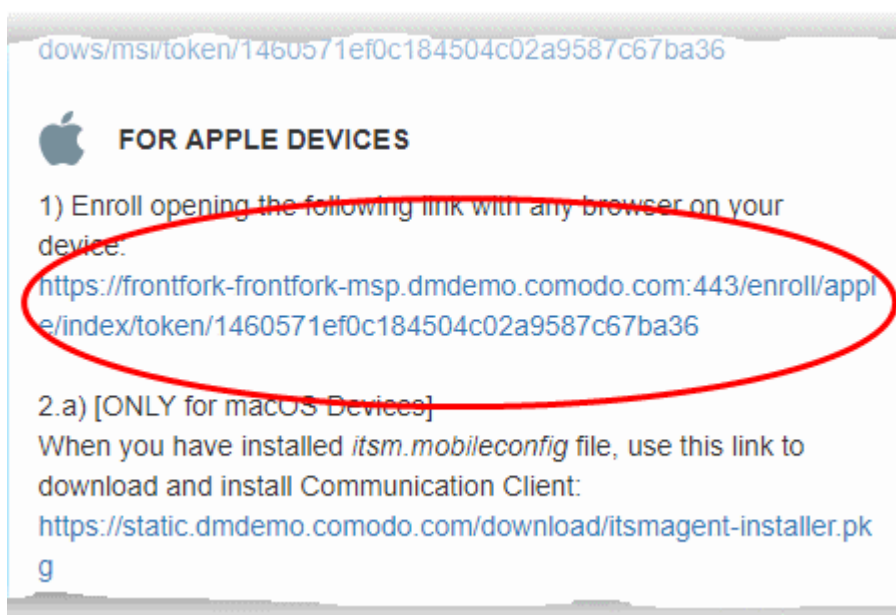
The device enrollment page contains two links. The first to download the Android app and the second to enroll the device:



1. User opens the enrollment page on the target device and taps the 1st link to install the EM communication client.
2. After the client has been installed, the user clicks the 2nd link to enroll their device to EM. The client will connect to EM then request the user to tap 'Activate' to enroll the device.

## Enroll iPhones, iPods and iPads

The device enrollment page contains an enrollment link under 'FOR APPLE DEVICES'. Users should tap this link to install the EM client authentication certificate and EM profile.

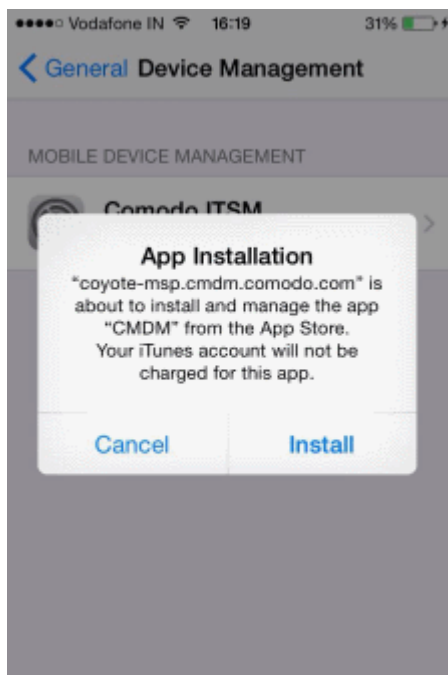


**Note:** The user must keep their iOS device switched on at all times during enrollment. Enrollment may fail if the device auto-locks/ enters standby mode during the certificate installation or enrollment procedures.

- After the profile has been installed, the client app installation will begin.



- The app is required so that EM can manage the remote device:



- The app will be downloaded and installed from the iTunes store. End-users may need to login with their Apple ID.
- After installation, users should tap the green 'Run After Install' icon on the home screen to complete registration:



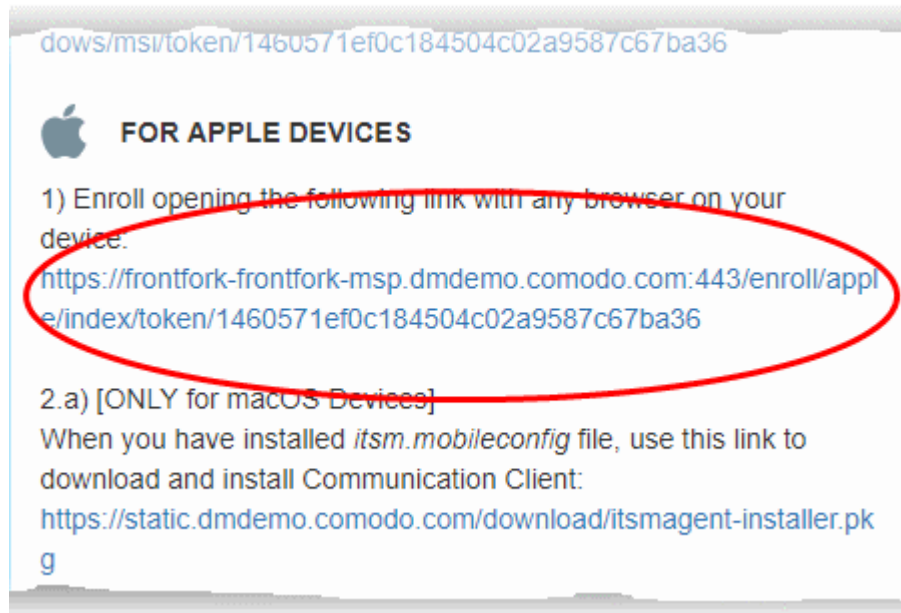
The device will be enrolled and connected to EM.

## Enroll Mac OS Devices

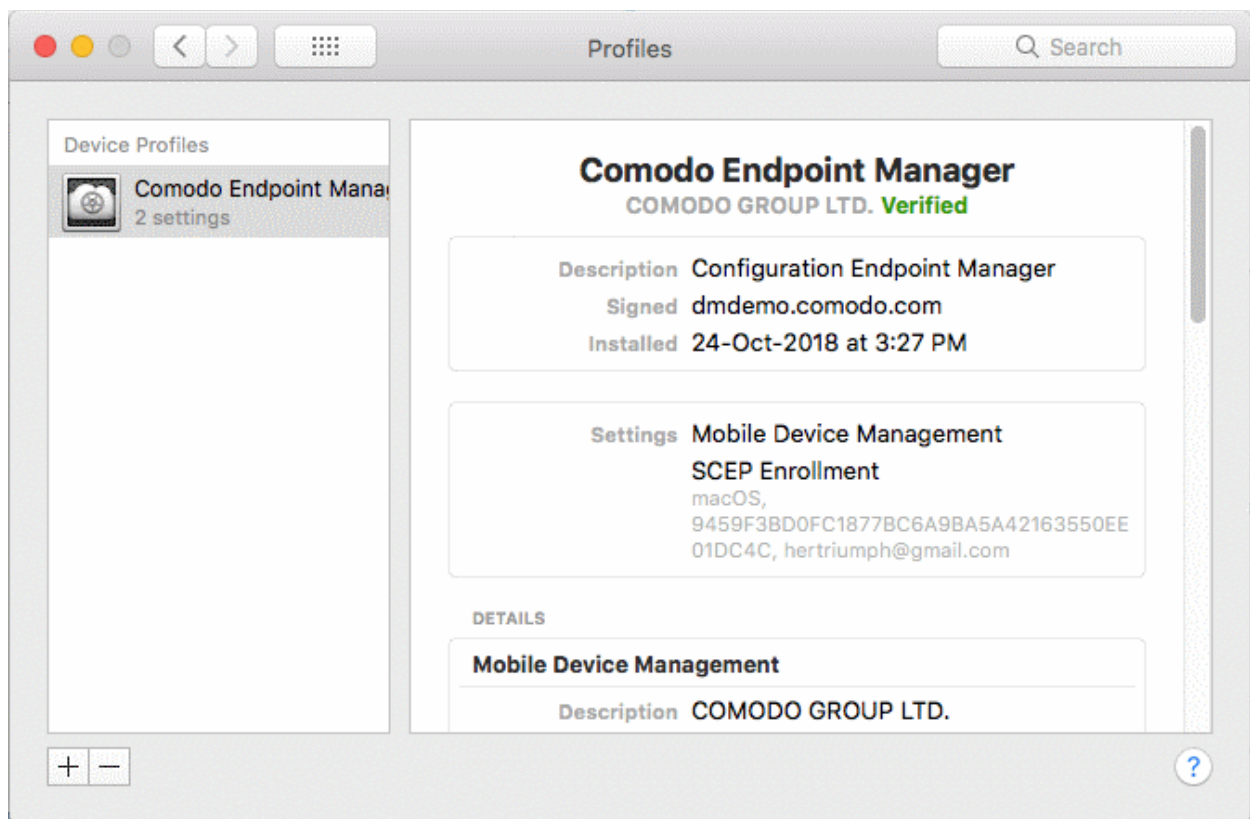
### Step 1 - Install the EM Configuration Profile

Users should open the link in the 'For Apple devices' section. This will download the EM profile and install it.





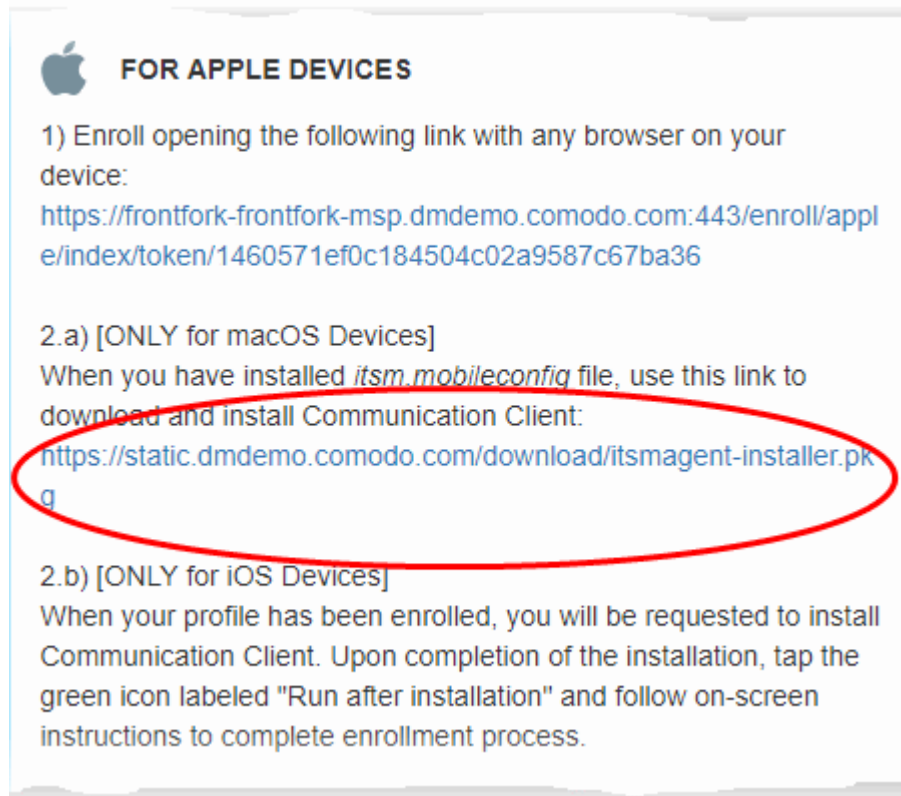
After installation, the profile will be added to the 'Device Profiles' list on the device:




The next step is to install the EM communication client:

## Step 2 - Install Communication Client

- Next the user click the link under 'Only For Mac OS Devices' to download the communication client for Mac.



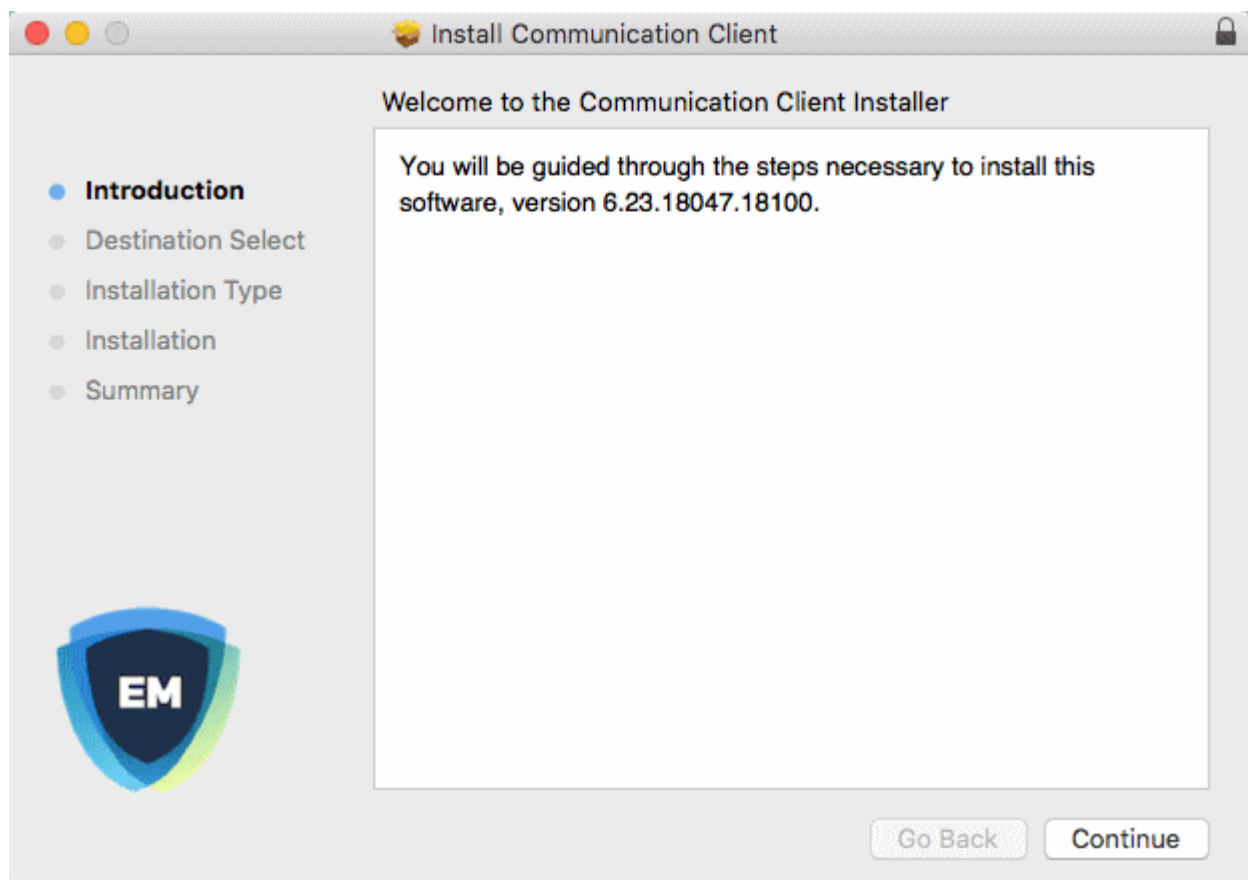
 **FOR APPLE DEVICES**

1) Enroll opening the following link with any browser on your device:  
<https://frontfork-frontfork-msp.dmdemo.comodo.com:443/enroll/apple/index/token/1460571ef0c184504c02a9587c67ba36>

2. a) [ONLY for macOS Devices]  
When you have installed *itsm.mobileconfig* file, use this link to download and install Communication Client:  
<https://static.dmdemo.comodo.com/download/itsmagent-installer.pkg>

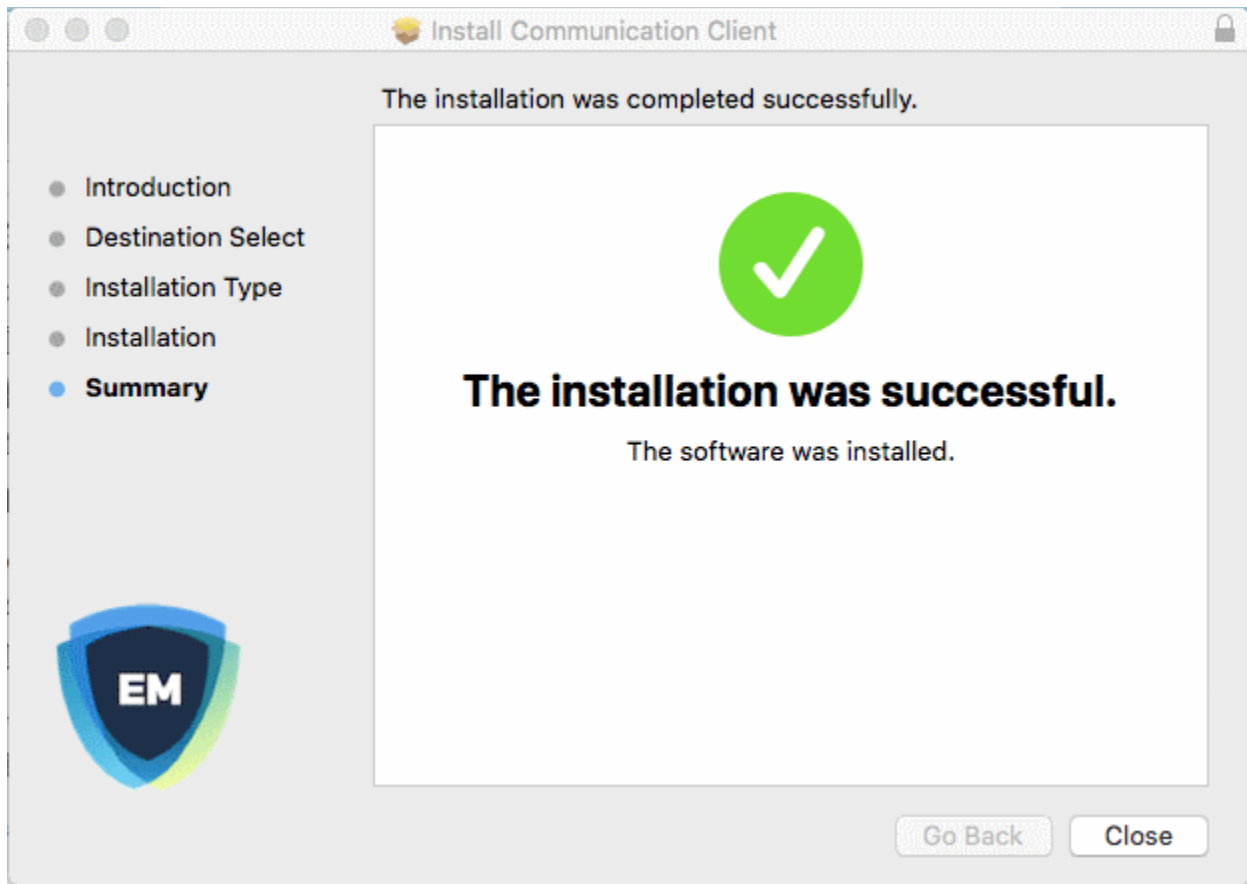
2. b) [ONLY for iOS Devices]  
When your profile has been enrolled, you will be requested to install Communication Client. Upon completion of the installation, tap the green icon labeled "Run after installation" and follow on-screen instructions to complete enrollment process.

The communication client setup package gets downloaded and the installation wizard starts.



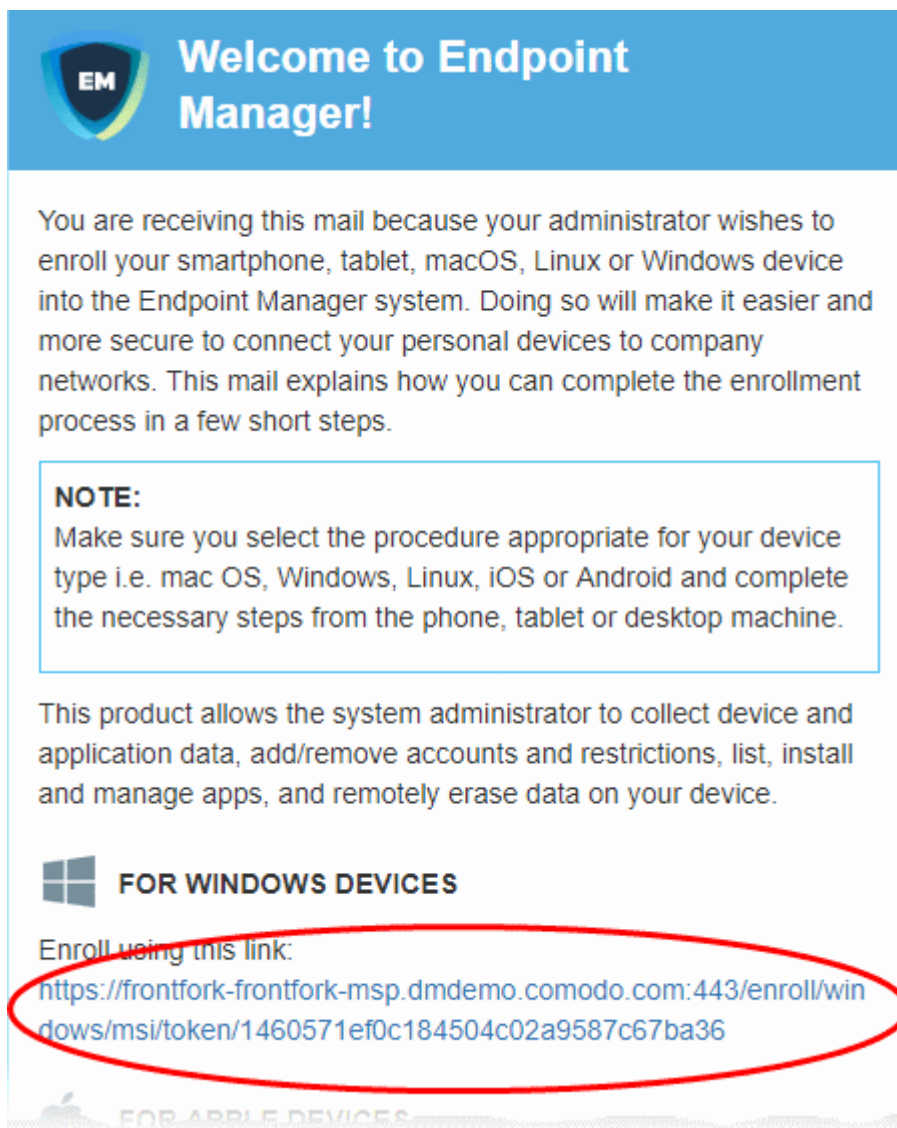
- The user follows the wizard and completes the installation.

Once installation is complete, the client starts communicating with the EM portal.



## Enroll Windows PCs

The device enrollment page contains a single enrollment link under 'For Windows Devices'.




**EM** **Welcome to Endpoint Manager!**


You are receiving this mail because your administrator wishes to enroll your smartphone, tablet, macOS, Linux or Windows device into the Endpoint Manager system. Doing so will make it easier and more secure to connect your personal devices to company networks. This mail explains how you can complete the enrollment process in a few short steps.

**NOTE:**  
Make sure you select the procedure appropriate for your device type i.e. mac OS, Windows, Linux, iOS or Android and complete the necessary steps from the phone, tablet or desktop machine.

This product allows the system administrator to collect device and application data, add/remove accounts and restrictions, list, install and manage apps, and remotely erase data on your device.

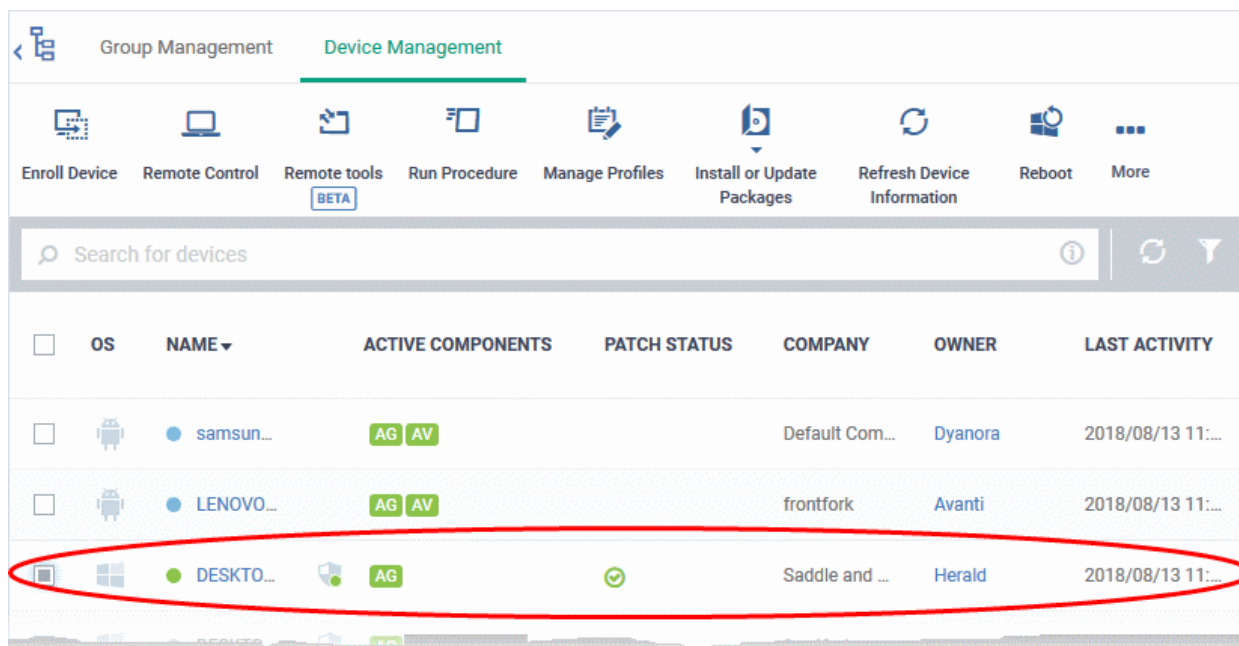
 **FOR WINDOWS DEVICES**

Enroll using this link:  
<https://frontfork-frontfork-msp.dmdemo.comodo.com:443/enroll/windows/msi/token/1460571ef0c184504c02a9587c67ba36>

 **FOR APPLE DEVICES**

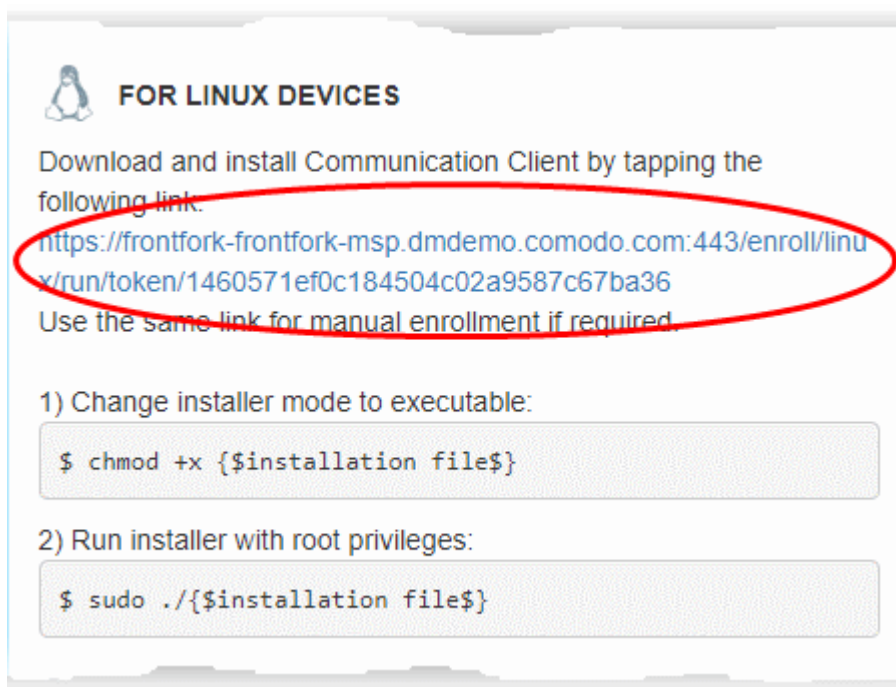
The user clicks this link to download the EM communication client. Once installed, the client will enroll the device into EM.

You can check whether the devices are successfully enrolled from the 'Devices' > 'Device List' interface.



## Enroll Linux Devices

The device enrollment page contains a single enrollment link under 'For Linux Devices'.



- Click the enrollment link under 'For Linux Devices' and save the file.

The communication client setup file will be downloaded.

You can install the client on the Linux device by completing the following:

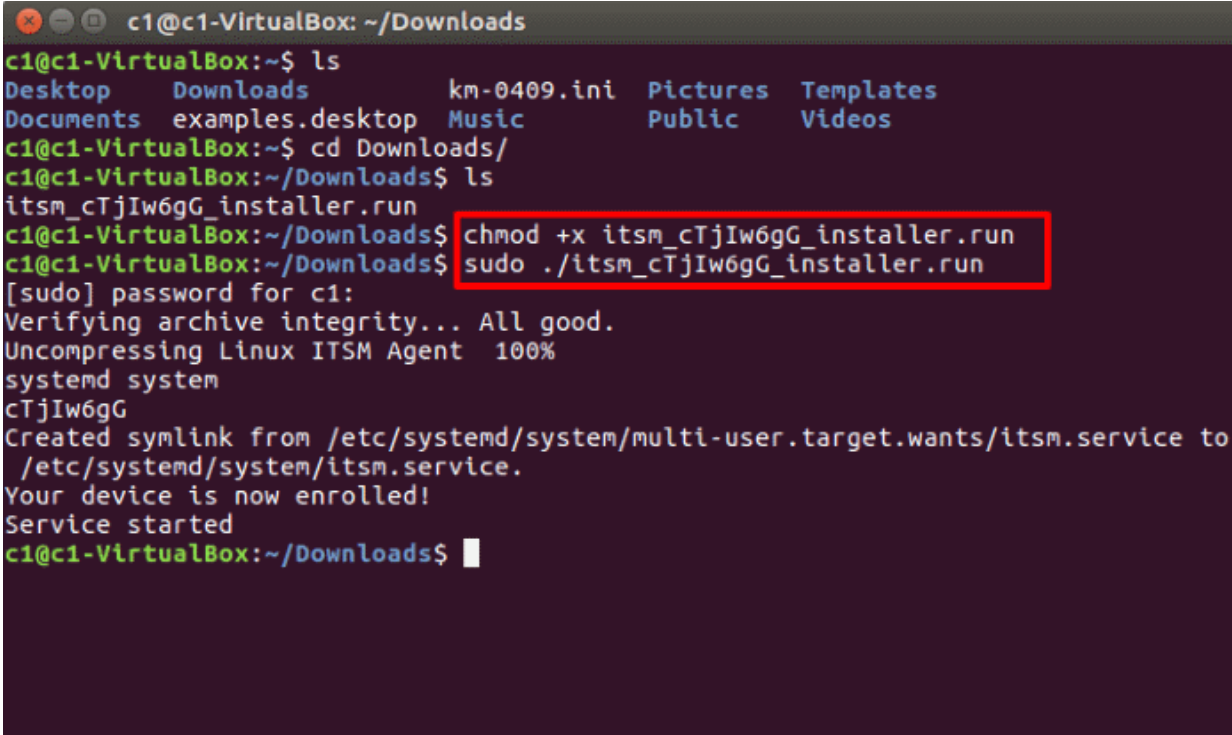
1. Change installer mode to executable - enter the following command:  

```
$ chmod +x {$installation file$}
```
2. Run installer with root privileges - enter the following command:  

```
$ sudo ./{$installation file$}
```

For example:

```
chmod +x itsm_cTjIw6gG_installer.run  
sudo./itsm_cTjIw6gG_installer.run
```



```
c1@c1-VirtualBox: ~/Downloads  
c1@c1-VirtualBox:~$ ls  
Desktop Downloads km-0409.ini Pictures Templates  
Documents examples.desktop Music Public Videos  
c1@c1-VirtualBox:~$ cd Downloads/  
c1@c1-VirtualBox:~/Downloads$ ls  
itsm_cTjIw6gG_installer.run  
c1@c1-VirtualBox:~/Downloads$ chmod +x itsm_cTjIw6gG_installer.run  
c1@c1-VirtualBox:~/Downloads$ sudo ./itsm_cTjIw6gG_installer.run  
[sudo] password for c1:  
Verifying archive integrity... All good.  
Uncompressing Linux ITSM Agent 100%  
systemd system  
cTjIw6gG  
Created symlink from /etc/systemd/system/multi-user.target.wants/itsm.service to  
/etc/systemd/system/itsm.service.  
Your device is now enrolled!  
Service started  
c1@c1-VirtualBox:~/Downloads$
```

- After installation, the client will connect to EM and enroll the device.

## Step 5 - Create Groups of Devices (optional)

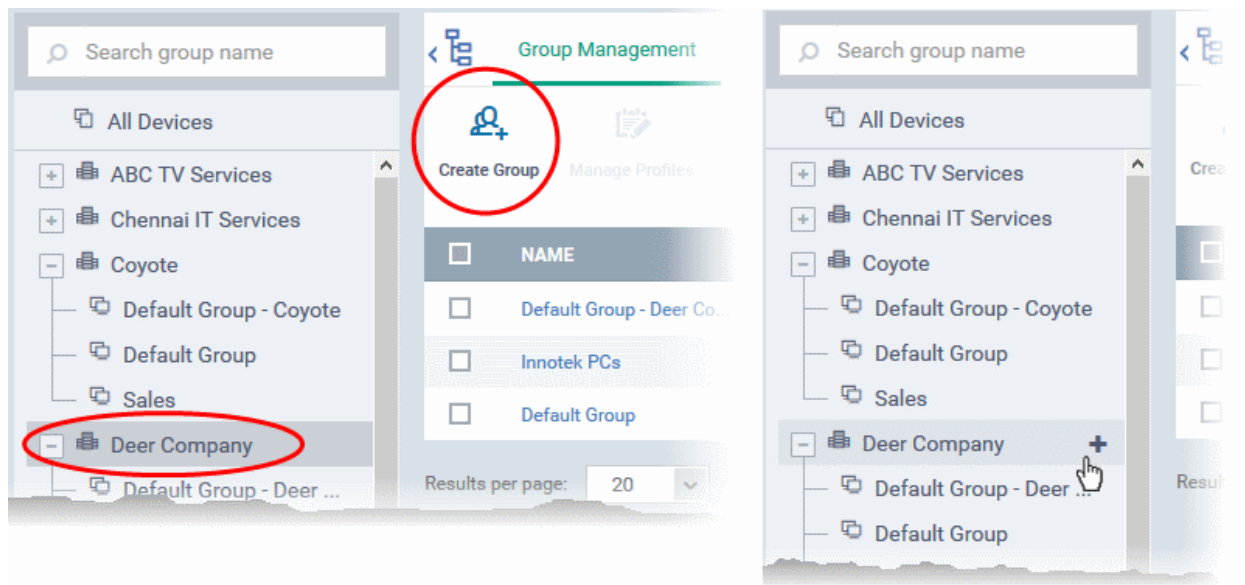
- You can create groups of Android, iOS, Windows, Mac OS and Linux devices to view, manage and apply policies to large numbers of devices. Dedicated configuration profiles can be created for each group.
- Each group can contain devices of different OS types. OS specific profiles which are applied to a group will be deployed appropriately.
  - C1 MSP / ITarian MSP customers can create separate device groups for each Company/Organization in their account.
  - C1 Enterprise / ITarian Enterprise and EM stand-alone customers can only create groups under the 'Default Company'.

See Manage Companies if you need more help with this.

### To create a device group

- Click 'Devices' > 'Device List'
- Click the 'Group Management' tab
  - C1 MSP / ITarian MSP customers should choose a company in the middle pane
- Click the 'Create Group' button
  - Alternatively place your mouse over the company name and click the '+' sign that appears:





The 'Add Group' interface will open:

### Add Group

**Name \***

**Company \***

**Devices**

**Add**

- You now have to name the group and choose the device(s). Enter a name in the 'Name' field. Type the first few letters of the device name in the Devices field and choose the device from the drop-down that appears. Repeat the process to add more devices.
  - You can also add devices after the group is created. Click on the group name then click the 'Add to Group' button. You can then select devices from the list.
- Click 'OK'. Repeat the process to create more groups. See **Manage Device Groups** for more details.

The next step is to create profiles, which is **explained in the next section**.

## Step 6 - Create Configuration Profiles

- A configuration profile is a collection of settings which can be applied to iOS, Android, Windows, Mac OS, Linux devices.
- Devices must have been enrolled to EM before a profile can be applied to them.
- Each profile allows you to specify a device's network access rights, overall security policy, antivirus scan



schedule and general device settings.

- You can designate a profile as 'Default'. Default profiles are automatically applied to newly enrolled devices. There are default profiles for all supported operating systems (Windows, Mac, iOS, Android and Linux).
- You can also create custom profiles for users and user groups. Any custom user profiles you create will be applied to devices instead of the default profile.
- If no custom profiles exist then the default profile is automatically applied. This ensures all devices have a working profile installed. If you remove a custom profile then the default is automatically installed to take its place.

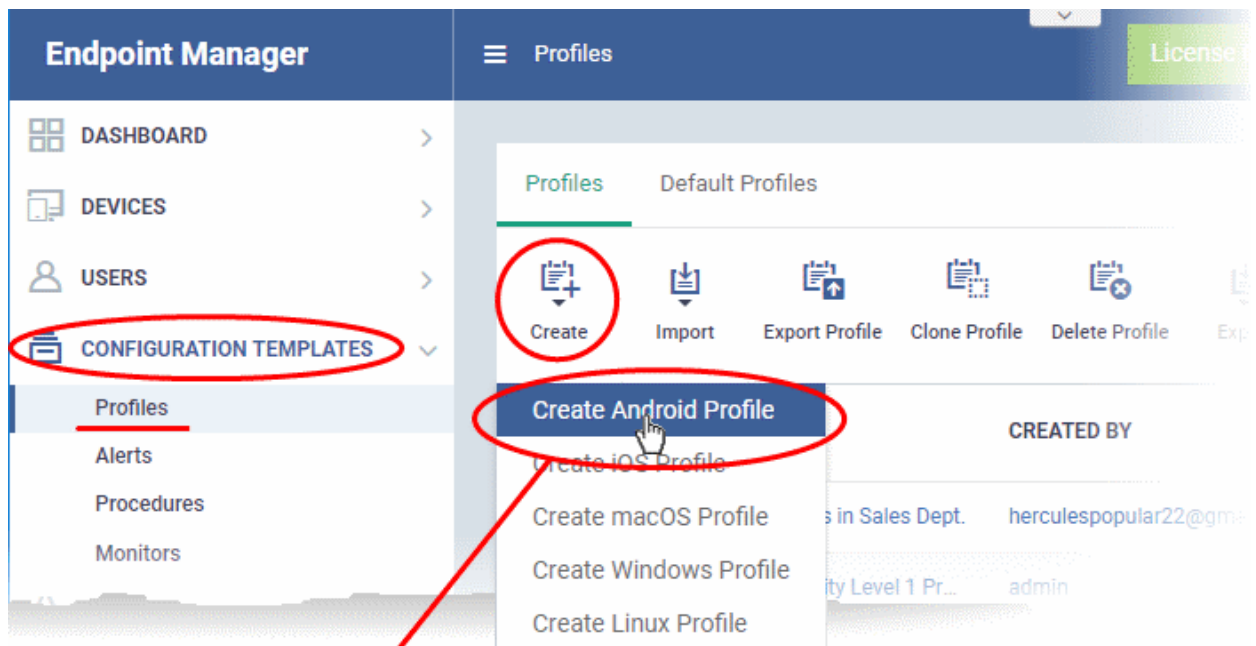
Profiles are applied at the time a device connects to the network. Profiles remain in effect unless the communication client is uninstalled from the device, or the profile itself is removed/disabled.

Profile specifications differ between Android, iOS, Mac OS, Windows and Linux Devices:

- **Android profiles**
- **iOS profiles**
- **Mac OS profiles**
- **Windows Profiles**
- **Linux Profiles**

#### **To create an Android Profile**

- Click 'Configuration Templates' > 'Profiles'
- Click the 'Create' button > 'Create Android Profile':



### Create Android Profile

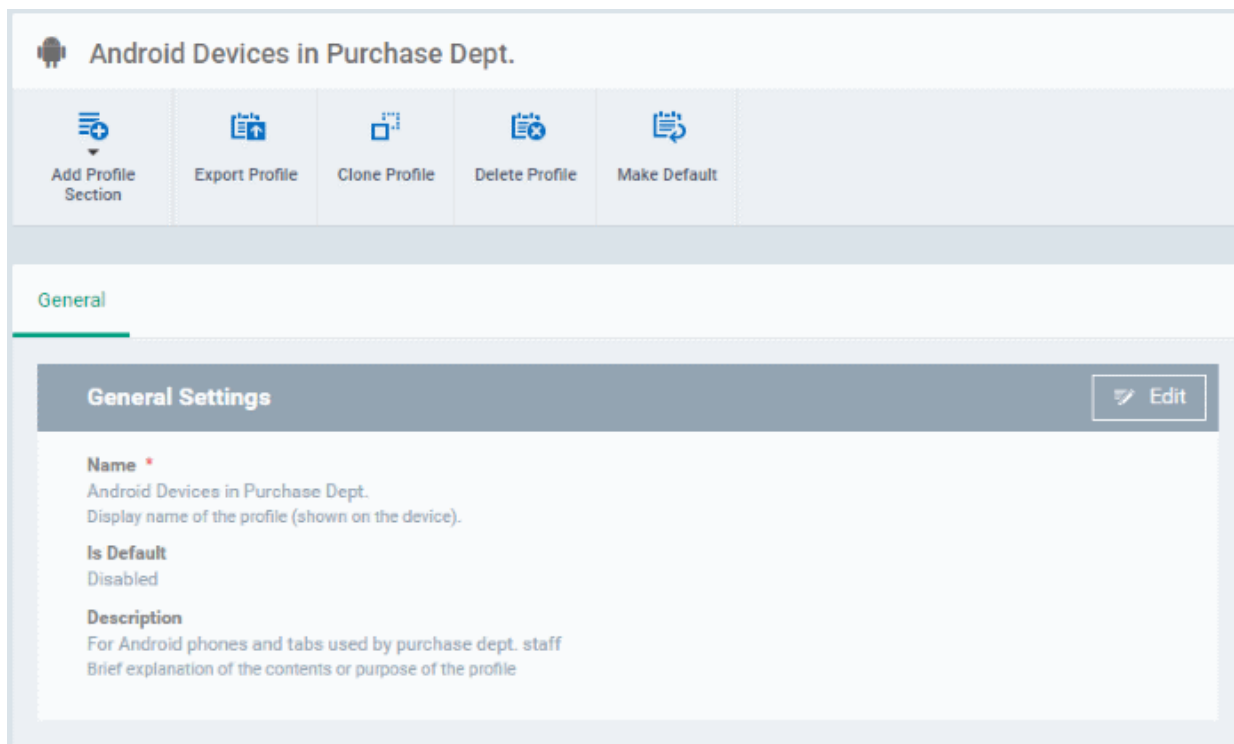
Name \*


Description

Create

- Enter a name and description for the profile and click 'Create'.

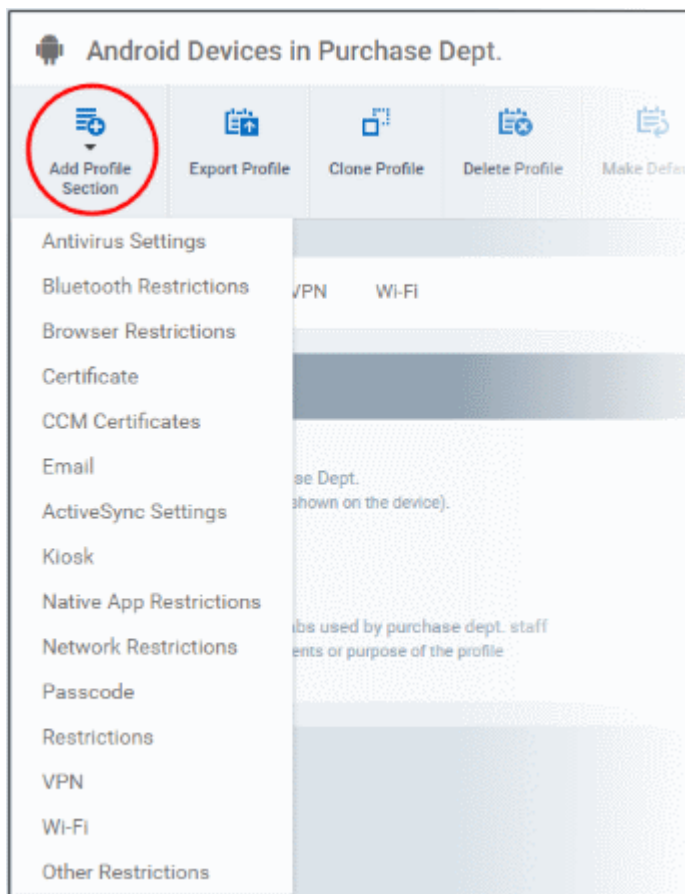
The profile is created and the 'General Settings' for the profile is displayed.



- If you want this profile to be a default policy, click the 'make default' button at the top. Alternatively, click the 'Edit' button  on the top right of the 'General' settings screen and enable the 'Is Default' check box.
- Click 'Save'.

The next step is to add the components for the profile.

- Click the 'Add Profile Section' drop-down and select the component from the list that you want to include for the profile



The settings screen for the selected component will be displayed and, after saving, the new section will become available as a link. You can configure passcode settings, feature restrictions, antivirus settings Wi-Fi settings and more. If a component is not configured, the device will continue to use existing, user-defined settings or settings that have been applied by another EM profile.

- Click 'Save' in each configuration screen for the parameters and options selected in that screen to be added to the profile.

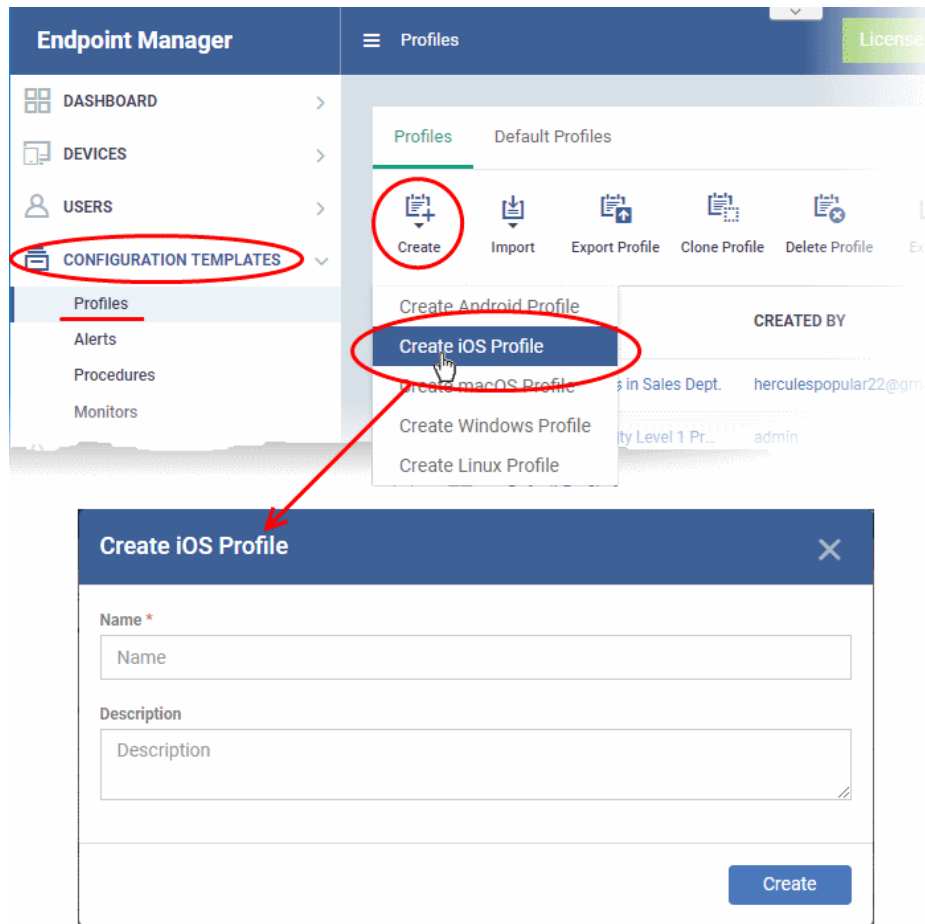
See **Profiles for Android Devices** in the full guide for more information on these settings. In brief:

- **General** - Profile name, description and whether or not this is a default profile. These were configured in the previous step. Default profiles are automatically applied upon device enrollment.
- **Antivirus Settings** - Schedule antivirus scans on the device and specify trusted Apps to be excluded from AV scans.
- **Bluetooth Restrictions** - Specify Bluetooth restrictions such as to allow device discovery via Bluetooth, allow outgoing calls and more. This profile is supported for SAFE devices only.
- **Browser Restrictions** - Configure browser restrictions such as to allow pop-ups, javascript and cookies. This profile is supported for SAFE devices only.
- **Certificate** - Upload certificates and this will act as a certificate store from which the certificates can be selected for use in other settings such as 'Wi-Fi', 'Exchange Active Sync', 'VPN' and so on.
- **CCM Certificates** - Request client and device authentication certificates. Note - The 'CCM Certificates' section only appears if you have integrated Endpoint Manager with your Sectigo (formerly Comodo CA) account. See **Integrate with Sectigo Certificate Manager** for more help with this.
- **Email** - Configure email account, connection and security details for users accessing incoming and outgoing mails from their devices. This profile is supported for SAFE devices only.
- **Active Sync Settings** - Specify account name, host, domain and other settings to facilitate connections from devices under this profile to Microsoft Exchange Active Sync servers. This profile is supported for SAFE devices only.

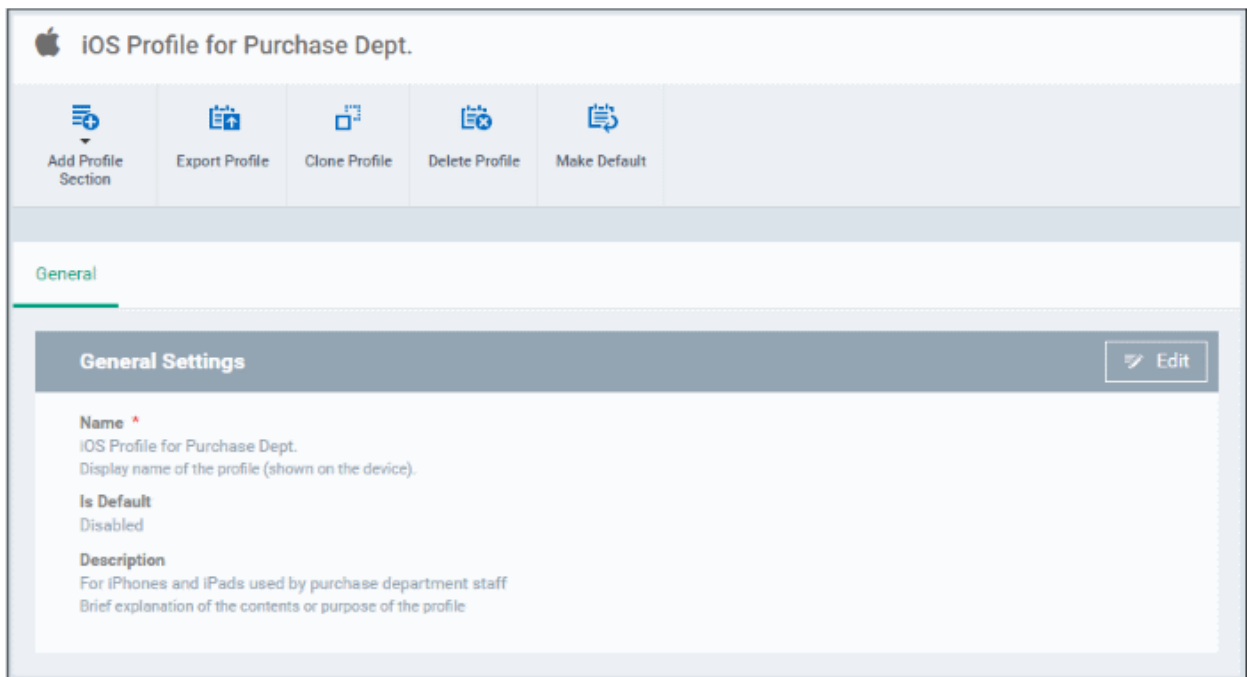
- **Kiosk** - Enable and configure Kiosk Mode for SAFE devices like the Samsung Galaxy range. Kiosk Mode allows administrators to control how applications run on managed devices and whether SMS/MMS are allowed. This profile is supported for SAFE devices only.
- **Native App Restrictions** - Configure which native applications should be accessible to users. Native applications are those that ship with the device OS and include apps like Gmail, YouTube, the default Email client and the Gallery. This feature is supported for Android 4.0+ and Samsung for Enterprise (SAFE) devices such as Galaxy smartphones, Galaxy Note devices and Galaxy tablets.
- **Network Restrictions** - Specify network permissions such as minimum level of Wi-Fi security required to access that Wi-Fi network, allow user to add more Wi-Fi networks in their devices, type of text and multimedia messages to be allowed and configure whitelist/blacklisted Wi-Fi networks. This profile is supported for SAFE devices only.
- **Passcode** - Specify passcode complexity, minimum length, timeout-before-lock, failed logins before wipe (0=unlimited/never wipe), failed logins before capturing the photo of the possessor and location to recover lost or mislaid device, maximum lifetime of passcode in days and number of previous passcodes from which the new passcode should be unique.
- **Restrictions** - Configure default device settings for Wi-Fi connection and cellular network connection, whether users should be able to disable app verification, background traffic, bluetooth on/off, whether camera use is allowed, whether the user is allowed to encrypt data stored on the device and whether or not they are allowed to install applications from unknown sources.
- **VPN** - Configure directory user-name, VPN host, connection type and method of authentication for users wishing to connect to your internal network from an external location, whether to forcibly maintain VPN connection and more. This profile is supported for SAFE devices only.
- **Wi-Fi** - Specify the name (SSID), security configuration type and password (if required) of your wireless network to which the devices are to be connected. You can add other wireless networks by clicking 'Add new Wi-Fi section'.
- **Other Restrictions** - Configure a host of other permissions such as use of microphone, SD card, allow screen capture and more. This profile is supported for SAFE devices only.


## To create an iOS Profile

- Click 'Configuration Templates' > 'Profiles'
- Click 'Create' > 'Create iOS Profile'



- Enter a name and description for the profile and click 'Create'.
- The profile is created and the 'General Settings' for the profile is displayed.



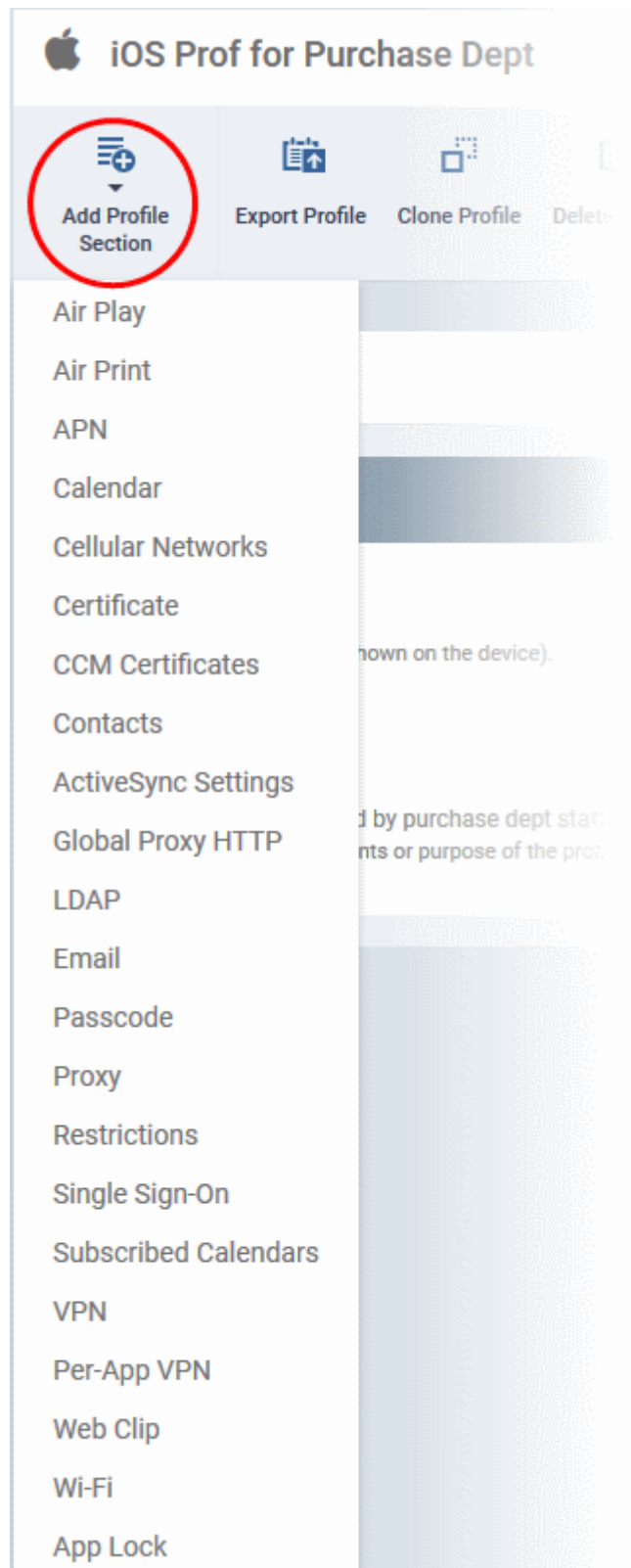
- If you want this profile to be a default policy, click the 'Make default' button at the top. Alternatively, click the 'Edit' button  on the right of the 'General' settings screen and enable the 'Is Default' check box.

- Click 'Save'.

The next step is to add profile sections.

- Each profile section contains a range of settings for a specific management feature.
- For example, there are profile sections for 'Email', 'Single Sign-On', 'LDAP', 'Cellular Networks' and so on.
- You can add as many different sections as you want when building your device profile.
- To get started:
  - Click 'Add Profile Section'
  - Select the component that you want to include in the profile:





- **General** - Profile name, description and whether or not this is a default profile. These were configured in the previous step. Default profiles are automatically applied upon device enrollment.
- **Airplay** - Allows you to whitelist devices so they can take advantage of Apple Airplay functionality (iOS 7 +)
- **Airprint** - Specify the location of Airprint printers so they can be reached by devices under this profile (iOS 7 +)
- **APN** - Specify an Access Point Name for devices on this profile. APN settings define the network path for all cellular data. This area allows you to configure a new APN name (GPRS access point),

username/password and the address/port of the proxy host server. The APN setting is replaced by the 'Cellulars' setting in iOS7 and over.

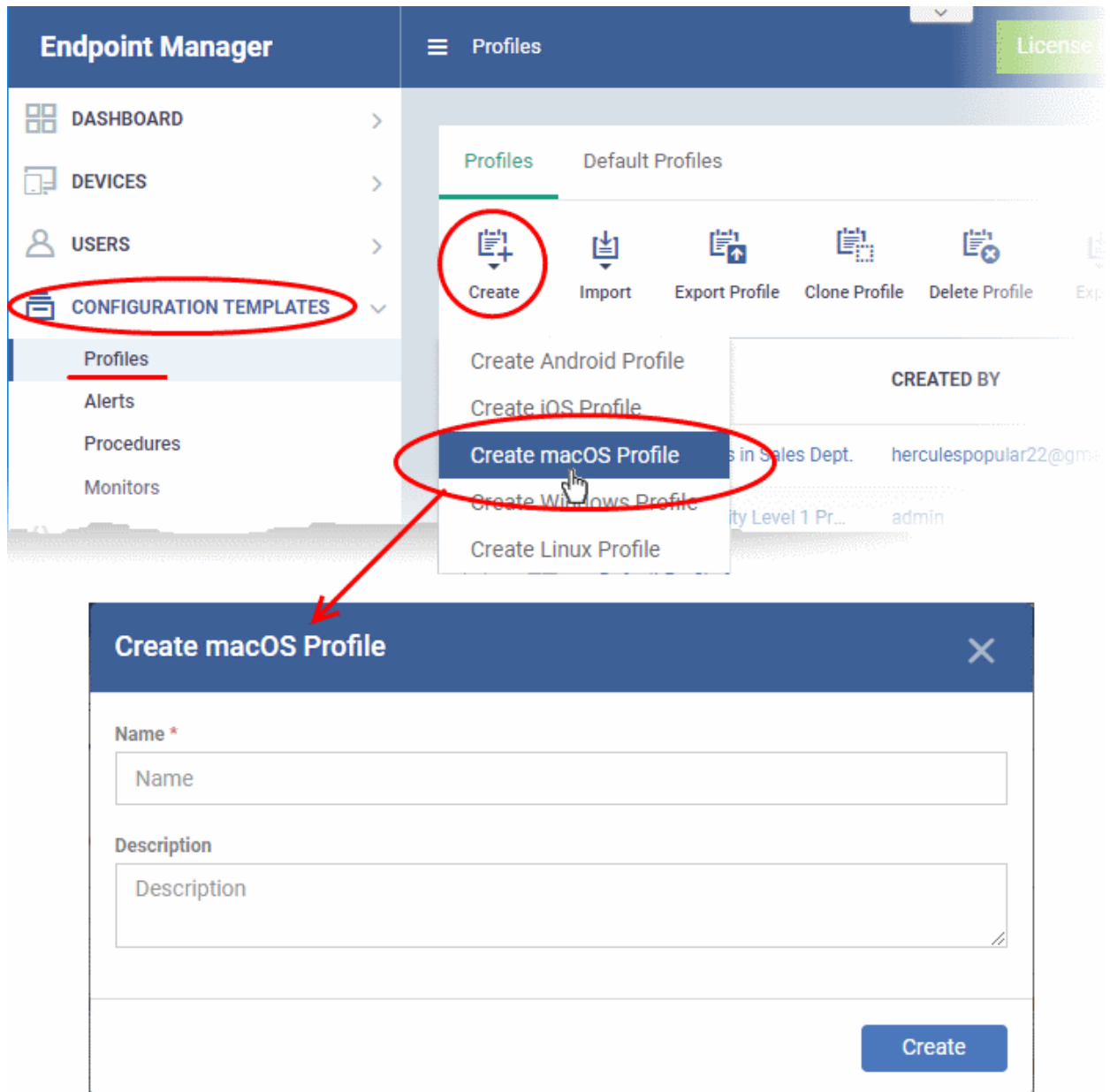
- **Calendar** - Configure CalDAV server and connection settings which will allow device integration with corporate scheduling and calendar services.
- **Cellular Networks** - Configure cellular network settings. The 'cellulars' setting performs a similar role to the APN setting and actually replaces it in iOS 7 and above.
- **Certificate** - Upload certificates and this will act as a certificate store from which the certificates can be selected for use in other settings such as 'Wi-Fi', 'Exchange Active Sync', 'VPN' and so on.
- **CCM Certificates** - Request client and device authentication certificates. Note - The 'CCM Certificates' section only appears if you have integrated Endpoint Manager with your Sectigo (formerly Comodo CA) account. See [Integrate with Sectigo Certificate Manager](#) for more help with this.
- **Contacts** - Configure CardDAV account, host and user-settings to enable contact synchronization between different address book providers (for example, to synchronize iOS contacts and Google contacts).
- **Active Sync Settings** - Specify account name, host, domain and other settings to facilitate connections from devices under this profile to Microsoft Exchange Active Sync servers.
- **Global HTTP Proxy** - Global HTTP proxies are used to ensure that all traffic going to and coming from an iOS device is routed through a specific proxy server. This, for example, allows the traffic to be packet-filtered regardless of the network that the user is connected through.
- **LDAP** - Configure LDAP account settings for devices under this profile so users can connect to company address books and contact lists.
- **E-mail** - Configure general mail server settings including incoming and outgoing servers, connection protocol (IMAP/POP), user-name/password and SMIME/SSL preferences.
- **Passcode** - Specify passcode complexity, minimum length, timeout-before-lock, failed logins before wipe (0=unlimited/never wipe), failed logins before capturing the photo of the possessor and location to recover lost or mislaid device, maximum lifetime of passcode in days and number of previous passcodes from which the new passcode should be unique.
- **Proxy** - Allows you to specify the proxy server, and their credentials, to be used by the device for network connections.
- **Restrictions** - Configure default device settings for Wi-Fi connection and cellular network connection, whether users should be able to disable app verification, background traffic, bluetooth on/off, whether camera use is allowed, whether the user is allowed to encrypt data stored on the device and whether or not they are allowed to install applications from unknown sources.
- **Single Sign-On** - iOS 7 +. Configure user credentials that can be used to authenticate user permissions for multiple enterprise resources. This removes the need for a user to re-enter passwords. In this area, you will configure Kerberos principal name, realm and the URLs and apps that are permitted to use Kerberos credentials for authentication.
- **Subscribed Calendars** - Specify one or more calendar services which you wish to push notifications to devices under this profile.
- **VPN** - Configure directory user-name, VPN host, connection type and method of authentication for users wishing to connect to your internal network from an external location. This profile is supported for iOS 7 and above.
- **VPN Per App** - Configure VPN as above but on a per-application basis. This profile is supported for iOS 7 and above.
- **Web Clip** - Allows you to push a shortcut to a website onto the home-screen of target devices. This section allows you to choose an icon, label and target URL for the web-clip.
- **Wi-Fi** - Specify the name (SSID), security configuration type and password (if required) of your wireless network to which the devices are to be connected.

- **App Lock** - Configure restrictions on usage of device resources for selected applications.

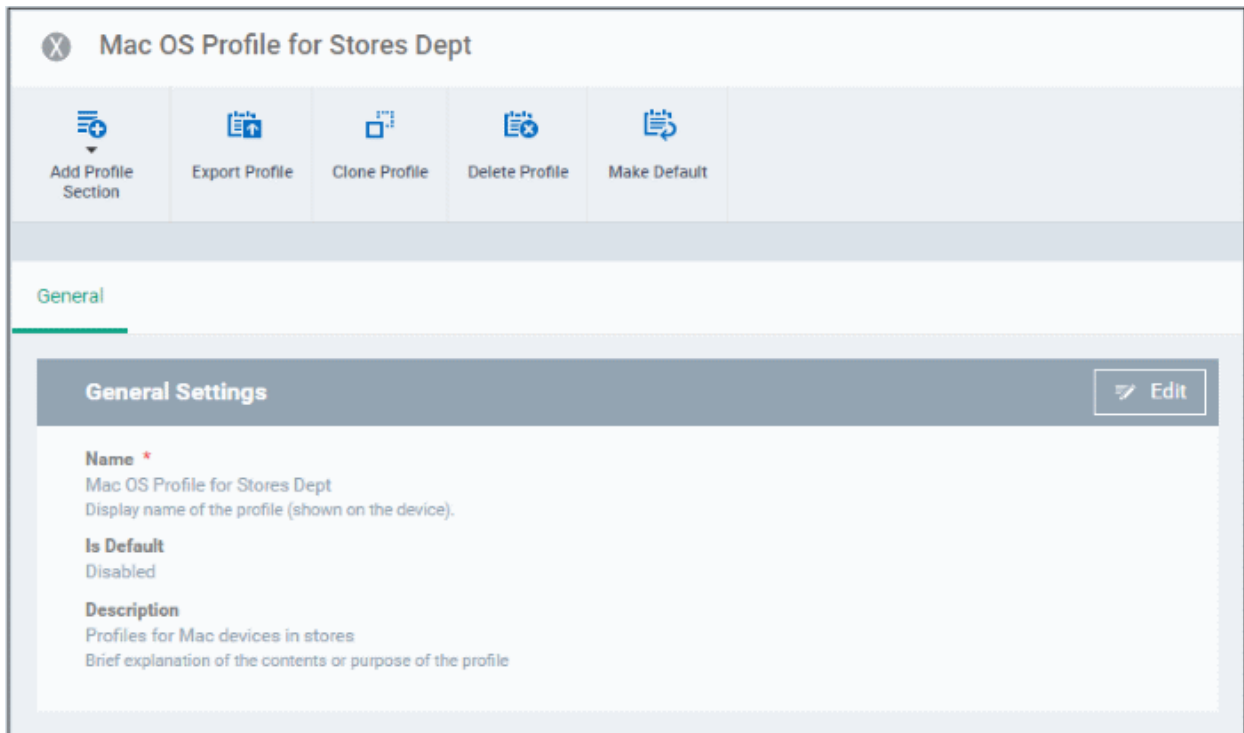
See **Profiles for iOS Devices** in the main guide for more details on this area. In brief, iOS device profiles are more detailed than Android profiles:

### To create Mac OS Profile

- Click 'Configuration Templates' > 'Profiles'
- Click 'Create' > 'Create Mac OS Profile'



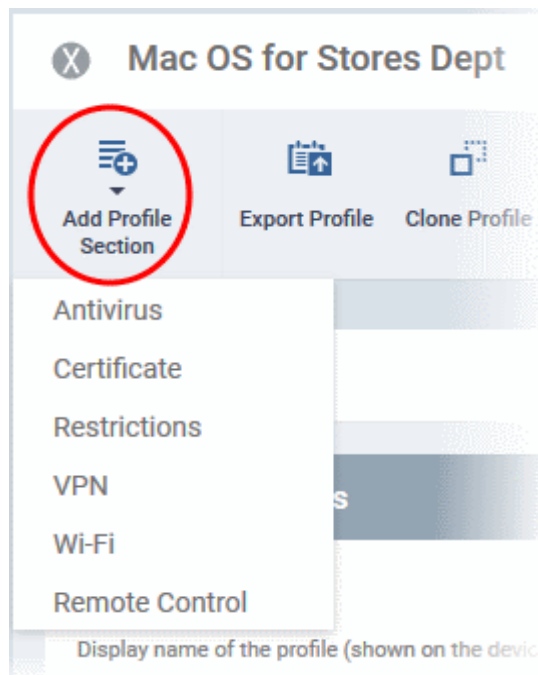
- Enter a name and description for the profile (for example, 'Sales Dept Mac machines', 'Mac Air Books' or 'Field Executives Laptops') and click 'Create'.
- The profile will be created and the 'General Settings' for the profile will be displayed.



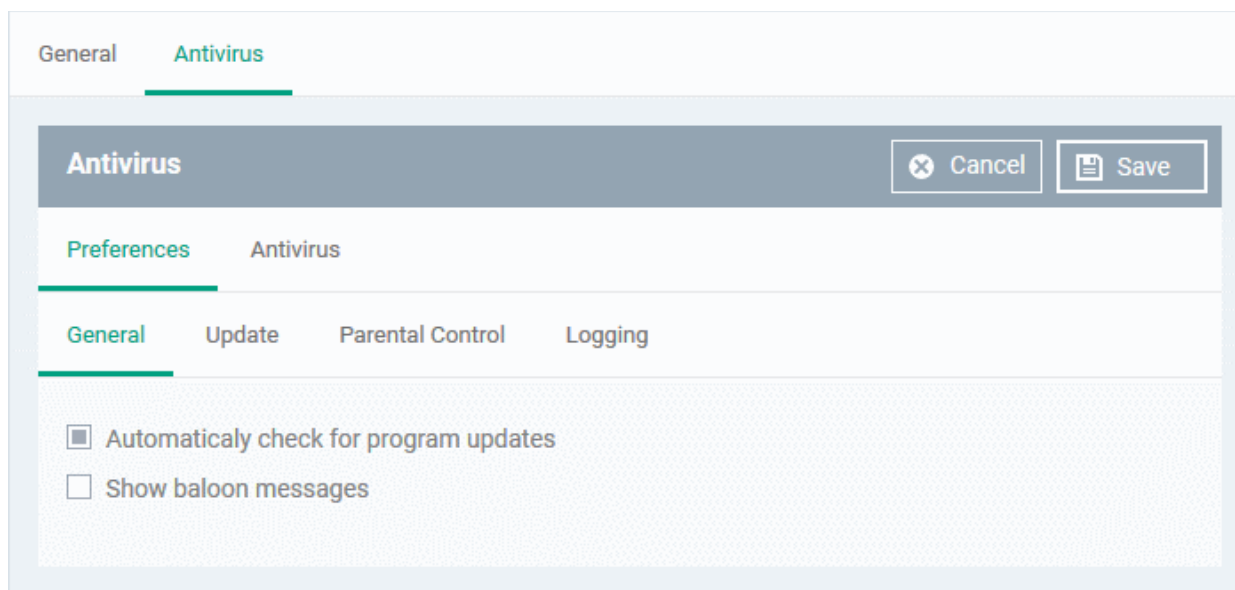
- 'Make Default' - A 'default' profile is one that is applied automatically to any device which matches its operating system. Click this button if you want all MAC OS devices to receive this profile.
- Click 'Save'.

The next step is to add sections to the profile. Each section lets you define settings for a particular security or management feature.

- Click 'Add Profile Section' then select the section you want to add from the list:



The new section will appear as a tab under the profile name. You can add as many sections as required to a profile.



- Configure the settings and click 'Save'.

The new section will become available as a tab. You can configure antivirus settings, certificate settings, device restrictions, VPN connection parameters, Wi-Fi connection parameters and more. If a component is not configured, the device will continue to use existing settings, or settings that have been applied by another EM profile.

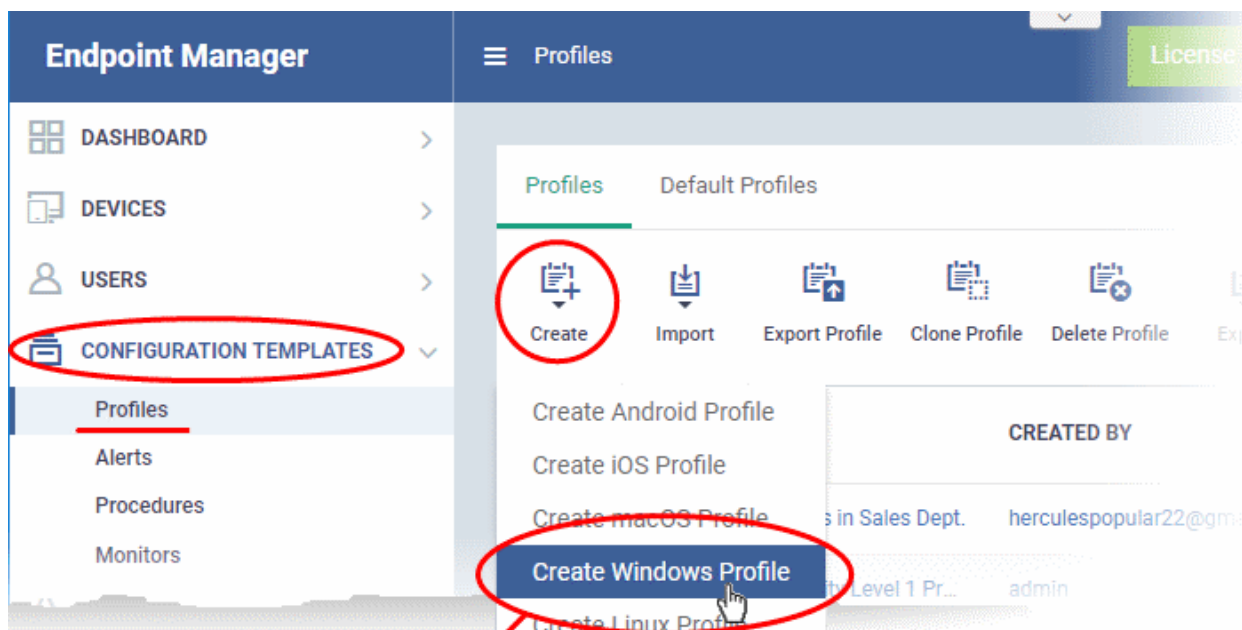
- Click 'Save' in each configuration screen for the parameters and options selected in that screen to be added to the profile.

See **Profiles for Mac OS Devices** in the main guide for more details on this area. In brief:

- **Antivirus** - Enable on-access scanning of files, configure scan and alert options, set alert time out period, maximum size for files to be scanned, files to be excluded and more.
- **Certificates** - Upload certificates and this will act as a certificate store from which the certificates can be selected for use in other settings like 'Wi-Fi and 'VPN'.
- **CCM Certificates** - Request client and device authentication certificates. Note - The 'CCM Certificates' section only appears if you have integrated Endpoint Manager with your Sectigo (formerly Comodo CA) account. See **Integrate with Sectigo Certificate Manager** for more help with this.
- **Restrictions** - Configure restrictions on device functionality and features, iCloud access and so on.
- **VPN** - Configure directory user-name, VPN host, connection type and method of authentication for users wishing to connect to your internal network from an external location and more.
- **Wi-Fi** - Specify the name (SSID), security configuration type and password (if required) of your wireless network to which the devices are to be connected.
- **Remote Control** - Allows you to configure settings for remote takeover and notifications which are shown to end-users before and during a remote control session.

#### To create a Windows profile

- Click 'Configuration Templates' > 'Profiles' > 'Create' > 'Create Windows Profile':



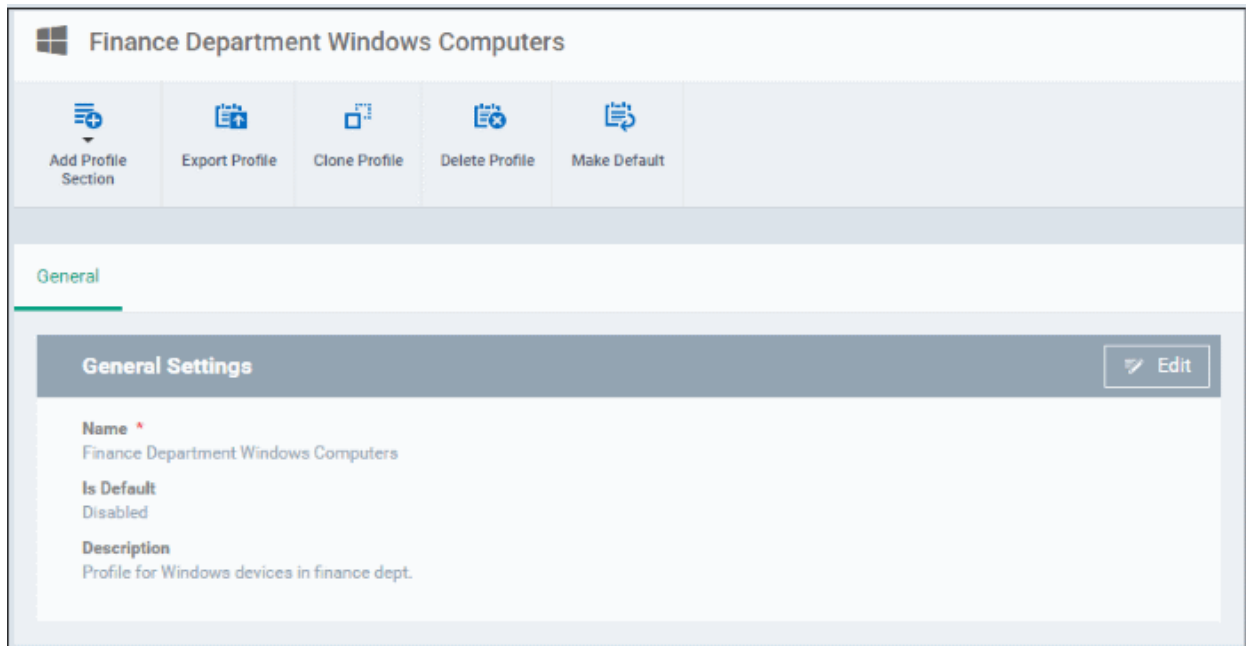
### Create Windows Profile

**Name \***

**Description**

**Create**

- Enter a name and description for the profile (for example, 'Sales Dept endpoints', 'Win7 Machines' or 'Field Executives Laptops') and click 'Create'.
- The profile will be created and the 'General Settings' for the profile will be displayed.

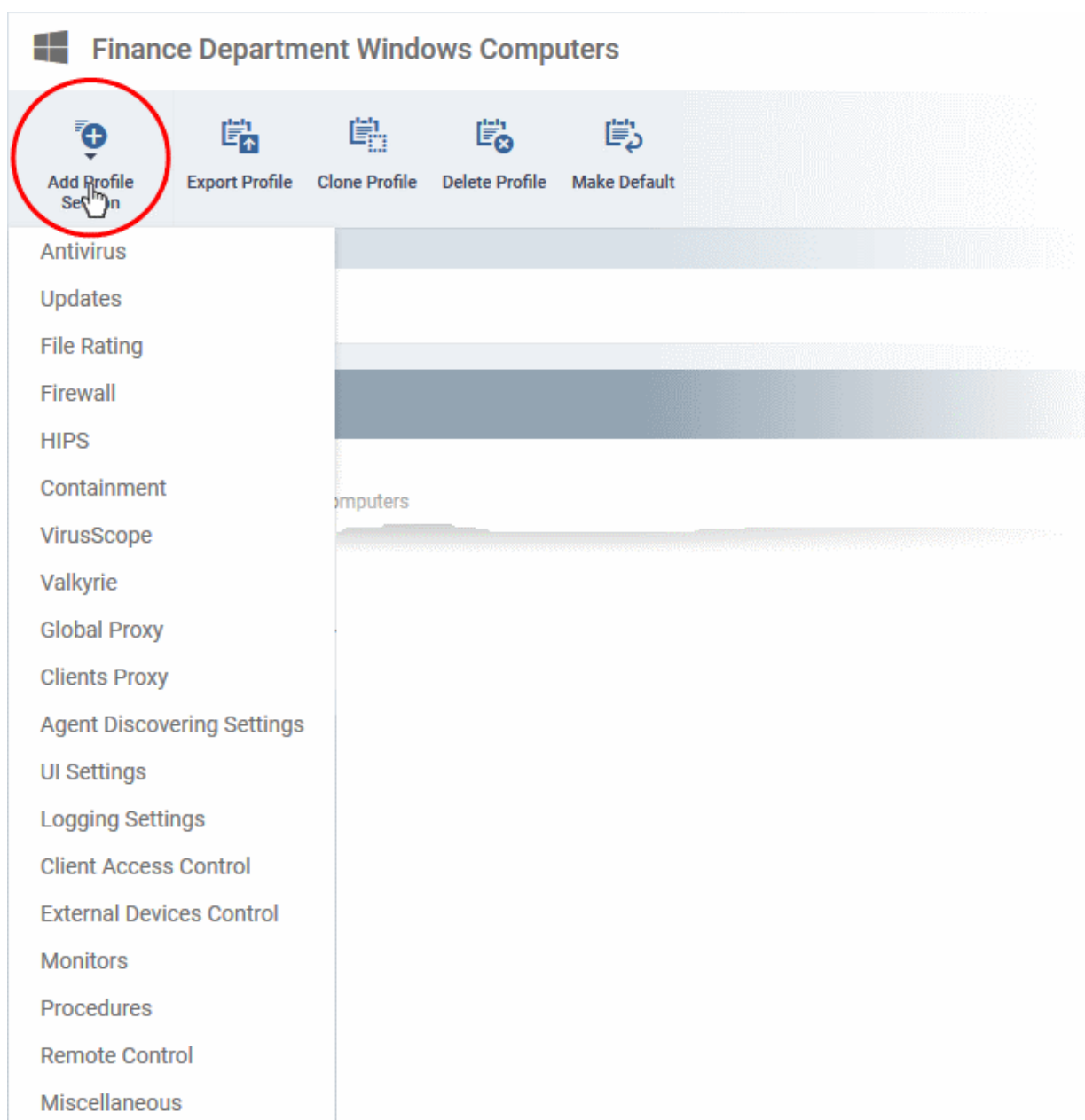


- Click 'Edit' if you wish to modify basic profile settings:
  - 'Is Default?' - If a policy is set as 'Default' then it will be automatically applied to every Windows device. You can have multiple 'default' policies to address different requirements.
  - Alternatively, you can select a policy and click the 'Make Default' button.
- Click 'Save'.

The next step is to add the components for the profile.

- Click the 'Add Profile Section' drop-down button and select the component that you want to include in the profile.





The settings screen for the selected component will open.

- Configure the settings and parameters and click 'Save'

The new section will become available as a tab in this interface. You can configure Antivirus, Firewall, Containment, File Rating, Valkyrie, HIPS, Monitoring, Procedures, External devices control, Remote control, VirusScope, Logging, Update and Miscellaneous settings. In addition, you can configure the Proxy and Agent Discovery Settings for each profile, for use in Firewall and HIPS rules configured for the profile.

If a component is not configured, the device will continue to use existing, user-defined settings or settings that have been applied by another EM profile.

- Click 'Save' in each configuration screen for the parameters and options selected in that screen to be added to the profile.

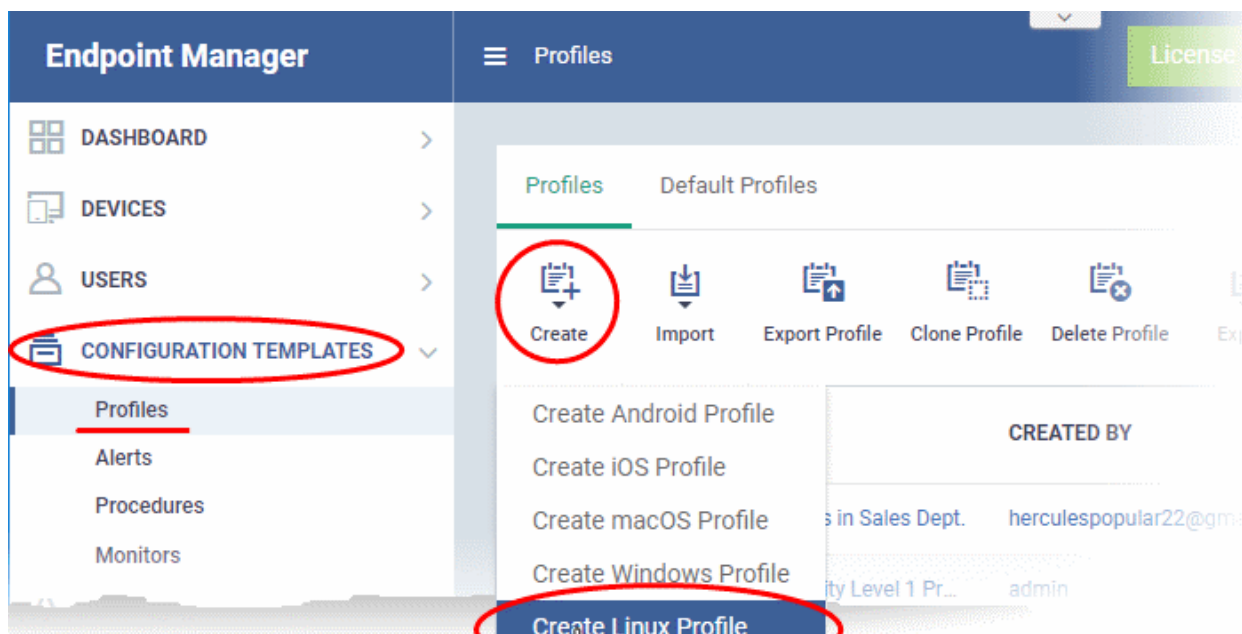
See **Profiles for Windows Devices** in the full guide for more information on these settings. In brief:

- **Antivirus** - Enable on-access scanning of files, configure scan and alert options, set alert time out period, maximum size for files to be scanned, files to be excluded and more.
- **Updates** - Set the conditions for Comodo Client Security (CCS) to automatically download and install program and virus database updates.

- **File Rating** - Enable cloud lookup for checking reputation of files accessed in real-time, configure options for files to be trusted and detecting potentially unwanted applications. For more details on File Rating in CCS, refer to the [help page explaining File rating Settings](#) in [CCS online help guide](#).
- **Firewall** - Enable/Disable the Firewall component, configure Firewall behavior, add and manage Application and Global Firewall rules and more. See [help page explaining Firewall Settings](#) in [CCS online help guide](#), for more details on Firewall in CCS.
- **HIPS** - Enable Host Intrusion Prevention System (HIPS) and its behavior, configure HIPS rules and define Protected Objects at the endpoints. See [help page explaining HIPS Settings](#) in [CCS online help guide](#), for more details on HIPS in CCS.
- **Containment** - Enable Auto-containment of unknown files, add exclusions, and configure containment behavior and alert options and view and manage Containment Rules for auto-containing applications. See [help page explaining Containment](#) in [CCS online help guide](#), for more details on Containment in CCS.
- **VirusScope** - Enable VirusScope that monitors the activities of processes running at the endpoints and generates alerts if they take actions that could potentially threaten your privacy and/or security and configure options for alert generation. See [help page explaining VirusScope](#), for more details on VirusScope in CCS online help guide.
- **Valkyrie** - Valkyrie is a cloud based file analysis system. look-up system. It uses a range of static and dynamic detectors including heuristics, file look-up, real-time behavior analysis and human expert to analyze the submitted files and determine if the file is good or bad (malicious). You can enable Valkyrie and its components and set a schedule for submitting unknown files identified from the endpoints.
- **Global Proxy** - Specify a proxy server through which endpoints should connect to external networks like the internet.
- **Clients Proxy** - Specify a server through which Comodo Client Security (CCS) and Communication Client (CC) should connect to EM and Comodo servers.
- **Agent Discovery Settings** - Specify whether or not communication client should send logs to EM about antivirus and containment events.
- **UI Settings** - Configure the appearance of the communication client (CC) and Comodo Client Security (CCS). You can re-brand CC and CCS with your own company name, logo, product name and product logo and select which components of CCS should be visible to end-users.
- **Logging Settings** - Enable event logs, configure max. log file size and other settings.
- **Monitors Settings** - Configure performance and availability conditions for various events and services. An alert will be triggered if the conditions are breached. For example, you can monitor free disk space, service and web page availability, CPU/RAM usage, device online status and more.
- **CCM Certificates** - Request client and device authentication certificates. Note - The 'CCM Certificates' section only appears if you have integrated Endpoint Manager with your Sectigo (formerly Comodo CA) account. See [Integrate with Sectigo Certificate Manager](#) for more help with this.
- **Procedures** - Allows you to add, view, delete and prioritize procedures which have been added to a profile.
- **Remote Control** - Allows you to configure settings for remote takeover and notifications which are shown to end-users before and during a remote control session.
- **Miscellaneous** - Monitor the registry for changes to auto-run entries, services and scheduled tasks by unrecognized files.

## To create a Linux Profile

- Click 'Configuration Templates' > 'Profiles'
- Click 'Create' > 'Create Linux Profile'



**Create Linux Profile** [X]

Name \*

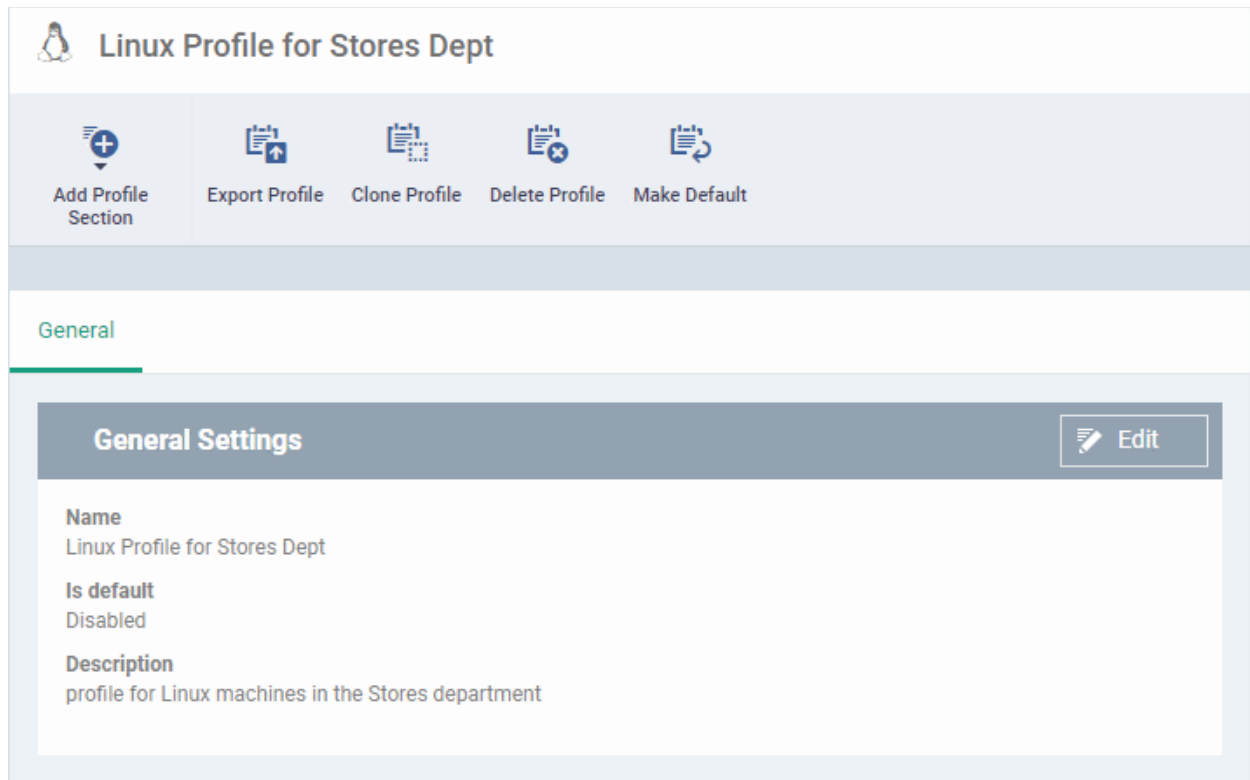
Description

[Create]

- Enter a name and description for the profile
- Click the 'Create' button

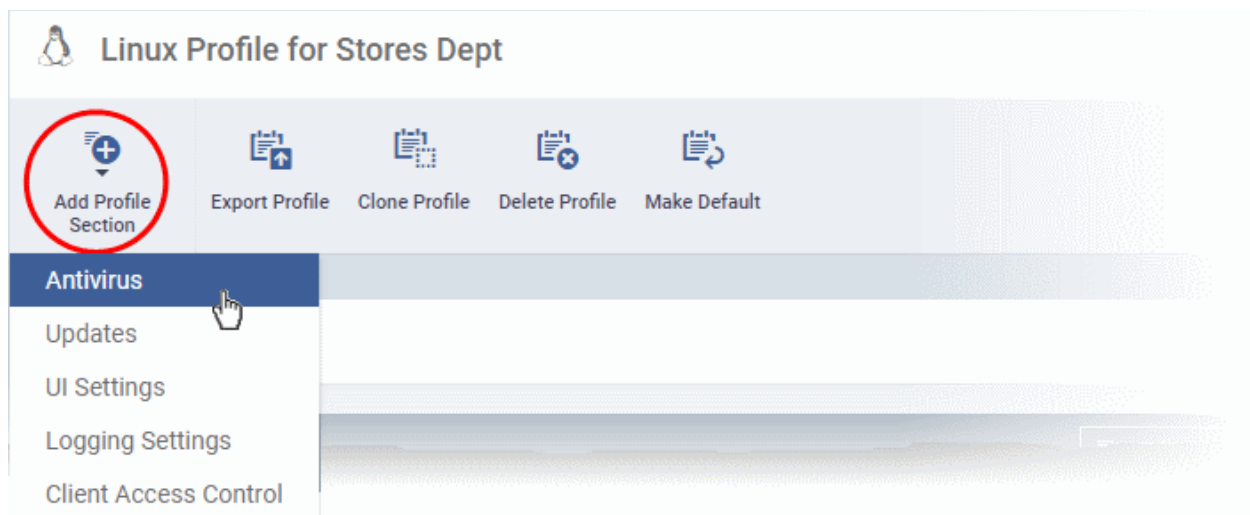
The Linux profile will be created and the 'General Settings' section will be displayed. The new profile is not a 'Default Profile' by default.



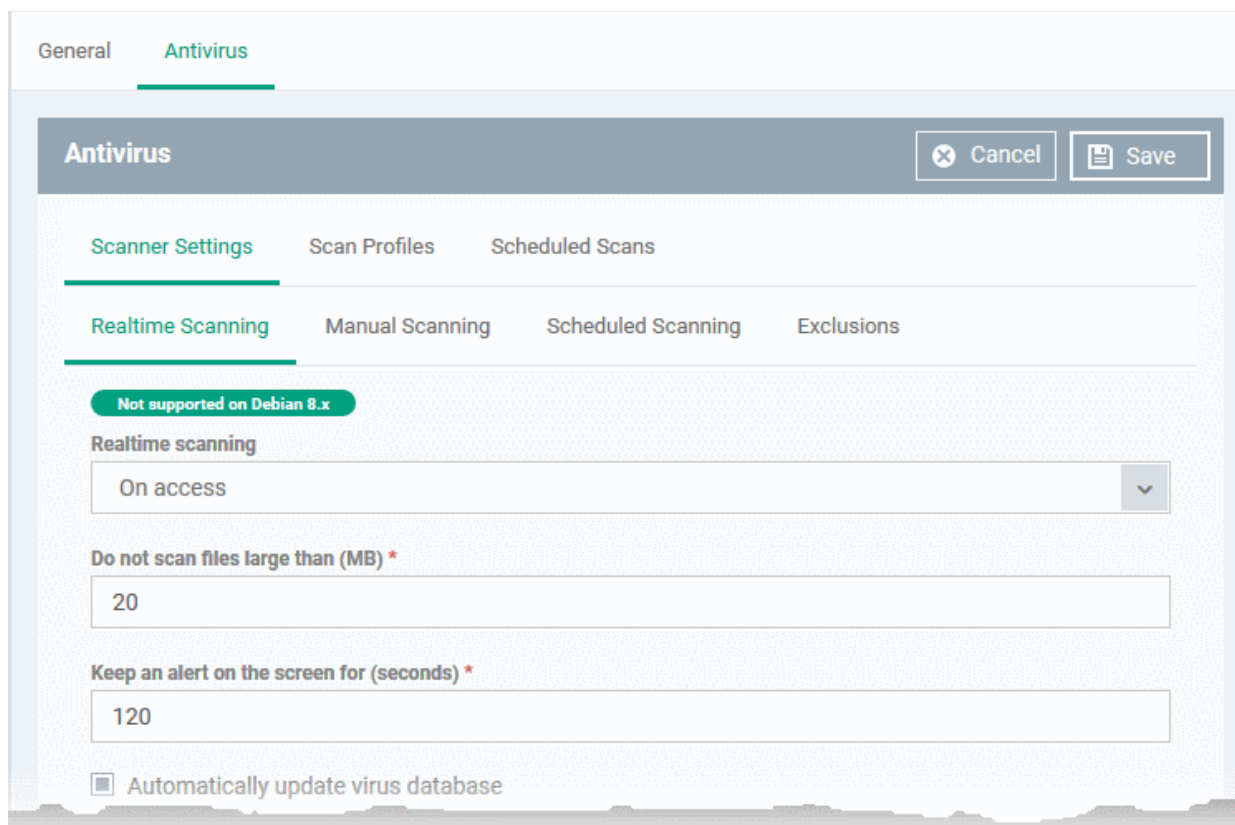
- If you want this profile to be a default policy, click the 'Make Default' button at the top. Alternatively, click the 'Edit' button on the right of the 'General' settings screen and enable the 'Is Default'.check box.
- Click 'Save'.

The next step is to add the components for the profile.

- Click the 'Add Profile Section' drop-down button and select the component from the list that you want to include for the profile.



The settings screen for the selected component will be displayed. An example is shown below:



- Configure the settings and click 'Save'.

The new section will become available as a tab. You can configure antivirus settings, interface language settings, logging settings, password protection to the CCS application on the endpoint and more. If a component is not configured, the device will continue to use existing, user-defined settings or settings that have been applied by another EM profile.

- Click 'Save' in each configuration screen for the parameters and options selected in that screen to be added to the profile.

See **Profiles for Linux Devices** in the main guide for more details on this area. In brief:

- **Antivirus** - Enable on-access scanning of files, configure scan profiles, timetable scheduled scans, set maximum size for files to be scanned, files to be excluded and more.
- **Updates** - Enable/disable program and virus signature database updates, configure the server from which the updates are to be downloaded and more.
- **UI Settings**- Select the interface language for CCS on the endpoint.
- **Logging Settings** - Enable event logs, configure max. log file size and other settings.
- **Client Access Control** - Password protect access to the CCS application on the endpoint.

### Step 7 - Apply profiles to devices or device groups

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device enrolled to EM
- Select the device you want to manage and click 'Manage Profiles':

The screenshot displays the Endpoint Manager interface. On the left, there is a sidebar with a search bar for group names and a list of groups: 'Default Company', 'frontfork', and 'Saddle and Pedals'. The main area is titled 'Device Management' and contains several action buttons: 'Enroll Device', 'Remote Control', 'Remote tools' (with a 'BETA' badge), 'Run Procedure', 'Manage Profiles' (circled in red), and 'Install or Update Packages'. Below these buttons is a search bar for devices and a table of device information. The table has columns for 'OS', 'NAME', 'ACTIVE COMPONENTS', and 'PATCH STATUS'. One row is circled in red, corresponding to the 'Manage Profiles' button. Below the table, the interface shows the 'Manage Profiles of DESKTOP-D80SVJJ' section, which includes an 'Add Profiles' button, a 'Remove Profiles' button, and a table of active profiles.

OS	NAME	ACTIVE COMPONENTS	PATCH STATUS
Windows	DESKTO...	AG AV FW CO	1
Windows	Herald M...	AG AV	
Windows	DESKTO...	AG AV FW CO	1
Linux	Joe Linux	AG AV	

OS TYPE	PROFILE NAME	OWNER
Windows	Finance Department Windows Computers	herculespopular22@gmail...
Windows	First Profile	herculespopular22@gmail...

The screen lists all profiles active on the device.

- Click 'Add Profiles'

This will open a list of all suitable profiles chosen device, excluding those that are already applied.



**Manage Profiles of DESKTOP-D80SVJJ**

**Add Profiles**

Remove Profiles

<input type="checkbox"/>	OS TYPE	PROFILE NAME	OWNER
<input type="checkbox"/>	Windows	Finance Department Windows Computers	herculespopular22@gmail...

**Add Profiles to DESKTOP-D80SVJJ**

Save

<input type="checkbox"/>	OS TYPE	PROFILE NAME	OWNER
<input type="checkbox"/>	Windows	Default Profile for Windows Devices	herculespopular...
<input type="checkbox"/>	Windows	Default Profile for Windows	herculespopular...
<input checked="" type="checkbox"/>	Windows	Suspicious Files Folder for John	herculespopular...
<input checked="" type="checkbox"/>	Windows	Monitoring Important Data	herculespopular...
<input type="checkbox"/>	Windows	Patch Procedure	herculespopular...

- Select the profiles you want to apply to the device
- Click 'Save' at top-left to apply the profiles to the device.

### To apply profiles to a **group** of devices

The procedure is similar to adding profile(s) to a device except for the second step.

1. Click the 'Devices' tab on the left and choose 'Device List ' from the options.
2. Click the 'Group Management' tab
3. Choose the Company to view the list of groups in the right pane (for C1 MSP customers)
4. Click the name of the device group
5. Click 'Manage Profiles'
6. Select the profile(s) to be applied to the devices in the group
7. Click 'Add Selected' on the top left to add the selected profile(s) to the device group

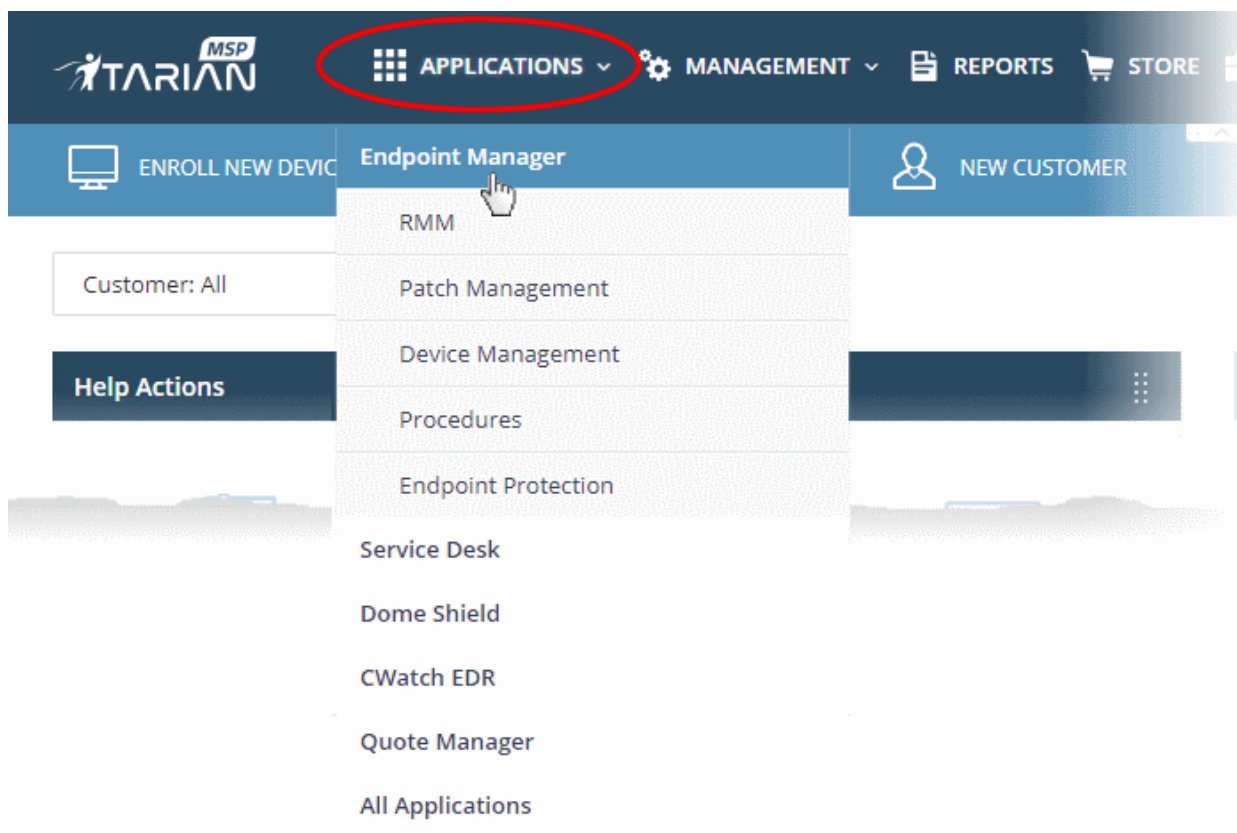


If you have successfully followed all 7 steps of this quick start guide then you should have a created a basic working environment from which more detailed strategies can be developed. Should you need further assistance, each topic is covered in more granular detail in the full administrator guide. If you have problems that you feel have not been addressed, then please contact [mdmsupport@comodo.com](mailto:mdmsupport@comodo.com).

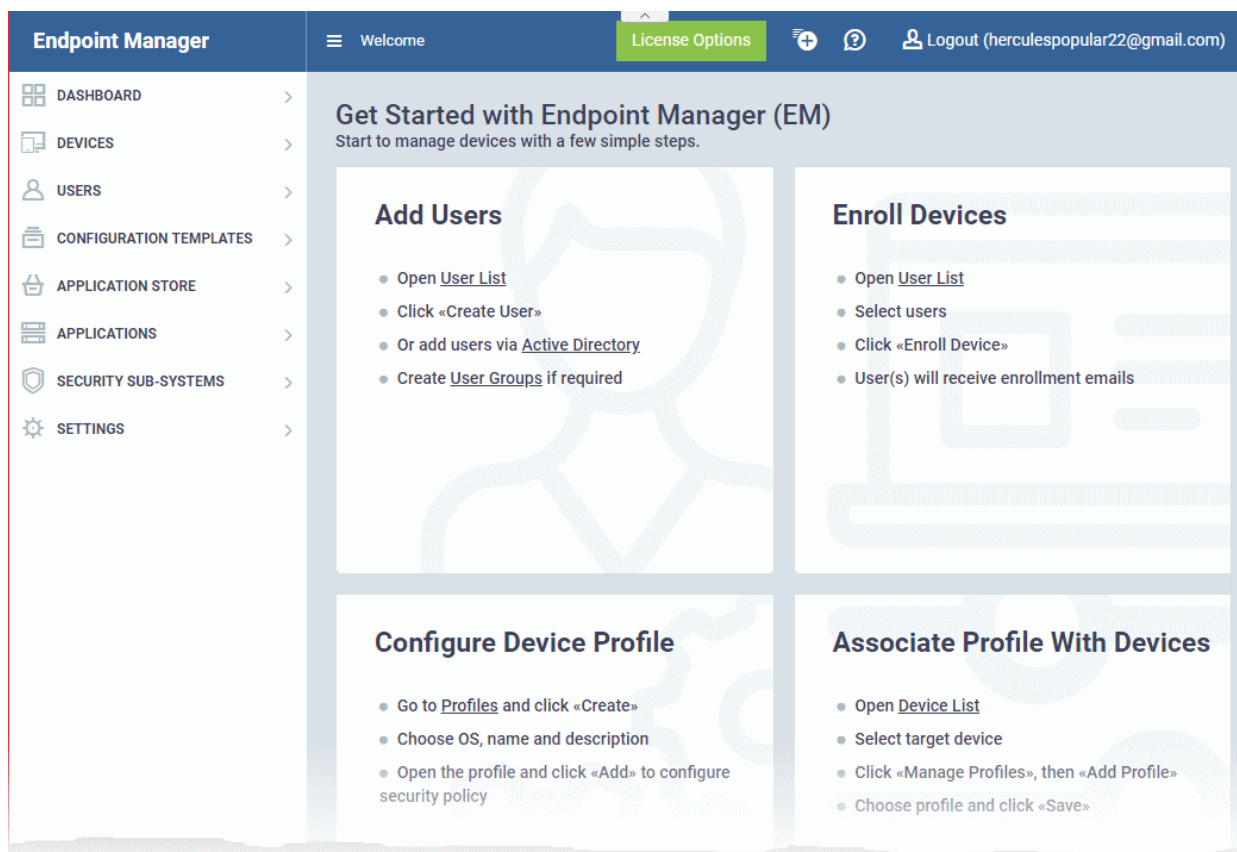
## 1.4. Login into the Admin Console

After sign-up, you will receive an email containing your username and an account activation link. Click the link to activate your account and set your password. Once activated, you can login to Endpoint Manager using any browser.





- C1 and ITarian customers:
  - Login to your Comodo One or ITarian account
  - Click 'Applications' > 'Endpoint Manager'.
- Endpoint Manager standalone customers:
  - Login at: <https://<your company name>.cmdm.comodo.com/user/site/login> - where <your company name> is your Endpoint Manager company name.
  - We sent you this URL in your account confirmation email.
- Username and password are case sensitive. Please make sure that you use the correct case and caps lock is OFF.
- Click 'I forgot my password' if you can't recall your password. A mail will be sent to your registered email with a link to reset your password.



The EM welcome screen is shown after logging-in:



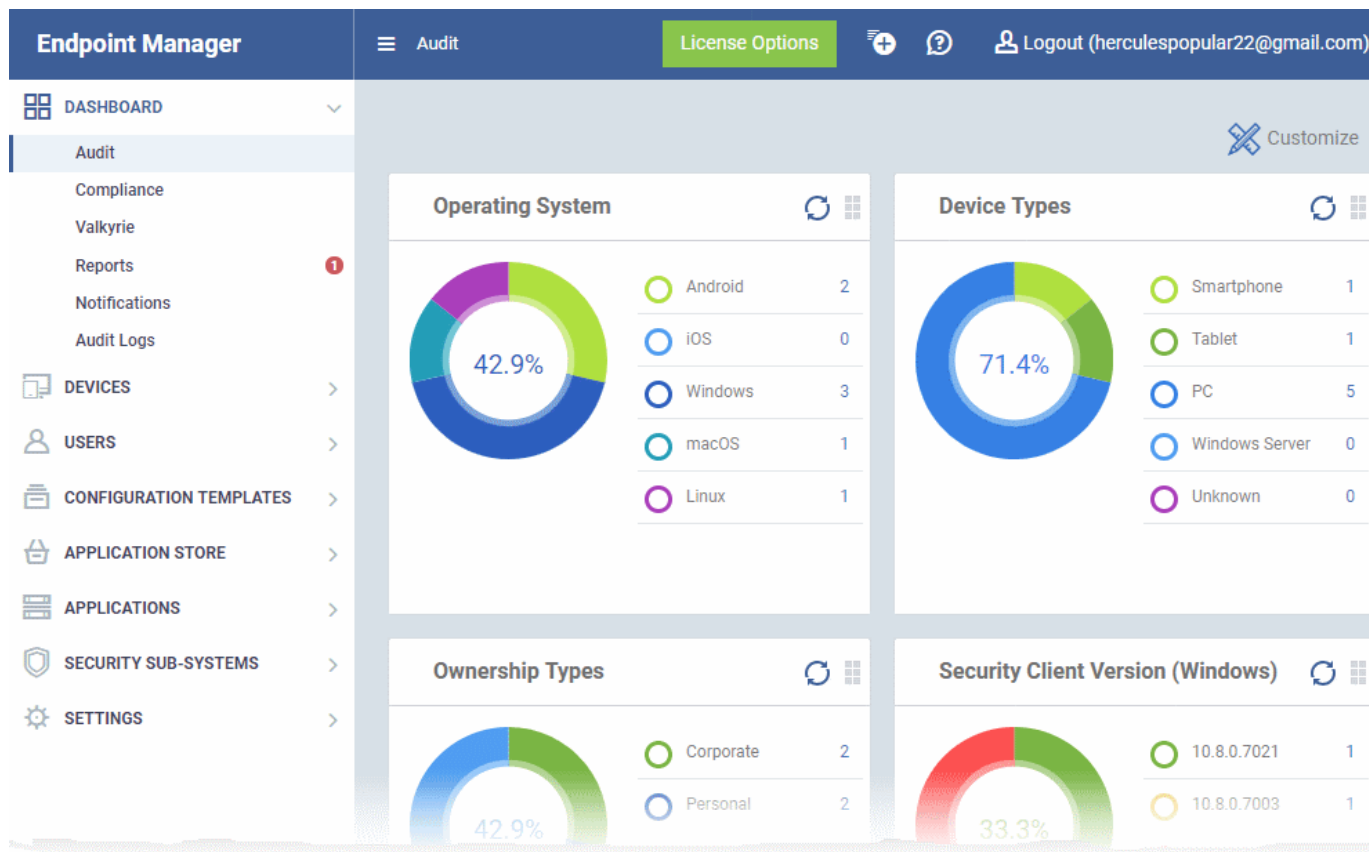
The screen contains shortcuts to enroll users and start managing devices in a few steps:

- **Add Users** - Enroll users by clicking the  icon and choosing 'Create User' from the 'User List' interface. See **Create New User Accounts** for more details. The tile also contains shortcut to 'Active Directory' settings interface to integrate an AD server and import the user groups from it. See **Import User Groups from LDAP** for more details.
- **Enroll Devices** - Enroll users' devices for management by clicking the  icon and selecting the user(s) from the 'User List' interface and clicking 'Enroll Devices' from the top. See **Enroll User Devices for Management** for more details.
- **Configure Device Profile** - Create and manage configuration profiles for Android, iOS, Windows and Linux devices by clicking the  icon. See **Create Configuration Profiles** for more details.
- **Associate Profile With Devices** - Deploy and manage configuration profiles on devices by clicking the  icon. See **Manage Devices** for more details.

**Note** - You need to configure your firewall to allow Endpoint Manager to communicate with our servers and your managed devices. IPs, host-names and ports are detailed in **Appendix 1**.

## 2. The Admin Console

The admin console is the nerve center of Endpoint Manager (EM), allowing you to add users, enroll devices, apply configuration profiles, run virus scans and more.



Once logged-in, admins can access different areas of the console using the menu on the left.

**Dashboard** - Contains charts and graphs which show the structure and security status of devices in your network. See [The Dashboard](#) for more details.

**Devices** - Manage and control enrolled devices, remotely install applications, generate sirens, wipe, lock and power off enrolled devices, remotely install and manage apps on devices, manage device groups and more. See [Devices and Device Groups](#) for more details.

**Users** - Create and manage users and user groups, enroll of their devices and assign configuration profiles to devices. See [Users and User Groups](#) for more details.

**Configuration Templates** - Profiles govern a device's network access rights, scan schedule and other system settings. You can create and manage profiles for iOS, Android Windows, Mac OS and Linux devices. See [Configuration Templates](#) for more details.

**Application Store** - Repository of applications which can be pushed to iOS/Android/Windows devices directly from EM. See [Application Store](#) for more details.

**Applications** - View and manage applications installed on Android, iOS and Windows devices. Manage patches on Windows devices. See [Applications](#) for more details.




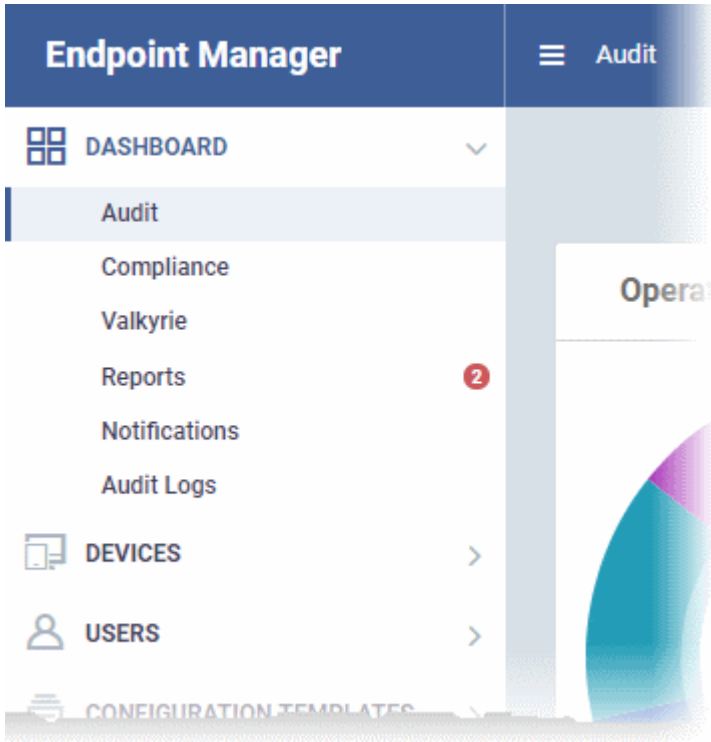


**Security Sub-Systems** - View event logs, run AV scans and database updates. View and manage malware, quarantined items and contained applications. See [Security Sub-Systems](#) for more details.

**Certificates** - Manage certificates issued to users and devices by Sectigo Certificate Manager (SCM). The 'Certificates' tab is available if you have integrated Sectigo Certificate Manager with your account. See [Manage Certificates Installed on Devices](#) for more details.

**Note** - Sectigo Certificate Manager is the new name for Comodo Certificate Manager. We are in the process of updating the Endpoint Manager UI to reflect this name change. [Click here](#) if you want to read more about the Comodo CA/Sectigo rebrand.

**Settings** - Configure email notifications, active directory, Google Cloud Messaging (GCM) and Apple Push Notification (APN) certificates, integration with Sectigo Certificate Manager and more. You can also manage subscriptions, renew/upgrade licenses and view support information. See [Configure Endpoint Manager](#) for more details.

The buttons on the top of the interface allows to view the EM notifications, create users and enroll devices, expand/collapse the left side tabs and logout.

	<p>Clicking this button will display the 'Create User' and 'Enroll Device' drop-down. See <a href="#">'Create New User Accounts'</a> and <a href="#">'Enroll Users' Devices for Management'</a> for more details.</p>
	<p>Contains links to the online user guide, to the Comodo One / ITarian MSP and Enterprise forums and allows you to email our support department.</p>
	<p>Clicking the menu button will expand/collapse the menu tabs at the left tabs. When the menu tabs are in collapsed state, placing the mouse cursor over a menu will display the sub menus under it.</p>  <p>The screenshot shows the 'Endpoint Manager' header with a hamburger menu icon and the word 'Audit'. Below the header is a list of navigation items: DASHBOARD (with a dropdown arrow), Audit (highlighted), Compliance, Valkyrie, Reports (with a red '2' notification badge), Notifications, and Audit Logs. Below these are DEVICES, USERS, and CONFIGURATION TEMPLATES, each with a right-pointing arrow.</p>
	<p>Click the logo to open the 'Welcome' screen. See <a href="#">Login into the Admin Console</a> for more details.</p>
	<p>The username of the person currently logged in.</p> <ul style="list-style-type: none"> <li>Click this to log out of EM console.</li> </ul>

License Options	Allows you to upgrade to the 'Premium' or 'Managed' version of EM.
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## 3. The Dashboard

- Click 'Dashboard' in the left menu to open this page.

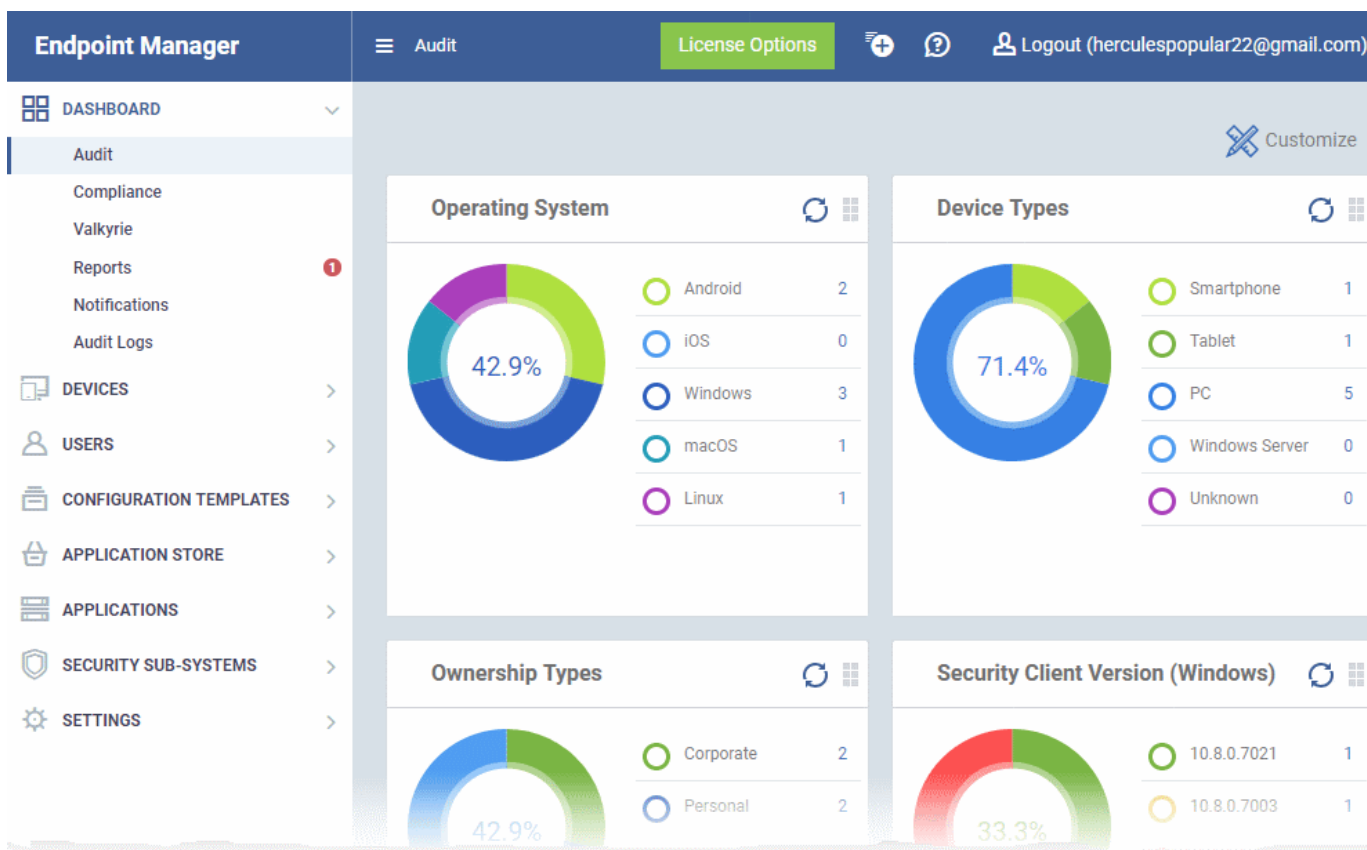
The dashboard shows real-time data about the operating system, connection status and security posture of all devices enrolled to Endpoint Manager (EM). It contains pie charts showing device types, platforms, ownership, scan status and compliance status. The dashboard also lets you view Valkyrie results, a list of notifications, and to generate reports.

The dashboard is divided into six sections:

- **Audit** - Charts which show the operating systems and client versions installed on devices on your network. Also contains charts which show the types of devices in your network, and whether the devices are personal or corporate. See the **Audit** section for more details.
- **Compliance** - Statistics which detail how compliant your devices are with EM security policies. For example, device connection status, devices with viruses, devices with blacklisted applications, rooted and jailbroken devices, and device scan status. See **Compliance** for more details.
- **Valkyrie** - A summary of verdicts on unknown files submitted to the Valkyrie file analysis system. See **Valkyrie** for more details.
- **Reports** - A list of all reports generated by Endpoint Manager. You can also create new reports from here. See **Reports** section for more information.
- **Notifications** - A list of notifications sent to the administrator by EM. See **Notifications** for more details.
- **Audit Logs** - A list of actions taken on managed devices by admins and staff. Example actions include applying profiles, remote installation of packages and more. See **Audit Logs** for more details.

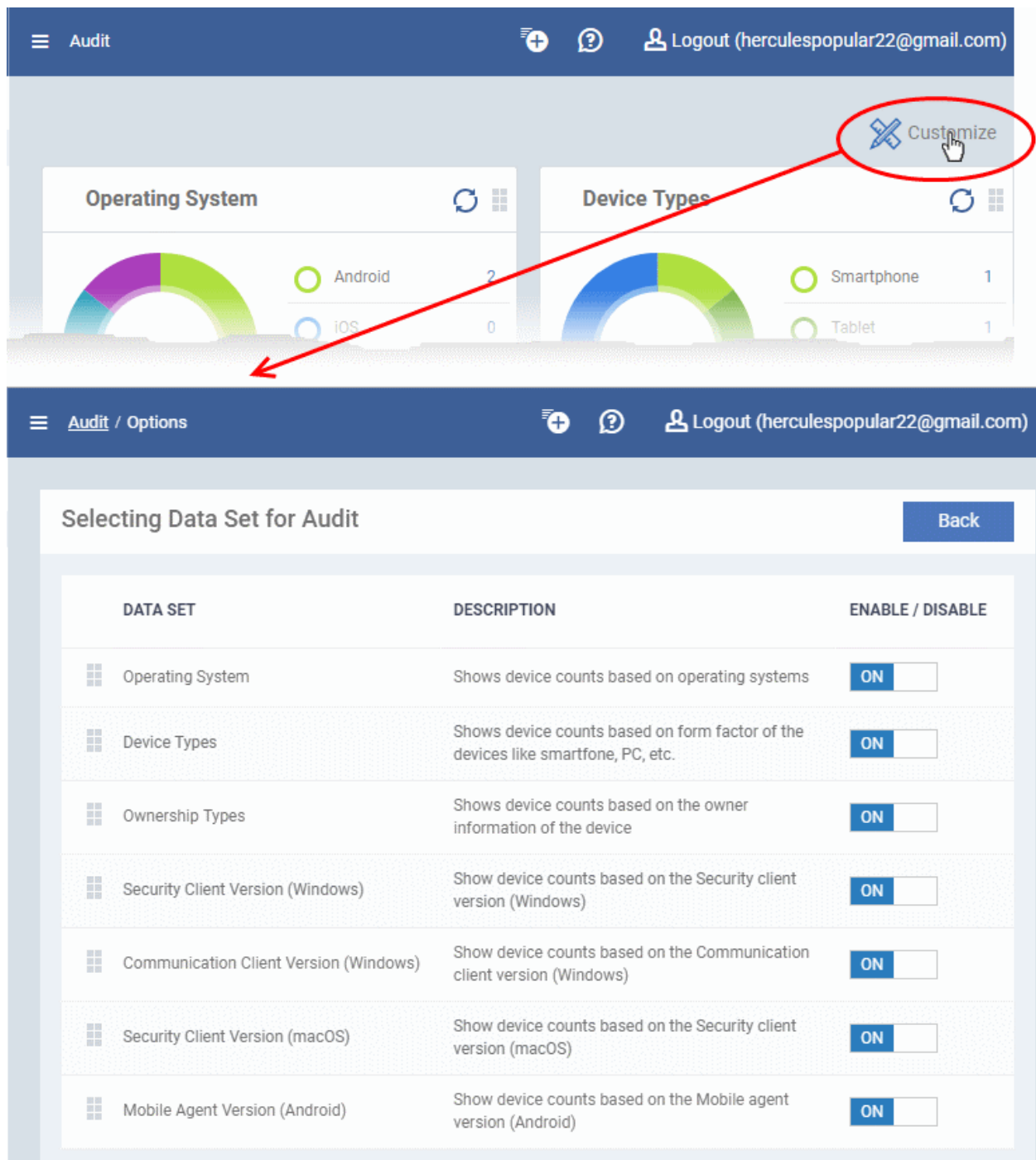
### Audit

- Click 'Dashboard' on the left then 'Audit'





- Click 'Customize' at top-right if you want to change which charts are shown on the page



- Use the 'On/Off' switches to add or remove charts from the dashboard



- Click the 'Customize' icon to view the number of charts removed from the default view
- Click and hold the icon at top right of a tile to move it around the page.

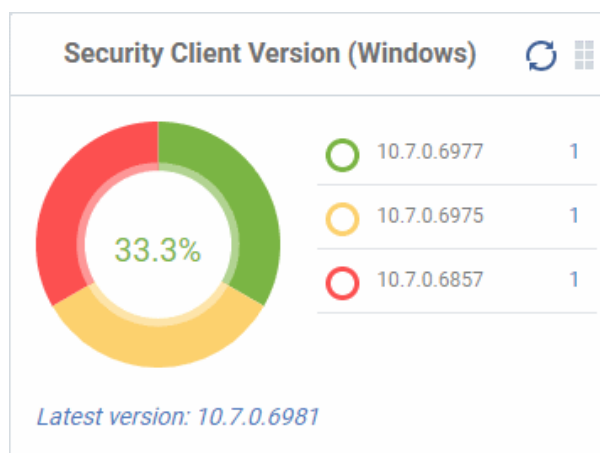
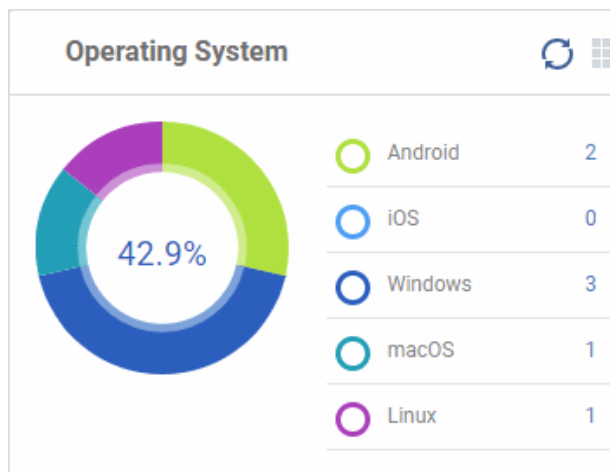


## Operating System

Shows enrolled devices by operating system. Place your mouse cursor over a sector or the legend to see further details.

- Click on an item in the legend to view the respective 'Device List' page.

For example, clicking on 'Android' in the legend will open the 'Device List' page displaying the list of Android devices. See **'Devices'** for more details.



## Security Client Version (Windows)

The versions of Comodo Client Security installed on Windows devices on your network. Comodo Client Security is the antivirus/security software on an endpoint.

- The number of devices using each version is shown to the right of the version number.
  - Click the number to view all devices using that version.
- The latest version of the client is shown underneath the chart.

Update to the latest version - Click the number, select the target devices, then click 'Install or Update Packages'.

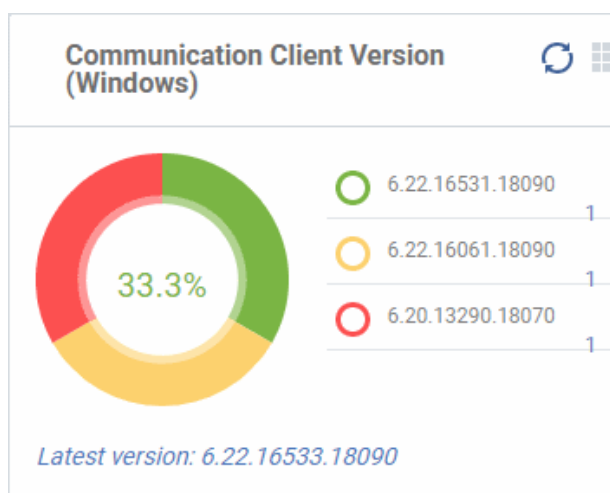
See **Remotely Install and Update Packages on Windows Devices** for more details.

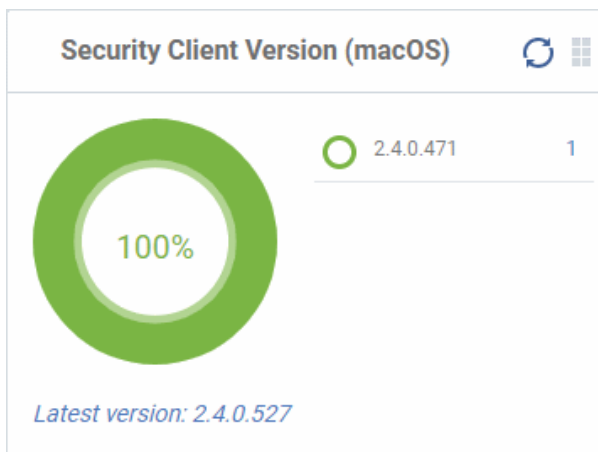
## Communication Client Version (Windows)

The versions of Communication Client installed on Windows devices on your network. This is the agent which sends updates to the EM console.

- The number of devices using each version is shown to the right of the version number.
  - Click the number to view all devices using that version.
- The latest version of the client is shown underneath the chart.
- Update to the latest version - Click the number, select the target devices, then click 'Install or Update Packages'.

See **Remotely Install and Update Packages on Windows Devices** for more details.





## Security Client Version (Mac OS)

The versions of the security client installed on MAC OS devices on your network. The security client is the Comodo Client Security for MAC (CCS for Mac) software on an endpoint.

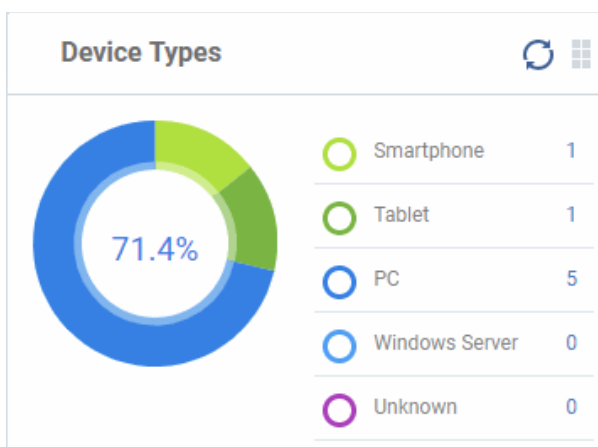
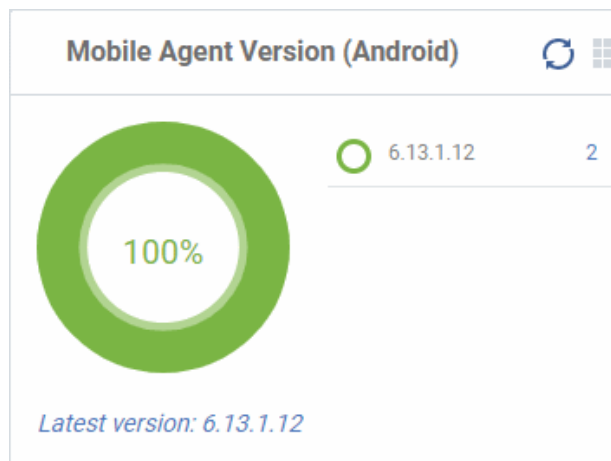
- The number of devices using each version is shown to the right of the version number.
  - Click the number to view all devices using that version.
- The latest version of the client is shown underneath the chart.
- Update to the latest version - Click the number, select the target devices, then click 'Install or Update Packages'.

See **Remotely Install Packages on Mac OS Devices** for more details.

## Mobile Agent Version (Android)

The versions of the mobile agent installed on Android device in your network.

- The number of devices using each version is shown to the right of the version number.
  - Click the number to view all devices using that version.
- The latest version of the client is shown underneath the chart.
- Update to the latest version - Click the number, select the target devices, then click 'Install or Update Packages'.



## Device Types

Shows the composition of your device fleet by device type. Place your mouse cursor over a sector see further details.

- Click an item in the legend to view the respective 'Device List' page.

For example, clicking on 'Tablet' in the legend will open the 'Device List' page displaying the list of tablet devices. See **Devices** for more details.

## Ownership Types

Ownership types can be 'Corporate', 'Personal' or 'Not Specified'.

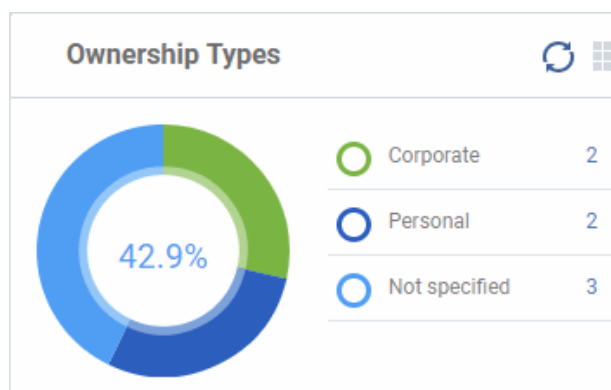
- Click an item in the legend to view the

respective 'Device List' page.

For example, clicking on 'Personal' in the legend will show all devices in that category. See 'Devices' for more details.

Change ownership type:

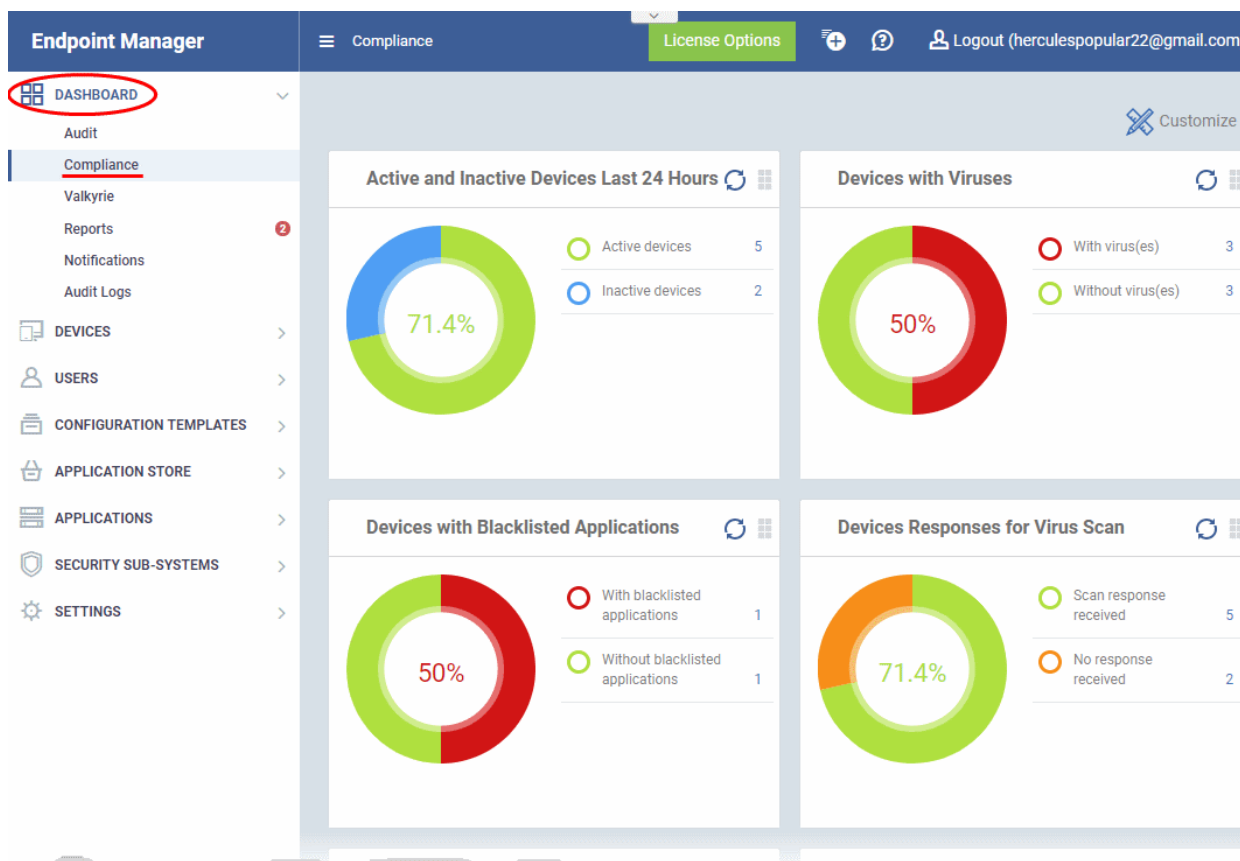
- Click 'Devices' > 'Device List' > *click a device name* > Click 'Owner' button > 'Change ownership'.



## Compliance

The compliance dashboard monitors the status of managed devices with regards to various security and activity criteria. Charts shown include, devices with viruses, devices with blacklisted applications, device requiring database updates, rooted and jail-broken devices, devices which are unresponsive and more.

- To view the compliance status of devices, click 'Dashboard' in the left navigation then 'Compliance'.

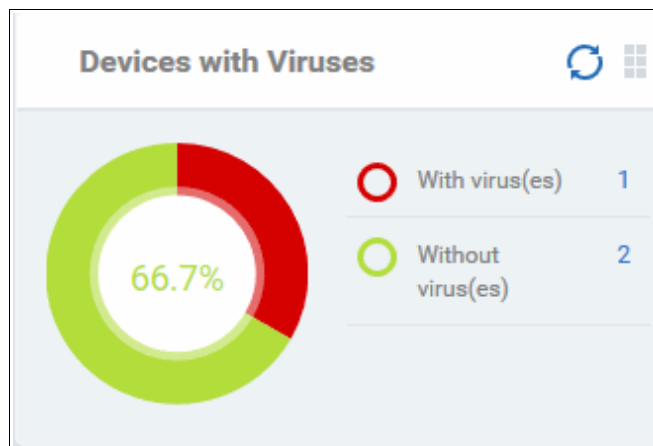


- To customize the charts shown in the interface, click the 'Customize' button
- To refresh the data in a tile, click the 'Refresh' icon at top right
- To move tiles around, click and hold the grid icon in the top right corner and drag the tile to the desired position.

### Devices With Viruses

Shows how many enrolled devices are affected by viruses and how many are clean. Placing the mouse cursor over a sector or the legend displays further details. See **Antivirus Scans** for details about scanning for viruses on

enrolled devices.

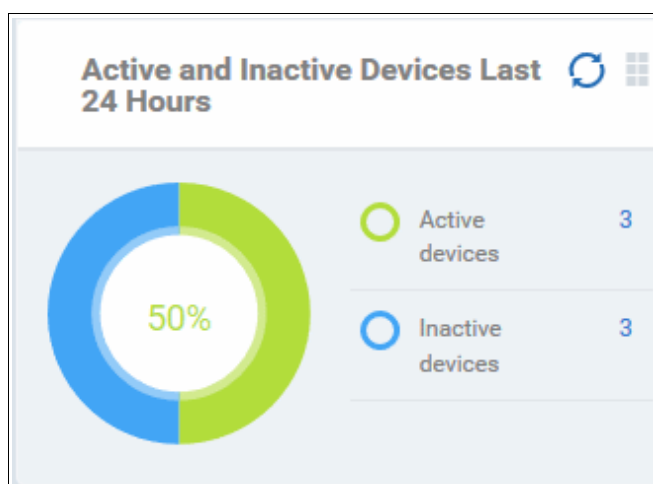


- Click an item in the legend to view the respective 'Device List' page.

For example, clicking on 'With virus(es)' will open the 'Device List' page displaying devices that contain viruses. See **'Devices'** for more details.

### Active and Inactive Devices Last 24 Hours

Shows the connectivity status of enrolled devices. Devices which have not contacted EM for more than 24 hours are marked as 'inactive'. Placing the mouse cursor over a sector or the legend displays the further details.

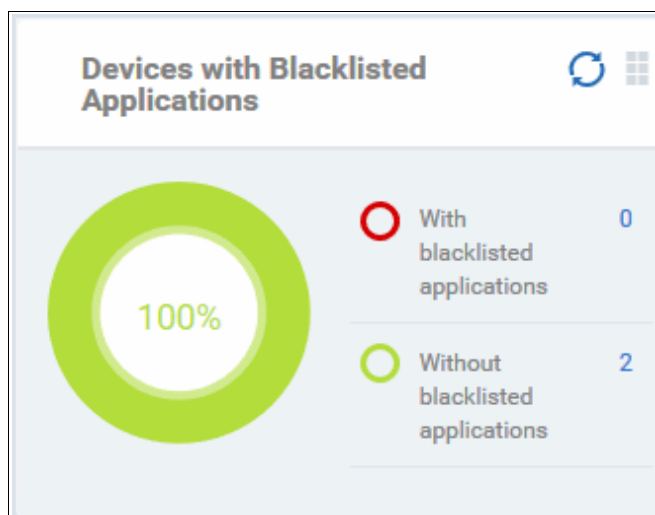


- Click an item in the legend to view the respective 'Device List' page.

For example, clicking on 'Active Devices' will open the 'Device List' page displaying the list of active devices. Similarly clicking on the 'Inactive Device' legend will open the 'Device List' page displaying the list of inactive devices. The devices screens allow you to manage the enrolled devices. See **'Devices'** for more details.

### Devices with Blacklisted Applications

Displays how many devices contain blacklisted apps versus those that are free of blacklisted apps. Placing the mouse cursor over a sector or the legend displays further details. See **Applications** for details about adding and removing apps from blacklist.

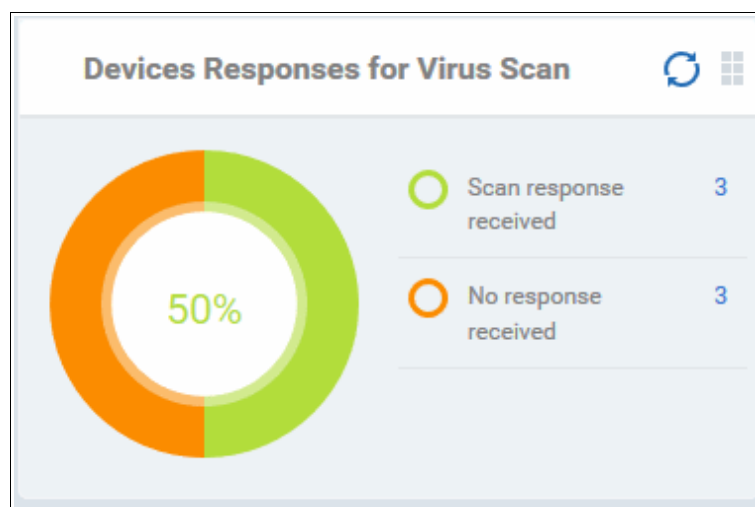


- Click an item in the legend to view the respective 'Device List' page.

For example, clicking on 'With Blacklisted Applications' legend will open the 'Device List' page displaying the list of devices that have blacklisted applications on them. See **Devices** for more details.

### Devices Responses for Virus Scan

Shows how many devices have responded to virus scan requests. Placing the mouse cursor over a sector or the legend displays the further details. See **Antivirus Scans** for details about scanning for viruses on enrolled devices.



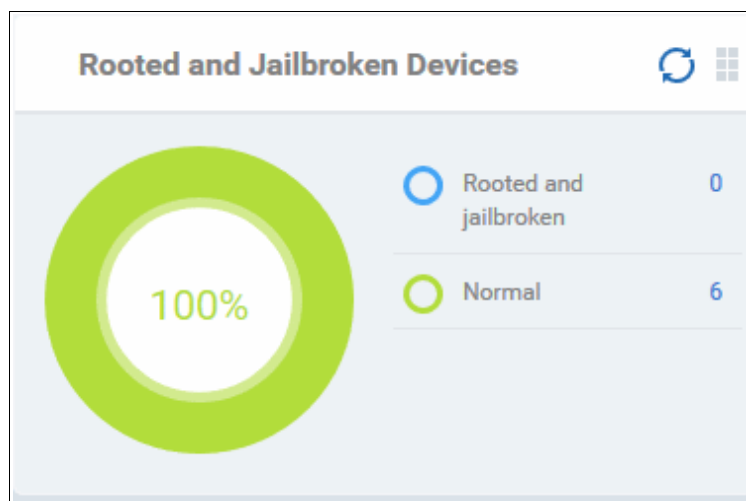
- Click an item in the legend to view the respective 'Device List' page.

For example, clicking on 'With response on virus scan' legend will open the 'Antivirus Device List' page displaying the list of devices that are responding to scan command.

The 'Antivirus Device List' page allows you to run antivirus scans on selected devices. See **Antivirus Scans** for more details.

### Rooted And Jail-broken Devices

Shows how many devices in your fleet are are rooted or jail-broken. Placing the mouse cursor over a sector or the legend displays the further details.



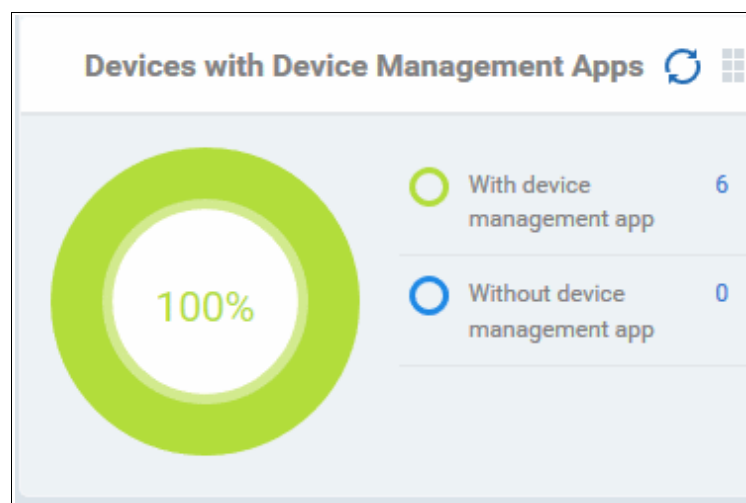
- Click an item in the legend to view the respective 'Device List' page.

For example, clicking on 'Normal' in the legend will open the 'Device List' page displaying the list of devices that are normal, that is, not rooted or jail-broken. See **'Manage Devices'** for more details.

### Devices With Device Management Apps

Shows how many devices have the communication client. Android, Windows, Mac OS and Linux devices can only be enrolled with the EM app/communication Client (CC). iOS devices communicate with EM via the EM profile that was installed during enrollment and do not require the app. However, installing the app will provide enhanced functionality such as device location and the ability to send messages to the device from the admin panel.

Placing the mouse cursor over a sector or the legend displays the further details.

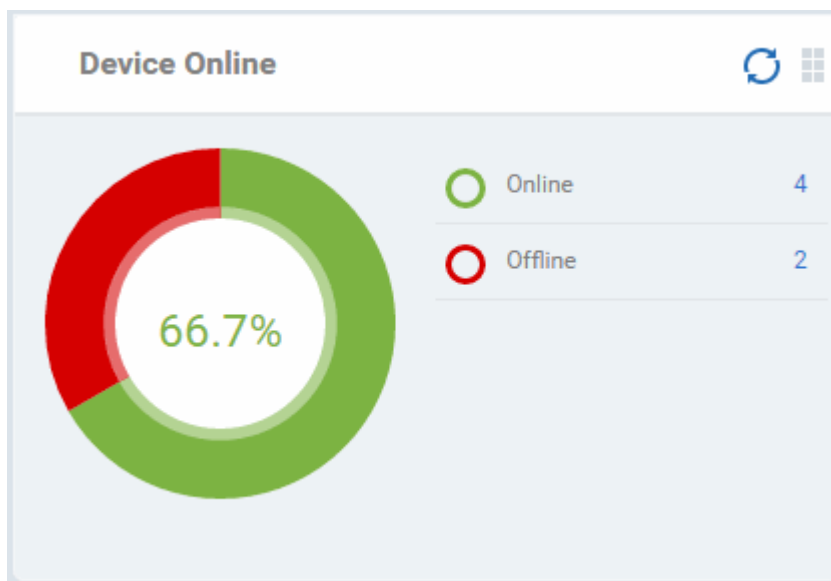


- Click an item in the legend to view the respective 'Device List' page.

For example, clicking on 'With device management App' will open the 'Device List' page displaying the list of devices that have the EM app installed. See **'Manage Devices'** for more details.

### Device Online

Shows enrolled devices by online/offline status. Devices will shown as offline if they are turned-off, are not communicating with EM for other reasons, or if Communication Client is not running. Placing the mouse cursor over a sector or the legend displays the further details.

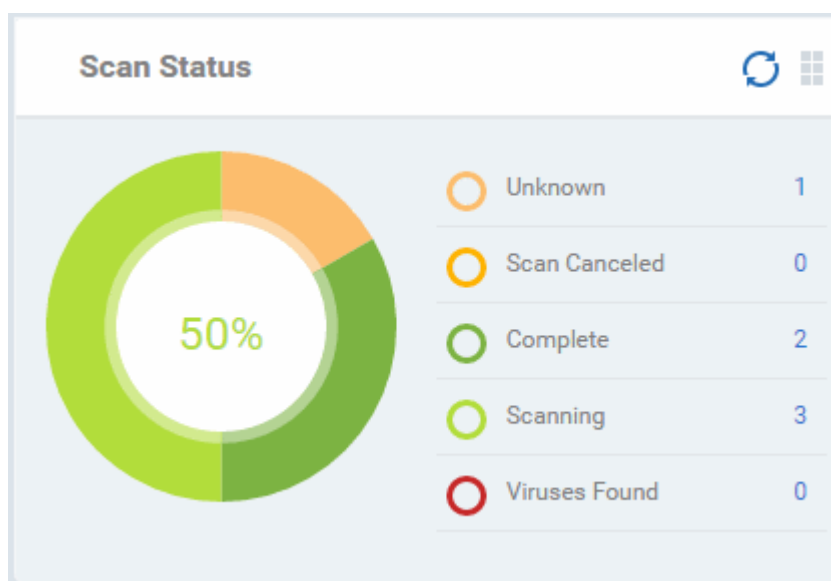


- Click an item in the legend to view the respective 'Device List' page.

For example, clicking on 'Online' will open the 'Device List' page displaying the list of devices that are online. See **'Manage Devices'** for more details.

### Scan Status

Shows the progress and results of antivirus scans on enrolled devices. Placing the mouse cursor over a sector or the legend displays the further details.



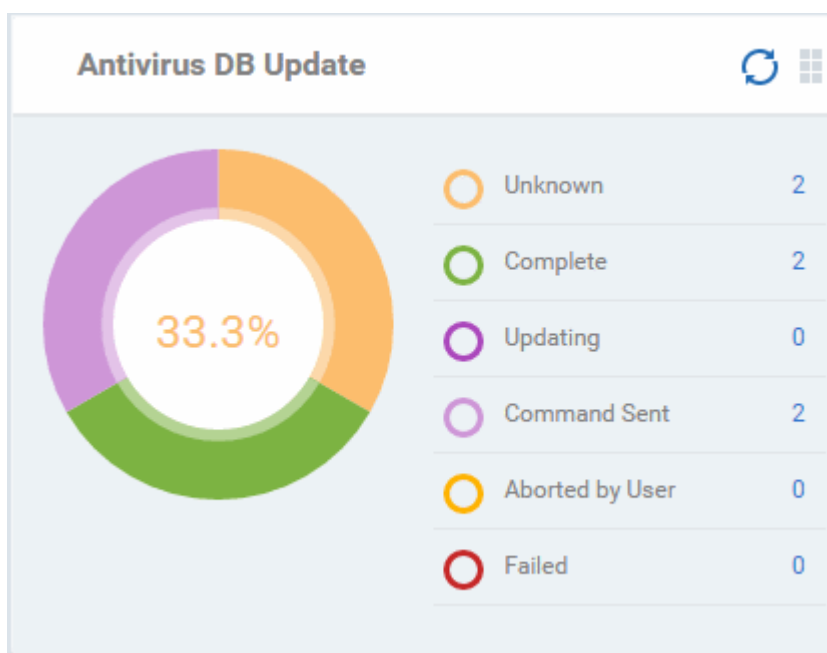
- Click an item in the legend to view the respective 'Device List' page.

For example, clicking on 'Virus Found' in the legend will open the 'Antivirus Device List' page displaying the list of devices in which the malware were detected. See **'Antivirus Scans'** for more details.

### Antivirus DB Update

Shows the progress and results of AV database updates on enrolled devices. Place your mouse cursor over a sector to view extra details.





- Click an item in the legend to view the respective 'Device List' page.

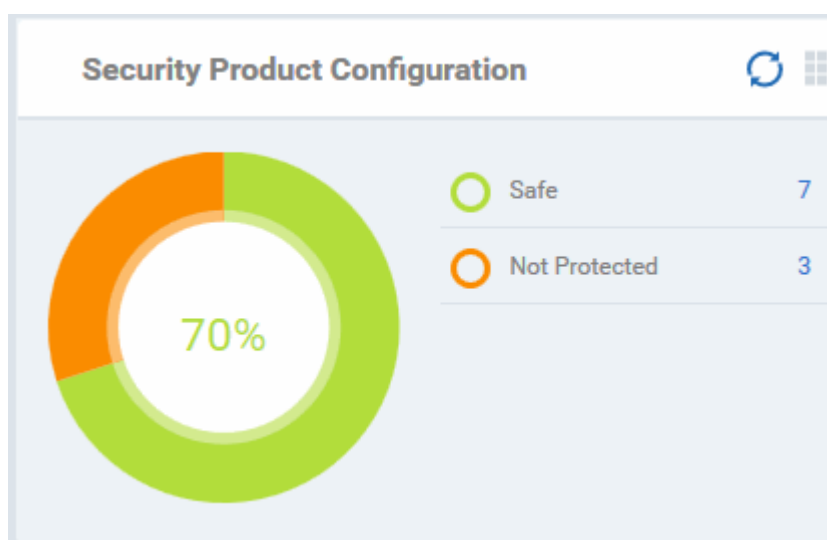
For example, clicking on 'Complete' in the legend will show devices which have the latest virus database. See **Antivirus Scans** for more details.

### Security Product Configuration

Shows how many of your enrolled devices have 'Safe' or 'Not Protected' statuses. 'Not Protected' means:

- Comodo Client Security (CCS) is not installed on the devices
- CCS is installed but Anti-virus is not enabled in the deployed profiles on the devices

Placing the mouse cursor over a sector or on the respective legend displays the details.



- Click an item in the legend to view the respective 'Device List' page.

For example, clicking on 'Safe' will open the 'Device List' page displaying the list of devices that have Antivirus installed. See **Devices** for more details.

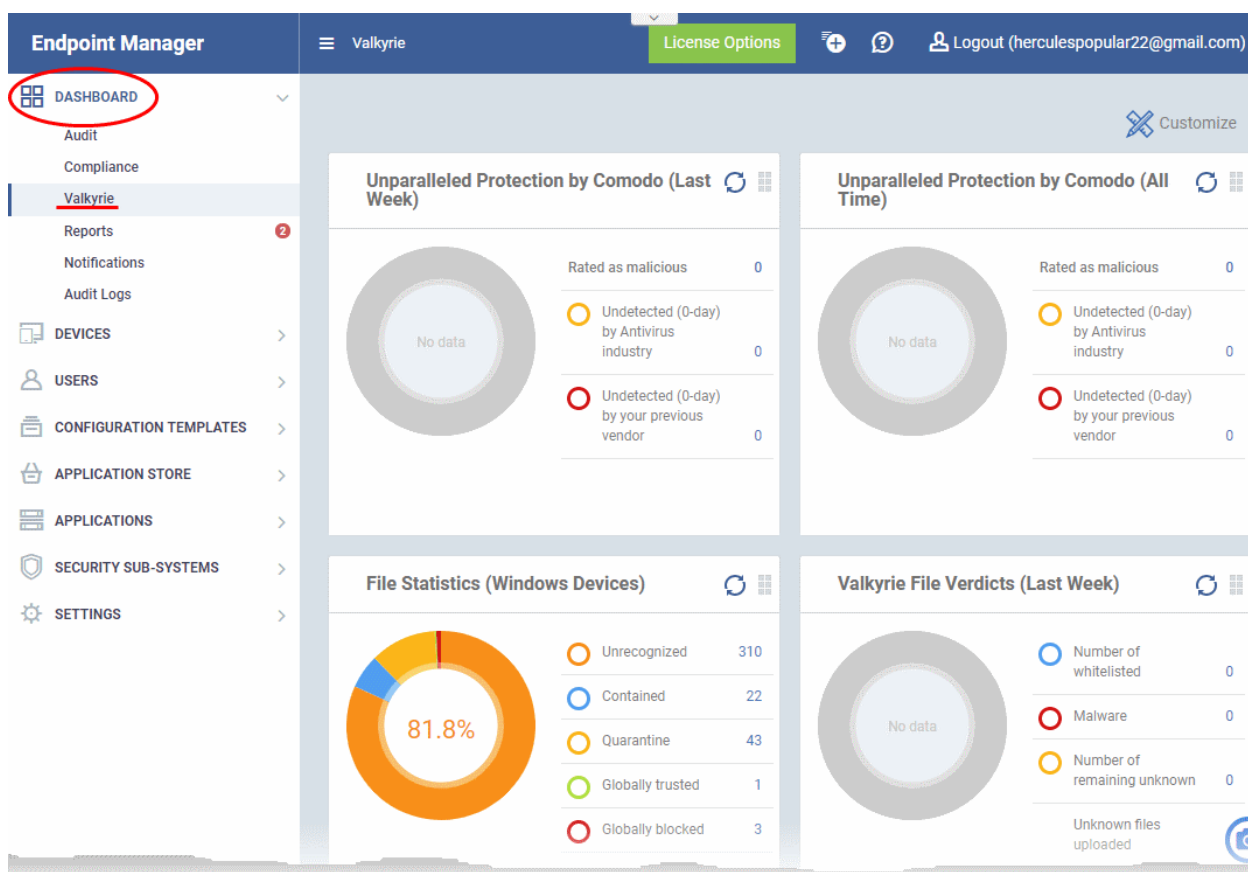
### Valkyrie

- Valkyrie is a cloud-based file analysis service that tests unknown files with a range of static and behavioral

checks in order to identify those that are malicious.

- To use the service, apply a profile to CCS that contains the 'Valkyrie' component.
  - Click 'Configuration Templates' > 'Profiles'
  - Click the name of the profile you want to edit, or click 'Create' to make a new profile
  - Click the 'Add Profile Section' button > 'Valkyrie'
  - Click 'Save'
- All results will be displayed in the Valkyrie dashboard. See **Valkyrie Settings** in **Creating Windows Profile** for more details.

**Note:** The version of Valkyrie that comes with the free version of EM is limited to the online testing service. The Premium/Managed version also includes manual file testing by Comodo research labs, helping enterprises quickly create definitive whitelists of trusted files. Valkyrie is also available as a standalone service. Contact your Comodo account manager for further details.

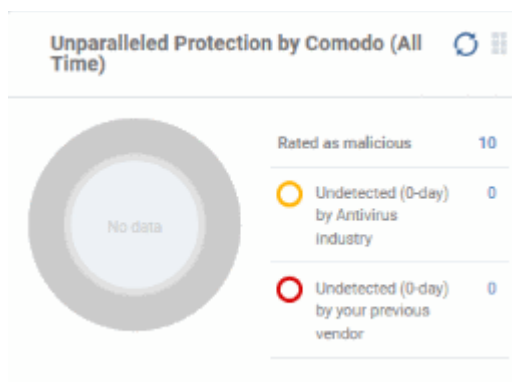
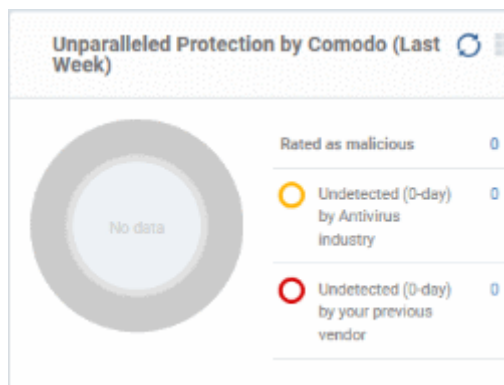


## Unparalleled Protection by Comodo (Last Week)

Shows the number of threats identified by Valkyrie over the past week versus the user's previous vendor and the antivirus industry as a whole.

Place the mouse cursor over a sector or the legend to see the percentage of number of files in a particular category.

See [Manage File Trust Ratings on Windows Devices](#) for more details on Windows File List screen.



## Unparalleled Protection By Comodo (All Time)

Shows the number of threats identified by Valkyrie since installation versus the user's previous vendor and the antivirus industry as a whole.

Place the mouse cursor over a sector or the legend to see the percentage of number of files in a particular category.

See [Manage File Trust Ratings on Windows Devices](#) for more details on Windows File List screen.

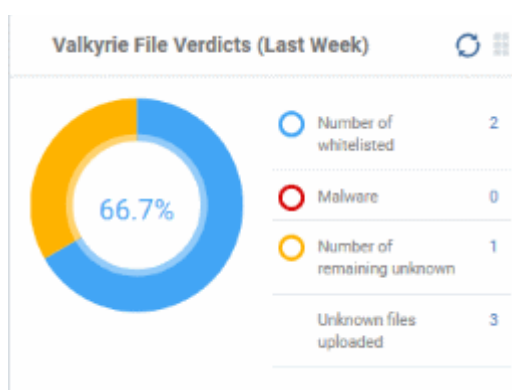
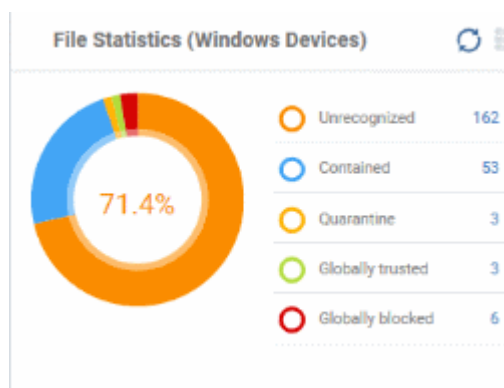
## File Statistics (Windows Devices)

Shows the trust rating and status of files on your network.

See [Manage File Trust Ratings on Windows Devices](#), for more details on Windows File List screen

- Click any item in the legend will to open the respective 'File List' page.

For example, clicking on 'Unrecognized' will open the 'Application Control' > 'Unrecognized' page displaying the list of unrecognized files detected from enrolled devices. See '[Manage File Trust Ratings on Windows Devices](#).' for more details.



## Valkyrie File Verdicts (Last Week)

Displays Valkyrie trust verdicts on unknown files for the previous 7 days. This includes the number of unknown files identified as malicious, those that remain unknown, and those that were white-listed (trusted). The total amount of unknown files analyzed is shown at the bottom.

Place your mouse cursor over a sector or the legend to view the percentage of files in that category.

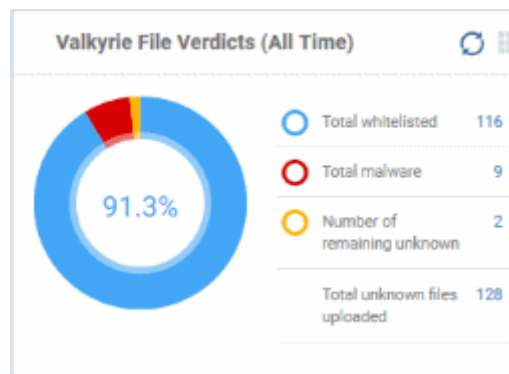
See [Manage File Trust Ratings on Windows Devices](#), for more details on Windows File List screen.

## Valkyrie File Verdicts (All Time)

Displays Valkyrie trust verdicts on unknown files for the lifetime of your account. This includes the number of unknown files identified as malicious, those that remain unknown, and those that were white-listed (trusted). The total amount of unknown files analyzed is shown at the bottom.

Place your mouse cursor over a sector or the legend to view the percentage of files in that category.

See [Manage File Trust Ratings on Windows Devices](#), for more details on Windows File List screen.



## Reports

Endpoint Manager is capable of generating a wide variety of reports covering system and malware activity across your entire fleet of devices.

- Click 'Dashboard' on the left then select 'Reports' to open the 'Reports' interface.
- The interface allows you to generate and view/download different types of reports.

Reports - Column Descriptions	
Column Header	Description
Name	The subject of the report. <ul style="list-style-type: none"> <li>• Click the name to view details of the report and to download it. See <a href="#">the explanation of viewing report details</a> for more details.</li> </ul>
Type	The file format of the report.
Status	Whether or not the report has been downloaded by any user.
Created By	The admin who generated the report.

	<ul style="list-style-type: none"> <li>Click the admin name to view their details. See <a href="#">View User Details</a> if you need help with this.</li> </ul>
Created At	The date and time the report was generated

- Click any column header to sort items in ascending/descending order of items in that column.
- Click the funnel icon at the top right to filter reports and search for reports

Reports can be generated in two ways:

- From the 'Dashboard' > 'Reports' interface - You can generate following types of reports from the 'Reports' interface
  - Android Antivirus
  - Windows Antivirus
  - Windows Malware List
  - Windows Top Malware
  - Windows Quarantine
  - Hardware Inventory

These reports are generated in spreadsheet (.xls) file format. See [generating reports](#) for more details.

- From the following interfaces:
  - '**Users**' main menu
    - User List** - Click 'Users' > 'User Groups' > 'Export'. [Click here](#) for more details.
    - User Groups** - Click 'Users' > 'User Groups' > 'Export'. [Click here](#) for more details.
    - Role Management:**
      - Roles** - Click 'Users' > 'Role Management' > 'Roles' > 'Export'. [Click here](#) for more details.
      - Users** - Click 'Users' > 'Role Management' > 'Users' > 'Export'. [Click here](#) for more details.
  - '**Devices**' main menu
    - Device List** - Click 'Devices' > 'Device List' > 'Export'. [Click here](#) for more details.
    - Device Details > File List** - Click 'Devices' > 'Device List' > Any Windows Device > 'File List' > 'Export'. [Click here](#) for more details.
  - '**Configuration Templates**' main menu
    - Profiles** - Click 'Configuration Templates' > 'Profiles' > 'Export'. [Click here](#) for more details.
    - Alerts** - Click 'Configuration Templates' > 'Profiles' > 'Export'. [Click here](#) for more details.
    - Procedures** - Click 'Configuration Templates' > 'Profiles' > 'Export'. [Click here](#) for more details.
  - '**Application Store**' main menu
    - iOS Store** - Click 'Application Store' > 'iOS Store' > 'Export'. [Click here](#) for more details.
    - Android Store** - Click 'Application Store' > 'iOS Store' > 'Export'. [Click here](#) for more details.
  - '**Applications**' main menu
    - Mobile Applications** - Click 'Applications' > 'Mobile Applications' > 'Export'. [Click here](#) for more details.
    - Patch Management** - Click 'Applications' > 'Patch Management' > 'Operating System' tab > 'Export'. [Click here](#) for more details.
  - '**Security Subsystems**' main menu
    - Containment** - Click 'Security Sub-Systems' > 'Containment' > 'Export'. [Click here](#) for more details.
    - Application Control** - Click 'Security Sub-Systems' > 'Application Control' > 'Export'. [Click here](#) for more details.

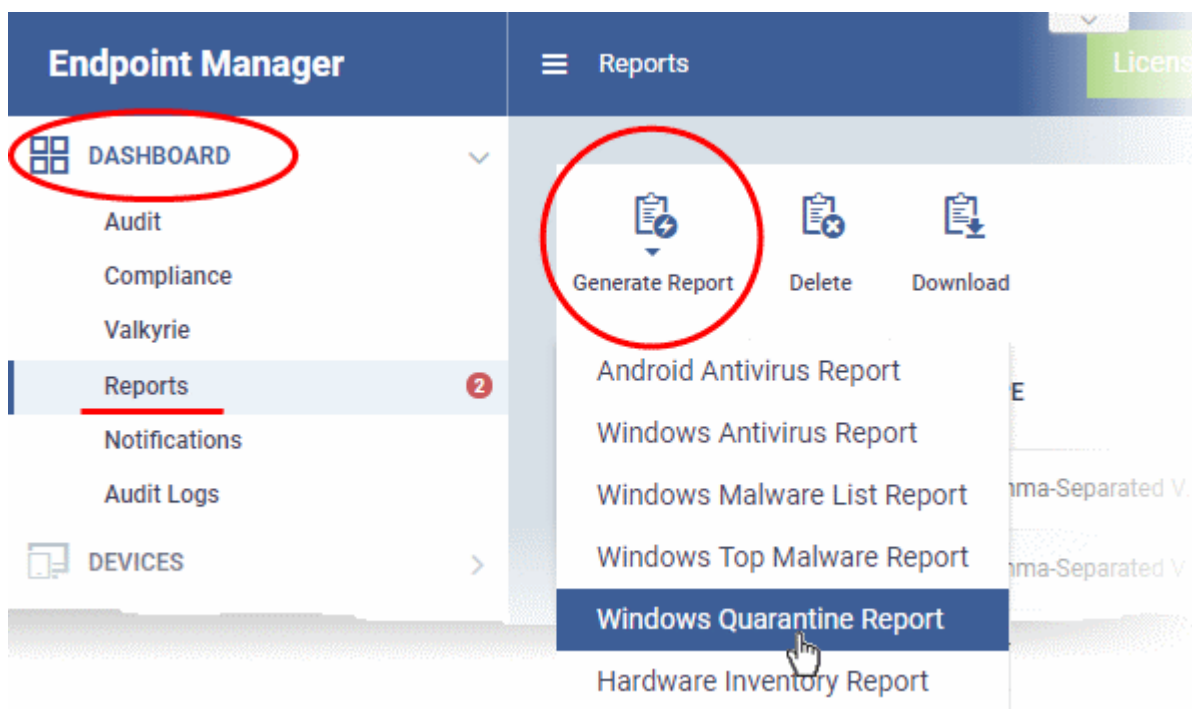
more details.

- **Next Gen Sandbox** - Click 'Security Sub-Systems' > 'Next Gen Sandbox' > 'Export'. [Click here](#) for more details.
- **Device Control** - Click 'Security Sub-Systems' > 'Device Control' > 'Export'. [Click here](#) for more details.
- **Antivirus:**
  - **Device List** - Click 'Security Sub-Systems' > 'Antivirus' > 'Device List' tab > 'Export'. [Click here](#) for more details.
  - **Current Malware List** - Click 'Security Sub-Systems' > 'Antivirus' > 'Current Malware List' tab > 'Export'. [Click here](#) for more details.
  - **Quarantined Files** - Click 'Security Sub-Systems' > 'Antivirus' > 'Quarantined Files' tab > 'Export'. [Click here](#) for more details.
  - **Threat History** - Click 'Security Sub-Systems' > 'Antivirus' > 'Threat History' tab > 'Export'. [Click here](#) for more details.

These reports are generated in comma separated values (.csv) format.

## Generate a report from the 'Reports' interface

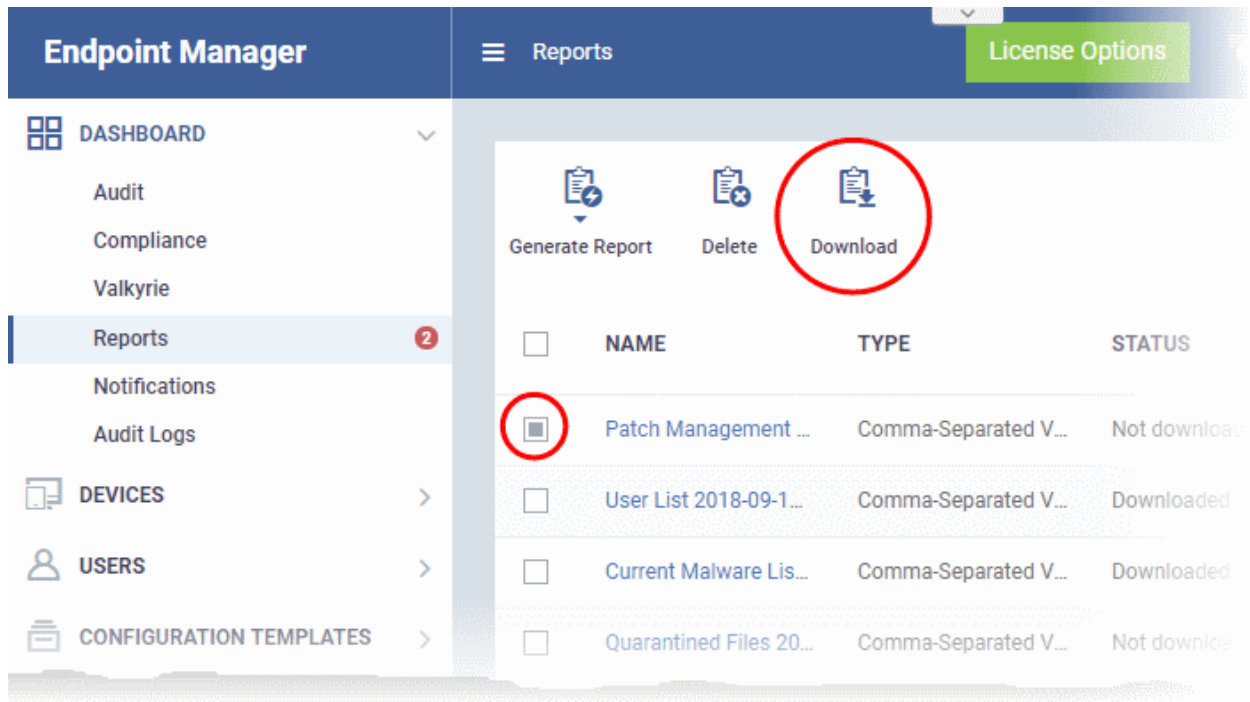
- Click 'Generate Report' from the top and then click on the report type from the drop-down.



A new report will be generated for the selected report type.

- To download a report, select it and click 'Download' at the top





- Click a report name to view report details.



The screenshot shows the Endpoint Manager interface. At the top, there are three buttons: 'Generate Report', 'Delete', and 'Download'. Below these is a table with columns: NAME, TYPE, STATUS, CREATED BY, and CREATED AT. The table contains five rows of reports. The second row, 'Quarantined Files 20...', is circled in red, and a red arrow points from it to a detailed view of that report. The detailed view has a title 'Quarantined Files 2018-09-12 03-06 PM' and a section 'Export Details' with the following information:


NAME	TYPE	STATUS	CREATED BY	CREATED AT
Application Control ...	Comma-Separated V...	Not downloaded	herculespopular22@g...	2018/09/12 03:06:05 PM
<b>Quarantined Files 20...</b>	Comma-Separated V...	Not downloaded	herculespopular22@g...	2018/09/12 03:06:05 PM
Patch Management ...	Comma-Separated V...	Not downloaded	herculespopular22@g...	2018/09/12 03:06:05 PM
Application Control ...	Comma-Separated V...	Downloaded	herculespopular22@g...	2018/09/12 03:06:05 PM

**Export Details**

- Name**: Quarantined Files 2018-09-12 03-06 PM
- Type**: Comma-Separated Values (CSV)
- Status**: Not downloaded
- Download link**: [Quarantined Files 2018-09-12 03-06 PM.csv](#)
- Created by**: [herculespopular22@gmail.com](#)
- Created at**: 2018/09/12 03:06:05 PM

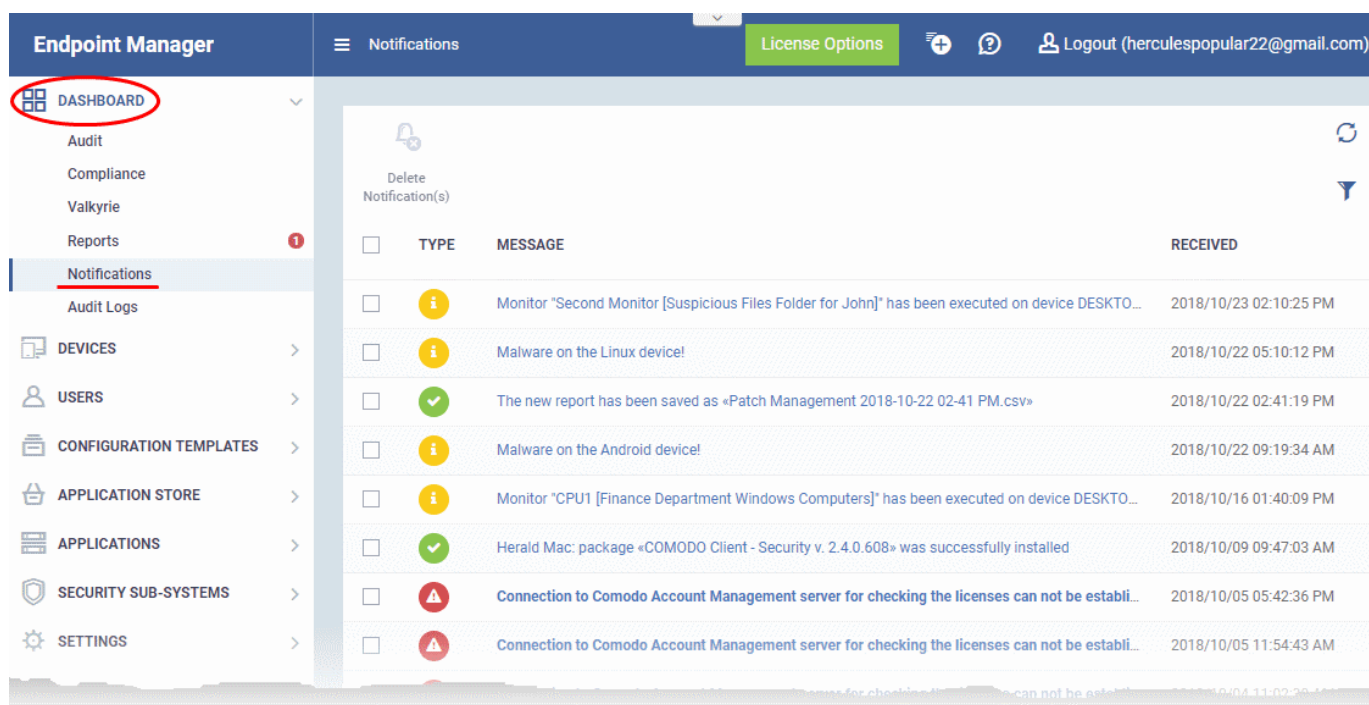
- To remove a report from the list, select it and click 'Delete'.

## Notifications

Whenever there is a new notification in the C1 title bar, the notification symbol  is incremented. Clicking the notification icon will take you to the respective C1 interface.

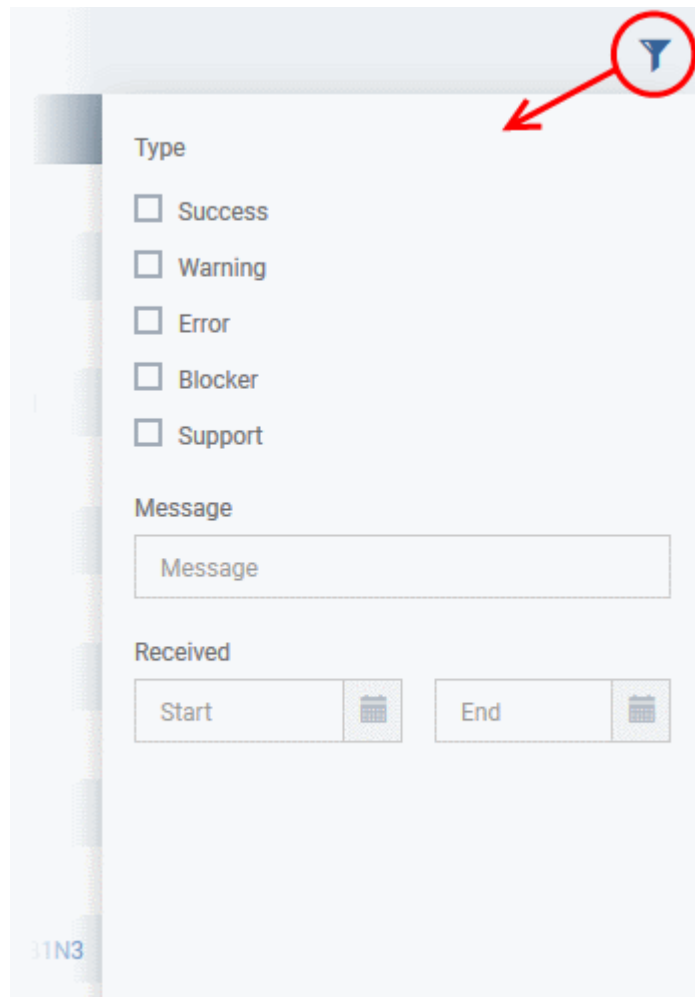
**Tip:** EM can send notifications as emails. Click 'Settings' > 'Email Notifications' to configure them. See **Configuring Email Notifications** if you need help with this.

- To view all notifications, click 'See All Notifications' from the notification drop-down or click 'Notifications' on the left menu under Dashboard.



Notifications - Column Descriptions	
Column Heading	Description
Type	Indicates whether the notification is generated for a successful operation, Warning, Error, Blocker or support event.
Message	The message content of the notification, shortly describing the event.
Received	The date and time at which the notification was received.

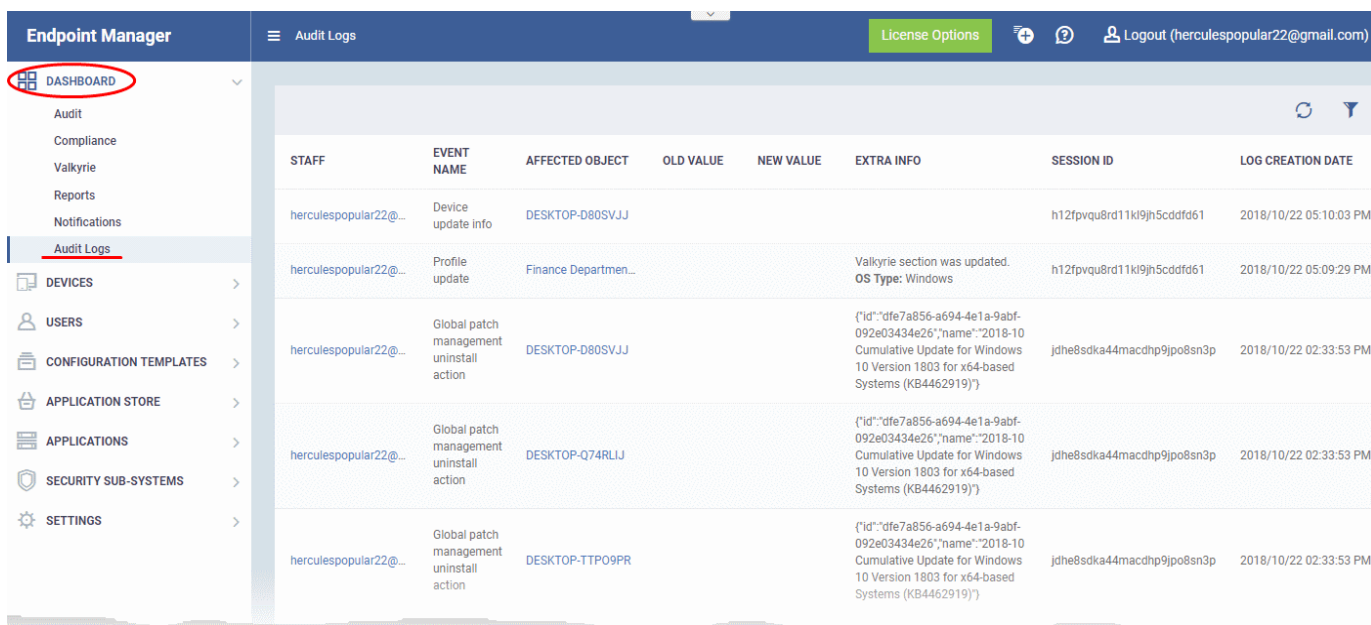
- The message also acts as a shortcut to view the details of the notification. Clicking on a message will open the interface relevant to the message for more details. For example, clicking on 'Malware Found on Windows device' message will open the 'Antivirus Current Malware List' screen with the list of malware identified.
- To sort the filter in ascending/descending order of the date/time at which they were generated, click on the Modified column header.
- To filter or search for specific notification, click the funnel icon at the top right choose the notification type, enter the message to be searched in part or full and/or specify the date range within which the notification was generated.



- To remove notification(s), select them in the list and click 'Delete Notifications' above the table.

## Audit Logs

- Endpoint Manager keeps a log of actions implemented on managed devices by administrators and staff members. These logs can be useful when troubleshooting issues.
- Logged actions include device enrollment, applying a security profile, package installations, remote take-over sessions, restarting a device, removing a device, remote disconnections and changes to containment settings.
- The 'Audit Logs' interface shows all log entries with details such as the name of the staff member who applied the action, the affected device, the action taken and more.
- Click 'Dashboard' > 'Audit Logs' on the left-menu to open the log interface:



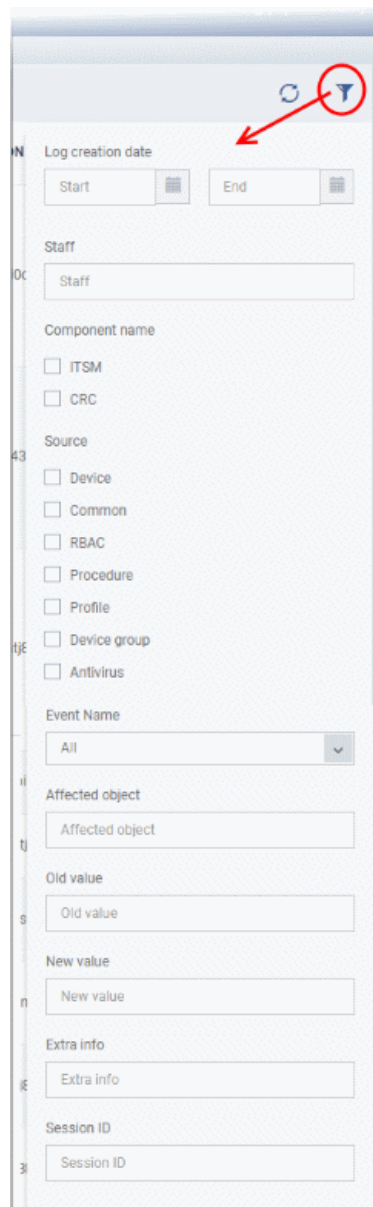
Audit Logs - Column Descriptions	
Column Heading	Description
Staff	Username of the admin or staff member who executed the action. <ul style="list-style-type: none"> <li>Click the staff name to view their details. See <b>View user details</b> if you need help with the details interface.</li> </ul>
Event Name	The action executed on the device. Examples include enrollment of devices, remote installation of Comodo and third party MSI packages, remote take-overs and device removals.
Affected Object	The device, device group, profile or procedure on which the action was executed. <ul style="list-style-type: none"> <li>Click the name to view more details about the item</li> <li>The details interface allows you to view and manage the respective item.</li> </ul>
Old Value	The previous setting or value before the action was implemented.  For example, if a Comodo package is remotely updated, the old version number of the package will be shown here.
New Value	The new setting or value after the action was implemented.  For example, if a Comodo package is remotely updated, the version number of the new package will be shown here.
Extra Info	Additional details about the action. Additional details include devices on which the procedure was run, package installation parameters, profiles applied/removed, malware quarantined, antivirus scans run and so on. <ul style="list-style-type: none"> <li>Script or patch procedures - Click the 'Selected Devices' link to view devices on which the procedure was run.</li> <li>Click a device name in the list to view its 'Device Details' interface</li> </ul>
Session ID	String used to identify the connection session between the device and the EM server during the action.

Log Creation Date	Date and time of the event.
-------------------	-----------------------------

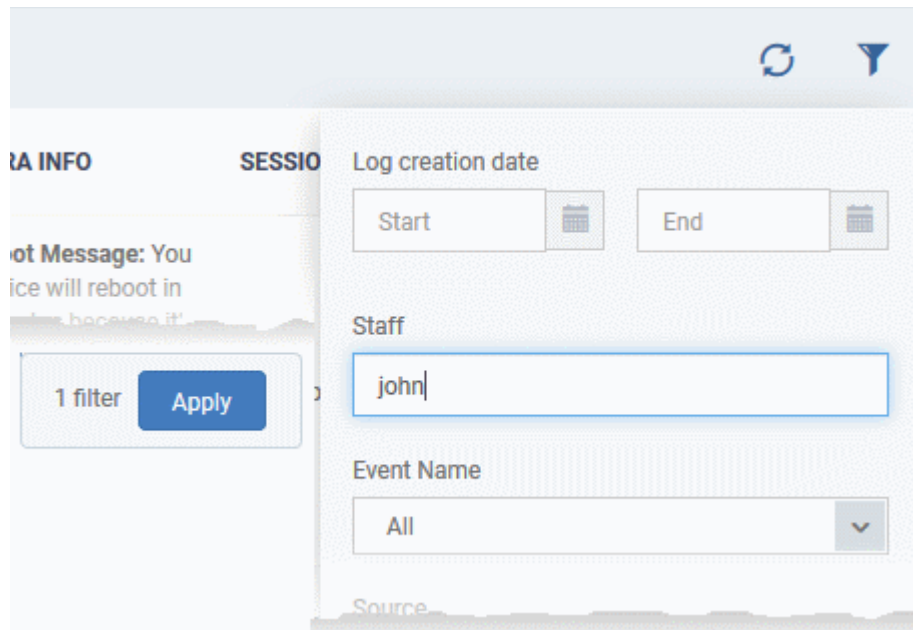
- Click the 'Refresh' icon to load the latest events.

### Search and filter options

- Click any column header (except 'Event Name') to sort items in alphabetical order of items in that column
- To filter or search for a specific event, click the funnel icon at the top right.



- You can filter items by various criteria or search for specific events.
- Click 'Apply' to run your filter.



## 4. Users and User Groups

- One of the first steps in setting up Endpoint Manager is to add users.
- Once you have added users, you can enroll the devices which belong to them. You can enroll iOS, Android, Windows, Mac OS and Linux devices.
- After enrolling a device, you can remotely manage and apply security policies to it. You can create user groups in order to apply policies to multiple devices.
- You can also assign users to a 'role'. A role determines what areas a user can access, and what tasks they can perform. You can assign users one of the built-in roles, or create a custom role with custom privileges.

Users can be added to EM in two ways:

- From the the C1 or ITarian interface
- From the EM interface

A staff member or user added via C1 interface or ITarian can access C1 / ITarian and other licensed modules, including EM. A staff added via EM can only access EM.

- Comodo One customers - See <https://help.comodo.com/topic-289-1-716-8482-Manage-Administrators-and-Roles.html> for details on how to add users via C1.
- ITarian customers -See <https://help.comodo.com/topic-452-1-946-13054-Manage-Admins,-Staff-and-Roles.html> for details on how to add users via ITarian.

The following sections describe how to add users via the EM interface.

The 'Users' menu at the left allows you to add, view and manage users/user groups and to manage roles:

The following sections explain more about each area:

- **Manage Users**
  - **Create New User Accounts**
    - **Manually Add Users**
    - **Import Users from a CSV file**
  - **Enroll Users' Devices for Management**
  - **View the Details of a User**



- **Assign Configuration Profile(s) to a Users' Devices**
- **Remove a User**
- **Manage User Groups**
  - **Create a New User Group**
  - **Edit a User Group**
  - **Assign Configuration Profile to a User Group**
  - **Remove a User Group**
- **Configure Role Based Access Control for Users**
  - **Create a New Role**
  - **Manage Permissions and Assigned Users of a Role**
  - **Remove a Role**
  - **Manage Roles Assigned to a User**

## 4.1. Manage Users

- Click 'Users' > 'User List'
- You can enroll user accounts to EM and assign them roles with differing privilege levels (as 'administrators' or 'end users').
- Devices belonging to a user can only be enrolled after adding their user account to EM.
- Users can be added using any of the following methods:
  - Manually add user accounts
  - Import users from a comma separated values (.csv) file
  - Bulk enroll users and Windows endpoints from Active Directory (AD)

**C1 customers** - Staff added in the C1 interface are automatically added as users in EM.

See <https://help.comodo.com/topic-289-1-716-8482-Managing-Administrators-and-Roles.html> if you need help to add staff/ manage roles in C1.

**ITarian customers** - Staff added in the ITarian interface are automatically added as users in EM.


See <https://help.comodo.com/topic-452-1-946-13054-Manage-Admins,-Staff-and-Roles.html> if you need help to add staff/ manage roles in ITarian.

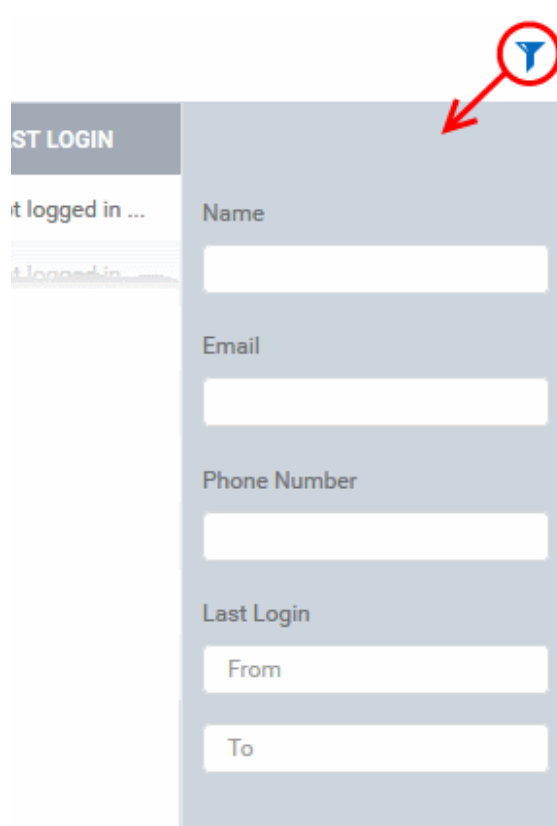
- The 'Users List' shows all user accounts that have been added to EM. Admins can add/manage users, enroll user devices, manage device configuration profiles and more.
- Click 'Users' > 'User List'

Column Heading	Description
Name	The login username of the user. <ul style="list-style-type: none"> <li>Click the username to view and edit user details. See <b>'View the Details of a User'</b> for more info.</li> </ul>
Email	The registered email address of the user. Account activation and device enrollment mails are sent to this address.
Phone Number	The registered phone number of the user.
Number of Devices	The total number of devices enrolled for the user.
Last Login	Date and time that the user most recently accessed EM.
Controls	
Enroll Device	Add user devices for management by EM. You can enroll Android, iOS, Mac, Windows and Linux devices. See <b>Enroll User Devices for Management</b> for more details.
Create User	Manually add user accounts to EM. <ul style="list-style-type: none"> <li>You can only add devices for users after you have enrolled the users themselves.</li> <li>Users can also be designated as administrators.</li> <li>See <b>Manually Add Users</b> for more details.</li> </ul>
Manage Profiles	A profile determines the security configuration and network access rights of a device. See <b>Apply configuration profiles to devices</b> for more details.
Send Password Recovery Email	Reset the password of users who have admin privileges. The password allows them to login to the EM console. See <b>Send password recovery emails for users to access the EM console</b> for more details.
Delete User	Terminate selected user accounts. See <b>Remove a User</b> for more details.

Import User	Add new users by importing them from a comma separated values (CSV) file. See <b>Import Users from a CSV File</b> for more help.
Export	Save a copy of the current user list as a comma separated values (CSV) file. The exported .csv is available in 'Dashboard' > 'Reports' See <b>Export the List of Users</b> for more details.


## Sorting, Search and Filter Options

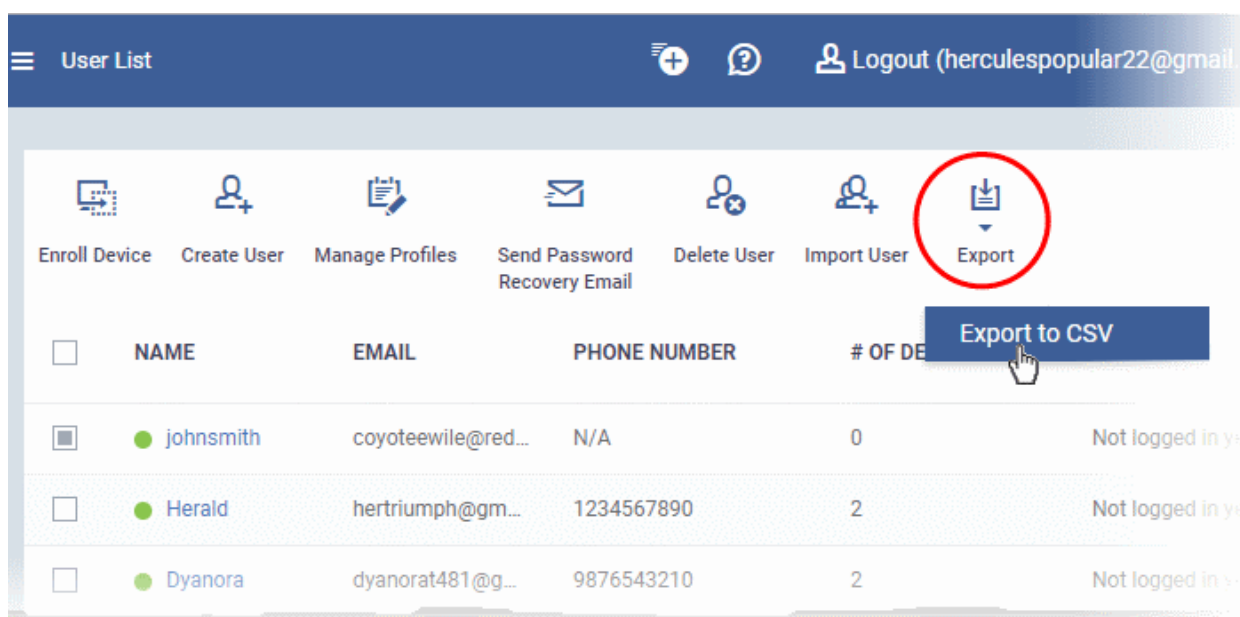
- Click any column header to sort items in ascending/descending order
- Click the funnel button  at the right end to open the filter options.



- To display all items again, clear all filter fields and click 'OK'.
- EM shows 20 results per page when you perform a search. Click the arrow next to 'Results per page' to increase the number up to a max of 200.

## Export the List of Users

- Click 'Users' > 'User List'.
- Click the funnel  icon to filter which records are included in the report.
- Click the 'Export' button above the table then choose 'Export to CSV':



- The CSV file will be available in 'Dashboard' > 'Reports'
- See **Reports** in **The Dashboard** for more details.

Please use the following links to find out more:

- **Create New User Accounts**
  - **Manually Add Users**
  - **Import Users from a CSV File**
- **Enroll Users' Devices for Management**
  - **Enroll Android Devices**
  - **Enroll iOS Devices**
  - **Enroll Windows Endpoints**
  - **Enroll Mac OS Endpoints**
  - **Enroll Linux OS Endpoints**
- **View User Details**
  - **Update the Details of a User**
- **Assign Configuration Profile(s) to a User's Devices**
- **Remove a User**

#### 4.1.1. Create New User Accounts

- You can add new accounts using any of the following methods:
  - **Manually add users.** Add individual users to EM
    - Click 'Users' > 'User List' > 'Create User' to start this process.
    - You need to specify their name, email address, the company they belong to, and their EM role.
    - See **Manually Add Users** if you need help with this.
  - **Import users from .csv file.** Import a list of users from a comma separated values file.
    - Click 'Users' > 'User Import' to start this process
    - The file should contain the following, separated values: 'Username' (mandatory), 'Email address' (mandatory) and 'Phone number' (optional).

- The file should not contain column headers and each line should contain a single user.
- Users are assigned the role you specify in the import dialog.
- See **Import Users from a CSV File** if you need help with this
- New users will receive an enrollment mail which requests they activate their account and set their password.
- You can also bulk enroll users and Windows endpoints from Active Directory (AD) group policy. See **Bulk Enrollment of Devices** and **'Import User Groups from LDAP'** for more details.

**C1 customers** - Staff added in the C1 interface are automatically added as users in EM.

See <https://help.comodo.com/topic-289-1-716-8482-Managing-Administrators-and-Roles.html> if you need help to add staff/ manage roles in C1.

**ITarian customers** - Staff added in the ITarian interface are automatically added as users in EM.

See <https://help.comodo.com/topic-452-1-946-13054-Manage-Admins,-Staff-and-Roles.html> if you need help to add staff/ manage roles in ITarian.

**Device licenses:** User devices can only be enrolled after the user has been added to the system.

- Each device license covers one device per user
- You need an additional license for each mobile device or endpoint you add for the same user. You can purchase additional licenses from the Comodo website if required. See **View and Manage Licenses** for more details.


The following sections explain how to:

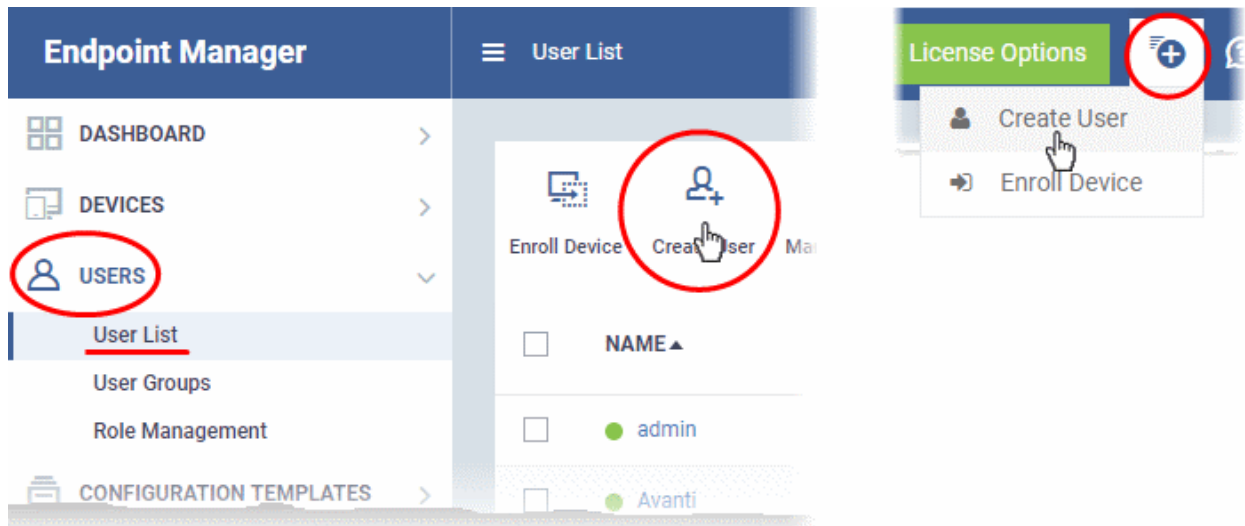
- **Manually add users**
- **Import users from a CSV file**

#### 4.1.1.1. Manually Add Users

- Click 'Users' > 'User List' > 'Create User' button
- You can add new users by specifying their name, email address and other details.
- You can also specify the role of the new user
- Once added, you can enroll Windows, Android, iOS, Mac OS and Linux devices for the user.
- New users with admin roles will receive an account activation email. They can login to Endpoint Manager after activating their account.

##### To add a new user

- Click 'Users' > 'User List'
- Click the 'Create User' button
- or
- Click the 'Add' button  at the menu bar and choose 'Create User'.



The 'Create New User' appears:

### Create New User

**User Name\***  
Oxford

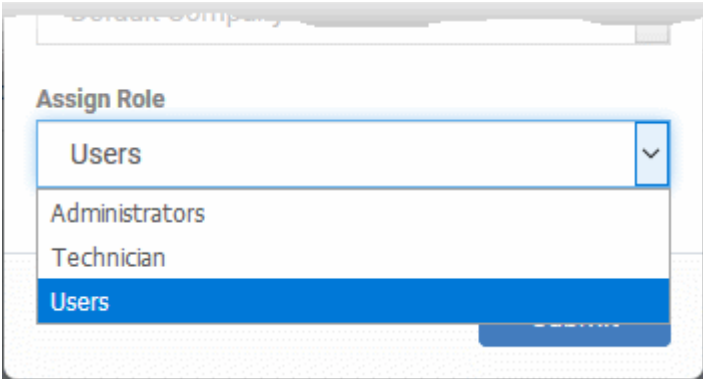
**Email\***  
mmoxford@yahoo.com

**Phone Number**  
9876543210

**Company\***  
Default Company

**Assign Role**  
Users

**Submit**

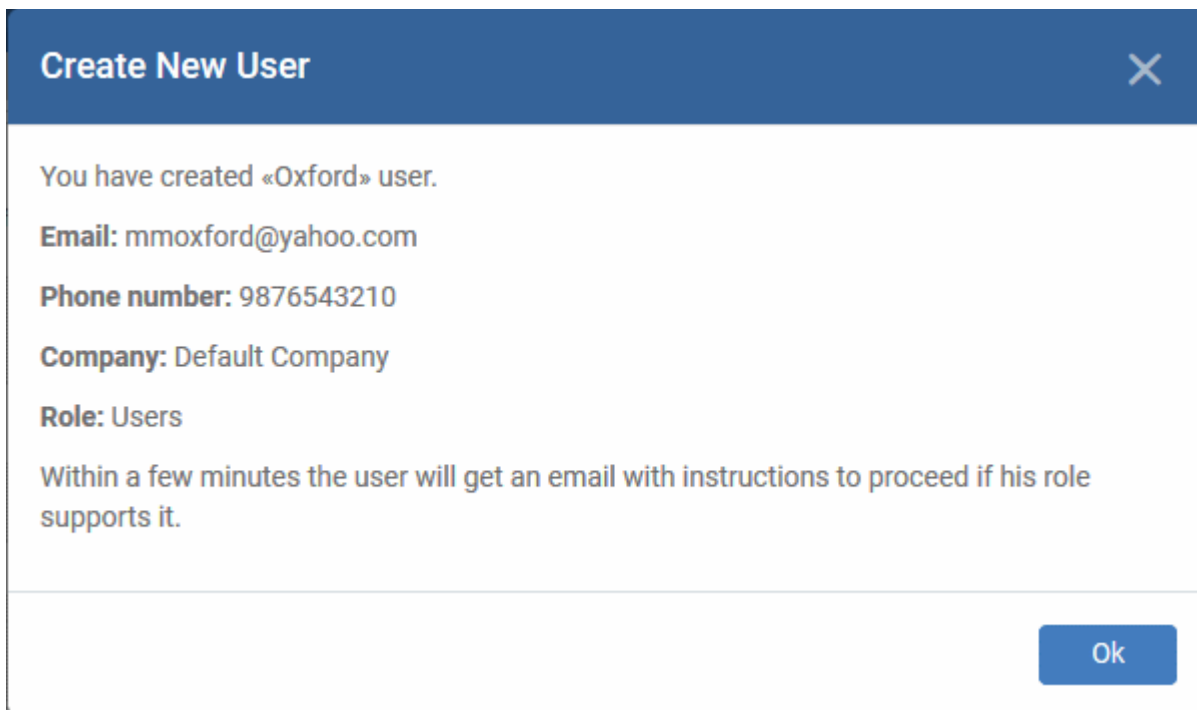
'Create new user' Form - Table of Parameters		
Form Element	Type	Description
Username	Text Field	Enter the login username for the user.
Email	Text Field	The email address of the user for registration to EM. Account and device enrollment mails will be sent to this address. Please ensure users respond to the device enrollment mail from the device(s) you intend to enroll.
Phone Number (Optional)	Text Field	The contact number of the user.
Company	Drop-down	Choose the company to which the user belongs. <ul style="list-style-type: none"> <li>Comodo One MSP and ITarian MSP customers can add users from Companies/Organizations enrolled in their account.</li> <li>Comodo One Enterprise, ITarian Enterprise and EM stand-alone customers can only add users to the default company.</li> </ul>
Assign role	Drop-down	<p>Select the role to be assigned to the new user from the 'Assign role' drop-down.</p>  <p>EM ships with four default roles:</p> <ul style="list-style-type: none"> <li>Account Admin - Can login to EM and access all management interfaces. You cannot assign account admin to a user. The role is automatically assigned to the person who opened the C1 or ITarian account. This role is not editable.</li> <li>Administrators - Can login to EM and access all management interfaces. This role can be edited as required.</li> <li>Technician - Can login to EM and access all management interfaces. The technician role has fewer privileges than the administrator role. This role can be edited as required.</li> <li>Users - Cannot login to EM. If required, you can change role permissions to have access to the admin console. See <a href="#">Configure Role Based Access Control for Users</a> for more details.</li> </ul> <p>You can create custom roles which grant access to selected areas of EM. These roles can be assigned to users as required. All roles created in EM and C1 or ITarian will appear in the 'Assign Role' drop-down when adding a new user. See <a href="#">Configure Role Based Access Control for Users</a> for more details.</p>



- Enter the details, select the role for the new user and click the 'Submit' button.

**Tip:** User roles can be changed at any time in the 'Role Management' interface ('Users' > 'Role Management'). See **Managing Permissions and Assigned Users of a Role** if you need help with this.

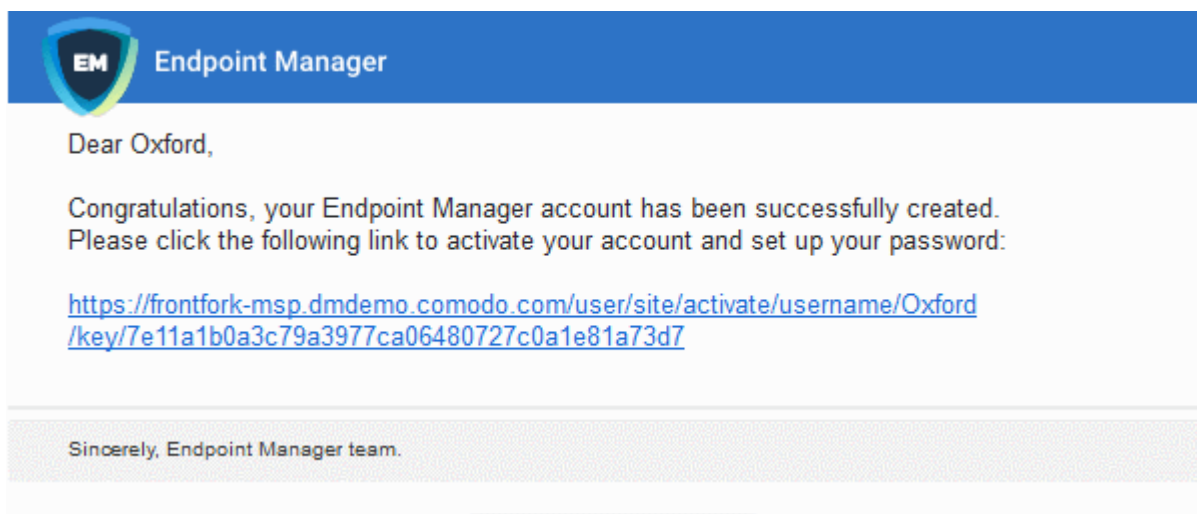
A confirmation will be displayed:



- Repeat the process to add more users.

Successfully added users will be listed in the 'Users' interface. The user's devices can now be enrolled to EM.

Endpoint Manager will send account activation mails to the newly added administrators. They can activate their account and set their login password by clicking the link in the email. An example mail is shown below:



Upon activation, the administrator will be able to login to EM with their user-name and password.

**Note:** By default, enrolled users with the role 'Users' do not receive an account activation mail nor gain console login rights. Only personnel with the default roles 'Administrator', 'Technician', or a custom role with access to the administrative console, will receive an activation email.

Should you wish, you can change role permissions to allow the default 'User' role to have access to the admin

console. See [Configure Role Based Access Control for Users](#) for more details.

## 4.1.1.2. Import Users from a CSV File

- Click 'Users' > 'User List' > 'Import User'
- You can load a list of new users by importing them from a comma separated values (CSV) file
- You can also specify the role to be assigned to all users in the list
- After adding a user, you can enroll Windows, Android, iOS, Mac OS and Linux devices for them

### Process in brief

- Create a CSV file containing the list of users using spreadsheet applications like Microsoft Excel or OpenOffice Calc and save it on your admin computer
- The file should contain the following, separated values: 'Username' (mandatory), 'Email address' (mandatory) and 'Phone number' (optional).
- The file should not contain column headers and each line should contain a single user.
- In the EM admin console, click 'Users' > 'User List' > 'Import User'
- Browse to and select the CSV file you want to import
- Select a company and a role for the imported users
- Upload the file
- The users will be imported and enrolled to EM

### Requirements for .csv file

There are two mandatory fields and one optional field per user account:

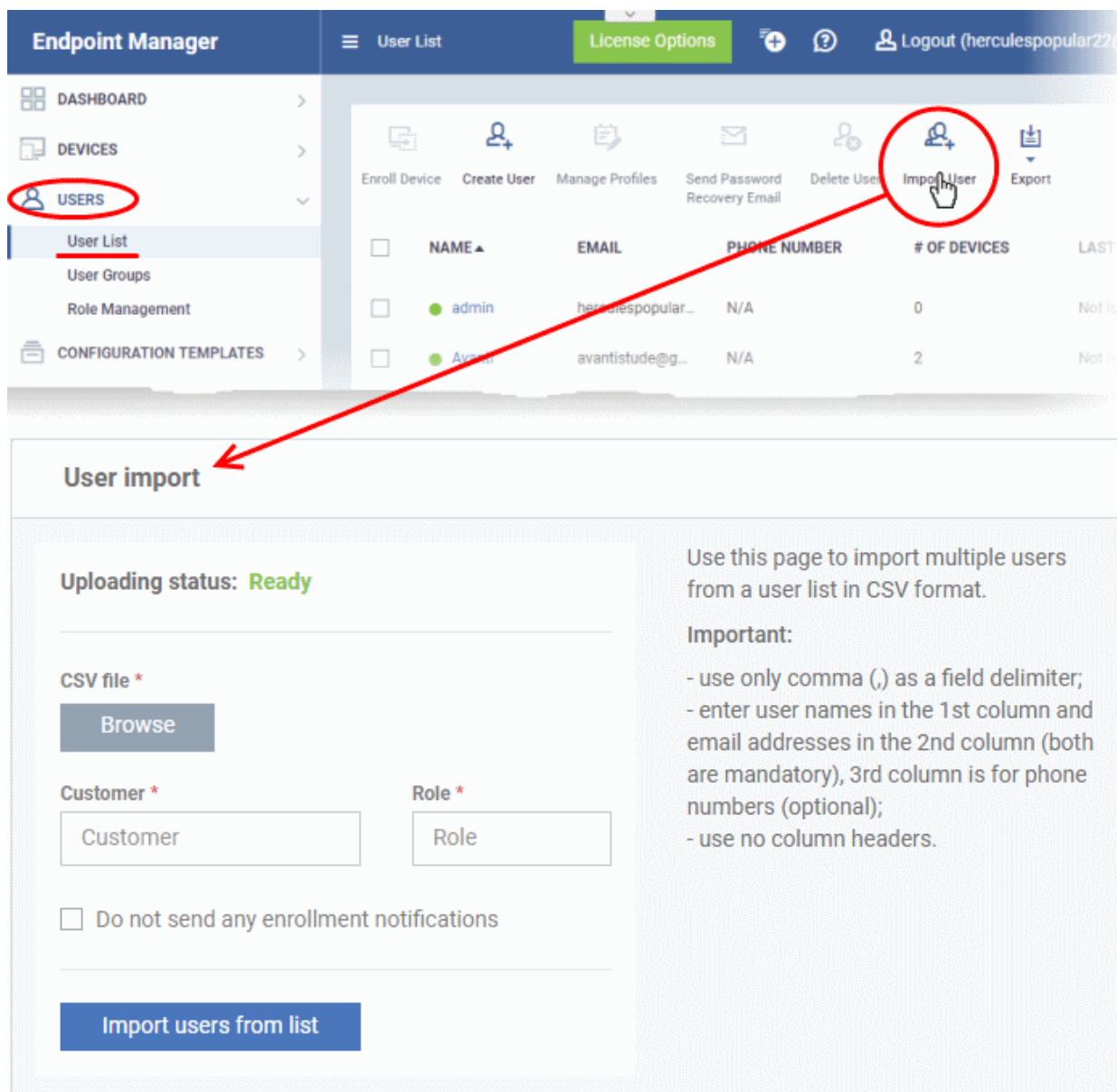
- Username (mandatory)
- Email address (mandatory)
- Phone number (optional)
- Each line in the CSV file should contain one user entry
- The CSV file should not contain column headers

Example:

```
"james", "james@ditherscons.com", "9876543210"
```

### To import users from a list

- Click 'Users' > 'User List'
- Click 'Import User' on the top



'User Import' Form - Table of Parameters	
Parameter	Description
CSV File	Click 'Browse' navigate to the location of the CSV file and select the file
Company	<p>The company to which the users belongs.</p> <ul style="list-style-type: none"> <li>Comodo One MSP and ITarian MSP customers can add users from Companies/Organizations enrolled in their account.                             <ul style="list-style-type: none"> <li>Start entering first few letters of the company name and select the company from the options</li> </ul> </li> <li>Comodo One Enterprise, ITarian Enterprise and EM stand-alone customers can only add users to the default company.                             <ul style="list-style-type: none"> <li>Enter 'Default Company' in the Company field</li> </ul> </li> </ul>
Role	<p>The role to be assigned to all users in the list.</p> <ul style="list-style-type: none"> <li>Start entering first few letters of the name of the role and select the role from the options</li> </ul>

	<p>EM ships with four default roles:</p> <ul style="list-style-type: none"> <li>• Account Admin - Can login to EM and access all management interfaces. You cannot assign account admin to a user. The role is automatically assigned to the person who opened the C1 or ITarian account. This role is not editable.</li> <li>• Administrators - Can login to EM and access all management interfaces. This role can be edited as required.</li> <li>• Technician - Can login to EM and access all management interfaces. The technician role has fewer privileges than the administrator role. This role can be edited as required.</li> <li>• Users - Cannot login to EM. If required, you can change role permissions to have access to the admin console. See <b>Configure Role Based Access Control for Users</b> for more details.</li> </ul> <p>You can create custom roles which grant access to selected areas of EM. These roles can be assigned to users as required. All roles created in EM and C1 or ITarian will appear in the 'Role' drop-down when importing new users. See <b>Configure Role Based Access Control for Users</b> for more details.</p>
Do not send any enrollment notifications	<p>Select whether or not the account creation notification mail or account activation mail is to be sent to the imported users.</p> <p>Note: The notification mails will not be sent if you select 'Users' role for the new users.</p>

- Configure the parameters and click 'Import users from List'

### User import

**Uploading status:** In progress

---

**CSV file \***

Browse

**Customer \***

**Role \***

Do not send any enrollment notifications

---

Import users from list

Discard import

Use this page to import multiple users from a user list in CSV format.

**Important:**

- use only comma (,) as a field delimiter;
- enter user names in the 1st column and email addresses in the 2nd column (both are mandatory), 3rd column is for phone numbers (optional);
- use no column headers.

The progress will be displayed.

- If you want to stop the import process, click 'Discard Import'
- Once the users have been imported, you can enroll devices for them.
- Users will receive an account activation mail if they are assigned a role that has access to the admin console. This includes the standard 'Administrator' and 'Technician' roles.
  - Tip - Enable 'Do not send any enrollment notifications' in the import screen if you do not want to

send these mails.

- Users click the link in the mail to activate their account and configure their password.
- You will receive an error report if the import fails. See the following screenshot:

**User import**

Uploading status: **Failed**

CSV file \*  
Browse User List 2018-09-17 03-59 PM....

Customer \* Saddle and Pedals Role \* Users

Do not send any enrollment notifications

Import users from list Clear errors report

Use this page to import multiple users from a user list in CSV format.

**Important:**

- use only comma (,) as a field delimiter;
- enter user names in the 1st column and email addresses in the 2nd column (both are mandatory), 3rd column is for phone numbers (optional);
- use no column headers.

Errors report:

Export

LINE	NAME	EMAIL	PHONE NUMBER	ERRORS
1	Name	Email	Phone number	Not valid email address entered. Please re-enter.; Phone number should not be longer than 20 characters. It should contain minimum 7 digits and may also contain symbols ":", "+", "-", "(" and ")"
2	smith	smith@ffmail.com	N/A	Phone number should not be longer than 20 characters. It should contain

- The report can help pinpoint errors so you can rectify them.
  - Click 'Export' to download the error report in .csv format
  - Click 'Clear errors report' to remove the report and retry the import.


## 4.1.2. Enroll User Devices for Management

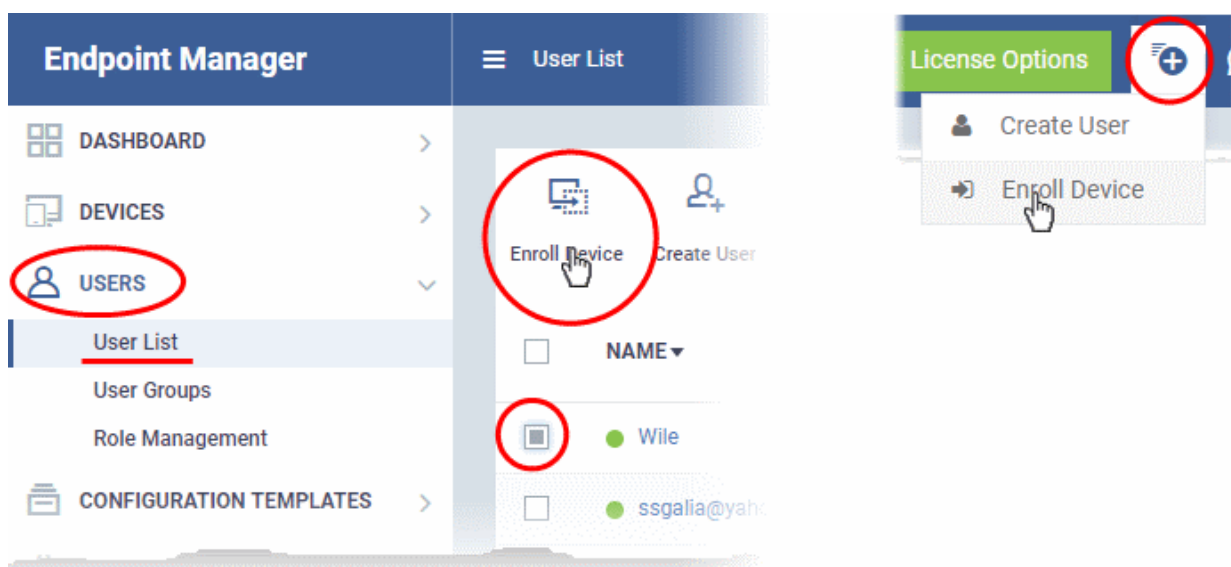
Adding devices to Endpoint Manager (EM) allows you to centrally manage those devices. Reminder - you must first have added users before you can add their devices.



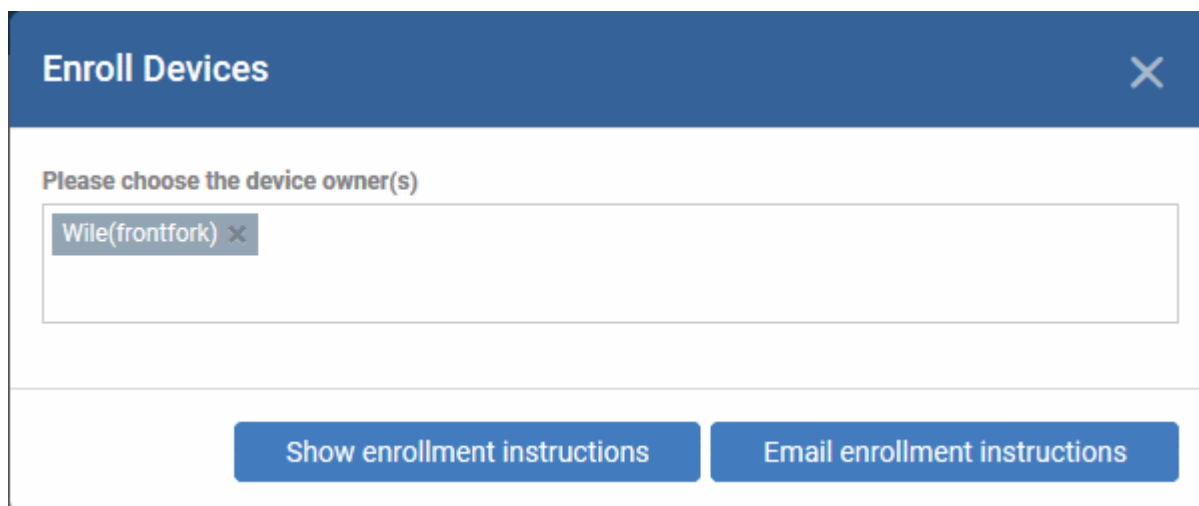
- Click 'Users' > 'User List' > select users > click 'Enroll Device'.
- Complete the enrollment form then click 'Email enrollment instructions'
- The user will receive an email which they should open on the device itself.
- The mail contains an enrollment token. Multiple devices can be enrolled with the same token by the user simply responding to the mail from each device. Each token is valid for 72 hours.
- Each license covers one device per user. You will need additional licenses for each device you add for a user. See **View and Manage Licenses** if you need help with this.
- You can also bulk enroll users and Windows endpoints by creating a software installation policy in Active Directory (AD). See **Enroll Windows Devices Via AD Group Policy** and **Import User Groups from LDAP** for more details.
- This section explains how to enroll devices for multiple users in the user list

## To enroll devices

- Click 'Users' > 'User List' on the left
- Select users for whom you want to enroll devices and click the 'Enroll Device' button above the table
- Or
- Click the 'Add' button  at the menu bar and choose 'Enroll Device'.

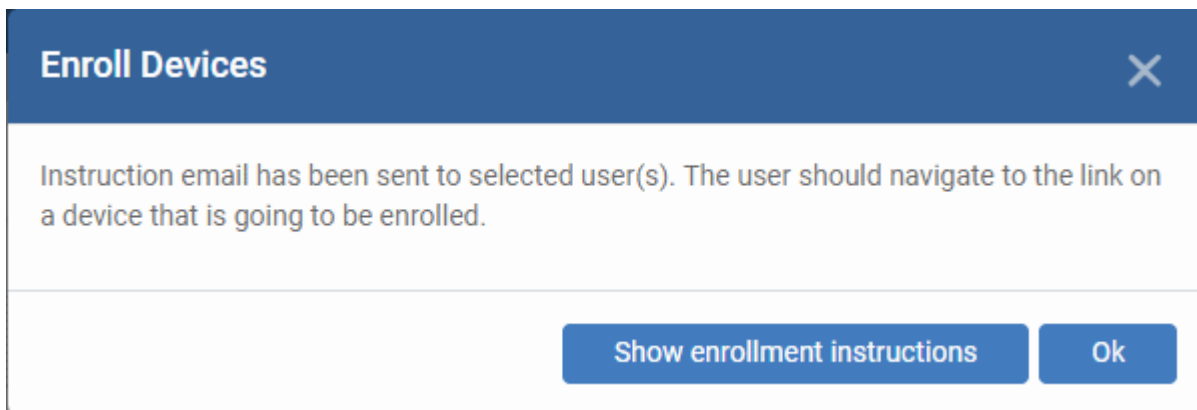


The 'Enroll Devices' dialog will open:

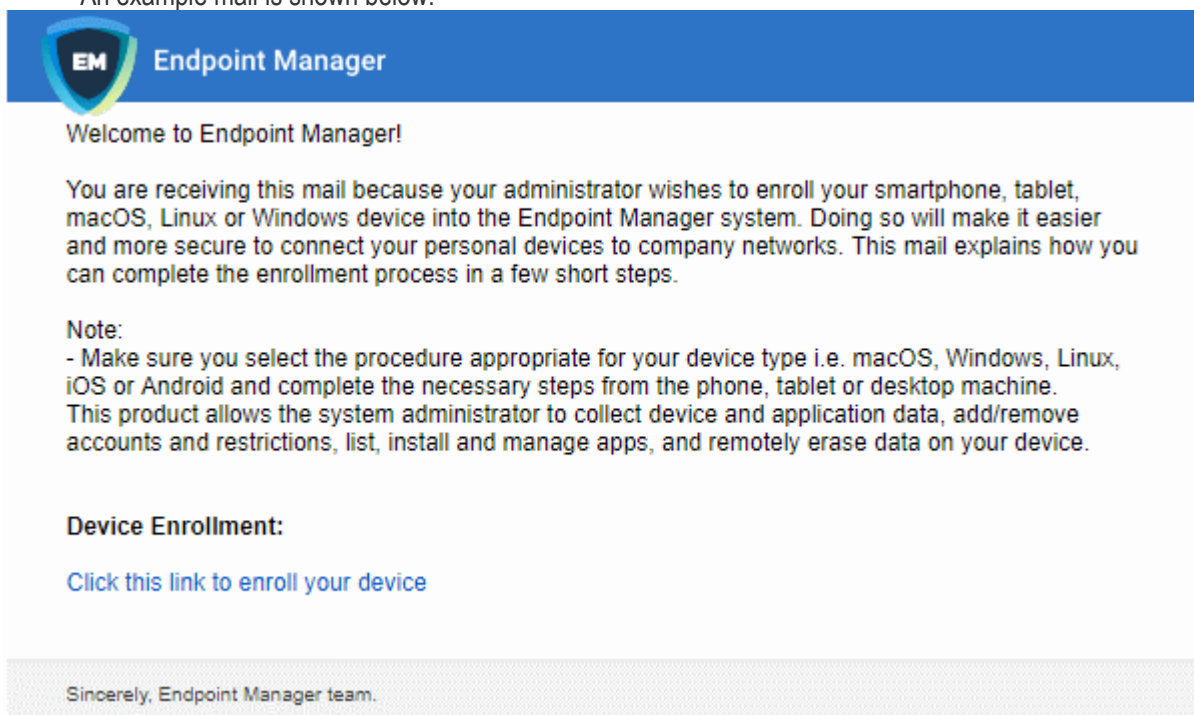


- **Choose device owners** - This is pre-populated with the users you selected in the 'User List' interface. You can add more users by typing the few letters of their name.
- **Show enrollment instructions** - Displays device enrollment guidance on-screen. This is useful for admins who want to enroll their own devices.
- **Email enrollment instructions** - Sends the enrollment email to the selected users. The mail contains instructions on how to add their device to Endpoint Manager. They should open the mail on the device they want to enroll.

You will see a confirmation message as follows:




- An example mail is shown below:



- Clicking the link will take the user to a page which lets them download the communication client/profile:





## Welcome to Endpoint Manager!

You are receiving this mail because your administrator wishes to enroll your smartphone, tablet, macOS, Linux or Windows device into the Endpoint Manager system. Doing so will make it easier and more secure to connect your personal devices to company networks. This mail explains how you can complete the enrollment process in a few short steps.

**NOTE:**  
Make sure you select the procedure appropriate for your device type i.e. mac OS, Windows, Linux, iOS or Android and complete the necessary steps from the phone, tablet or desktop machine.

This product allows the system administrator to collect device and application data, add/remove accounts and restrictions, list, install and manage apps, and remotely erase data on your device.

### FOR WINDOWS DEVICES

Enroll using this link:  
<https://frontfork-frontfork-msp.dmdemo.comodo.com:443/enroll/windows/msi/token/1460571ef0c184504c02a9587c67ba36>

### FOR APPLE DEVICES

1) Enroll opening the following link with any browser on your device:  
<https://frontfork-frontfork-msp.dmdemo.comodo.com:443/enroll/apple/index/token/1460571ef0c184504c02a9587c67ba36>

2.a) [ONLY for macOS Devices]  
When you have installed *itsm.mobileconf* file, use this link to download and install Communication Client:  
<https://static.dmdemo.comodo.com/download/itsmagent-installer.pkg>

2.b) [ONLY for iOS Devices]  
When your profile has been enrolled, you will be requested to install Communication Client. Upon completion of the installation, tap the green icon labeled "Run after installation" and follow on-screen instructions to complete enrollment process.

### FOR ANDROID DEVICES

Download and install Communication Client by tapping the following link:  
<https://play.google.com/store/apps/details?id=com.comodo.mdm>

Upon completion of the installation, enroll using this link:  
<https://frontfork-frontfork-msp.dmdemo.comodo.com:443/enroll/android/index/token/1460571ef0c184504c02a9587c67ba36>

### FOR LINUX DEVICES

Download and install Communication Client by tapping the following link:  
<https://frontfork-frontfork-msp.dmdemo.comodo.com:443/enroll/linux/run/token/1460571ef0c184504c02a9587c67ba36>  
Use the same link for manual enrollment if required.

1) Change installer mode to executable:

```
$ chmod +x ($installation file$)
```

2) Run installer with root privileges.

```
$ sudo ./$($installation file$)
```

### MANUAL ENROLLMENT

Use the following settings:

Host: **frontfork-frontfork-msp.dmdemo.comodo.com**  
Port: **443**  
Token: **1460571ef0c184504c02a9587c67ba36**

Sincerely, Endpoint Manager team.

- Users should click the links which correspond to their device operating system.

**Tip:** Here's two other ways you can enroll devices for users:

- Click 'Users' > 'User List' > click on the name of a user to open their details screen > click 'Enroll Device'
- Click 'Devices' > 'Device List' > 'Enroll Device'

The following sections contain help per device operating system:

- **Enroll Android Devices**
- **Enroll iOS Devices**
- **Enroll Windows Endpoints**
- **Enroll Mac OS Endpoints**
- **Enroll Linux OS Endpoints**

**Note** - See **Appendix 1** for a list of ports that Endpoint Manager uses to communicate with endpoints and Comodo servers.

## 4.1.2.1. Enroll Android Devices

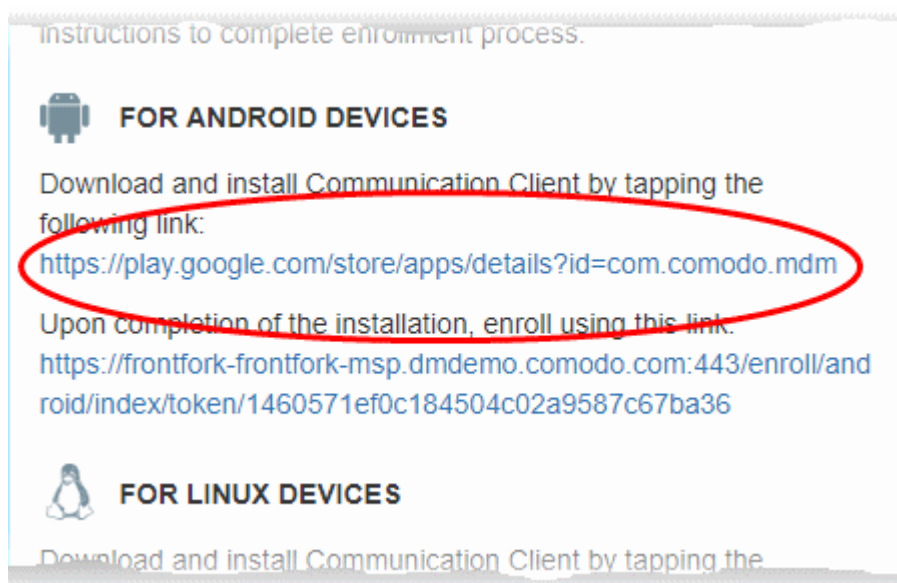
- After you have **completed the setup process**, Endpoint Manager will send an email to your users containing device enrollment instructions.
- Users should open the mail on the device itself.

Android device enrollment involves two steps:

- **Step 1 - Download and Install the communication client**
- **Step 2 - Configure the client**

### Step 1 - Download and Install the communication client

- Open the mail on the device itself then tap the enrollment link to open the device setup page
- On the setup page, click the communication client download link under 'For Android Devices':



- You will be taken to the Google play store to download and install the client.

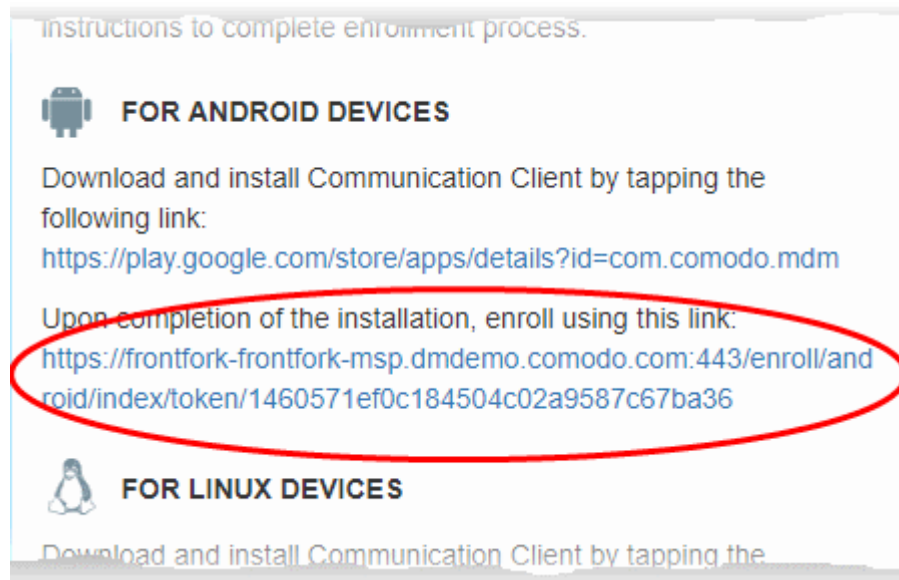
### Step 2 - Configure the communication client

The communication client can be configured to connect to the Endpoint Management server in two ways:

- **Automatic Configuration**
- **Manual Configuration**

## Automatic Configuration

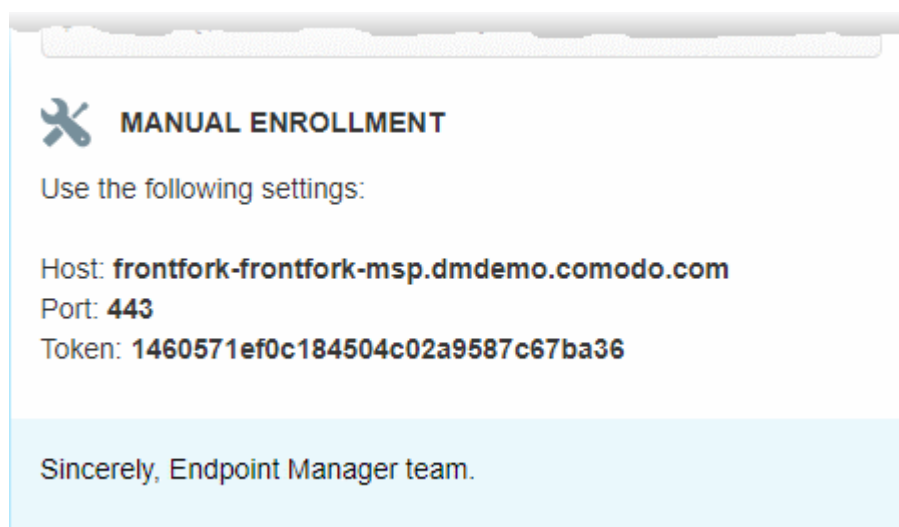
- After installation in step 1, go back to the setup page and tap the enrollment link as shown below:



The communication client will be automatically configured and the **End User License Agreement** screen will appear.

## Manual Configuration

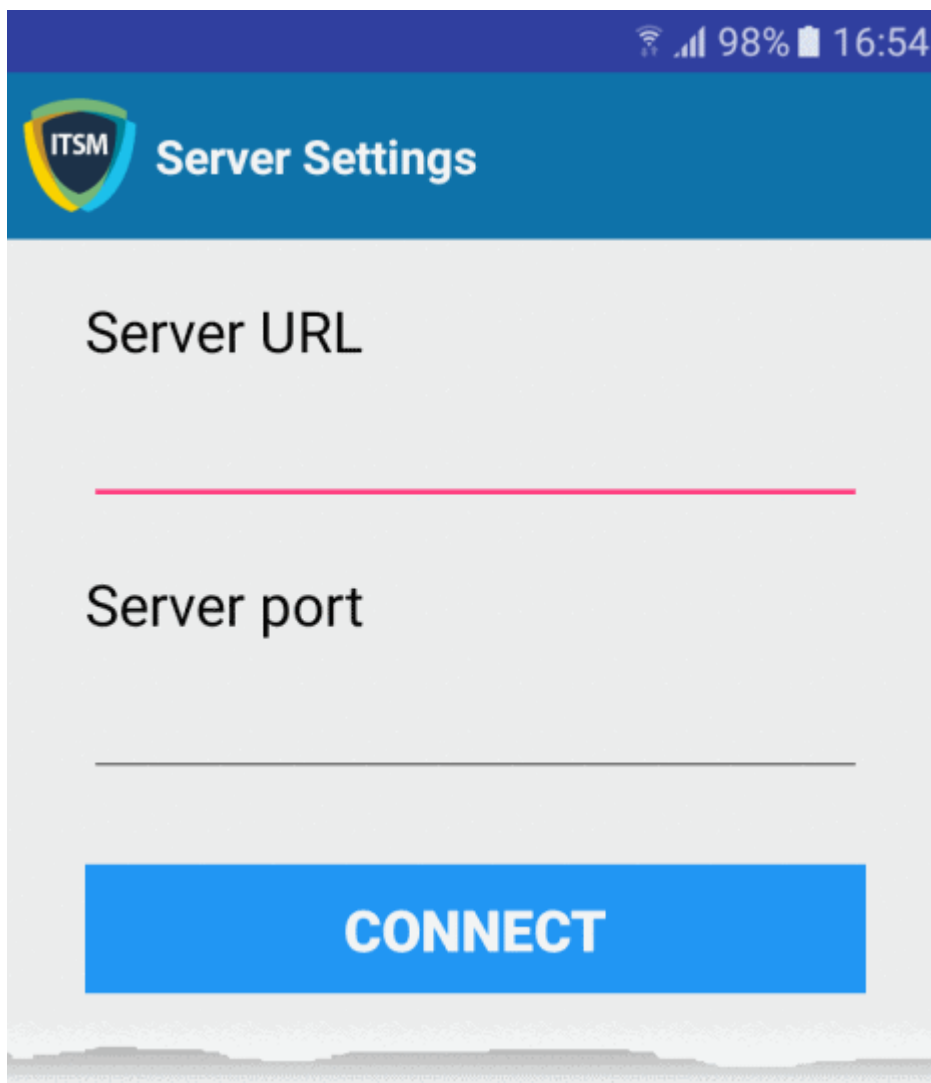
Users can manually configure the communication client to connect to Endpoint Manager by entering the server settings and the token ID. You can find these items on the setup page:



### To manually configure the client

- Open the client by tapping the client icon on your device. This will start the client configuration wizard where you can enroll the device by entering the server settings and unique token.

## Server Settings



Server Settings - Table of Parameters		
Form Element	Type	Description
Server URL	Text Field	Enter the url of the EM server contained in the mail.
Server port	Text Field	Enter the connection port of the server for your device to connect, as specified in the mail. (Default = 443)

- Tap the 'Connect' button. The 'Login' screen will open

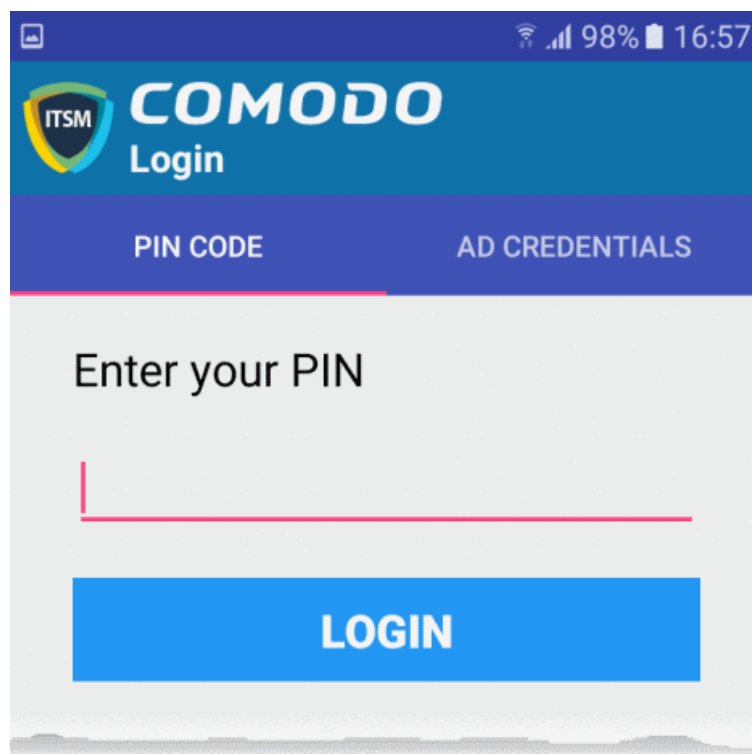
## Login to the Console

You can login to the EM console via the Android app in two ways:

- **Enter the personal identification number (PIN) contained in the email**
- OR
- **Enter your username and password**

### Enter your PIN

- Open the communication client
- Open the **'Pin Code'** tab on the login screen:



- Enter the PIN (aka 'Token' code) from the enrollment email
- Tap 'Login'. The **End User License Agreement** screen will appear.

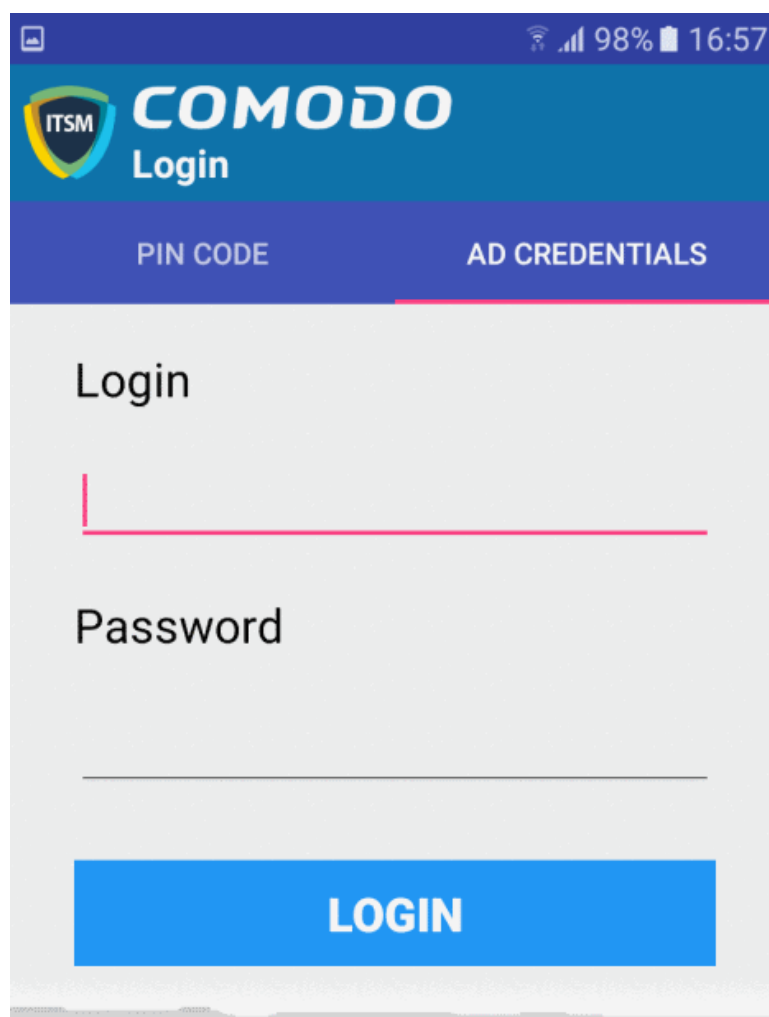
### Enter your username and password

- Tap the '**AD Credentials**' tab on the 'Login' screen

**Prerequisite:** Enrollment of user devices using their Active Directory (AD) credentials requires:

- The AD server to be integrated with EM
- The users to be imported from AD to EM.

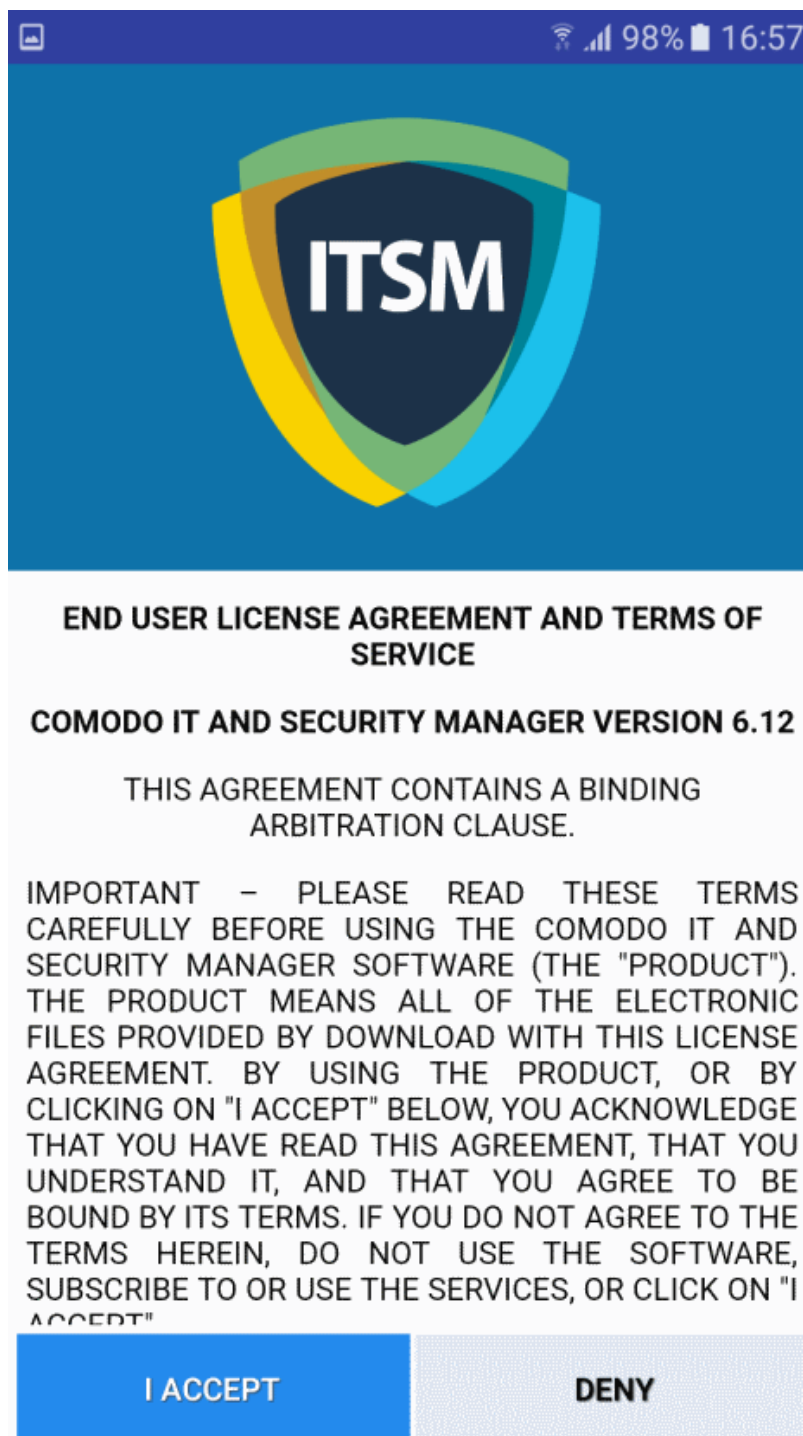
See **Import User Groups from LDAP** for more details on this process.



- Enter the username and password you use to login to your network domain.
- Tap the 'Login' button

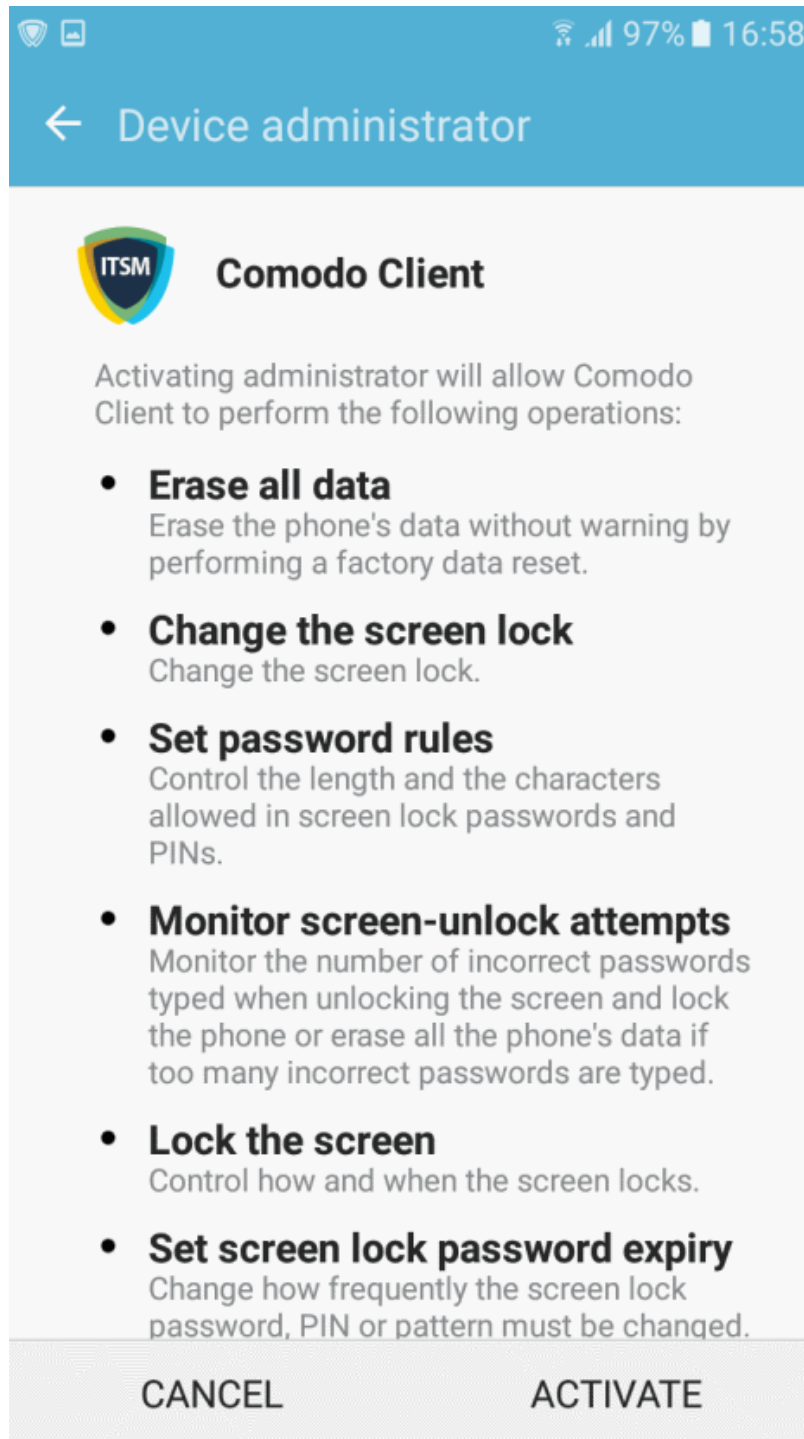
## **End User License Agreement**

The EULA screen will appear.



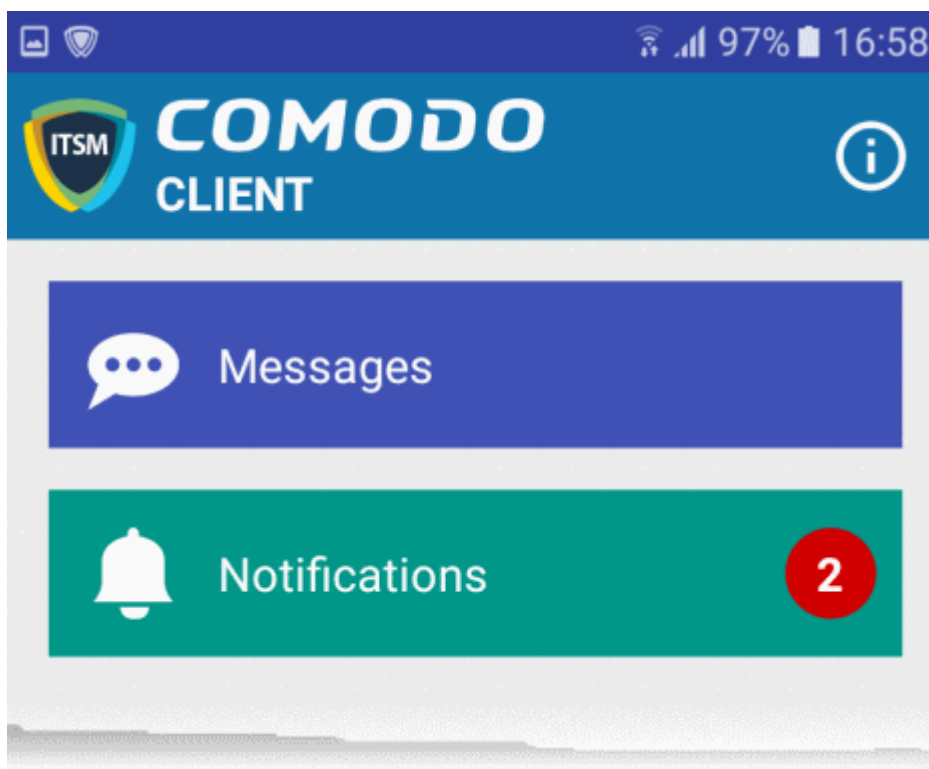
- Scroll down the screen, read the EULA fully and click the 'I ACCEPT' button at the bottom. This will open the app activation screen. Activation requires the app is given some admin privileges:





- Tap 'Activate'.

The communication client home screen will open:



The device is now enrolled to EM. A security profile will be applied to the device as follows:

- If the user is already associated with a configuration profile in EM then those profiles will be applied to the device. See [Assign Configuration Profile\(s\) to User Devices](#) and [Assign Configuration Profiles to a User Group](#) for more details.
- If no profiles are defined for the user then the default Android profile(s) will be applied to the device. See [Manage Default Profiles](#) for more details.

The device can now be remotely managed from the EM console.

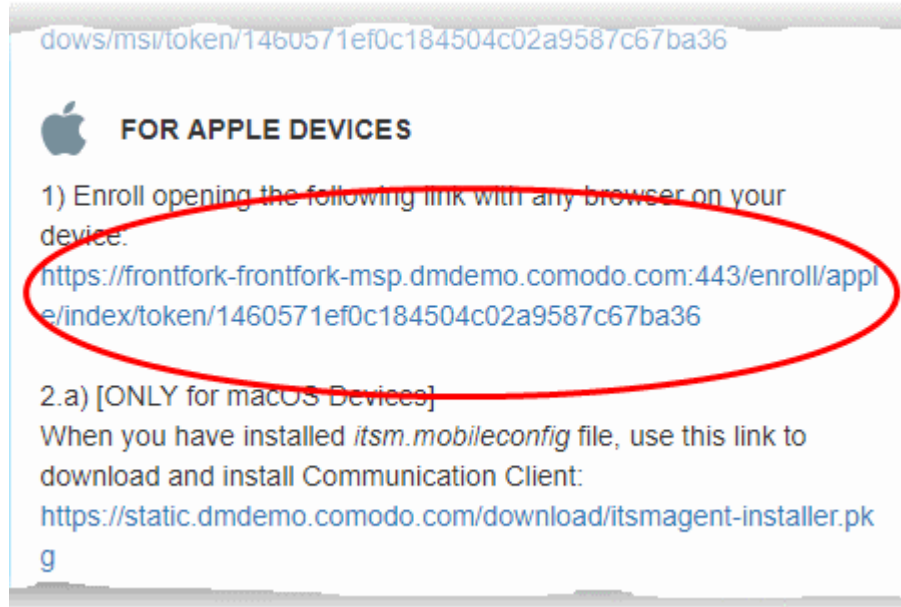
#### 4.1.2.2. Enroll iOS Devices

- After you have **completed the setup process**, Endpoint Manager will send an email to your users containing device enrollment instructions.
- Users should open the mail on the device itself.

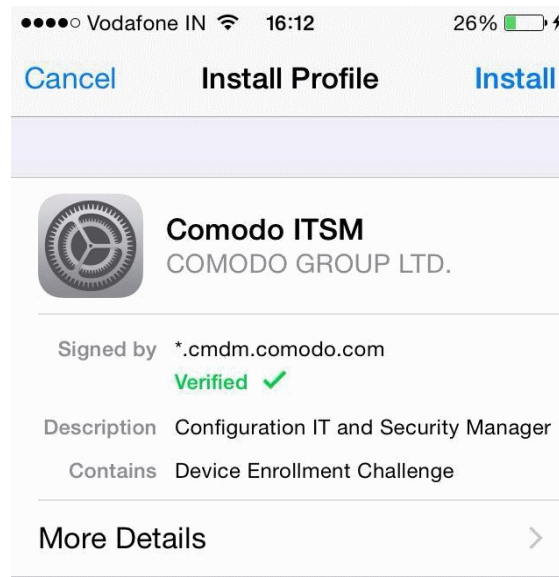
**Note:** Users must keep their iOS device switched on at all times during enrollment. Enrollment may fail if the device auto-locks/ enters standby mode during the certificate installation or enrollment procedures.

## To enroll an iOS device

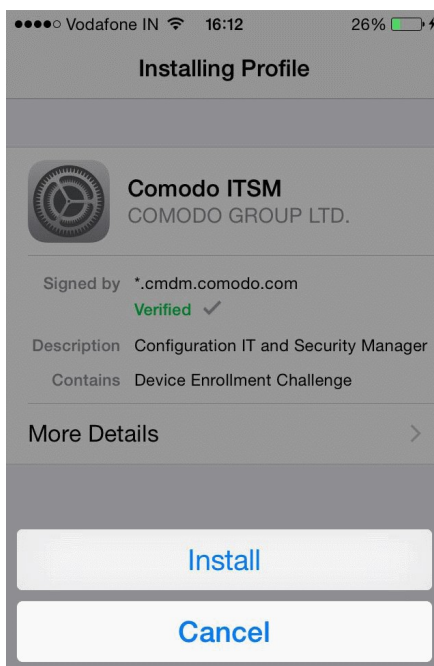
- Open the mail on the device itself then tap the Apple enrollment link to open the device setup page
- On the setup page, click the install link for Apple devices:



The 'Install Profile' wizard will start.

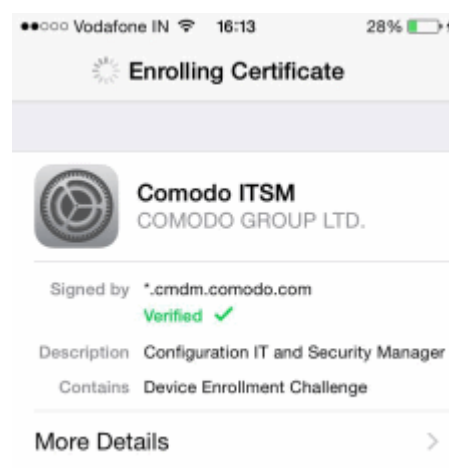
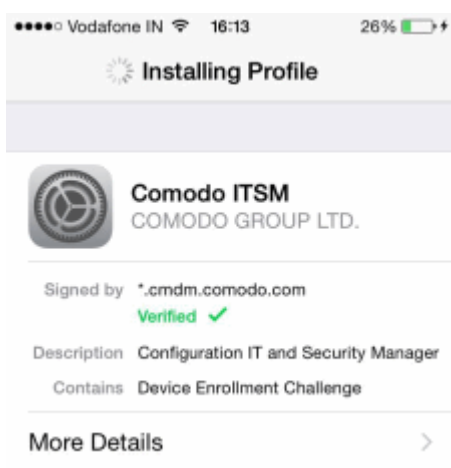


- Tap 'Install'. A confirmation dialog will be displayed.

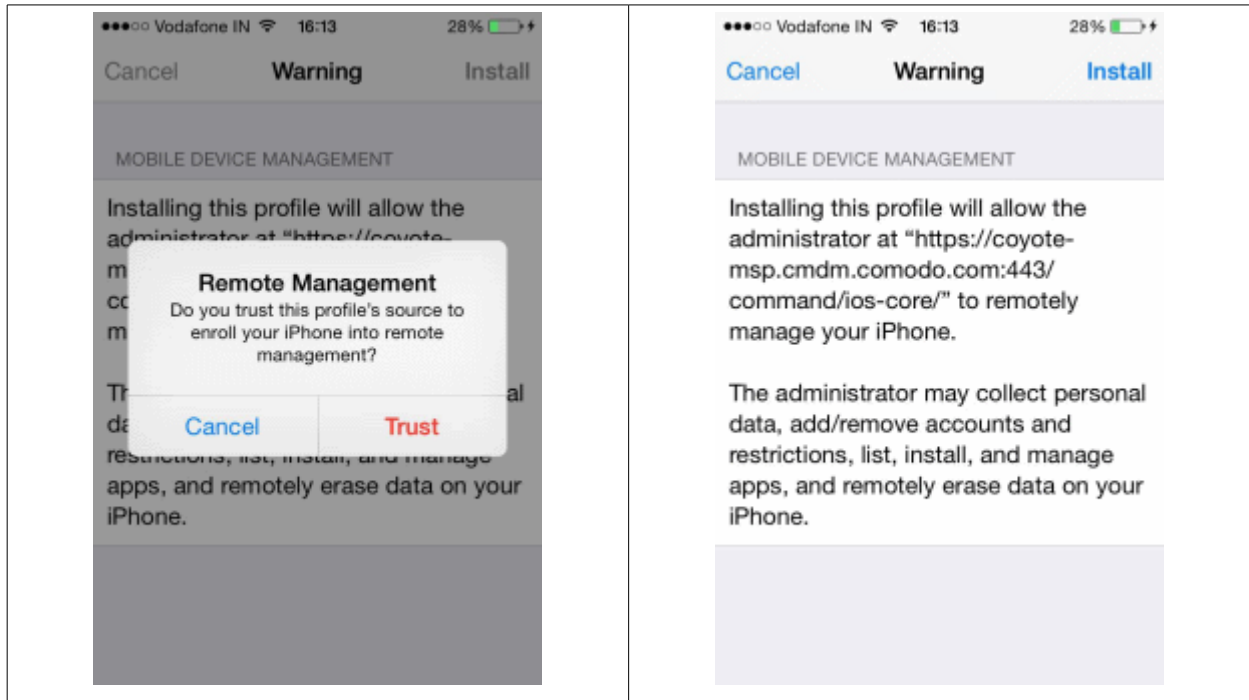


- Tap 'Install'.

The EM Profile installation progress will be displayed.



- A privacy warning screen with the privileges granted to the administrator by installing this profile will be displayed during the installation process. Read the warning fully and tap 'Trust' to proceed.



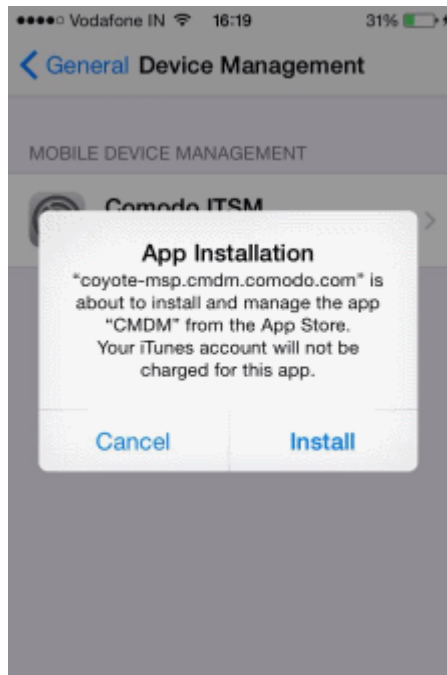
- Click Install in the 'Warning' screen

The installation process will continue and when completed the 'Profile Installed' screen will be displayed.

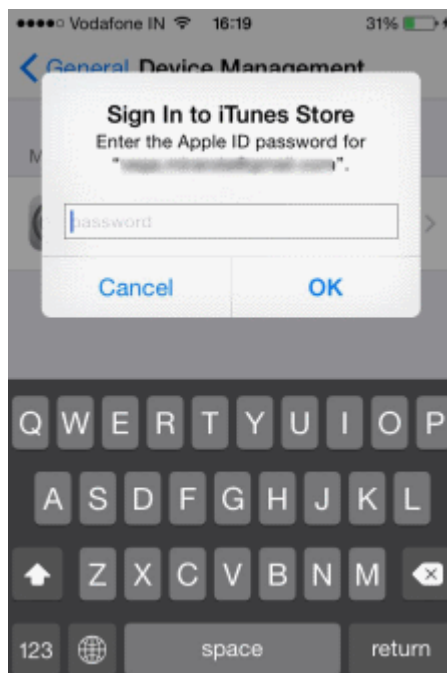


- Tap 'Done' to finish the EM profile installation wizard.

After installing the profile, the EM client app installation will begin. The app is essential for features such as app management, GPS location and EM messaging.



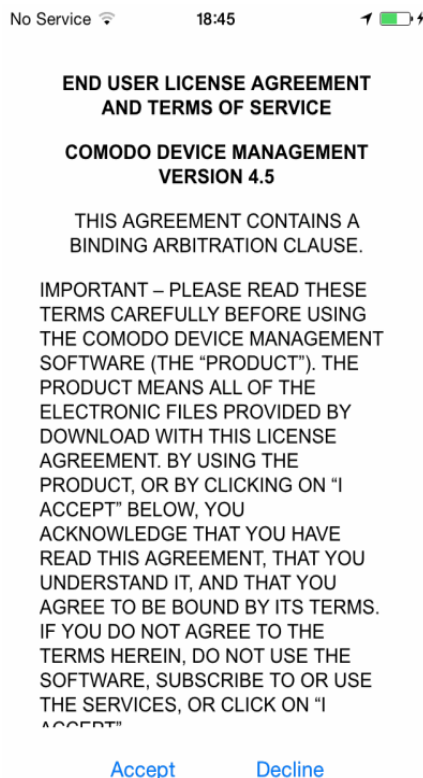
The app will be downloaded from the iTunes store using the user's iTunes account. The user needs to enter their Apple account password to access the iTunes store:



- After installation, tap the green 'Run After Install' icon on the home screen:



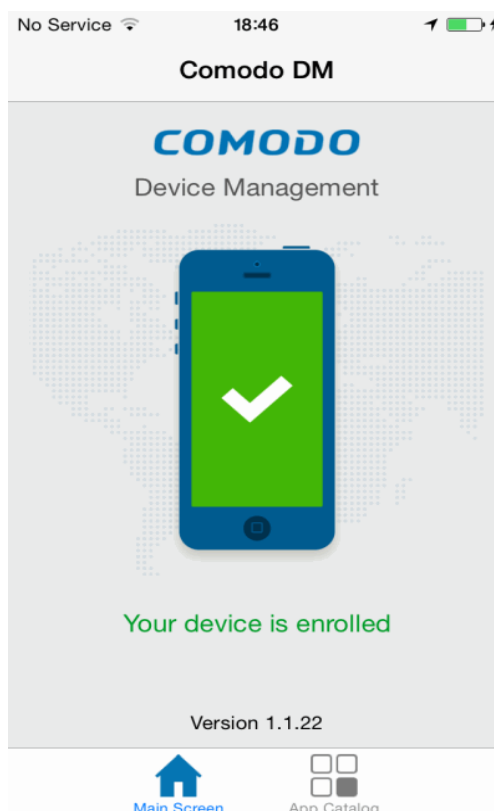
- The EULA screen for device management app will be displayed.



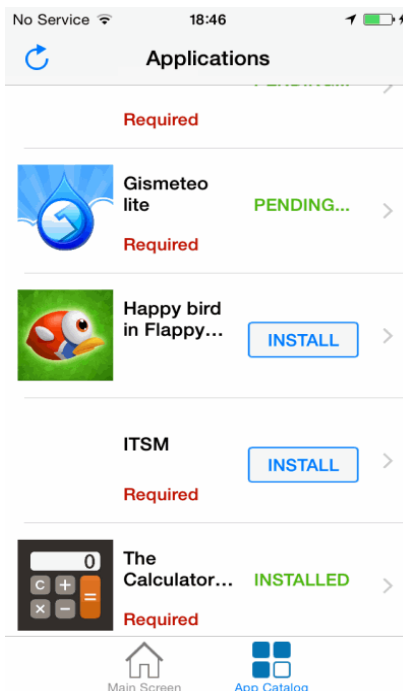
- Read the 'End User License Agreement' fully and tap 'Accept'
- Tap 'OK'.

The device will be successfully enrolled.





Tap 'App Catalog' to view iOS apps that are installed, apps that are required to be installed and available apps:



The device is now enrolled to EM. A security profile will be applied to the device as follows:

- If the user is already associated with a configuration profile in EM then those profiles will be applied to the device. See **Assign Configuration Profile(s) to User Device** and **Assign Configuration Profiles to a User Group** for more details.
- If no profiles are defined for the user then the default iOS profile(s) will be applied to the device. See **Manage Default Profiles** for more details.

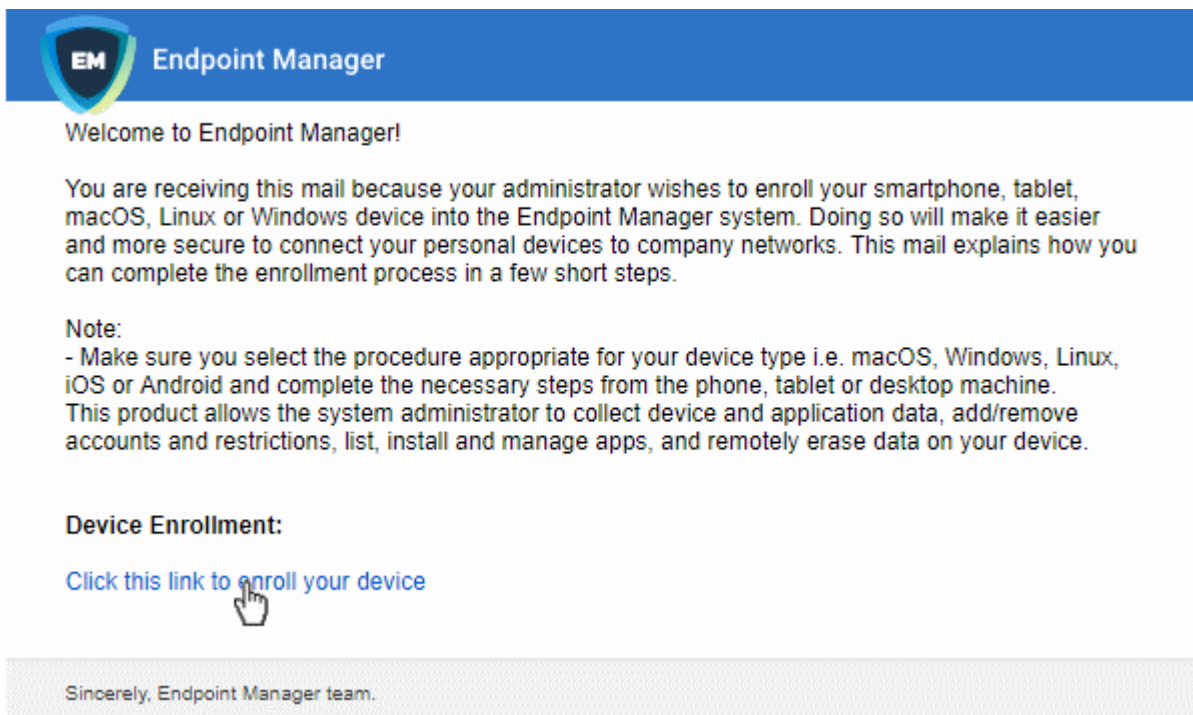
The device can now be remotely managed from the EM console.

### 4.1.2.3. Enroll Windows Endpoints

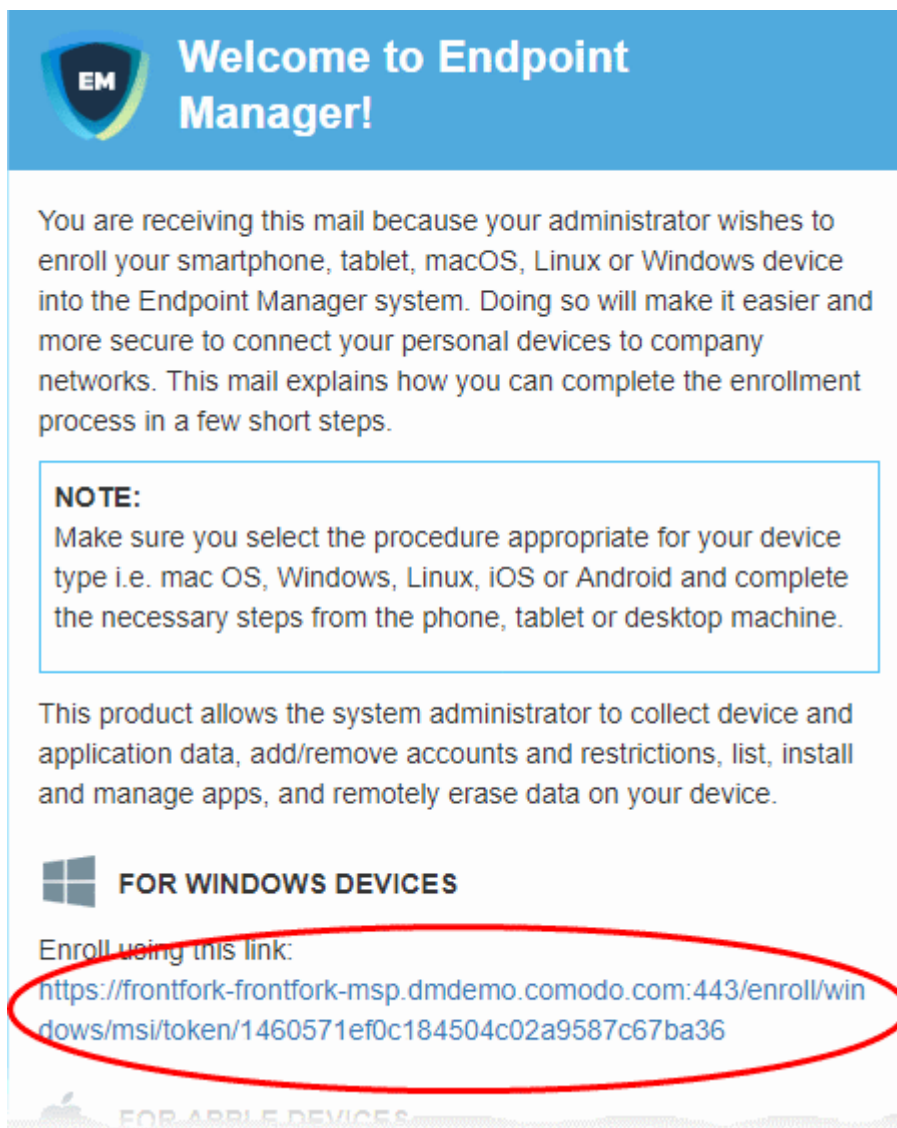
- After you have **completed the setup process**, Endpoint Manager will send an email to your users containing device enrollment instructions.
- Users should open the email on the Windows endpoint you want to enroll. After installation, the communication client will automatically connect to the EM server.

#### To auto enroll a Windows device

- Open the email on the device you want to enroll.




- Click the enrollment link in the email to open the device enrollment page
- On the device enrollment page, click the enrollment link under 'For Windows Devices':



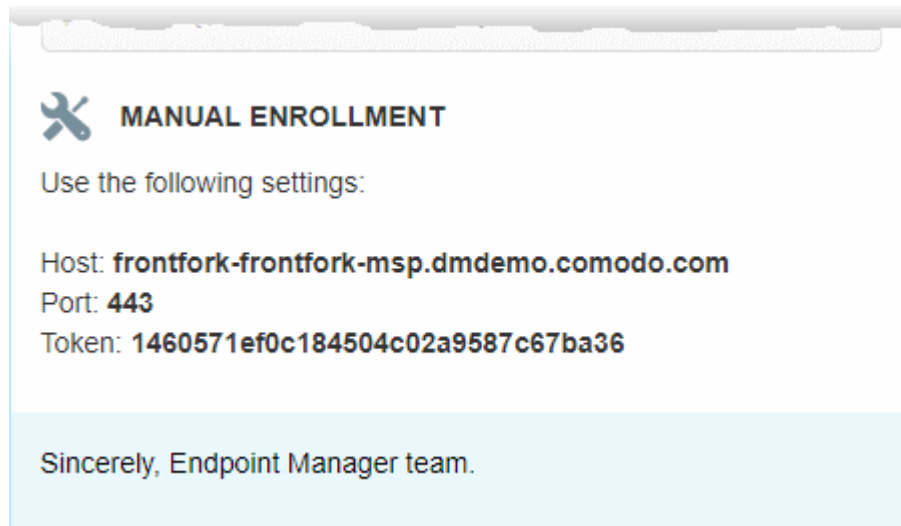
The EM communication client setup file gets downloaded.

- Double-click on the file to install the communication client.

The device will be automatically enrolled to Endpoint Manager. once installation is complete. The EM communication client icon  appears at the bottom-right of the endpoint screen.

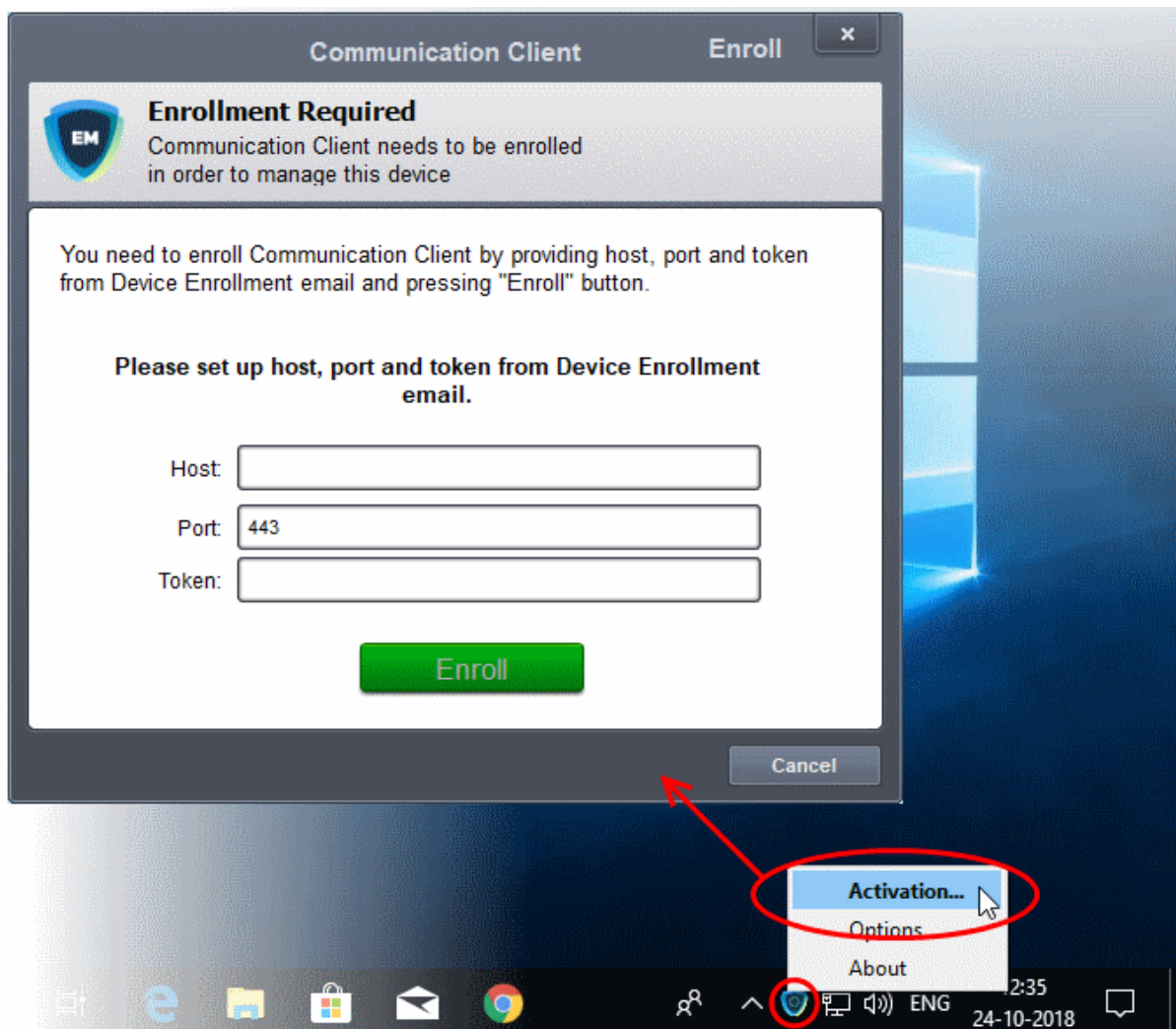
If the EM communication client is not automatically enrolled at the time of installation, for example, due to internet connectivity issues, you can manually enroll the device at a later time.

For manual enrollment you will need to enter the host, port and token ID. You can find these items on the end of the device enrollment page.

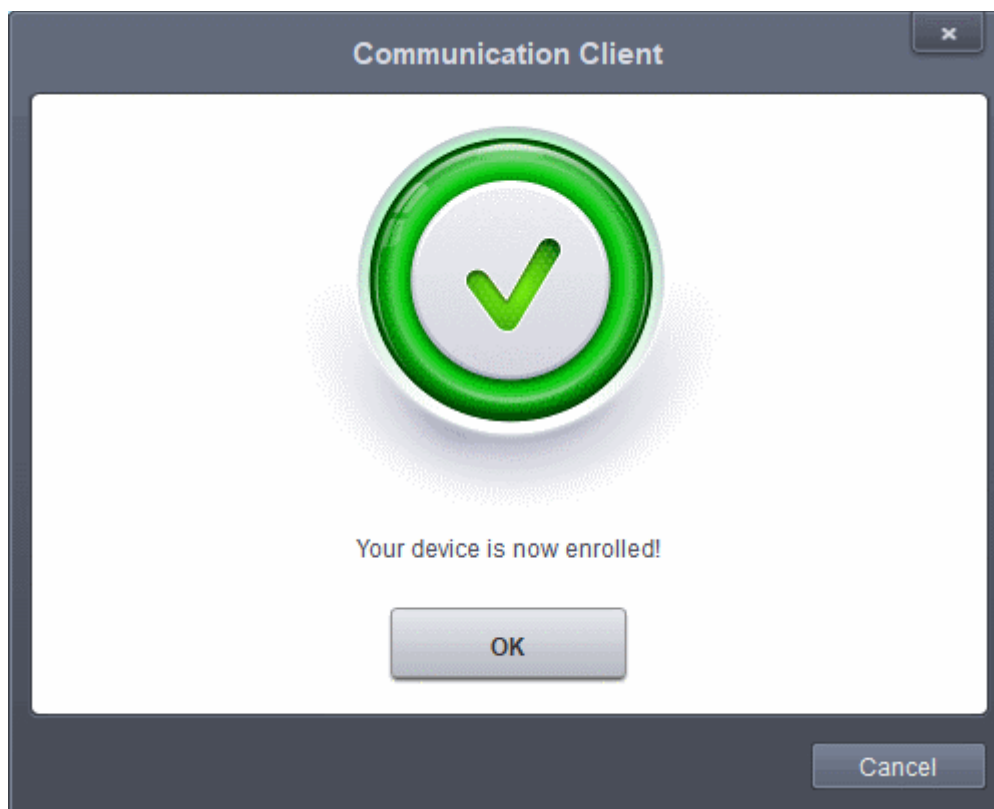


### To manually enroll your device

- Right-click on the communication client tray icon and select 'Activation'



- Enter the 'host', 'port' and the 'Token' contained in the device enrollment page and click 'Enroll'.
- The communication client will communicate with the EM server and enroll the device.



After device enrollment, the next step is to install Comodo Client Security (CCS) onto the endpoint. See [Remotely Install and Update Packages on Windows Devices](#) for help with this.

A security profile will be applied to the device when CCS is installed. Profile deployment is as follows:

- If the user is already associated with a configuration profile in EM then those profiles will be applied to the device. See [Assign Configuration Profile\(s\) to User Devices](#) and [Assign Configuration Profiles to a User Group](#) for more details.
- If no profiles are defined for the user then the default Windows profile(s) will be applied to the device. See [Manage Default Profiles](#) for more details.

The device can now be remotely managed from the EM console.

Endpoint Manager allows you to rebrand the communication client (CC) and CCS applications to change the appearance and interface texts in their GUI. This is especially useful for customers who wish to white-label the CC/CCS interfaces for their clients.

- The 'UI Settings' component of a configuration profile applied to the device can be configured to:
  - Show your company name, support website, phone number and email.
  - Display your company logo, header logo, product icons and product logo in various interfaces of the applications.
  - See [CC and CCS Application UI Settings](#) under [Create Windows Profiles](#) for more details.

## 4.1.2.4. Enroll Mac OS Endpoints

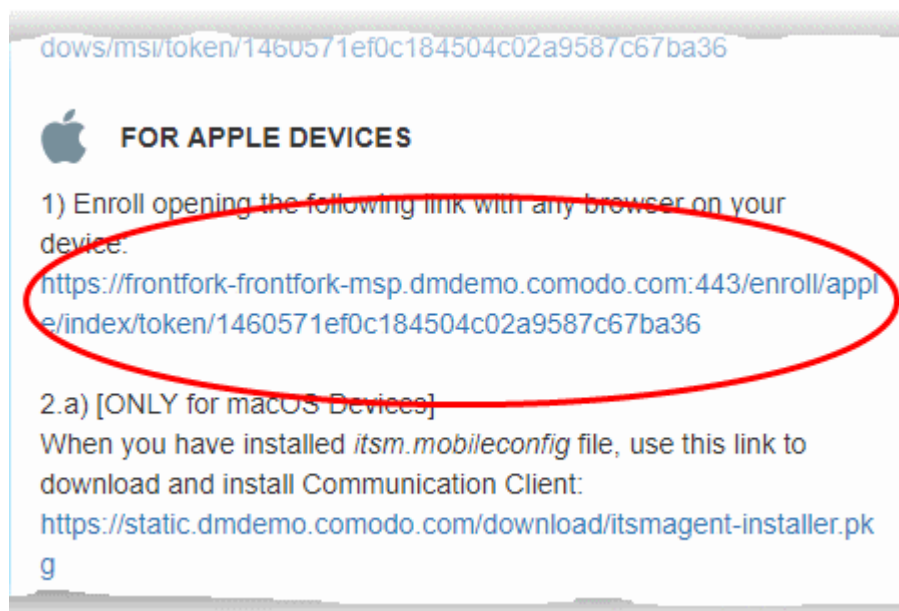
- After you have **completed the setup process**, Endpoint Manager will send an email to your users containing device enrollment instructions.
- Users should open the mail on the device itself.

There are two steps to enroll a Mac OS device:

- **Step 1 - Install the EM configuration profile**
- **Step 2 - Install the EM communication client**

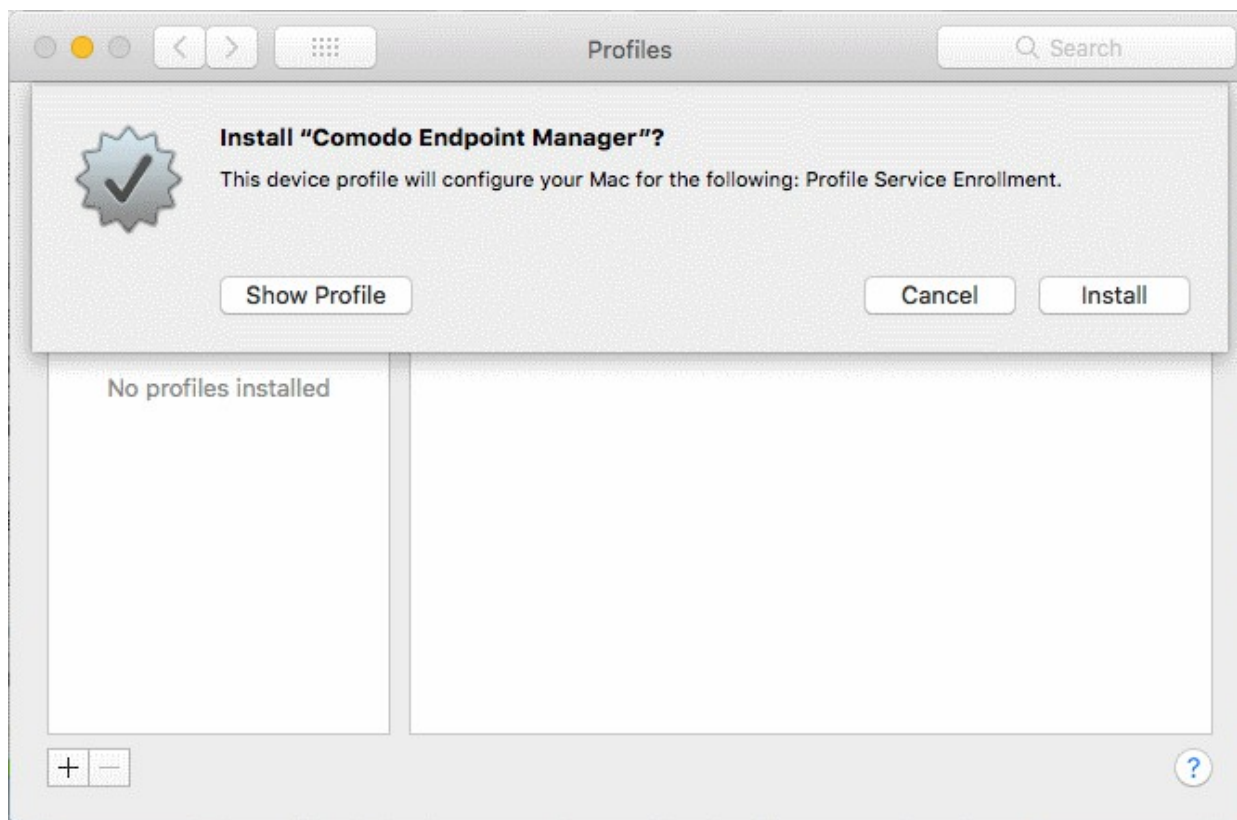
### Step 1 - Install the EM Configuration Profile

- Open the enrollment mail on the device you want to add
- Tap the link in the mail to open the device enrollment web-page
- Next, tap the enrollment link under "For Apple Devices":



The configuration file 'cdm.mobileconfig' gets downloaded and the 'Install Profile' wizard is starts.





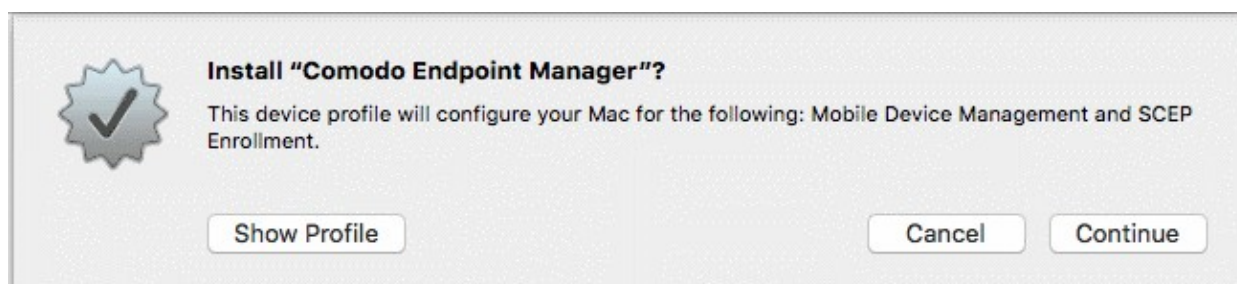
- Tap 'Install'.

You need to enter your password to install the profile.



- Enter your device username and password and click OK to continue the installation

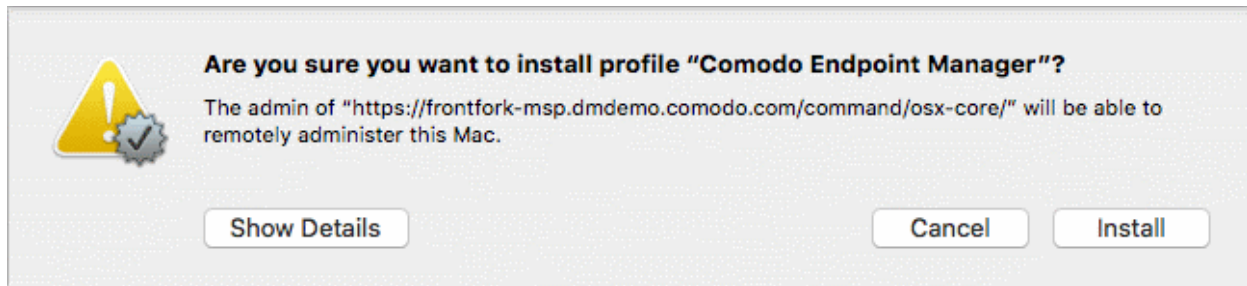
A confirmation dialog appears for the profile installation.



- To view the profile details, click 'Show Profile'

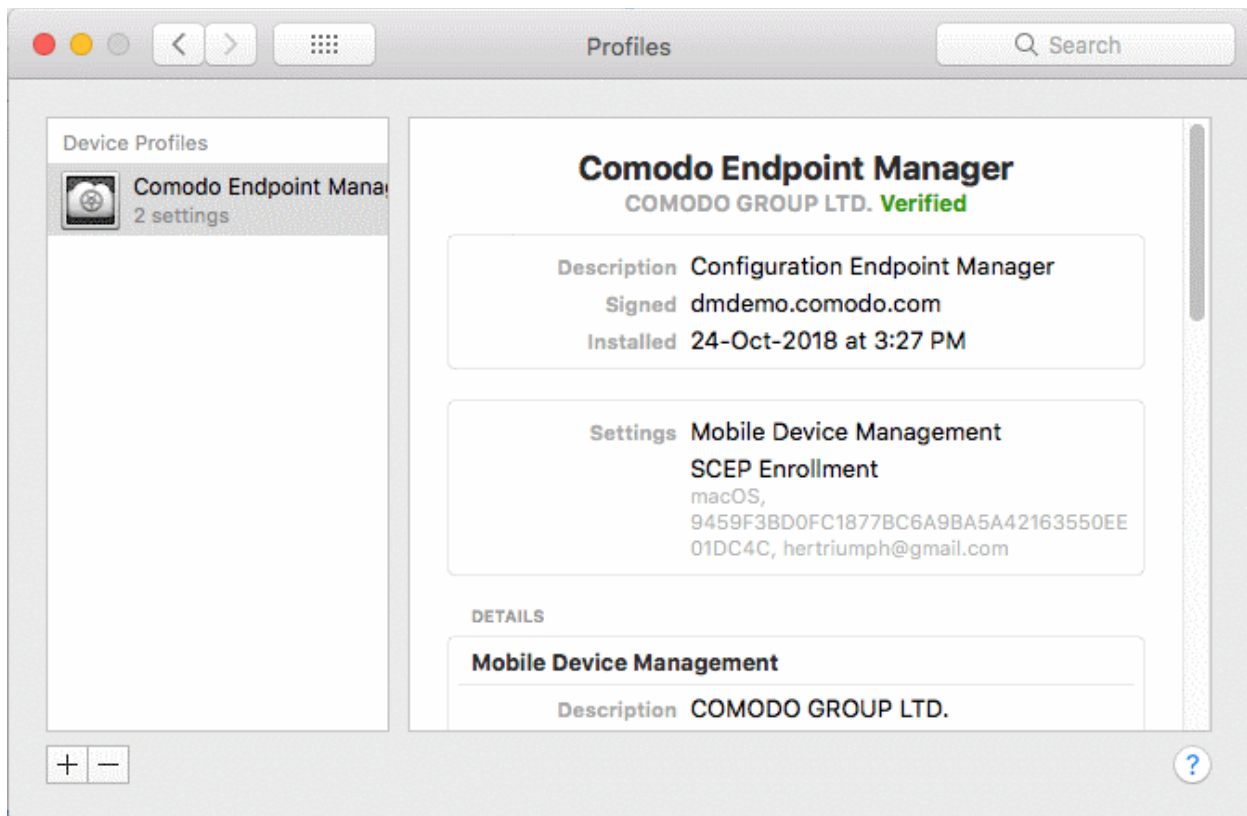


- Click 'Continue'



- Click 'Install'

The profile will be installed.

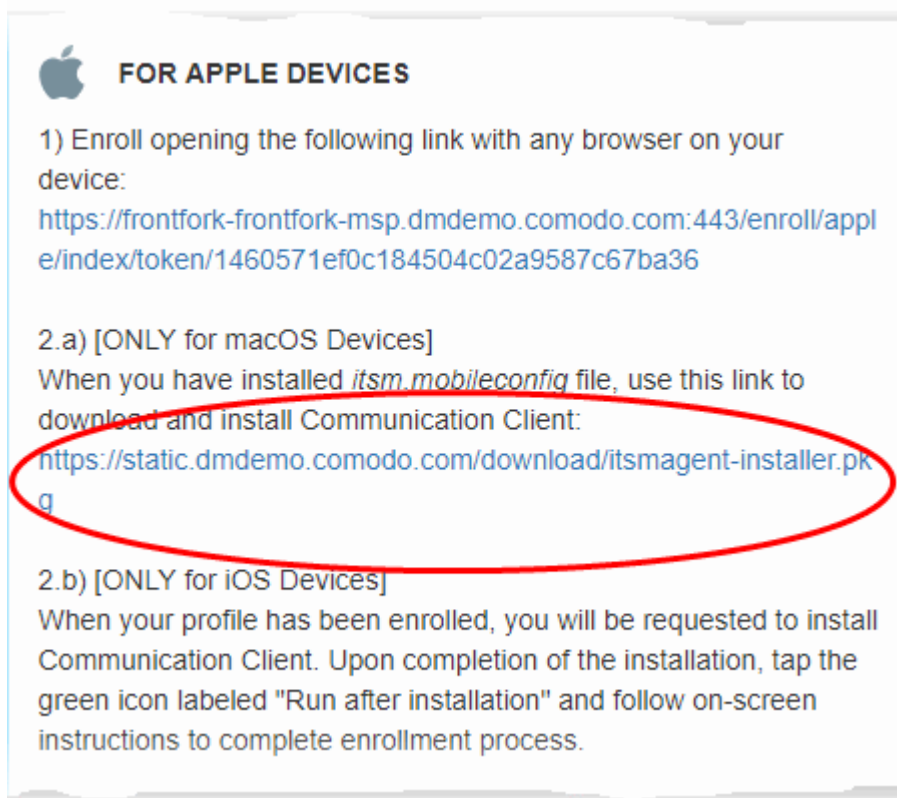



## Step 2 - Install the EM Communication Client

After installing the profile, the communication client needs to be installed so the device can communicate with the EM server.

### To download and install the communication client

- Open the device enrollment page and click the link to download the communication client setup file as shown below:



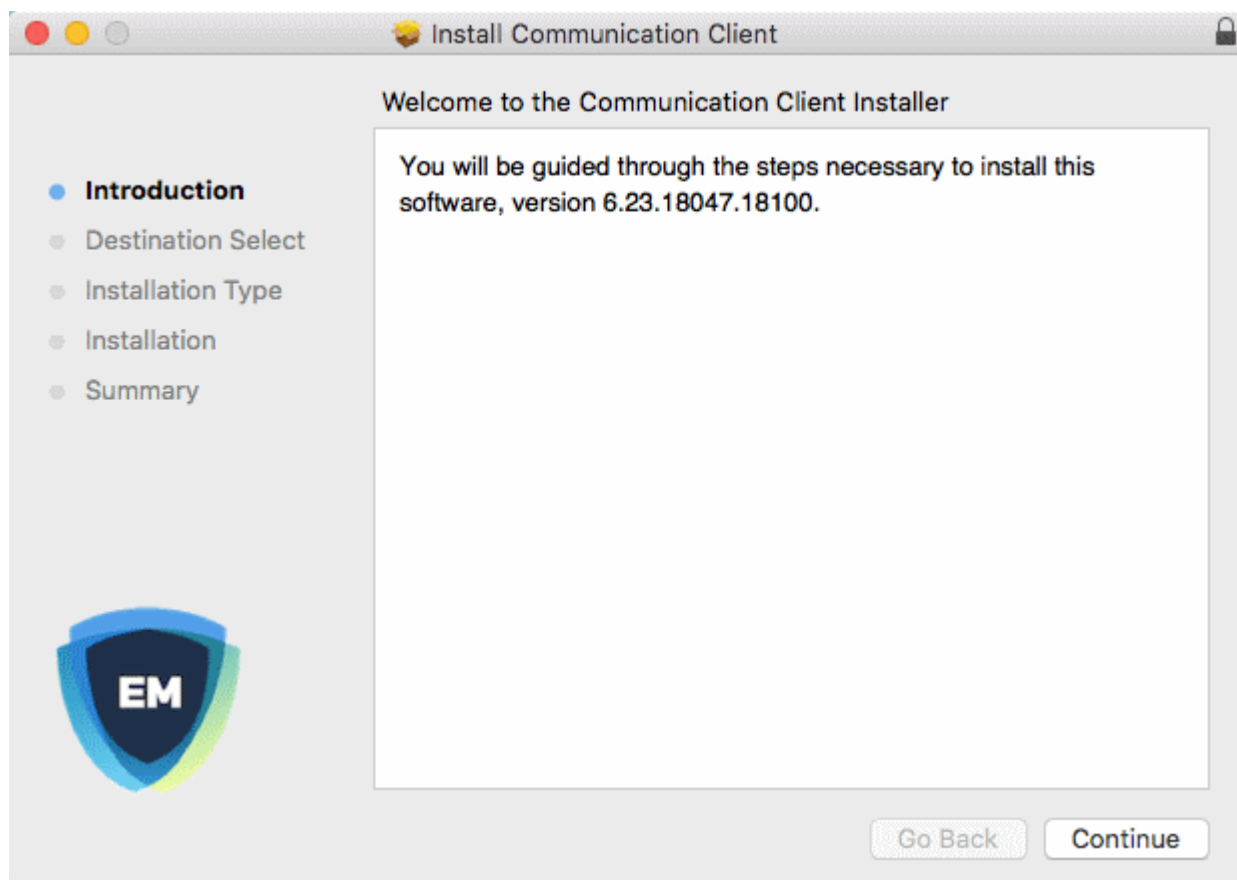
 **FOR APPLE DEVICES**

1) Enroll opening the following link with any browser on your device:  
<https://frontfork-frontfork-msp.dmdemo.comodo.com:443/enroll/apple/index/token/1460571ef0c184504c02a9587c67ba36>

2. a) [ONLY for macOS Devices]  
When you have installed *itsm.mobileconfig* file, use this link to download and install Communication Client:  
<https://static.dmdemo.comodo.com/download/itsmagent-installer.pkg>

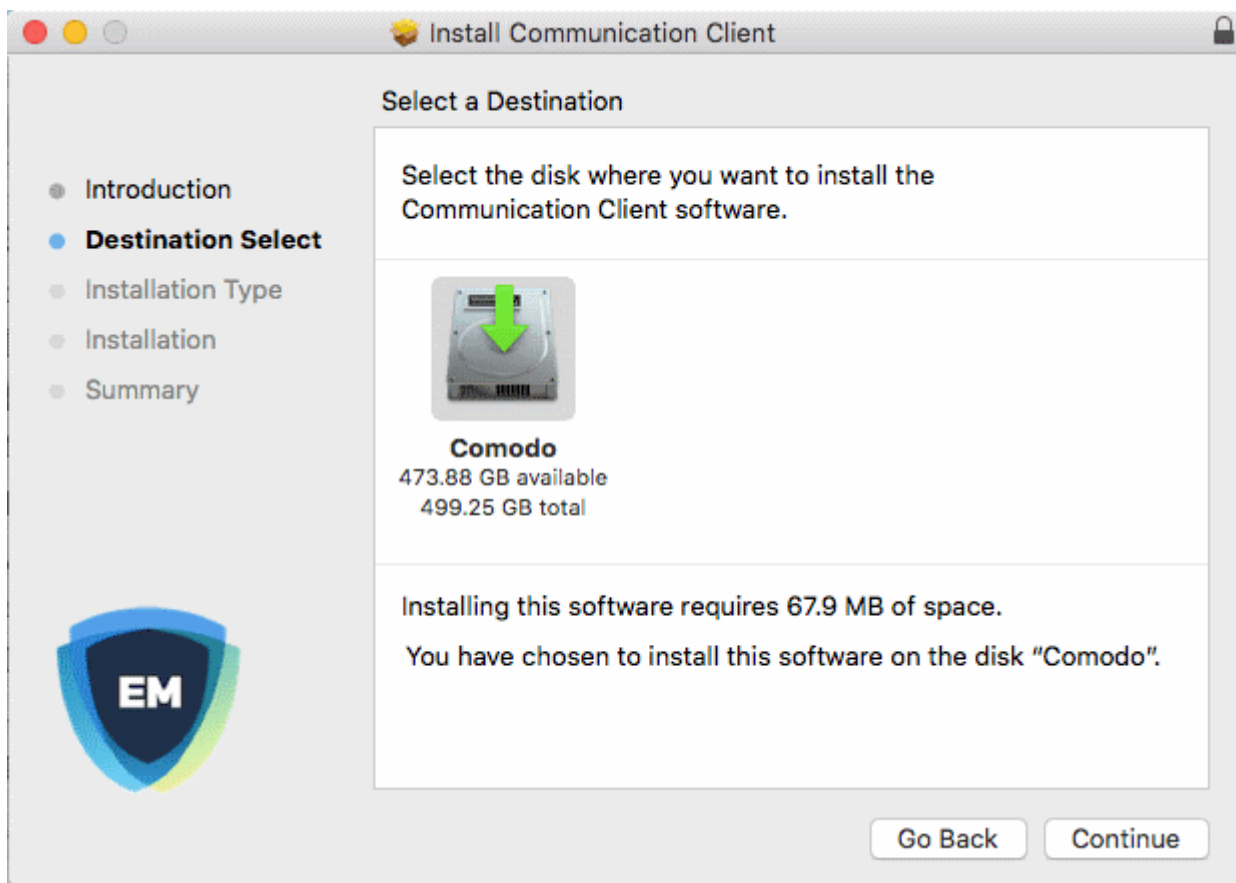
2. b) [ONLY for iOS Devices]  
When your profile has been enrolled, you will be requested to install Communication Client. Upon completion of the installation, tap the green icon labeled "Run after installation" and follow on-screen instructions to complete enrollment process.

The communication client setup package gets downloaded and the installation wizard starts.



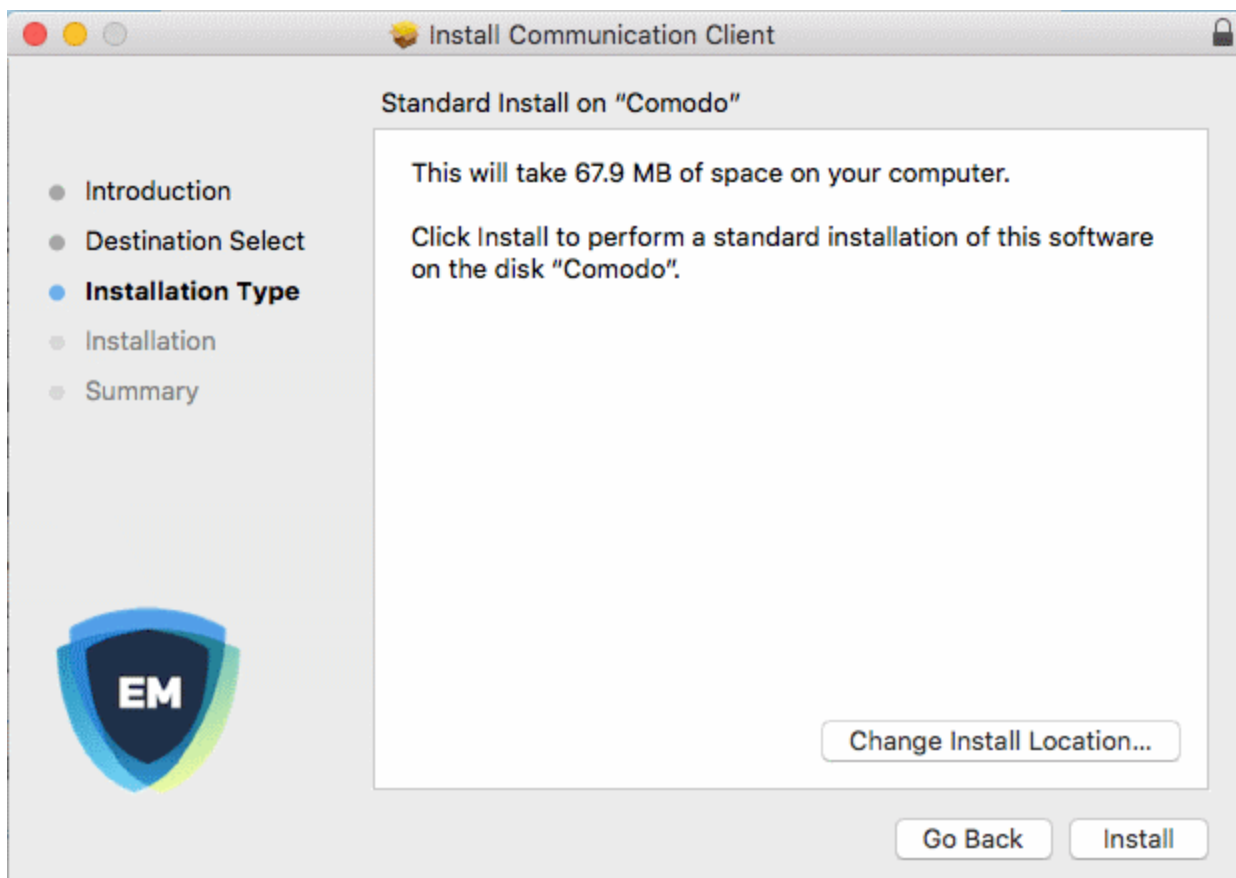
- Click 'Continue'

The next step allows you to choose the location at which the client is to be installed.



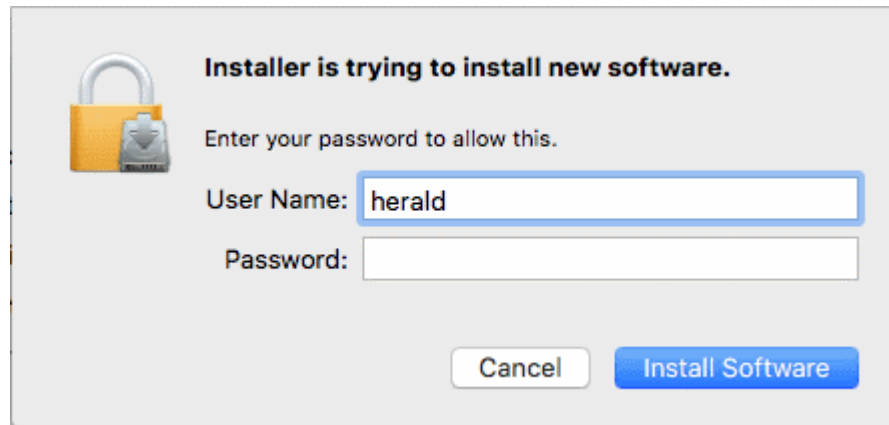
- To install the client in the default location, click 'Continue'. To install the client in a different location, click the disk icon, navigate to the new location and click 'Continue'.

The next step allows you to choose the installation type and start the installation.

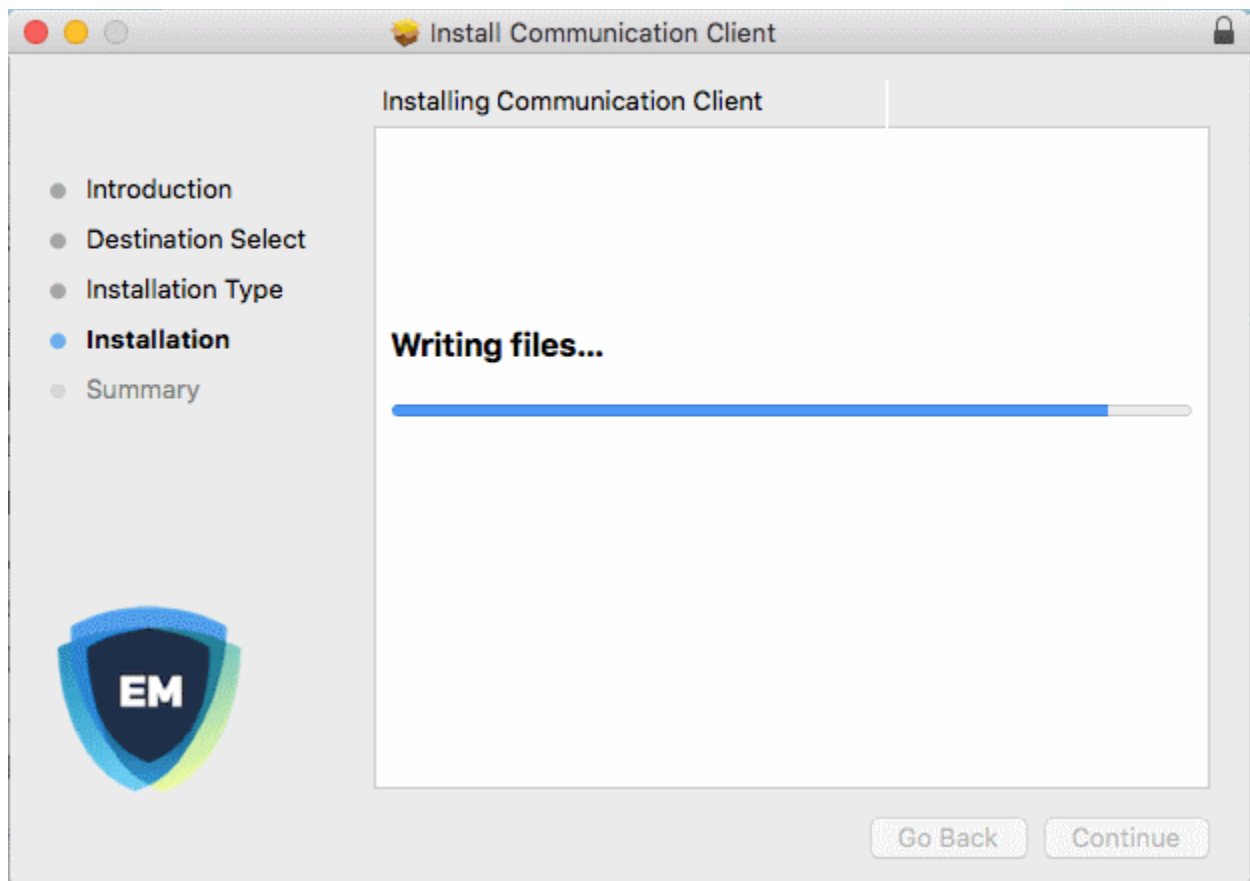


- Click 'Install'

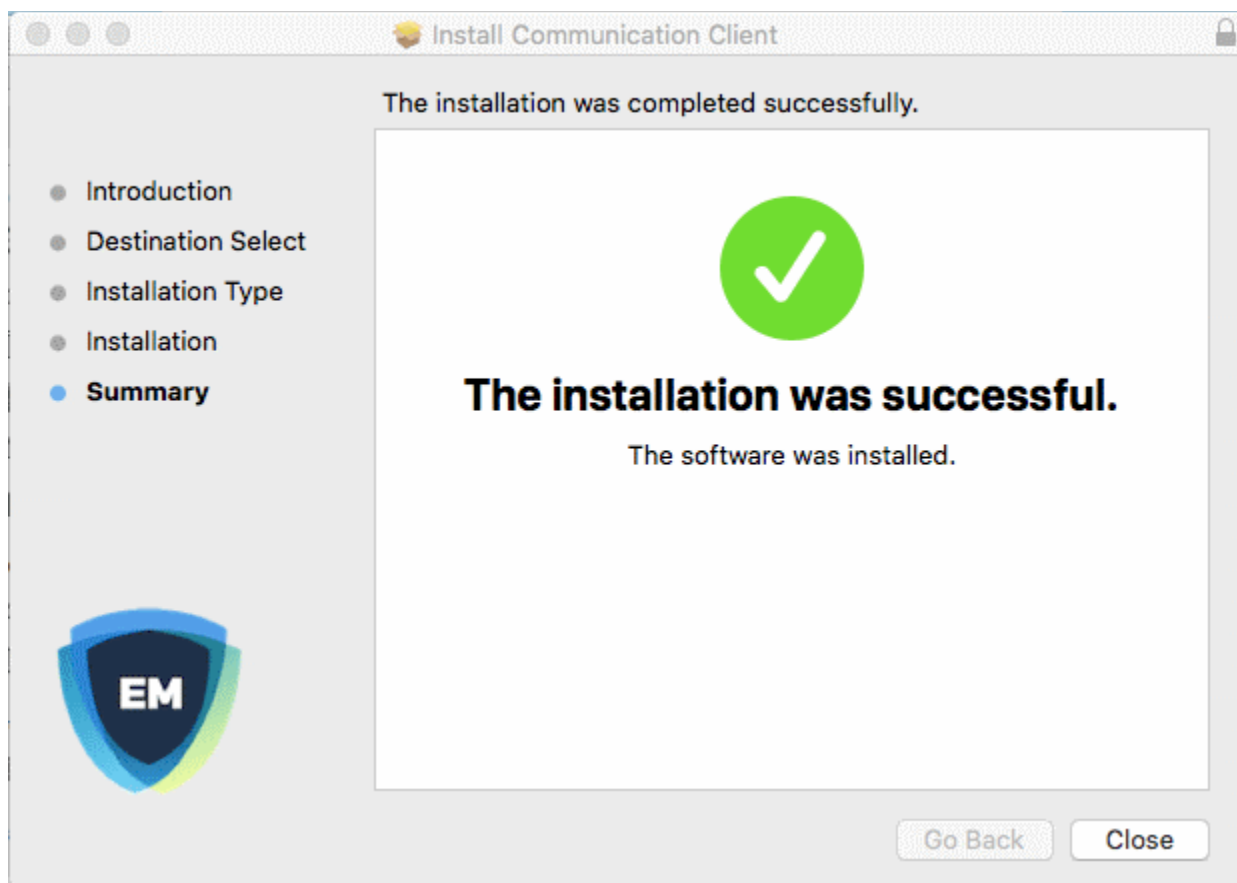
You need to enter your device password to allow the installation:



- Enter your username and password and click 'Install Software'



The installation will begin. Once installation is complete, the client starts communicating with the EM server.



Once the device is enrolled, the next step is to install Comodo Client Security for Mac (CCS) onto the endpoint in order for the default or assigned Mac profiles to take effect. See [Remotely Install Packages on Mac OS Devices](#) for more details.

- If the user/user group to which the user belongs is pre-associated with configuration profiles, then those Mac OS profiles will be applied to the device. See [Assign Configuration Profile\(s\) to a User's Devices](#) and [Assign Configuration Profiles to a User Group](#) for more details.
- If no profiles are defined for the user/user group, the default profile(s) for Mac OS will be applied to the device. See [Manage Default Profiles](#) for more details.

The device can now be remotely managed from the EM console.

#### 4.1.2.5. Enroll Linux OS Endpoints

- After you have **completed the setup process**, Endpoint Manager will send an email to your users containing device enrollment instructions.
- The email contains instructions on how to install the EM communication client on their device.
  - Users should open the email and complete the installation on the actual endpoint you want to enroll.
- After installing the communication client, the endpoint will automatically connect to the EM server.

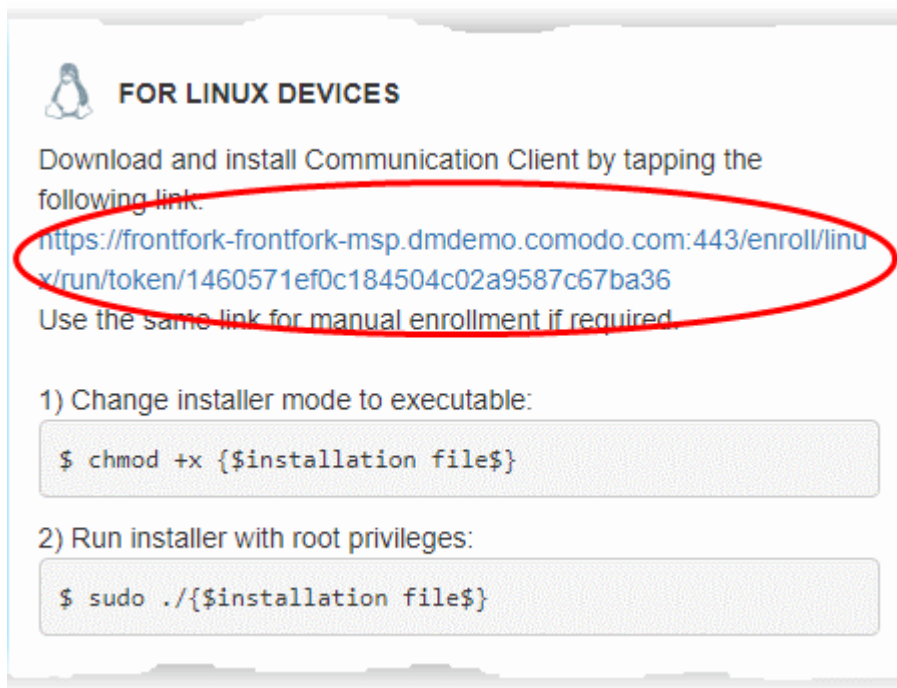
#### Supported Linux OS

- Ubuntu 16.04.2
- Debian 8.8
- Red Hat Enterprise 7

#### To enroll a Linux device

- Open the mail in the device and click the enrollment link in it. You will be taken to the enrollment page

through the default browser of the endpoint computer.



- Click on the enrollment link under 'For Linux Devices' and save the file.

You can install the communication client on the Linux device by completing the following:

1. Change installer mode to executable - enter the following command:

```
$ chmod +x {$installation file$}
```

2. Run installer with root privileges - enter the following command:

```
$ sudo ./{$installation file$}
```

For example:

```
chmod +x itsm_cTjIw6gG_installer.run
```

```
sudo./itsm_cTjIw6gG_installer.run
```



```
c1@c1-VirtualBox: ~/Downloads
c1@c1-VirtualBox:~$ ls
Desktop    Downloads      km-0409.ini  Pictures  Templates
Documents  examples.desktop Music         Public    Videos
c1@c1-VirtualBox:~$ cd Downloads/
c1@c1-VirtualBox:~/Downloads$ ls
itsm_cTjIw6gG_installer.run
c1@c1-VirtualBox:~/Downloads$ chmod +x itsm_cTjIw6gG_installer.run
c1@c1-VirtualBox:~/Downloads$ sudo ./itsm_cTjIw6gG_installer.run
[sudo] password for c1:
Verifying archive integrity... All good.
Uncompressing Linux ITSM Agent 100%
systemd system
cTjIw6gG
Created symlink from /etc/systemd/system/multi-user.target.wants/itsm.service to
/etc/systemd/system/itsm.service.
Your device is now enrolled!
Service started
c1@c1-VirtualBox:~/Downloads$
```

- After installation, the communication client will connect to the Endpoint Manager and enroll the device.
- Once enrolled, the next step is to install Comodo Client - Security for Linux (CCS). See [Remotely Install Packages on Linux Devices](#) for more details.
- After installing CCS, any EM configuration profiles associated with the user will be applied to the device. See [Assign Configuration Profile\(s\) to a Users' Devices](#) and [Assign Configuration Profiles to a User Group](#) for more details.
- If no profiles are defined for the user then the default profiles for Linux are applied. See [Manage Default Profiles](#) for more details.

The device can now be remotely managed from the EM console.

### 4.1.3. View User Details

- Click 'Users' > 'User List'

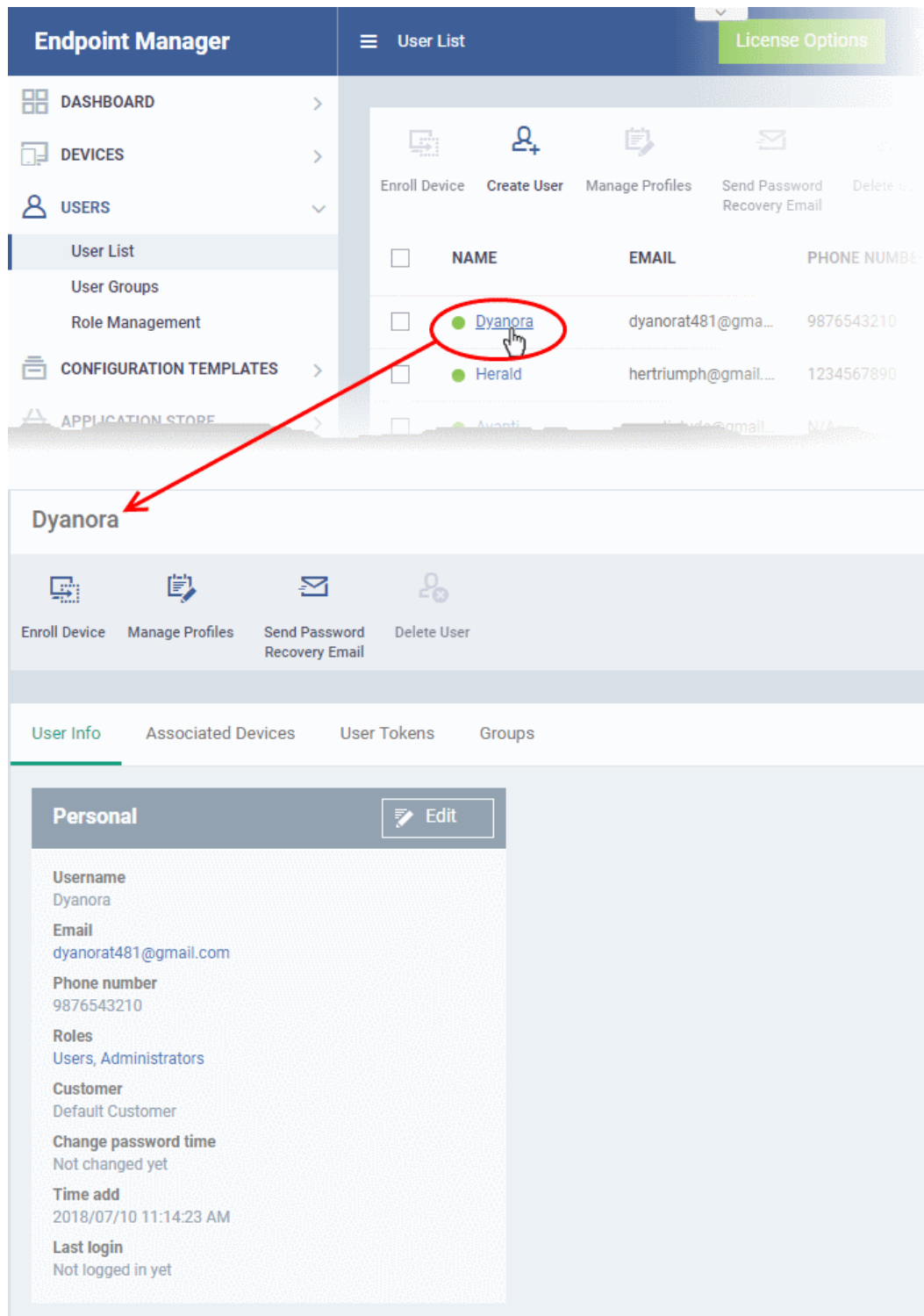
The 'User List' interface lets you view and edit user account details at anytime.

#### To view user details

- Click 'Users' > 'User List'
- Click the name of a user

The 'User Details' screen opens:





You can update these details by clicking the 'Edit' button. See [Update Details of a User](#) for more details. Note - you can only edit users added to Endpoint Manager. You cannot edit users that were added via the Comodo One or ITarian portals.

The user details screen also lets you:

- **Add new devices for a user**
- **Apply configuration profiles to devices**
- **Send password recovery emails for users to access the EM console**
- **View and manage user devices**

- **View device enrollment tokens generated for users**
- **View and manage groups to which a user is a member**

## Add new devices for users

- Click 'Users' > 'User List'
- Click the name of a user
- Click 'Enroll Device' at the top of the details interface

The 'Enroll Devices' dialog will open with the user pre-populated. See **Enroll User Devices for Management** if you need help to complete this process.

## Apply Configuration Profiles to user devices

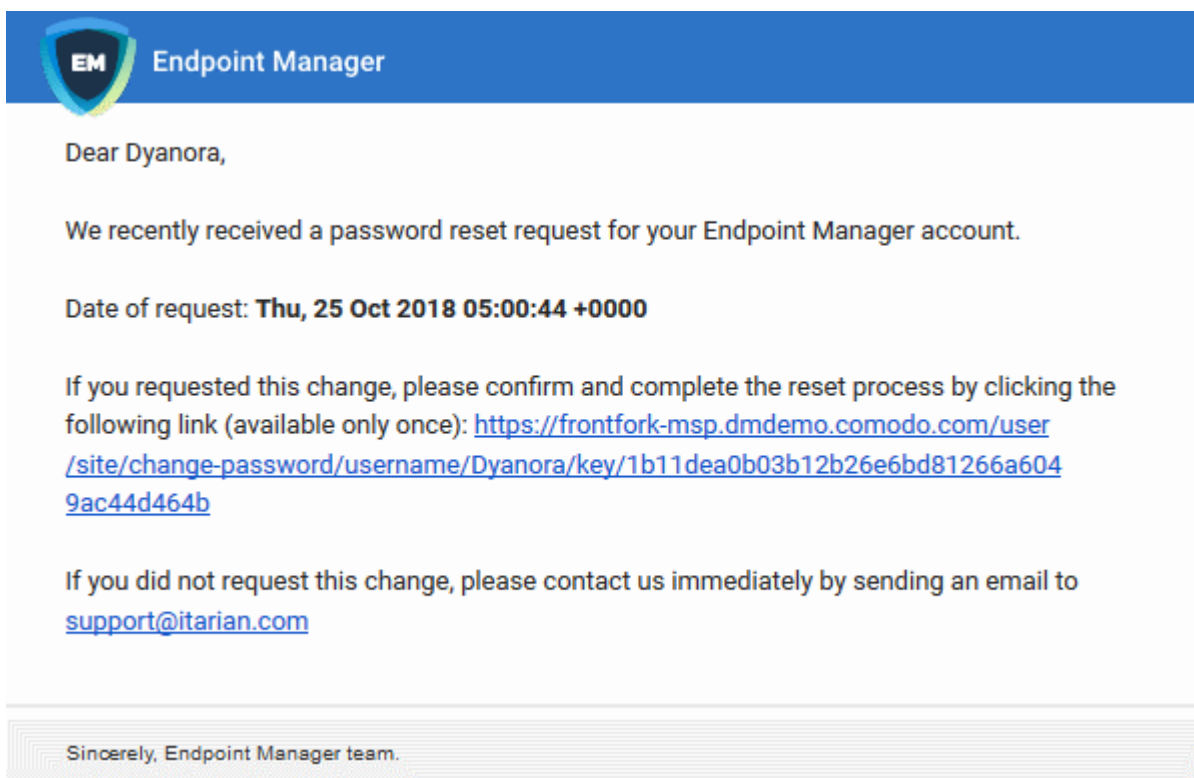
- Click 'Users' > 'User List'
- Click the name of a user
- Click the 'Manage Profiles' button

This will open a list of profiles added to the user's devices. You can add new profiles which will be applied to their devices. See **Assign Configuration Profile(s) to a User's Devices** for more details.

## Send a password recovery email to users

- Click 'Users' > 'User List'
- Click the name of a user
- Click the 'Send Password Recovery Email' button to start the process.
  - Note you can only send password emails to users added to Endpoint Manager. This option is not available for users added via the C1 or ITarian management portal.

The email contains a link which lets the user reset their password:



**Tip:** Alternatively, you can send the password reset mail from the 'User List' interface. Select the user from the list and click 'Send password Recovery Email' at the top.

### View devices associated with a user

- Click 'Users' > 'User List'
- Click the name of a user
- Click the 'Associated Devices' link

This tab shows all devices enrolled for the user:

**Dyanora**

Enroll Device
Manage Profiles
Send Password Recovery Email
Delete User

User Info
Associated Devices
User Tokens
Groups

OS	NAME	ACTIVE COMPONENTS	PATCH STATUS	CUSTOMER	LAST ACTIVITY
	samsung_SM-G...	AG AV		Default Customer	2018/10/25 10:21:14 AM
	DESKTOP-D80S...	AG AV FW CO		Default Customer	2018/10/25 10:21:44 AM
	DESKTOP-TTP...	AG AV FW CO	2	Default Customer	2018/10/25 10:23:11 AM

Associated Devices - Column Descriptions	
Column Header	Description
OS	The operating system of the device.
Name	The label of the device as assigned by the user. <ul style="list-style-type: none"> <li>• If no name is assigned, the model number of the device will be used as the name of the device.</li> <li>• Click the name of the device to open the 'Summary' screen of the Device Details interface.</li> <li>• See <b>'View Summary Information'</b> for more details.</li> </ul>
Active Components	The endpoint security components running on the device. For example, Antivirus, Firewall, Containment etc.
Patch Status	How many OS patches and updates are ready for installation on the endpoint. Patch status is only available for Windows endpoints. <ul style="list-style-type: none"> <li>• Click the number to open the 'Patch Management' tab of the 'Device Details' interface. It allows you to initiate installation of the missing patches.</li> <li>• See <b>View and Manage Patches for Windows and 3rd Party Applications</b> for more details.</li> </ul>
Company	The customer organization to which the device was registered.

Last Activity	The date and time at which the device last communicated with the EM server.
---------------	-----------------------------------------------------------------------------

## View User Tokens

Endpoint Manager generates a unique token for each user when you enroll a device for them. This token is used by the communication client on the device to authenticate the enrollment request to Endpoint Manager. A single token can be used to enroll any number of devices for the same user. A token is valid for 90 days.

The 'User Tokens' interface displays a list of generated user tokens. You can use these tokens to manually enroll device for specific users

- Click 'Users' > 'User List'
- Click the name of a user
- Click the 'User Tokens' link

**Dyanora**

Enroll Device
 Manage Profiles
 Send Password Recovery Email
 Delete User

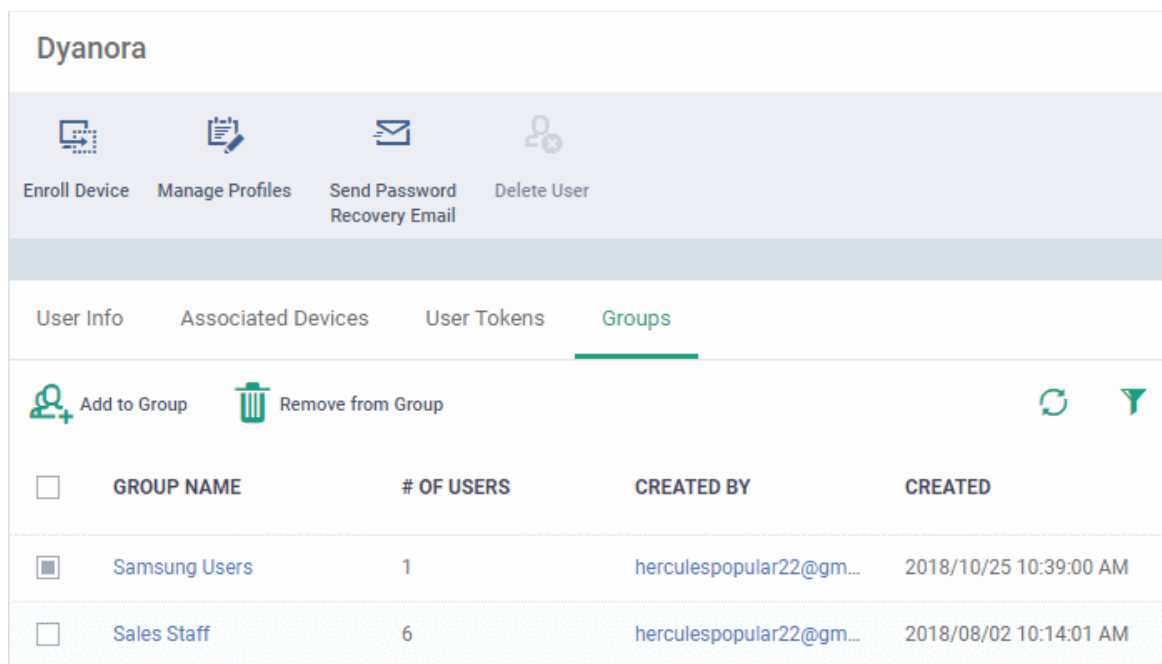
User Info
Associated Devices
User Tokens
Groups

TOKEN	EXPIRATION DATE	DAYS LEFT
6cc745894d58d77d765bec875761807a	2019/01/22 11:09:07 AM	90
310d44fead1475fd03fbab1bc3f944a3	2018/12/05 10:54:10 AM	42
c7b1b2c9dd16c372eebdaaee152392c6	2018/11/27 03:25:48 PM	34
14b2e4d7b9d9d17f5aab2bd2a8d36ced	2018/10/31 11:11:28 AM	7
d08e64e4266c9b3a17a9771cc38f7e10	2018/10/08 11:14:43 AM	Expired

User Tokens - Column Descriptions	
Column Heading	Description
Token	The unique serial number of each enrollment token.
Expiration Date	Date till which the token is valid. Users can enroll devices using the same token until expiry.
Days left	How many days remain until the token expires.

### To view and manage user groups to which the user belongs

- Click 'Users' > 'User List'
- Click the name of a user
- Click the 'Groups' tab to view all groups to which the user belongs:



Groups - Column Descriptions	
Column Header	Description
Group Name	The label of the user group <ul style="list-style-type: none"> <li>Click the group name to open the 'Group Details' interface.</li> <li>See <b>Edit a User Group</b> for more details.</li> </ul>
Number of Users	The total count of users in the group.
Created By	The administrator who added the group. <ul style="list-style-type: none"> <li>Click the name to open the 'User Details' interface of the administrator.</li> </ul>
Created	The date and time at which the group was created.

### 4.1.3.1. Update the Details of a User

- Click 'Users' > 'User List'
- Click the name of a user
- Click the 'Edit' button


The 'User Details' pane lets you update the username, email address and phone number of a user. You can also view devices associated with the user and send them a password recovery email.

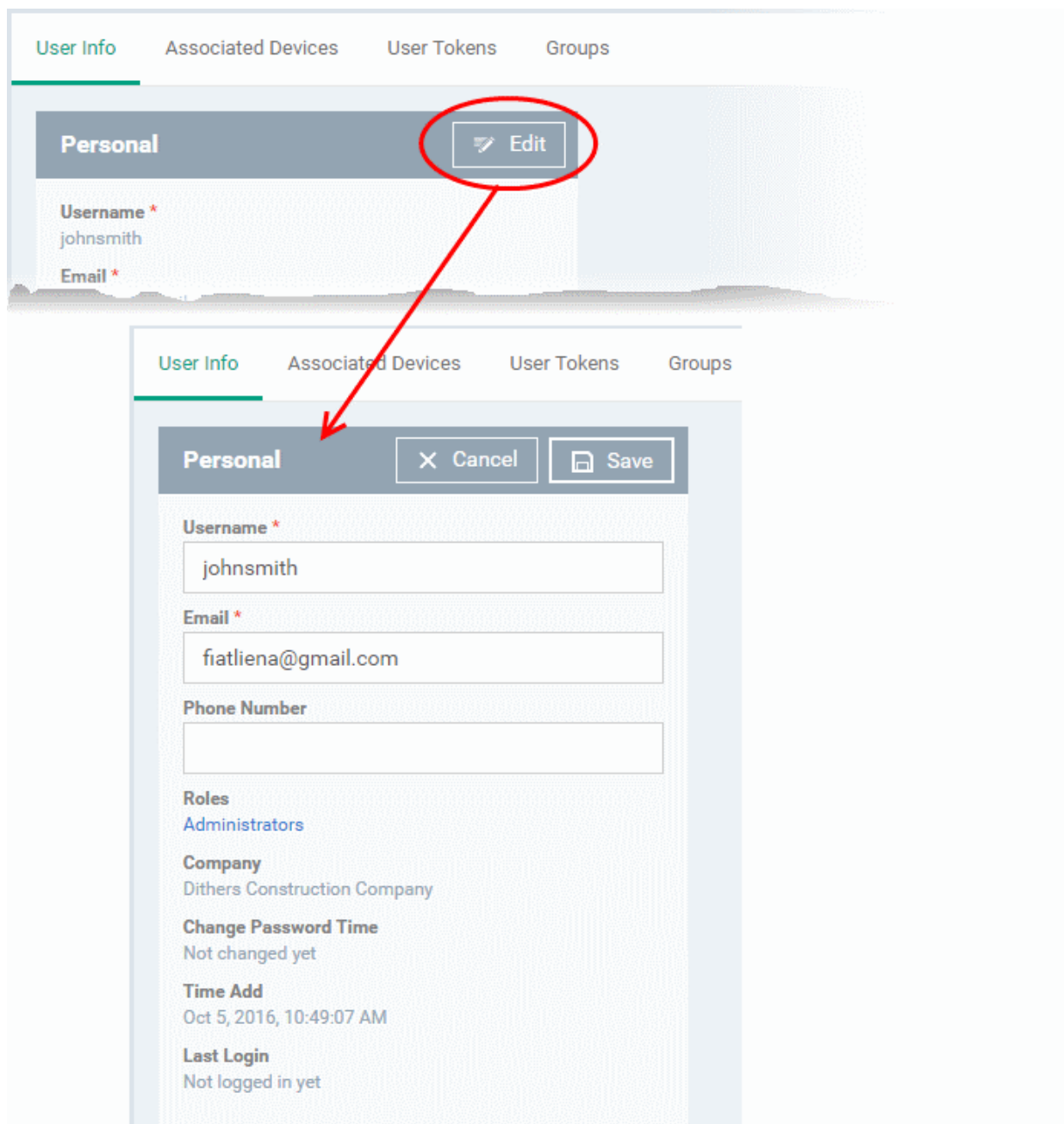
**Note:** The 'Edit' option is only available for users added in the Endpoint Manager interface. It is not available for users that were added via the C1 or ITarian portals. Those users must be edited in the C1 or ITarian. All changes will be reflected in the EM interface.

#### To update the details of a user

- Click 'Users' > 'User List'
- Click on the user whose details you want to update.

The user details screen will open.

- Click the 'User Info' tab and then the 'Edit' button  at the top right



- Update the username, email address of the user and the phone number as required.
- Click 'Save' at the top for your changes to take effect

The role assigned to the user is displayed under 'Roles'.

- Click the role name to change the role if required.
- See **'Manage Roles Assigned to a User'** for more details.

#### 4.1.4. Assign Configuration Profiles to User Devices

- Click 'Users' > 'User List'
- Profiles assigned to a user will apply to all devices owned by the user.
- You can apply multiple profiles for different operating systems to a user. Endpoint Manager will apply the appropriate profile to a device depending on its OS.



## To manage configuration profiles assigned to a user

- Click 'Users' > 'User List'
- Select the user for whom you want to assign/remove profile(s)
- Click 'Manage Profiles'

The screenshot shows the Endpoint Manager interface. On the left is a navigation menu with categories: DASHBOARD, DEVICES, USERS, CONFIGURATION TEMPLATES, and APPLICATION STORE. The 'USERS' section is expanded to show 'User List', 'User Groups', and 'Role Management'. The main content area is titled 'User List' and contains several action buttons: 'Enroll Device', 'Create User', 'Manage Profiles', 'Send Password Recovery Email', and 'Delete User'. The 'Manage Profiles' button is circled in red. Below the buttons is a table of users with columns for 'NAME', 'EMAIL', and 'PHONE NUMBER'. The user 'Dyanora' is selected, and a red circle highlights a small square icon next to her name. A red arrow points from this icon to the 'Manage Profiles of Dyanora' page below. This page has a title 'Manage Profiles of Dyanora' and an 'Add Profiles' button. Below that is a 'Remove Profiles' button and a table of profiles assigned to Dyanora. The table has columns for 'OS TYPE', 'PROFILE NAME', and 'CREATED BY'.

OS TYPE	PROFILE NAME	CREATED BY
	Android Devices in Sales Dept.	herculespopular22@gmail.com
	First Profile	herculespopular22@gmail.com

The list shows all profiles assigned to a user. You can add, remove or edit profiles as required.




**Tip:** Alternatively, click 'Users' > 'User List' > click on a username > 'Manage Profiles'.





## To add a new profile to a user

- Click 'Users' > 'User List'
- Select the target user
- Click 'Manage Profiles'
- Click 'Add Profiles':



### Add Profiles to Dyanora


 Save  




<input type="checkbox"/>	OS TYPE	PROFILE NAME	CREATED BY ▼
<input type="checkbox"/>		Finance Dept Android Devices	herculespopular22@gmail.co...
<input checked="" type="checkbox"/>		Finance Department Windows Computers	herculespopular22@gmail.co...
<input checked="" type="checkbox"/>		New Profile for Dyanora	herculespopular22@gmail.co...
<input type="checkbox"/>		Second Linux Profile	herculespopular22@gmail.co...





- The next screen shows all profiles that you can add to the user. The list excludes profiles which are already assigned to the user.
- Select the profiles you want to add and click 'Save'
  - Click the funnel icon on the right if you want to search for a particular profile

The new profiles will be automatically deployed to the user's devices.

### Manage Profiles of Dyanora

   
Add Profiles

 Remove Profiles  


<input type="checkbox"/>	OS TYPE	PROFILE NAME	CREATED BY
<input type="checkbox"/>		Android Devices in Sales Dept.	herculespopular22@gmail.com
<input type="checkbox"/>		First Profile	herculespopular22@gmail.com
<input type="checkbox"/>		Finance Department Windows Computers	herculespopular22@gmail.com
<input type="checkbox"/>		New Profile for Dyanora	herculespopular22@gmail.com

#### To remove a profile

- Click 'Users' > 'User List'
- Select the target user
- Click 'Manage Profiles'

- Select the profiles you want to disassociate and click 'Remove Profiles'



<input type="checkbox"/>	OS TYPE	PROFILE NAME	CREATED BY
<input type="checkbox"/>		Android Devices in Sales Dept.	herculespopular22@gmail.com
<input checked="" type="checkbox"/>		First Profile	herculespopular22@gmail.com
<input checked="" type="checkbox"/>		Finance Department Windows Computers	herculespopular22@gmail.com
<input type="checkbox"/>		New Profile for Dyanora	herculespopular22@gmail.com

- The selected profiles will be immediately removed from devices belonging to the user. See note below:

**Note:** There are 4 ways you can assign a profile to a device:

1. Assign the profile the device owner, aka the 'user'.
  - Click 'Users' > 'User List' > click a username > 'Manage Profiles' > 'Add Profiles'
2. Assign the profile to the device itself.
  - Click 'Devices' > 'Device List' > click a device name > 'Manage Profiles' > 'Add Profiles'
3. Assign a profile to a device group. Make the device a member of the group.
  - Click 'Devices' > 'Device List' > 'Group Management' tab > click a group name > 'Manage Profiles'
4. Assign a profile to a user group. Make the user (device owner) a member of the group
  - Click 'Users' > 'User Groups' > click a group name > 'Manage Profiles' / 'Associated Devices'

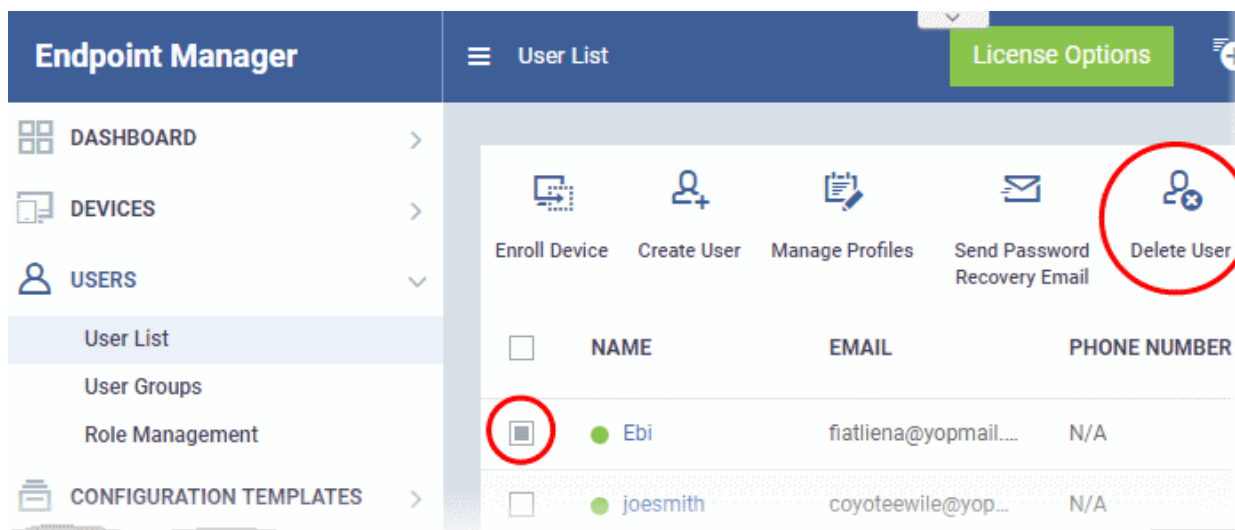
Removing a profile as described in this section will only remove profiles which arrived on the device via method # 1 above.

The profile may remain on the device if it was (also) deployed via methods 2, 3 or 4 above.

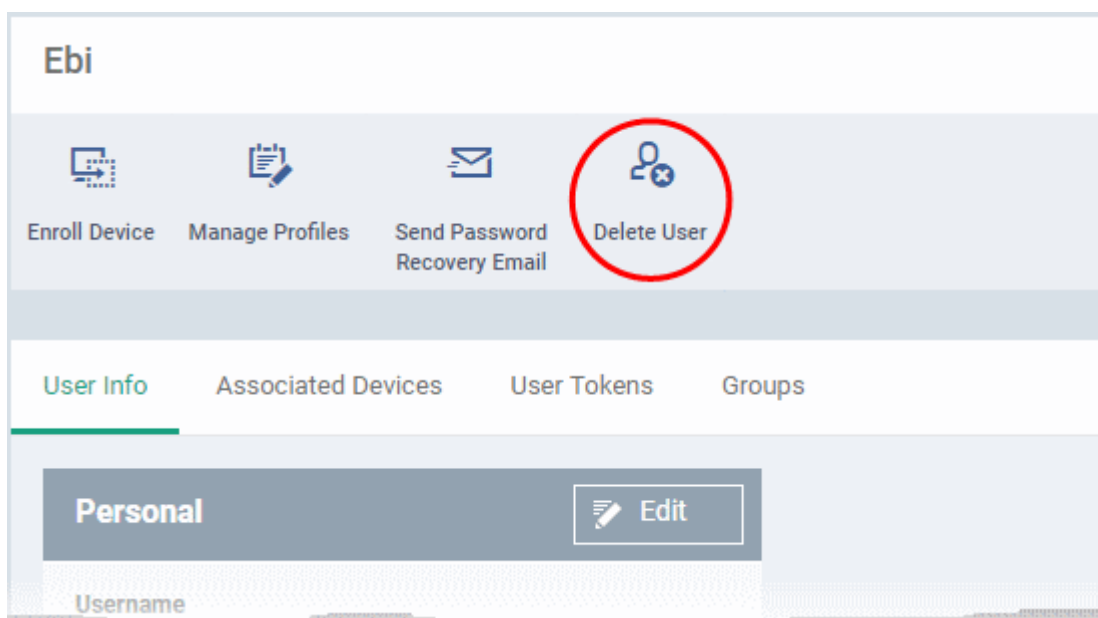
## 4.1.5. Remove a User

You can remove users if their devices no longer need to be managed by Endpoint Manager.

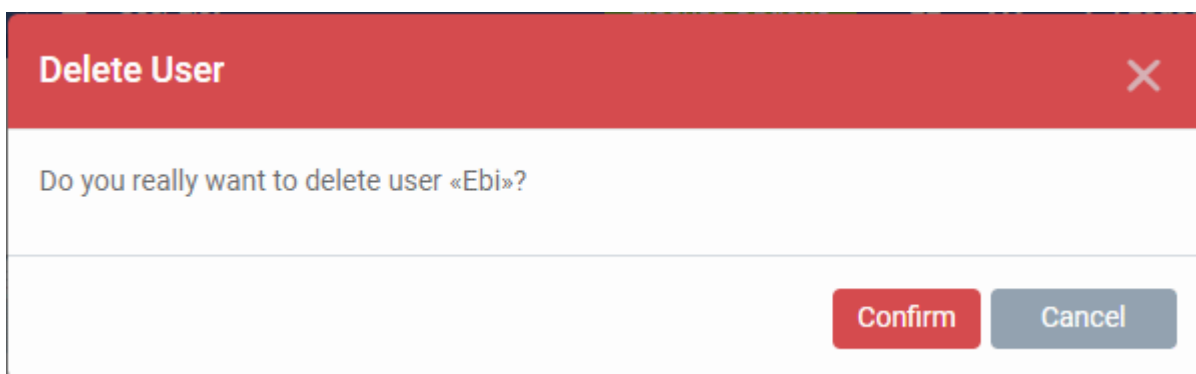
- Click 'Users' > 'User List'
- Select the target user and click 'Delete User':



- Alternatively, click on the name of the user
- Click 'Delete User' in the 'User Details' screen.



- Click 'Confirm' in the confirmation dialog



**Note 1:** Users added via the C1 or ITarian portal cannot be removed via the EM interface. They can only be removed from the source portal through which they were added. Once removed they are automatically deleted from EM.

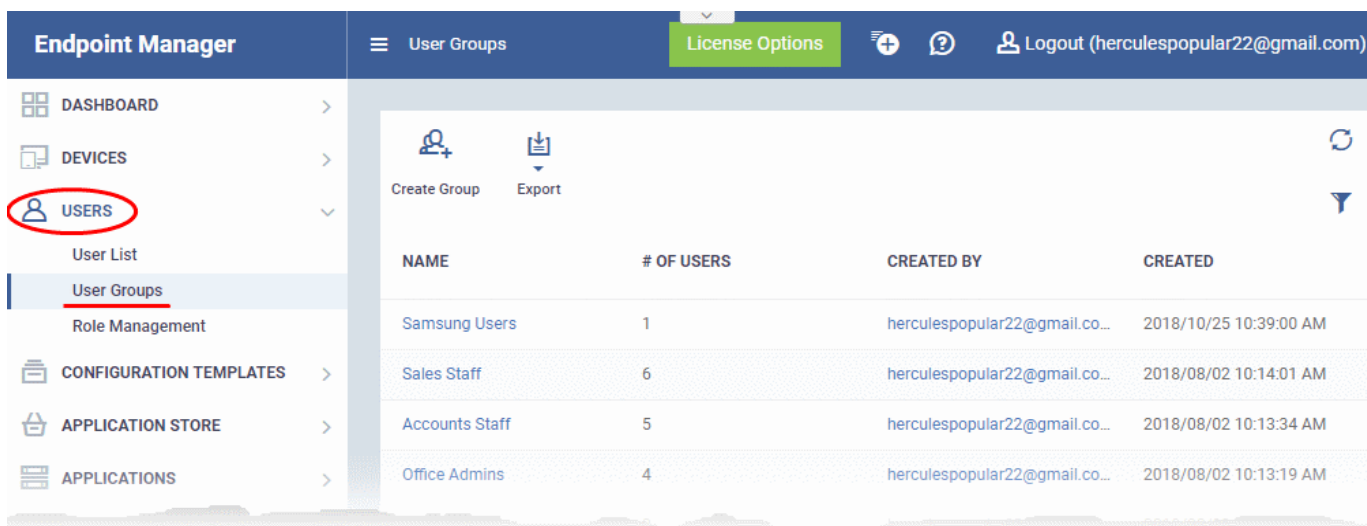
**Note 2:** Users cannot be removed if they still have devices. Ensure all devices associated with a user are removed or reassigned to another user. See [Remove a Device](#) and [Change Device's Owner](#) for more details.

## 4.2. Manage User Groups

- Click 'Users' > 'User Groups'
- Endpoint Manager lets you to create logical groups of users to simplify and streamline user management. For example, users could be grouped according to existing corporate units ('Sales Dept.', 'Accounts Dept.') and/or by type of user.
- Once created, dedicated configuration profiles can be applied to each user group as required. See [Configuration Profiles](#) for more help with profiles.
- You can also import users/user groups from Active Directory using LDAP. EM periodically synchronizes with AD to ensure any user updates are mirrored in the EM database. See [Import User Groups from LDAP](#) for more details.

The 'User Groups' interface lists all existing groups and allows you to add new groups and edit groups. You can also assign profiles to groups from this interface.

- Click 'Users' > 'User Groups' to open the groups interface.

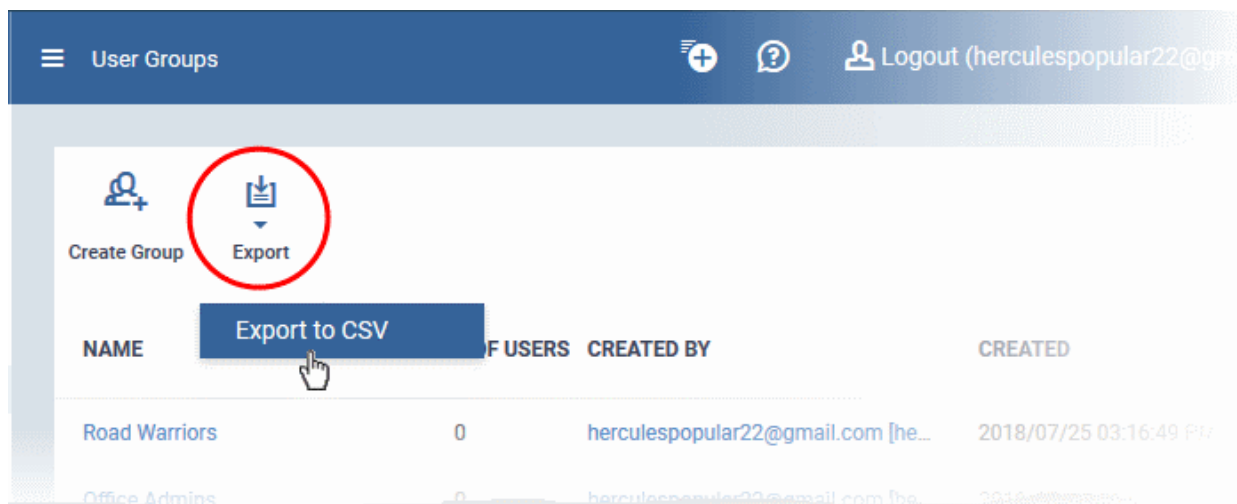


User Groups - Column Descriptions	
Column Heading	Description
Name	The user group label. <ul style="list-style-type: none"> <li>• Click the name of a group to view and manage its members, assign configuration profiles and more. See <a href="#">Edit a User Group</a> for more details.</li> </ul>
Number of Users	Shows how many users are in the group.
Created By	The administrator who created the group. <ul style="list-style-type: none"> <li>• Click the admin name to view their details. See <a href="#">View User Details</a> if you need help with this.</li> </ul>
Created	Date and time at which the group was created.
Controls	
Create Group	Add a new user group to EM and include users into it. See <a href="#">Create a New User Group</a>

	for more details.
Export	Save the list of user groups as a comma separated values (CSV) file. The exported .csv is available in 'Dashboard' > 'Reports' See <b>Export the List of User Groups</b> for more details.


## Export the List of User Groups

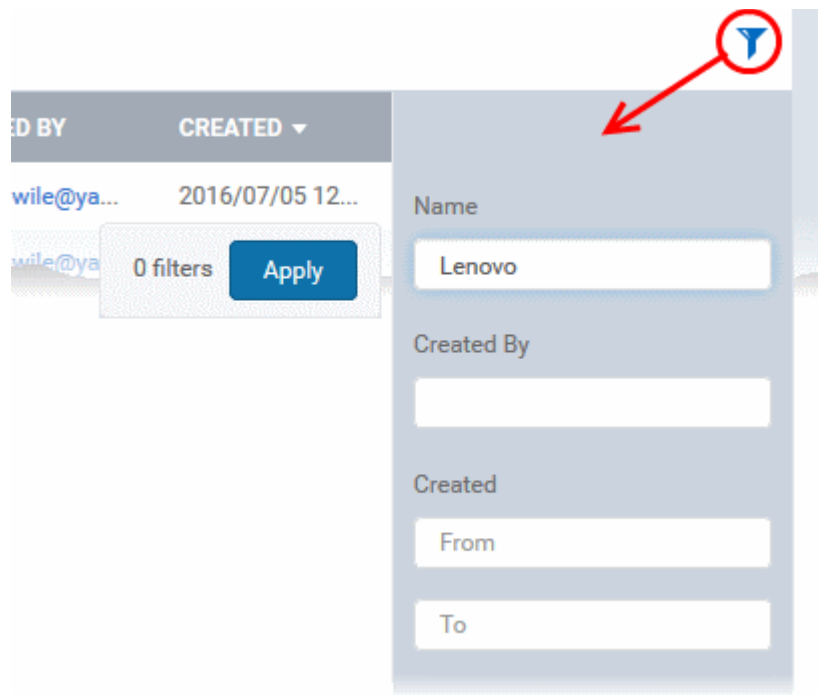
- Click 'Users' > 'User Groups'.
- Click the 'Export' button above the table then choose 'Export to CSV':



- The CSV file will be available in 'Dashboard' > 'Reports'
- See **Reports** in **The Dashboard** for more details.

## Sorting, Search and Filter Options

- Click any column header to sort groups in alphabetic or ascending/descending order of the entries in the column.
- Click the funnel button  at the right end to open the filter options.



The 'User Groups' interface allows you to:

- **Create a New User Group**
- **Edit a User Group**
- **Assign Configuration Profile(s) to a User Groups**
- **Remove a User Group**

## 4.2.1. Create a New User Group

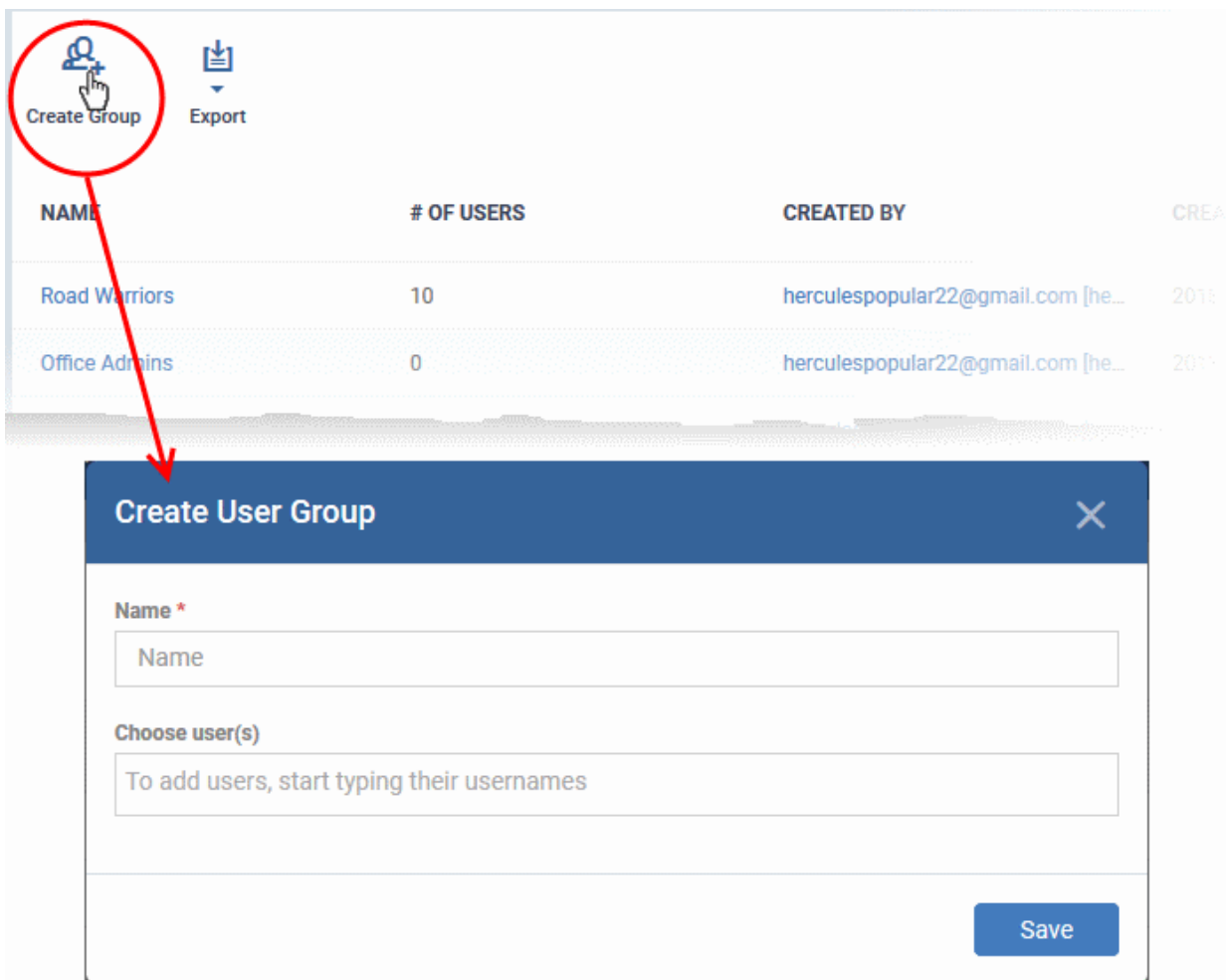
- Click 'Users' > 'User Groups'

The 'User Groups' interface lets you add and populate new user groups. Configuration profiles applied to the group will then be pushed to all devices owned by users in the group.

### To create a new user group

- Click 'Users' > 'User Groups'
- Click 'Create Group' above the table.

The 'Create User Group' dialog will open:



The screenshot shows the 'Create Group' button circled in red in the top left corner of the interface. A red arrow points from this button to the 'Create User Group' modal dialog box. The modal dialog has a blue header with the title 'Create User Group' and a close button (X). Below the header, there are two main sections: 'Name \*' with a text input field containing the placeholder 'Name', and 'Choose user(s)' with a text input field containing the placeholder 'To add users, start typing their usernames'. At the bottom right of the modal, there is a blue 'Save' button.

NAME	# OF USERS	CREATED BY	CREA
Road Warriors	10	herculespopular22@gmail.com [he...	2018
Office Admins	0	herculespopular22@gmail.com [he...	2018

- **Name** - Type a label for the user group.
- **Choose User(s)** - Add users to the group.
  - Start typing the first few letters of a username and select from the suggestions.
  - Repeat the process to add more users.





Note: You can skip this step and add users later if required. See [Edit a User Group](#) for more details.




Complete the name, choose your users (optional at this stage) and click 'Save'.

- The group will be saved and the group details screen will open.
- Profiles can now be applied to the group. See [Assign Configuration Policy to a User Group](#) for more details.
- Users can be added or removed from the group at anytime. See [Edit a User Group](#) for more details.



### Marketing Staff

 Add Users to Group	 Manage Profiles	 Delete User Group	 Rename User Group
---------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------

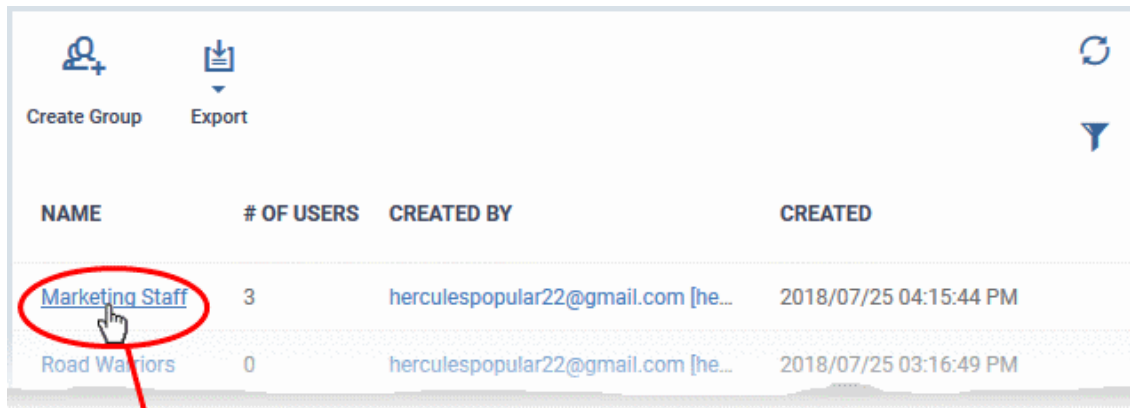
 Remove from Group  

<input type="checkbox"/>	USERNAME
<input type="checkbox"/>	Dyanora [Stem Forks]
<input type="checkbox"/>	Avanti [Saddle and Pedals]
<input checked="" type="checkbox"/>	Writer [herculespopular]

**Note:** A single user can be a member of more than one group. Profiles from every group of which the user is a member will be applied to the user's device. If the settings in one profile clash with another profile, EM will implement the most restrictive setting. For example, if one profile allows the use of the camera but another profile blocks it, then the device will not be able to use the camera.

## 4.2.2. Edit a User Group

- The group details screen lets you manage group members, rename the group, or delete the group.
- Click 'Users' > 'User Groups'.
- Click the name of the group you want to edit:



NAME	# OF USERS	CREATED BY	CREATED
<a href="#">Marketing Staff</a>	3	herculespopular22@gmail.com [he...	2018/07/25 04:15:44 PM
<a href="#">Road Warriors</a>	0	herculespopular22@gmail.com [he...	2018/07/25 03:16:49 PM

### Marketing Staff

[Add Users to Group](#) [Manage Profiles](#) [Delete User Group](#) [Rename User Group](#)

[Remove from Group](#)

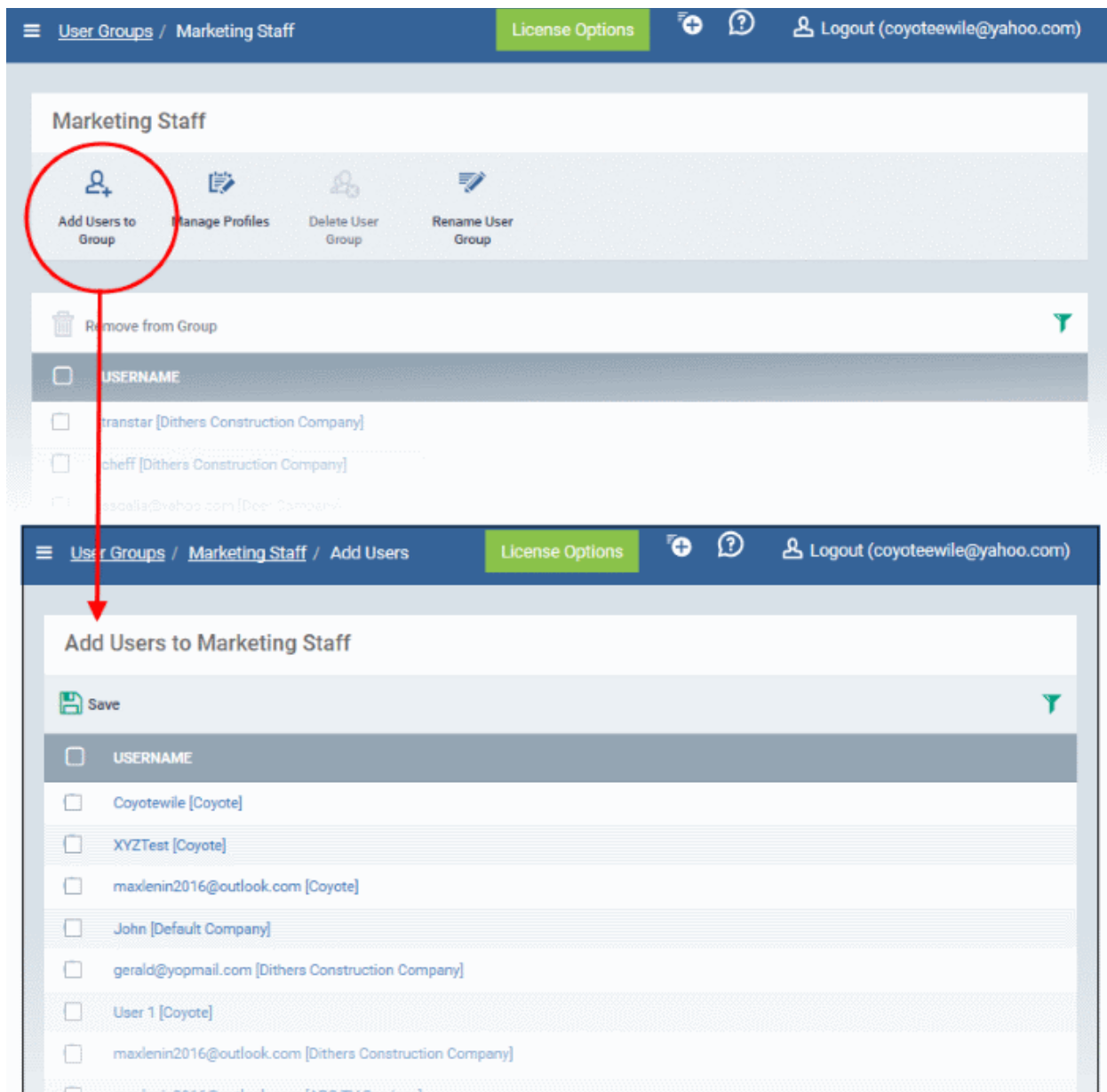
<input type="checkbox"/>	USERNAME
<input type="checkbox"/>	<a href="#">Dyanora [Stem Forks]</a>
<input type="checkbox"/>	<a href="#">Avanti [Saddle and Pedals]</a>
<input checked="" type="checkbox"/>	<a href="#">Writer [herculespopular]</a>

The group details screen allows you to:

- **Add new users to the group**
- **Rename the group**
- **Assign Configuration profiles to the group**
- **Remove the group**

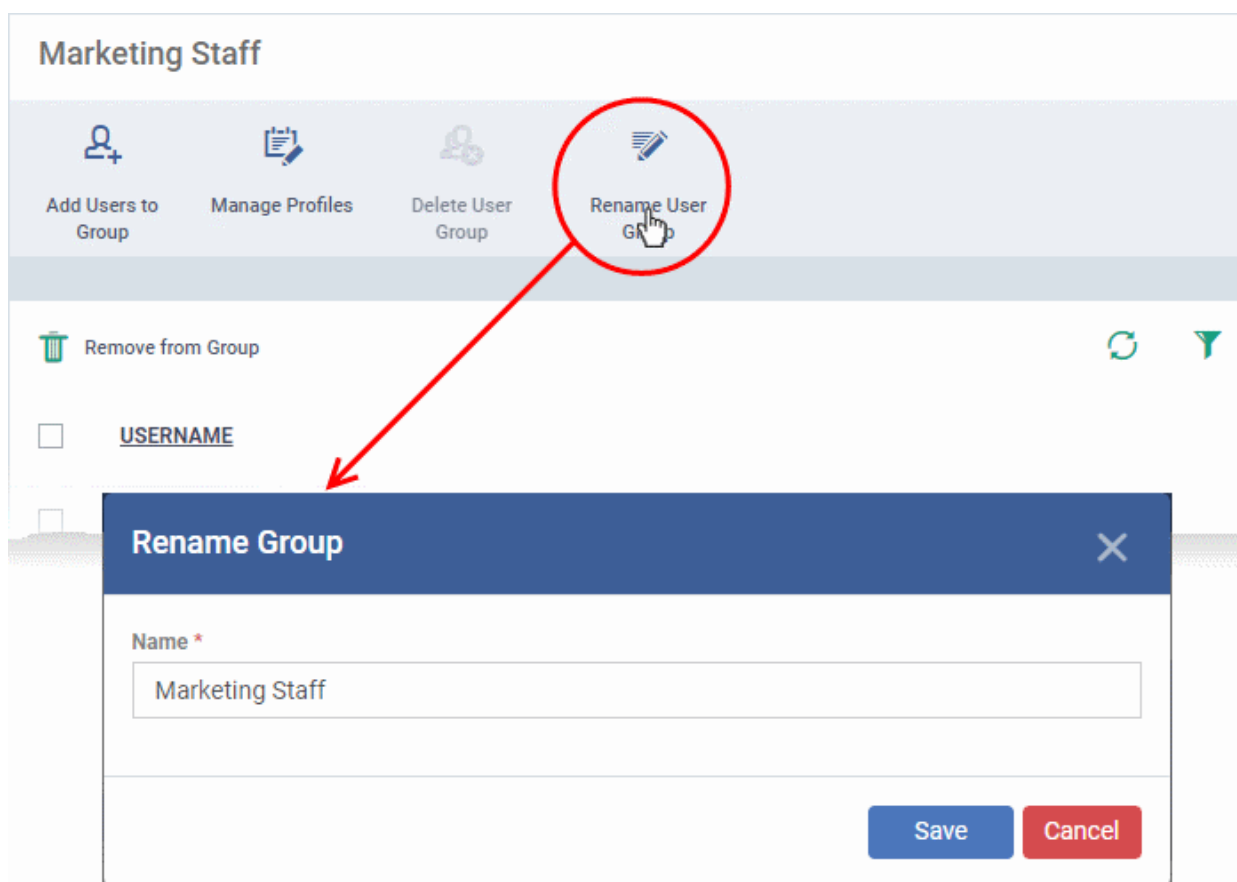
#### To add new user(s) to the group

- Click 'Add Users To Group'.
- Select the users you want to add and click 'Save'.
- All group profiles will be applied to the new user's devices. These profiles will be removed from the device if you remove the user from the group.



## To rename a group

- Click 'Users' > 'User Groups'.
- Click the name of the group you want to re-name.
- Click the 'Rename User Group' button
- Enter the new label in the 'Name' text box and click 'Save':



### 4.2.3. Assign Configuration Profiles to a User Group

- Click 'Users' > 'User Groups'

The 'User Group Details' pane lets you view the configuration profiles currently applied to a user group and to apply new configuration profiles. The profiles will be applied instantly to all the devices belonging to all users in the group. This is particularly useful if organizations want to roll out profiles to devices on user group basis. You can select profiles for different operating systems and these will be applied to the respective devices.

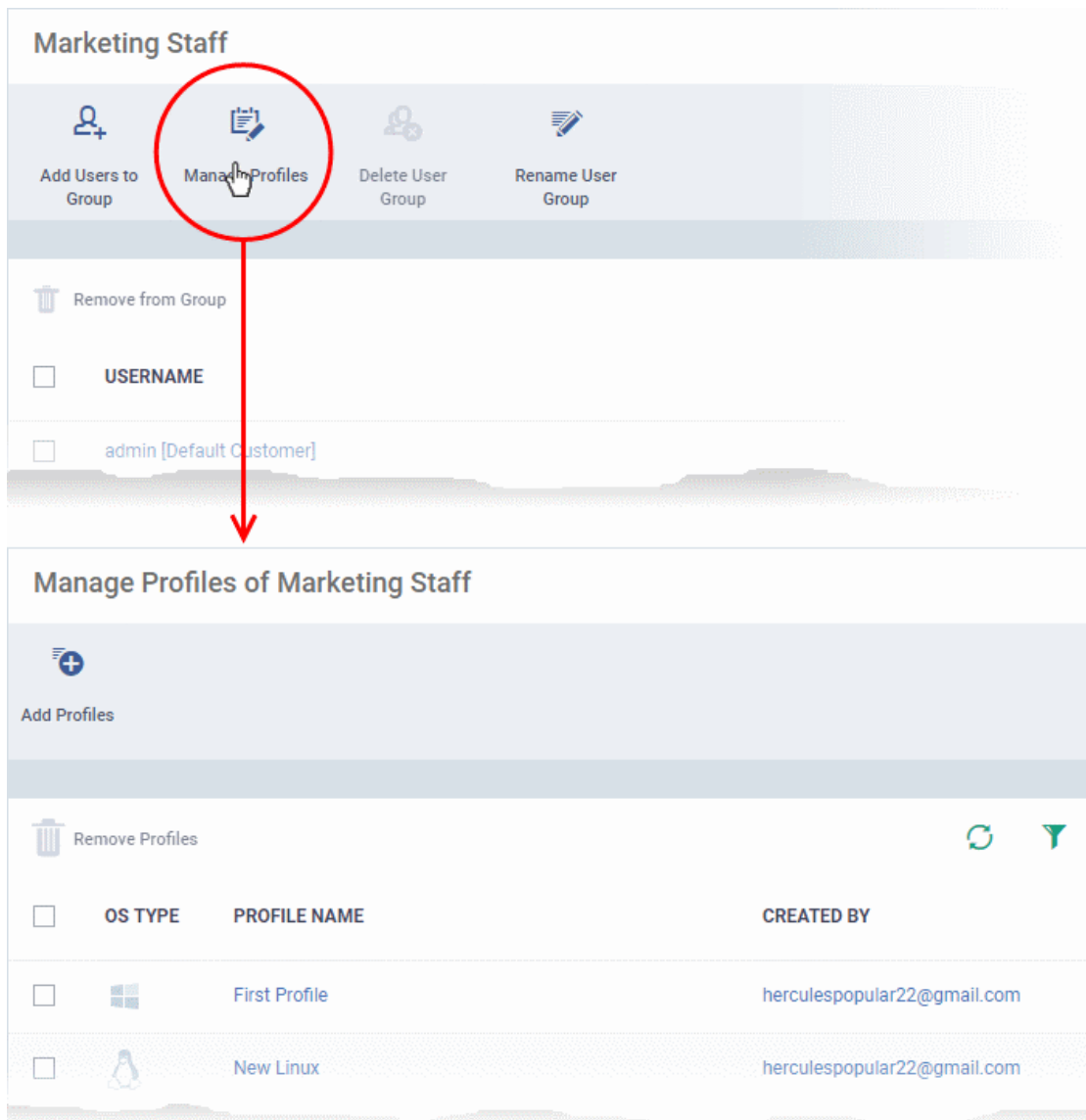
For more details on profiles, See [Create Configuration Profiles](#).

#### To view and manage the profiles applied to a group

- Click 'Users' > 'User Groups'.
- Click on the name of the group whose profiles you wish to manage.

The group details interface opens with a list of all users in the group.

- Click 'Manage Profiles' at the top.



The 'Manage Profiles For User Group' interface opens showing the profiles associated with the group.

### To add a new profile

- Click 'Add Profiles'

**Manage Profiles of Marketing Staff**

Remove Profiles

<input type="checkbox"/>	OS TYPE	PROFILE NAME	CREATED BY
<input type="checkbox"/>	Windows	First Profile	herculespopular22@gmail.com
<input type="checkbox"/>	Linux	New Linux	herculespopular22@gmail.com

**Add Profiles to Marketing Staff**

Save

<input type="checkbox"/>	OS TYPE	PROFILE NAME	CREATED BY
<input type="checkbox"/>	Android	Finance Dept Android Devices	herculespopular2...
<input type="checkbox"/>	Android	Android - Security Level 1 Profile v.6.23	admin
<input checked="" type="checkbox"/>	Android	Android Devices in Sales Dept.	herculespopular2...
<input checked="" type="checkbox"/>	iOS	iOS Purchase	herculespopular2...
<input type="checkbox"/>	iOS	iOS - Security Level 1 Profile v.6.23	admin

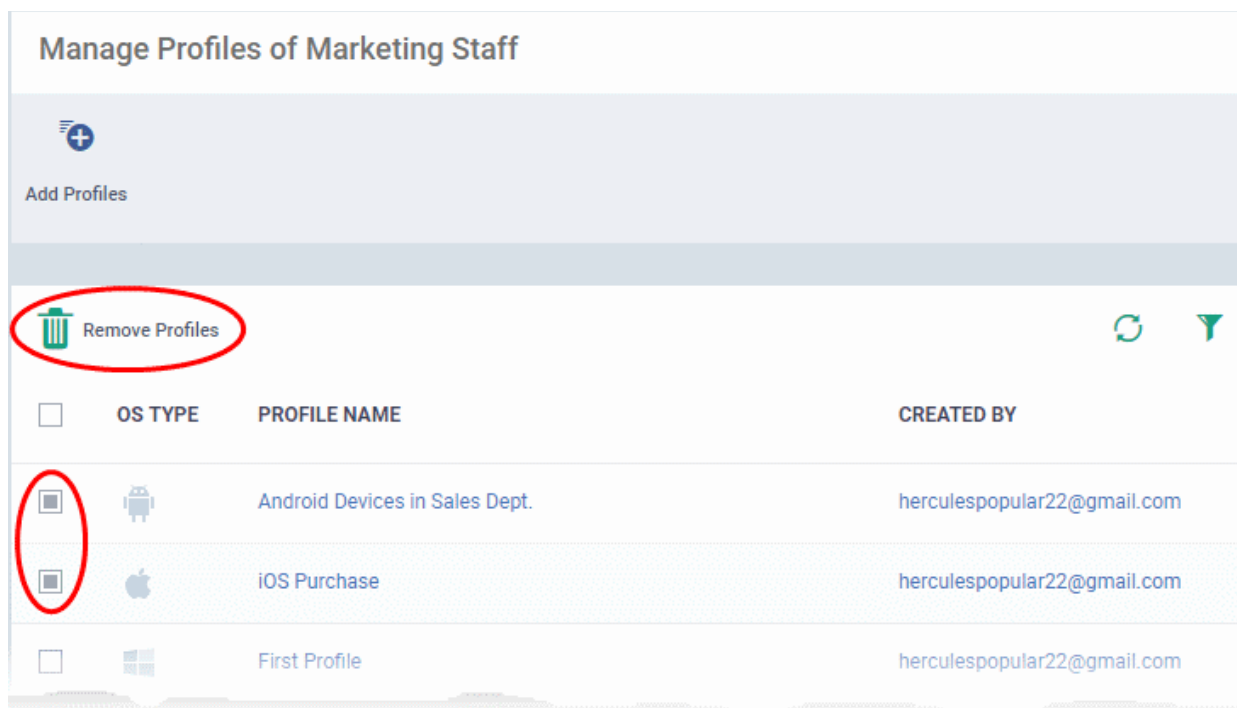
A list of all configuration profiles, available in EM, excluding those already applied to the group will be displayed.

- Select the profiles to be applied to the users in the group and click 'Save'.

The profile will be associated with the group and applied to all the devices used by the members in the group.

### To remove a profile from a group

- Click 'Users' > 'User Groups'.
- Click on the name of the group whose profiles you wish to manage.
- Click 'Manage Profiles' at the top of the 'Group Details' interface.
- Select the profile from the 'Manage Profiles' interface and click 'Remove Profiles'



The profile(s) will be removed from all the devices belonging to the members of the group.

**Note** - Disassociating a profile from a user group will remove the profile from devices belonging to the users in that group only if it is applied because the user is a member of that group. If the same profile is applied to a member device through some other source, (like the profile is applied to the device, user of the device or a group to which the device belongs), then the profile will not be removed.

## 4.2.4. Remove a User Group

- Click 'Users' > 'User Groups'

The 'User Groups' interface lets you remove unwanted user group(s) in Endpoint Manager.

**Note:** Only Groups that do not contain any members in it can be removed. Ensure that all users are removed from the group before removing it. See the **explanation of removing users from a group** in **Edit a User Group** for more details.

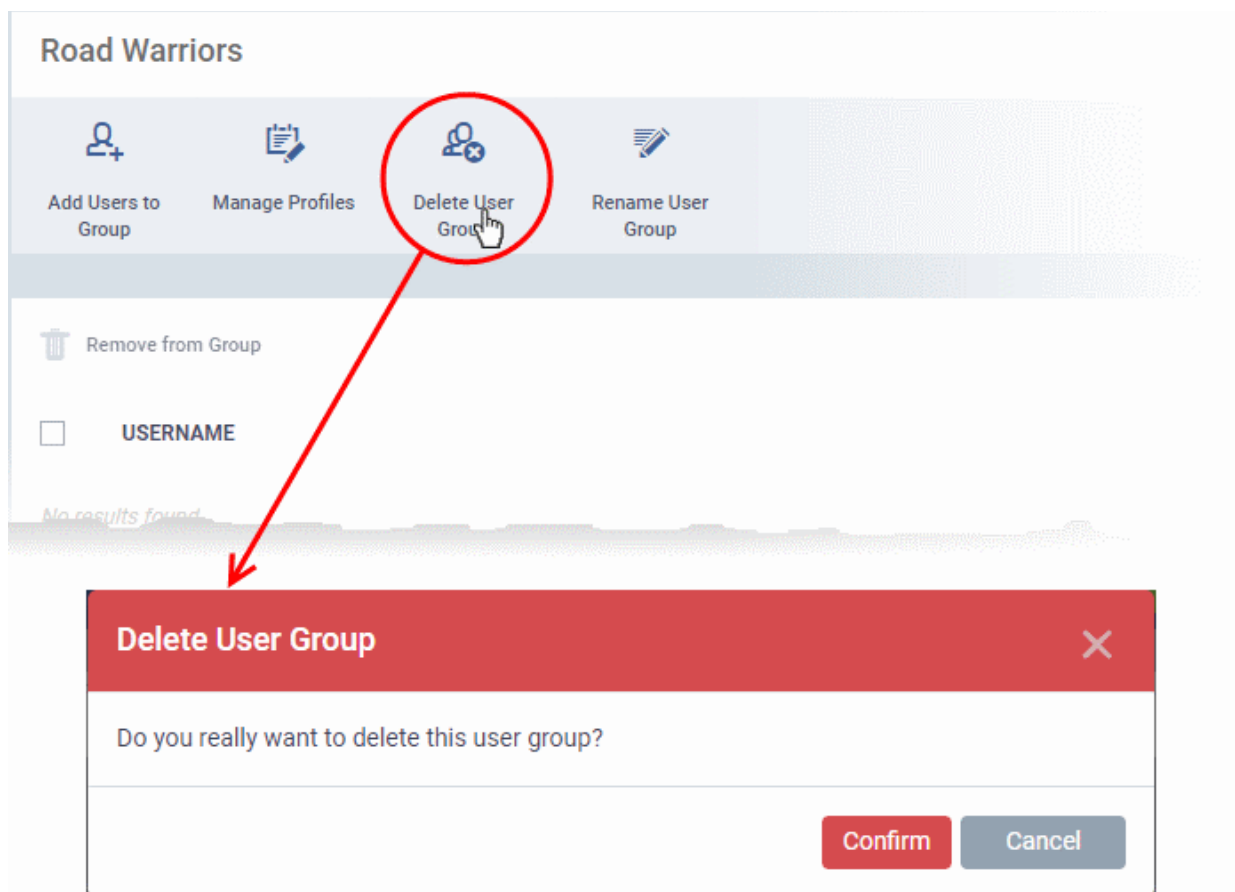
### To remove a user group

- Click 'Users' > 'User Groups'
- Click the name of the group to be removed.

The group details interface will be displayed with the list of users in the group.

- Click 'Delete User Group' at the top.





- Click 'Confirm' in the confirmation dialog. The user group will be removed from Endpoint Manager.

## 4.3. Configure Role Based Access Control for Users

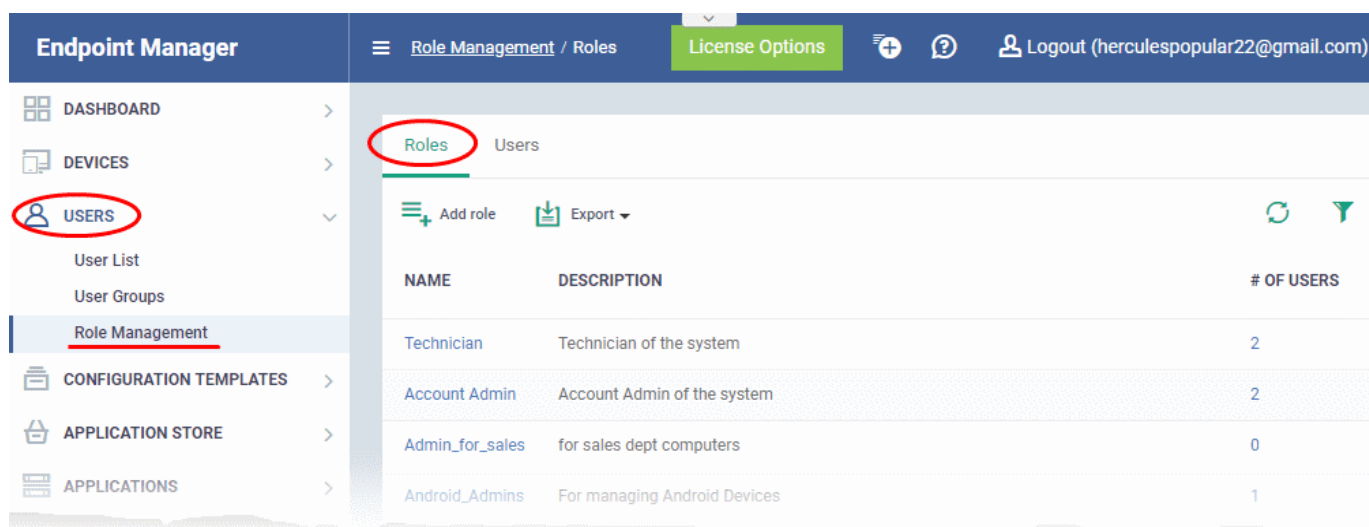
- Click 'Users' > 'Role Management' to open the 'Role Management' interface
- User privileges depend on the roles assigned to them. Administrators can create different roles with different access privileges and assign them to users as required. A single user can be assigned to any number of roles.
- Comodo One and ITarian customers - All staff created in the Comodo One or ITarian interface will be available for selection for all roles and for all companies in the account. This allows you to assign different roles to the same staff member for different companies.
- You can restrict access to selected companies/groups in a role by defining the access scope. Staff can only manage the devices of companies/groups that are allowed by their role.

There are two tabs in the role management interface:

- Roles - view and edit each role's permissions. You can also create custom roles here.
- Users - view users and assign them to roles


### Roles

- The 'Roles' interface allows you to create and manage user roles.
- Each role defines a staff member's rights to access EM modules and to manage users/devices belonging to different companies. You can restrict a role to manage specific companies and specific device groups.
- Endpoint Manager ships with four roles, 'Account Admin', 'Administrators', 'Technician' and 'Users'.
- The 'Account Admin' role can be viewed but not edited. The permissions in the other three roles can be modified. You can also create custom roles according to your requirements.



- Custom roles and built-in roles are available for selection when adding a new user.
- Admins can add or remove roles at any time. You can also change the role of any user at any time.
- New users are assigned the 'User' role by default. However, you have the option to make any role the default.

Roles - Column Descriptions	
Column Heading	Description
Name	Role label. <ul style="list-style-type: none"> <li>• Click a role name to open the 'Role Management' &gt; 'Role Permissions' screen.</li> <li>• You can view and manage permissions assigned to the role.</li> <li>• See <b>'Manage Permissions and Assign Users of a Role'</b> for more details.</li> </ul>
Description	A short description of the role.
Number of Users	Shows how many users are assigned to the role. <ul style="list-style-type: none"> <li>• Click the number to open the 'Assign Users' screen, which lets you manage users assigned to the role. See <b>'View users assigned to a role'</b> for more details.</li> </ul>
Controls	
Add Role	Create new roles and assign them to users. See <b>Create a New Role</b> for more details.
Export	Save the list of user roles as a comma separated values (CSV) file. The exported .csv is available in 'Dashboard' > 'Reports' See <b>Export the List of Roles</b> for more details.

- Click a column header to sort the table according to the items in the column.
- Click the funnel  on the right to implement more filters.

The roles interface allows you to:

- **Create a new role**
- **Manage Roles**
  - **Edit a role name and description of a role**

- **Manage the permissions assigned to a role**
- **Manage the users assigned with a role**
- **Remove a Role**

## Export the List of Roles

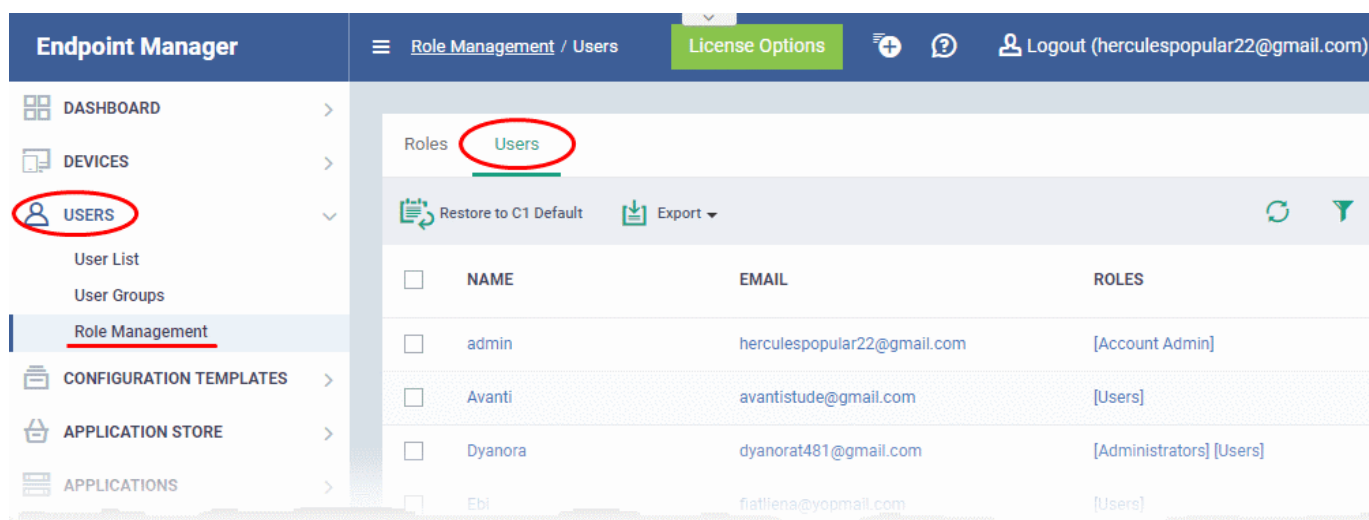
- Click 'Users' > 'Role Management'.
- Select the 'Roles' tab
- Click the 'Export' button above the table then choose 'Export to CSV':



- The CSV file will be available in 'Dashboard' > 'Reports'
- See **Reports** in **The Dashboard** for more details.

## Users


- The 'Users' interface lets you view users added to EM and the roles assigned to them.
- You can also edit the roles assigned to each user from this interface.
- Click the 'Users' tab to switch to the 'Users' interface:



### Users - Column Descriptions

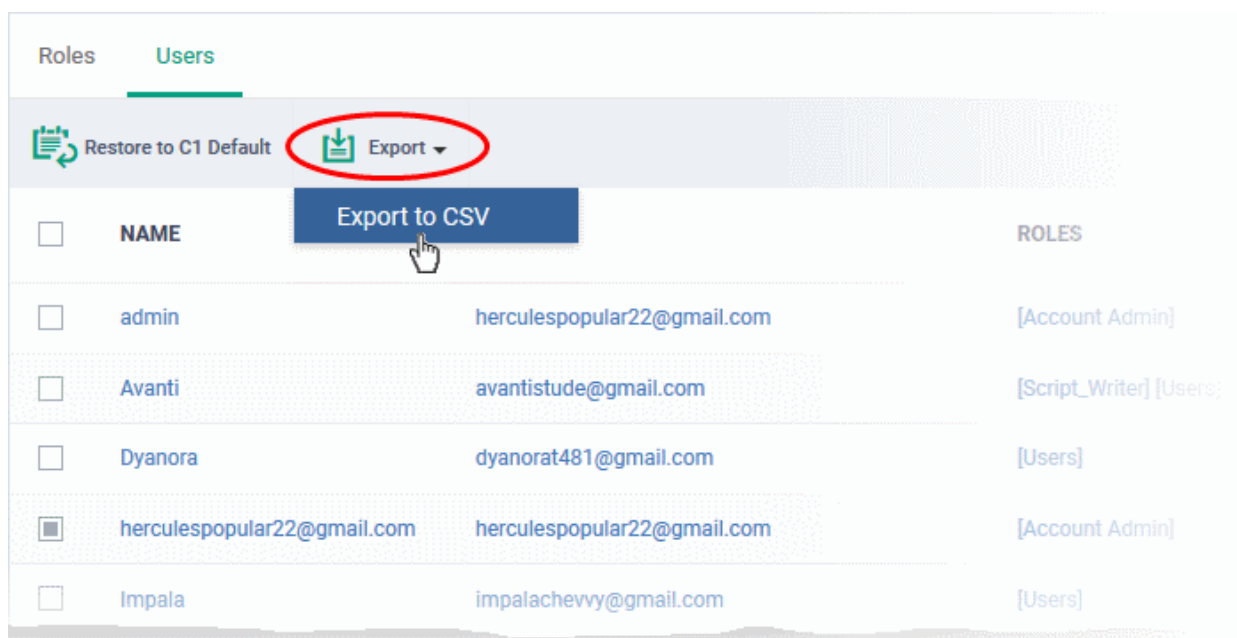
Column Heading	Description
Name	The login username of the user. <ul style="list-style-type: none"> <li>• Click a username to view and manage roles assigned to the user. See <b>Manage</b></li> </ul>

	<b>Roles assigned to a User</b> for more details.
Email	The registered email address of the user.
Roles	The user roles assigned to the user. Click a role name to view and manage permissions assigned to the role. See ' <b>Manage Permissions and Assigned Users of a Role</b> ' for more details.
<b>Controls</b>	
Restore to C1 Default	Revert the user's role to the Comodo One or ITarian system default role. Applies only to users imported from Comodo One or ITarian. It doesn't apply to users added via EM. See <b>restoring user role</b> in <b>Manage Roles Assigned to a User</b> for more.
Export	Save the list of users as a comma separated values (CSV) file. The exported .csv is available in 'Dashboard' > 'Reports'. See <b>Export the List of Users</b> for more details.

- Click a column header to sort the table according to the items in the column.
- Click the funnel  on the right to implement more filters.

## Export the List of Users

- Click 'Users' > 'Role Management'.
- Select the 'Users' tab
- Click the 'Export' button above the table then choose 'Export to CSV':



- The CSV file will be available in 'Dashboard' > 'Reports'
- See **Reports** in **The Dashboard** for more details.

The 'Users' interface allows administrators to:

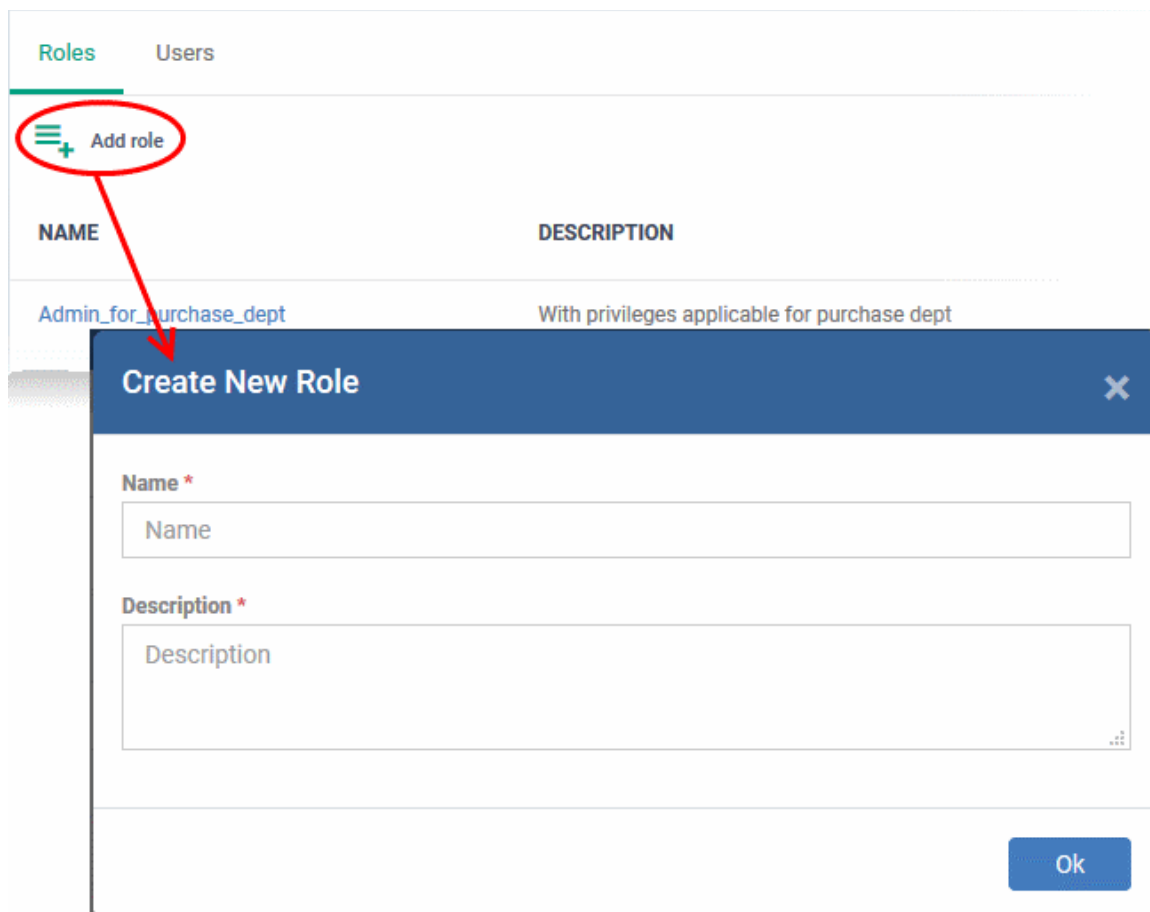
- **Manage Roles Assigned to a User**

## 4.3.1. Create a New Role

Administrators can create roles featuring different permissions for staff and users.

### To create a new role

- Click 'Users' on the left and select 'Role Management'.
- Click the 'Roles' tab.
- Click 'Add Role' above the table.



The screenshot shows the 'Roles' tab selected in the top navigation bar. Below it, there is a table with columns 'NAME' and 'DESCRIPTION'. A red circle highlights the 'Add role' button (represented by a plus sign icon) in the top left corner of the table area. A red arrow points from this button to a 'Create New Role' dialog box that is open in the foreground. The dialog box has a dark blue header with the title 'Create New Role' and a close button (X). It contains two text input fields: 'Name \*' and 'Description \*'. The 'Name' field has the placeholder text 'Name' and the 'Description' field has the placeholder text 'Description'. At the bottom right of the dialog box is an 'Ok' button.

The 'Create New Role' wizard will start.

- Specify a name for the role in the 'Name' text box.
- Enter a short description for the role in the 'Description' box.
- Click 'Create'.

The new role will be created and listed in the 'Roles' screen. The next step is to define the privileges for the role.

- Click on the new role to edit its permissions, to assign users to the role, and to specify which companies and device groups the role is allowed to manage.

The screenshot displays the 'Roles' management interface. At the top, there are tabs for 'Roles' and 'Users'. Below this is a list of roles with columns for 'NAME' and 'DESCRIPTION'. The role 'Admin\_Device\_Management' is circled in red, and a red arrow points from it to the detailed view of that role. The detailed view for 'Admin\_Device\_Management' includes a 'Make Default' button, 'Delete role' and 'Edit' icons, and three tabs: 'Role Permissions', 'Assign Users', and 'Access Scope'. The 'Role Permissions' tab is selected, showing a table of permissions. At the top of this tab, there is a 'Save' button and an 'Apply to all' toggle set to 'ON'.

NAME	DESCRIPTION
Account Admin	Account Admin of the system
Admin_Device_Management	Administrator for managing devices only
Admin_for_purchase_dept	With privileges applicable for purchase dept
Administrators	This is the super administrator role that has maximum privilege and nee

PERMISSION	DESCRIPTION	ACTION
access_scope.manage	Access to "Access Scope" tab (companies and groups) at "Role Management" page.	<input type="checkbox"/> OFF
dashboard.audit	Access to "Audit" page.	<input type="checkbox"/> OFF
dashboard.audit_logs	Access to "Audit Logs" page.	<input type="checkbox"/> OFF
dashboard.compliance	Access to "Compliance" page.	<input type="checkbox"/> OFF
dashboard.reports	Access to "Reports" page.	<input type="checkbox"/> OFF

The 'Role Details' interface contains three tabs:

- **Role Permissions** - Define access rights and privileges for the role
- **Assign Users** - Select users who should have the role.
- **Access Scope** - Select which companies and device groups can be accessed by staff assigned to the role

**To select access rights and privileges for the role**

- Click the 'Role Permissions' tab if it is not open

The tab shows a list of all available permissions along with a description of each.

- Use the switches on the right of each item to enable or disable a permission
- Use the 'Apply to all' switch to enable all permissions or disable all permissions
- Click 'Save' for your settings to take effect

### To assign the new role to selected users

- Click the 'Assign Users' tab.

This opens a list of all users enrolled in EM so far.

NAME ▲	COMPANY	EMAIL	ACTION
gerald@yopmail.com	kanchiidly	gerald@yopmail.com	<a href="#">Assign to Role</a>
Glen	Deer Company	nelg@yopmail.com	<a href="#">Assign to Role</a>
Greenway	Dithers Construction Company	yawneerg@yopmail.com	<a href="#">Assign to Role</a>
Herald Triumph	Dithers Construction Company	hertriumph@gmail.com	<a href="#">Assign to Role</a>
Horizon	Default Company	josephsaviour0@gmail.com	<a href="#">Assign to Role</a>
Impala	Deer Company	impalachevy@gmail.com	<a href="#">Assign to Role</a>

- Click the 'Assign to Role' links to place a user in the role.
- Click the 'Remove from Role' link to unassign a user from the role.

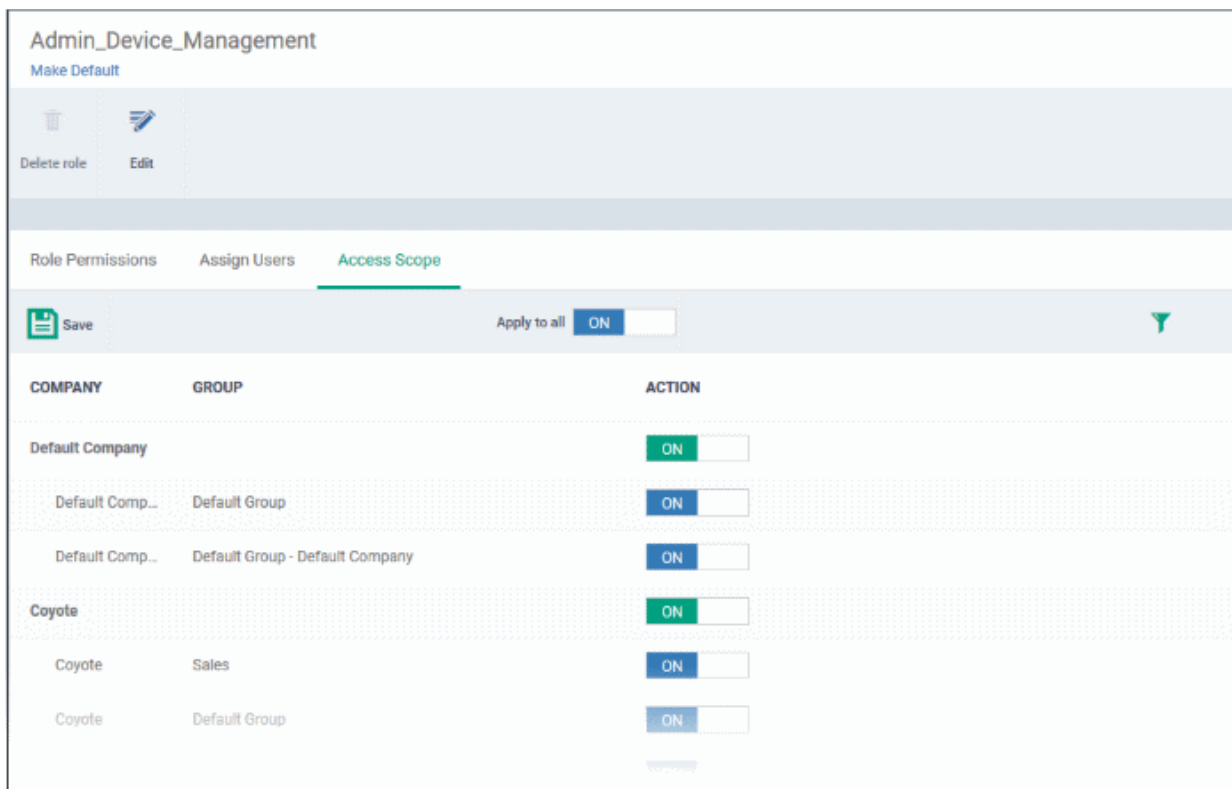
**Tip:** You can search for specific user(s) by clicking the funnel icon at the top right.


### Select which companies and device groups can be accessed by the role

- Click the 'Access Scope' tab.

This opens a list of all companies added to EM so far. **Device groups** belonging to each company will be listed below the company name.





- Use the green 'master' switch beside a company name to enable or disable the ability to manage groups belonging to the company. Please note you should have provided appropriate devices management **role permissions**.
- Use the switches beside a device group to enable or disable access to specific company groups.
- Use the 'Apply to All' switch to enable or disable access to all companies and groups on the page.
- Click 'Save' for your settings to take effect
- Click the edit button  **Edit** to modify the role's name and description. Please note that you cannot modify the built-in roles, Account Admin, Administrators and Technician.
- Click 'Make Default' if you want this to be the role that is initially assigned to new users. Please note 'Account Admin' role cannot be made as a default role.

## 4.3.2. Manage Permissions and Users Assigned to a Role

- Click 'Users' on the left and select 'Role Management'.
- Click the 'Roles' tab.
- Click a role name to view details of the role

Roles Users

Add role

NAME ▲	DESCRIPTION
Account Admin	Account Admin of the system
<b>Admin_Device_Management</b>	Administrator for managing devices only
Admin_for_purchase_dept	With privileges applicable for purchase dept
Administrators	This is the super administrator role that has maximum privilege and nee

### Admin\_Device\_Management

Make Default

Delete role Edit

Role Permissions Assign Users Access Scope

Save Apply to all

PERMISSION	DESCRIPTION	ACTION
access_scope.manage	Access to "Access Scope" tab (companies and groups) at "Role Management" page.	<input type="checkbox"/> OFF
dashboard.audit	Access to "Audit" page.	<input type="checkbox"/> OFF
dashboard.audit_logs	Access to "Audit Logs" page.	<input type="checkbox"/> OFF
dashboard.compliance	Access to "Compliance" page.	<input type="checkbox"/> OFF
dashboard.reports	Access to "Reports" page.	<input type="checkbox"/> OFF

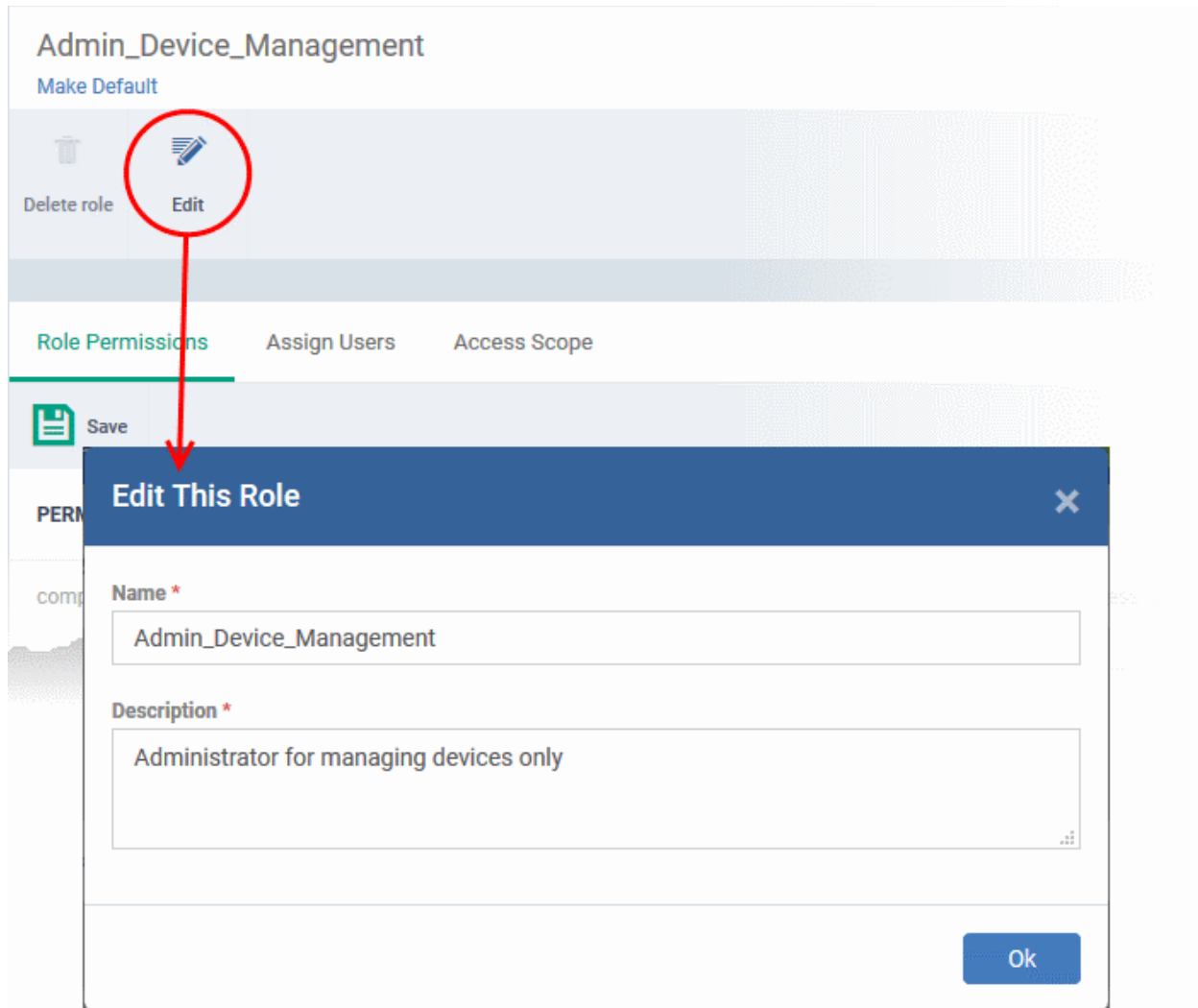
The 'Role Management' interface allows you to:

- **Edit the name and description of a role**
- **Manage the permissions assigned to a role**
- **View users assigned to a role**
- **Assign / remove a role to / from users**
- **Select companies and device groups accessible to a role**

- **Set a role as the default role**

To edit the name and description of the role

- Click the 'Edit' button  at the top



- Click 'Ok' for your changes to take effect.

To manage the permissions assigned to a role

- Click the name of the role to open the 'Role Details' interface
- Click the 'Role Permissions' tab if it is not open

## Admin\_Device\_Management

Make Default

Delete role Edit

Role Permissions Assign Users Access Scope

Save Apply to all  ON

PERMISSION	DESCRIPTION	ACTION
access_scope.manage	Access to "Access Scope" tab (companies and groups) at "Role Management" page.	<input type="checkbox"/> OFF
dashboard.audit	Access to "Audit" page.	<input type="checkbox"/> OFF
dashboard.audit_logs	Access to "Audit Logs" page.	<input type="checkbox"/> OFF
dashboard.compliance	Access to "Compliance" page.	<input type="checkbox"/> OFF
dashboard.reports	Access to "Reports" page.	<input type="checkbox"/> OFF

The tab shows a list of all available permissions along with a description of each.

- Use the switches on the right of each item to enable or disable a permission
- Use the 'Apply to all' switch to enable all permissions or disable all permissions
- Click 'Save' for your settings to take effect

### To view users assigned to a role

- Click the name of the role to open the 'Role Details' interface
- Click the 'Assign Users' tab

Admin\_Device\_Management  
Make Default

Delete role Edit

Role Permissions **Assign Users** Access Scope

Refresh Filter

NAME ▲	COMPANY	EMAIL	ACTION
<a href="#">gerald@yopmail.com</a>	kanchiidly	<a href="#">gerald@yopmail.com</a>	<a href="#">Assign to Role</a>
Glen	Deer Company	<a href="#">nelg@yopmail.com</a>	<a href="#">Assign to Role</a>
Greenway	Dithers Construction Company	<a href="#">yawneerg@yopmail.com</a>	<a href="#">Assign to Role</a>
Herald Triumph	Dithers Construction Company	<a href="#">hertriumph@gmail.com</a>	<a href="#">Assign to Role</a>
Horizon	Default Company	<a href="#">josephsaviour0@gmail.com</a>	<a href="#">Assign to Role</a>
Imperial	Deer Company	<a href="#">impalachevvy@gmail.com</a>	<a href="#">Assign to Role</a>

The links in the 'Action' column indicate which users are assigned the role.

- Click the 'Assign to Role' links to place a user in the role.
- Click the 'Remove from Role' link to unassign a user from the role.

**Tip:** You can search for specific user(s) by clicking the funnel icon at the top right.

- Click a username to open a list of all roles assigned to that user, allowing you to add or remove roles from the user as required. Refer to **Managing Roles assigned to a User** for more details.

### To select which companies and device groups can be accessed by the role

- Click the name of the role to open the 'Role Details' interface
- Click the 'Access Scope' tab

**Admin\_Device\_Management**  
Make Default

Delete role   Edit

Role Permissions   Assign Users   **Access Scope**

Save   Apply to all  ON  

COMPANY	GROUP	ACTION
Default Company		<input checked="" type="checkbox"/> ON
Default Comp...	Default Group	<input type="checkbox"/> ON
Default Comp...	Default Group - Default Company	<input type="checkbox"/> ON
Coyote		<input checked="" type="checkbox"/> ON
Coyote	Sales	<input type="checkbox"/> ON
Coyote	Default Group	<input type="checkbox"/> ON

- Use the green 'master' switch beside a company name to enable or disable the ability to manage groups belonging to the company. Please note you should have provided appropriate devices **role permission**.
- Use the switches beside a device group to enable or disable access to specific company groups.
- Use the 'Apply to All' switch to enable or disable access to all companies and groups on the page.
- Click 'Save' for your settings to take effect

### Set a role as the default role

- The default role is automatically applied to any new user unless the admin specifies a different role when adding the user
- The default role is automatically applied to users if their current role is removed

#### To set the default role:

- Click 'Users' > 'Role Management' > 'Roles'
- Click the name of the role you wish to make default. To open the 'Role Details' interface
- Click 'Make Default' under the name of the role:

The screenshot shows the 'Users' management interface. At the top left, the word 'Users' is displayed. Below it, the text 'Make Default' is circled in red. There are two buttons: 'Delete role' with a trash icon and 'Edit' with a pencil icon. Below these are three tabs: 'Role Permissions', 'Assign Users', and 'Access Scope'. The 'Role Permissions' tab is active. It contains a 'Save' button with a document icon and an 'Apply to all' toggle switch currently set to 'ON'. Below this is a table with three columns: PERMISSION, DESCRIPTION, and ACTION.

PERMISSION	DESCRIPTION	ACTION
company.manage.access-scope	Manage company access (device list) per user role	<input type="checkbox"/> OFF
dashboard.audit	Access to audit page	<input checked="" type="checkbox"/> ON

The role be set as default. This will be indicated as follows:

This screenshot is identical to the one above, but the text 'Default role' is circled in red instead of 'Make Default'. The 'Apply to all' toggle switch is now set to 'OFF'.

PERMISSION	DESCRIPTION	ACTION
company.manage.access-scope	Manage company access (device list) per user role	<input type="checkbox"/> OFF
dashboard.audit	Access to audit page	<input checked="" type="checkbox"/> ON

### 4.3.3. Remove a Role

Administrators can delete roles that are no longer deemed necessary.

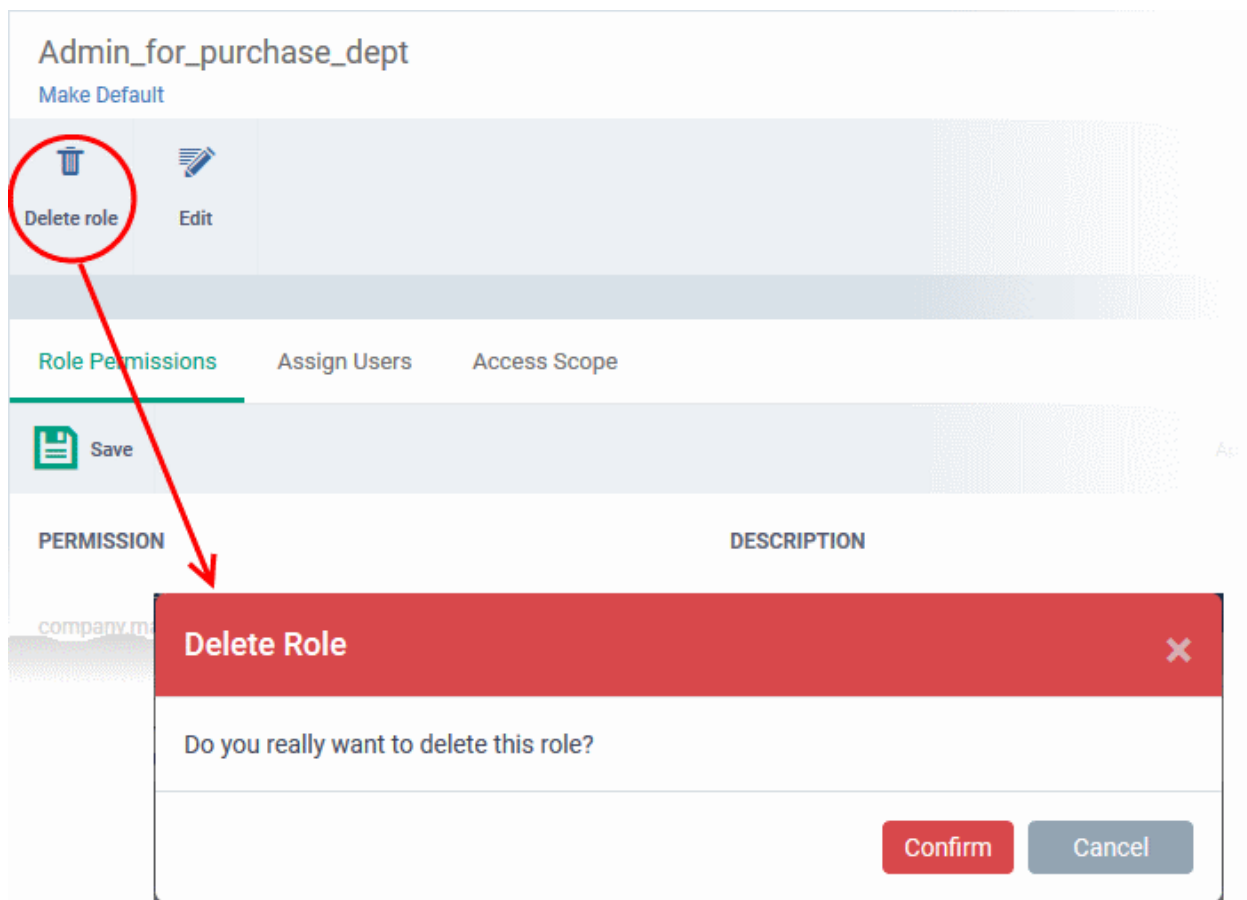
- Roles that are currently assigned to users cannot be removed. You should first remove all users from any role you wish to delete.
- The current 'Default' role cannot be deleted. You should make another role the default first.
- The built-in roles ('Account Admin', 'Administrators' and 'Technicians') cannot be removed either.

#### To remove a role

- Click 'Users' on the left and select 'Role Management'.



- Click the 'Roles' tab.
- Click the 'Role' name to open the 'Role Management' interface
- Click 'Delete Role' at the top



A confirmation dialog will appear.

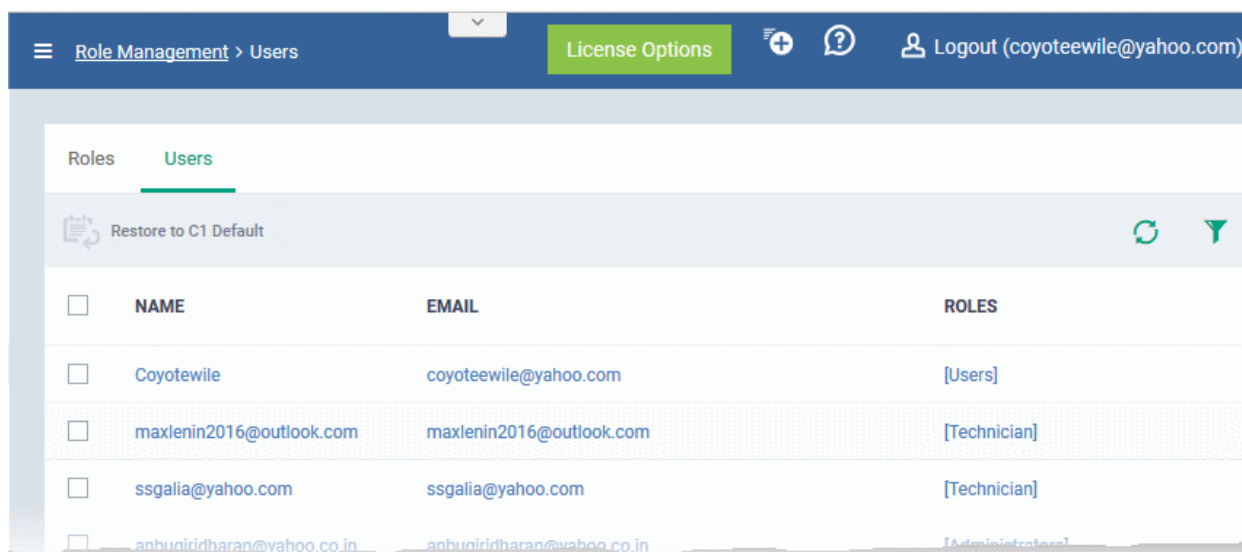
- Click 'Confirm' to remove the role.

#### 4.3.4. Manage Roles Assigned to a User

- The 'Users' tab lets you view the roles assigned to each user. A role governs a users permissions and access rights within Endpoint Manager.
- You can add new roles to a user, or remove roles from a user.
  - Note - you cannot assign or remove the 'Account Admin' role. This is automatically assigned to the person that created the C1 or ITarian account.
- Comodo One and ITarian customers - All staff created in C1 and ITarian will be available for selection in all roles, and for all companies. This lets you assign different roles to the same staff member for different companies.
- You can specify which companies a role can access in the role's 'Access scope':
  - Click 'Users' > 'Role Management'
  - Click the 'Roles' tab
  - Click on a role name to open its details page
  - Open the 'Access Scope' tab
  - Enable or disable access to specific companies as required.

## To view the list of users with roles assigned to them

- Click 'Users' > 'Role Management'.
- Select the 'Users' tab.



The 'Users' interface lets you to:

- **Add or remove roles assigned to a user**
- **Revert a user's role to the Comodo One or ITarian system default role**

## To manage roles assigned to a user

- Click on the name of a user whose roles you want to manage.
- The interface will show all roles you can assign to the user.
- Click 'Assign to Role' to delegate a new role to the user .
- Click 'Remove from Role' to withdraw membership of a role from a user.

Roles of ssgalia@yahoo.com	
NAME	ACTION
Account Admin	<a href="#">Assign to Role</a>
Admin_Device_Management	<a href="#">Assign to Role</a>
Admin_for_purchase_dept	<a href="#">Assign to Role</a>
Administrators	<a href="#">Assign to Role</a>
Compliance_Dashboard_blocked	<a href="#">Assign to Role</a>
No_report	<a href="#">Assign to Role</a>
Technician	<a href="#">Remove from Role</a>
Users [default]	<a href="#">Remove from Role</a>

Results per page:   Displaying 1-8 of 8 results

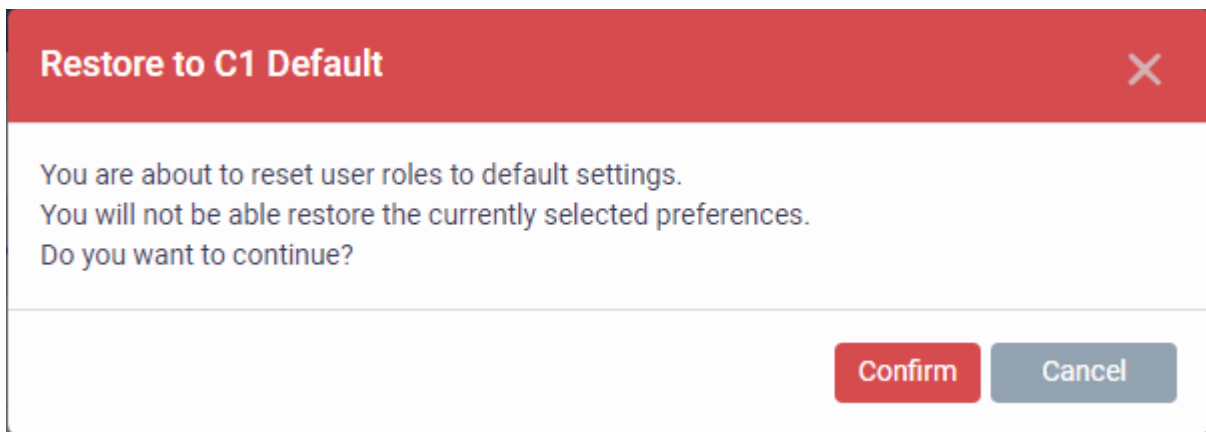
### To reset the roles to C1 or ITarian default

The following only applies to users added via the C1 or ITarian portal. It does not apply to users added via the Endpoint Manager interface.

- Click 'Users' > 'Role Management'.
- Click the 'Users' tab.

Roles		Users		Default role: <a href="#">Users</a>
<input type="checkbox"/>	NAME	EMAIL	ROLES	
<input type="checkbox"/>	CoyoteWile	coyoteewile@yahoo.com	[Users]	
<input type="checkbox"/>	XYZTest	xyz@yopmail.com	[Users]	
<input type="checkbox"/>	Impala	impalachevvy@gmail.com	[Users]	
<input type="checkbox"/>	cheff	sumeetdomestic@gmail.com	[Users]	
<input type="checkbox"/>	coyoteewile@yahoo.com	coyoteewile@yahoo.com	[Account Admin]	
<input type="checkbox"/>	John	fiatlina@gmail.com	[Users]	
<input type="checkbox"/>	User 1	christmaseve88@yahoo.com	[Users]	
<input checked="" type="checkbox"/>	ssgalia@yahoo.com	ssgalia@yahoo.com	[Technician] [Users]	
<input type="checkbox"/>	maxlenin2016@outlook.com	maxlenin2016@outlook.com	[Technician]	
<input type="checkbox"/>	ssgalia	ssgalia@yahoo.com	[Technician] [Administrators]	

- Select the user and click the 'Restore to C1 Default' button. Use the filter option at top-right if you need to search for users.



- Click 'Confirm' to restore the user with C1 or ITarian default role.

## 5.Devices and Device Groups

The 'Devices' area allows you to:

- View, manage and take actions upon enrolled devices and device groups.
- Download the packages required for endpoint enrollment, and for enrollment of devices through Active Directory.
- Download the Remote Control tool, which allows staff to remotely access Windows and Mac OS endpoints.

OS	NAME	ACTIVE COMPONENTS	PATCH STATUS	CUSTOMER	OWNER	LAST ACTIVITY
Mac OS	C1-Mac's ...	AG AV		Saddle and Pe...	Herald	2018/10/25 03:32...
Mac OS	comodo-VI...	AG AV		Saddle and Pe...	Herald	2018/10/25 03:30...
Windows	DESKTOP...	AG AV FW CO	🟢	Default Custo...	Dyanora	2018/10/25 03:23...
Windows	DESKTOP...	AG AV FW CO	🟢	frontfork	herculespopula...	2018/07/12 04:39...
Windows	DESKTOP...	AG AV FW CO	🟡 2	Default Custo...	Dyanora	2018/10/25 12:24...
Android	LENOVO_L...	AG AV		frontfork	Avanti	2018/10/25 03:32...
Android	samsung_...	AG AV		Default Custo...	Dyanora	2018/10/25 03:30...

The device list area is split into two sections - Device Management and Group Management. A list of companies and company groups is shown to the left of the main information pane.

- **Device Management** - Shows all devices added to Endpoint Manager. Use the links in the middle column to view devices which belong to a specific company or group.

This area lets you add and manage devices, manage device profiles, install CCS, take remote control of Windows and Mac OS devices, remotely lock devices and more. See **'Manage Devices'** for more details.

- **Note:** See **Enroll User Devices** if you want help add new devices.
- **Group Management** - Create new device groups, view and manage membership of existing groups, apply profiles to groups and more. You can choose the group you wish to manage from the list on the left. See **'Manage Device Groups'** for more details.
- **Bulk Installation Package** - Download the communication client packages required to manually enroll devices and/or bulk-enroll devices from Active Directory. You can also download the Remote Control tool which allows you to interact with remote Windows and Mac OS endpoints. See **Bulk Enrollment of Devices** for more details.

**Note:** Before you can enroll devices, you should first have installed an Apple Push Notification (APN) certificate (iOS devices) and/or Google Cloud Messaging (GCM) token (Android devices). See **step 2** of the quick start guide if you have not yet added an APN certificate and/or GCM token.

### Process in short:

- Step 1 - **Enroll users** (if you haven't done so already)

- Step 2 - **Enroll devices** (if you haven't done so already). Note - you also can use **bulk enrollment** to import Windows and MAC devices en masse.
- Step 3 - **Create Device Groups**.
- Step 4 - **Import Devices into Groups**.
- Step 5 - **Apply Configuration Profiles to Groups**.
- Step 6 - **View Details of and Manage Individual Devices**.

Please use the following links to find out more:

- **Manage Device Groups**
  - **Create Device Groups**
  - **Edit Device Groups**
  - **Assign Configuration Profile to Groups**
  - **Remove a Device Group**
- **Manage Devices**
  - **Add New Devices**
  - **Manage Windows Devices**
  - **Manage Mac OS Devices**
  - **Manage Linux Devices**
  - **Manage Android / iOS Devices**
  - **View User Information**
  - **Remove a Device**
  - **Remote Management of Windows and Mac OS Devices**
  - **Remotely Browse Folders and Files on Windows Devices**
  - **Remotely View and Manage Processes Running on Windows Devices**
  - **Apply Procedures to Windows Devices**
  - **Remotely Install and Update Packages on Windows Devices**
  - **Remotely Install Packages on Mac OS Devices**
  - **Remotely Install Packages on Linux Devices**
  - **Install Apps on Android / iOS Devices**
  - **Generate an Alarm on a Device**
  - **Lock / Unlock Selected Devices**
  - **Wipe Selected Devices**
  - **Assign Configuration Profile to Devices**
  - **Set or Reset Screen Lock Passwords**
  - **Update Device Information**
  - **Send Text Messages to Devices**
  - **Restart Selected Windows Devices**
  - **Change a Device's Owner**
  - **Change Device Ownership Status**
  - **Generate Device List Report**
- **Bulk Enrollment of Devices**
  - **Enroll Windows and Mac OS Devices by Installing the EM Communication Client Package**
  - **Enroll the Android and iOS Devices of Active Directory Users**

- [Download and Install the Remote Control Tool](#)

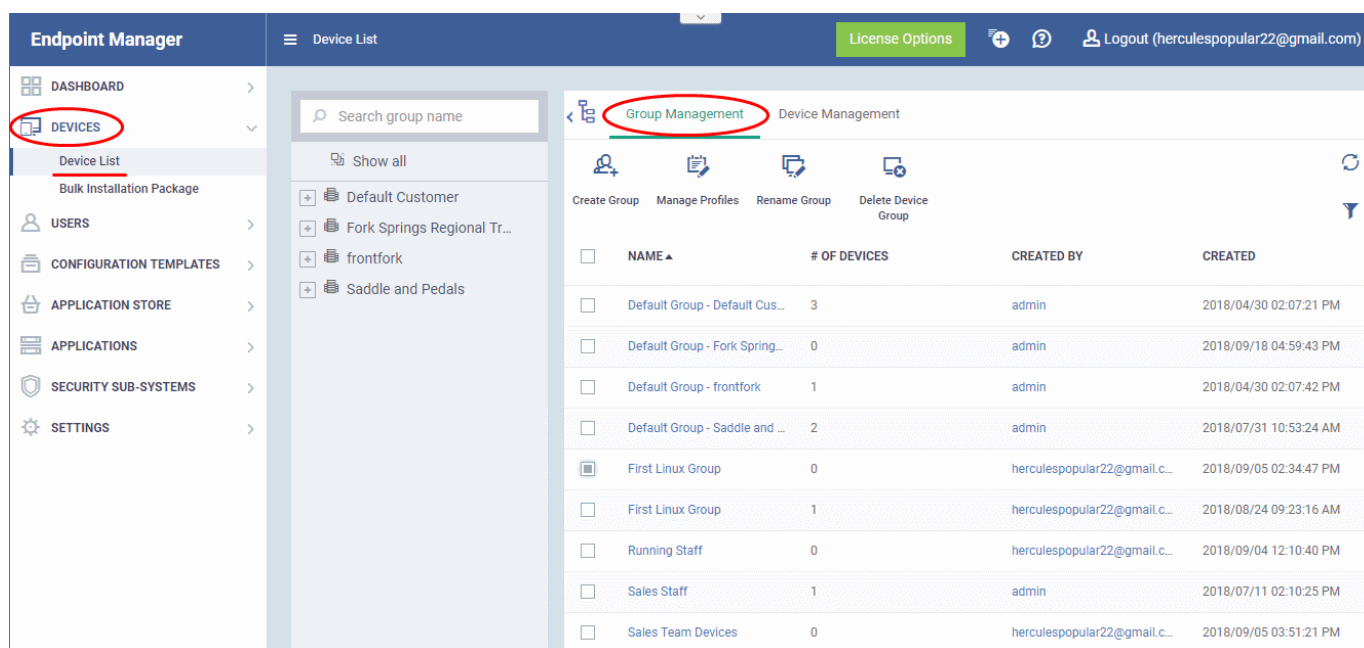
## 5.1. Manage Device Groups

- Click 'Devices' > 'Device List > 'Group Management'

Device groups make it easy to manage large numbers of Android, iOS, Mac, Windows or Linux devices.

The ability to create device groups depends on your account type. See the table below for details:

Comodo One MSP Customers	Can create separate device groups for each Company/Organization enrolled in their Comodo One account. All companies and groups can be selected from the list to the left of the main pane.
Comodo One Enterprise Customers	Can only create groups under the 'Default Company'.
ITarian MSP Customers	Can create separate device groups for each Company/Organization enrolled in their ITarian account. All companies and groups can be selected from the list to the left of the main pane.
ITarian Enterprise Customers	Can only create groups under the 'Default Company'.
Endpoint Manager Stand-alone Customers	Can only create groups under the 'Default Company'.



- Click a customer or group name in the middle pane to view devices belonging to that entity.
- The group management tab also lets you create new groups, import devices into groups, assign configuration profiles to groups and more.


### To view and manage device groups

- Click 'Devices' > 'Device List'
- Click the 'Group Management' tab
  - Select a company to view the list of groups in that company
  - Or
  - Select 'Show All' to view every device group added to EM



Device Groups - Column Descriptions	
Column Heading	Description
Name	The label of the device group. <ul style="list-style-type: none"> <li>Click a group name to view all devices in that group.</li> <li>You can add or remove devices to/from the group, manage group configuration profiles, export the device list to .csv and more. See <a href="#">Edit a Device Group</a> for more details.</li> </ul>
Number of Devices	How many devices are in the group.
Created By	The administrator who created the group. <ul style="list-style-type: none"> <li>Click the name to view the details of the administrator. See <a href="#">View User Information</a> for more details.</li> </ul>
Created	The date and time at which the group was created.

### Sorting, Search and Filter Options

- Click any column header to sort items in alphabetical or numerical order
- Click the funnel icon  to configure filters
- Use the search box to find a specific group

### Profiles

Configuration profiles containing specific settings can be created for any group. If a device is enrolled in multiple groups, then the group profiles of all groups are applied to the device. If the settings in one group profile clash with those of another, EM follows the most restrictive policy. For example, if a profile allows the use of camera and another restricts its use, the device will not be able to use the camera.

For more details on creating and managing configuration profiles, see [Configuration Templates](#).

See the following sections for more details about:

- [Create Device Groups](#)
- [Edit a Device Group](#)
- [Assign Configuration Profiles to a Device Group](#)
- [Remove a Device Group](#)

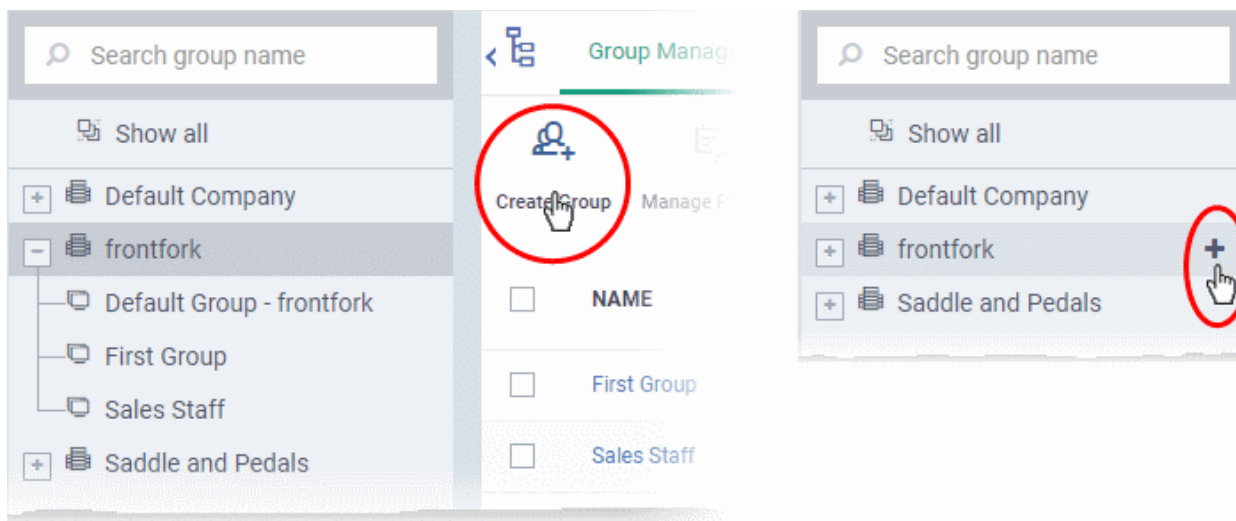
#### 5.1.1. Create Device Groups

- Placing devices into a group lets you run actions and apply profiles to multiple devices at once.
- OS-specific profiles will be automatically applied to relevant devices.

##### To add a new device group

- Click 'Devices' > 'Device List'
- Click the 'Group Management' tab
- Select a company/department on the left (C1 MSP and ITarian MSP customers only)
- Click the 'Create Group' button

- MSP customers can also place their mouse over the company name and click the '+' sign that appears:



The 'Add Group' interface will open.

**Add Group** ✕

**Name \***

**Company \***

**Devices**

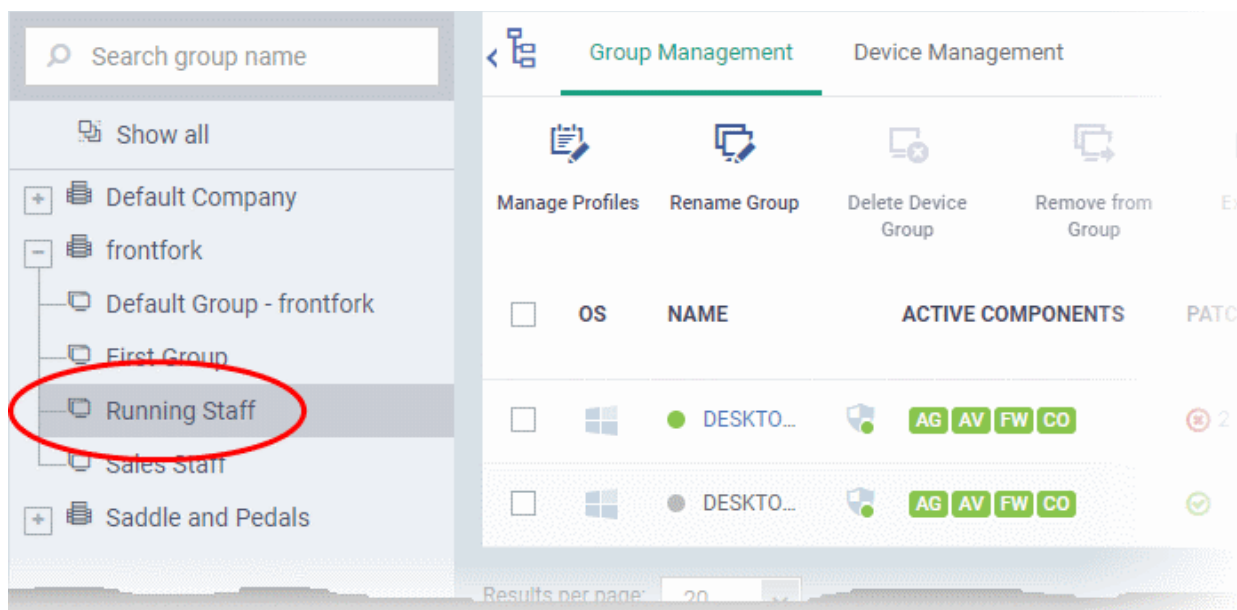
**'Add Group' dialog - Table of Parameters**

Form Element	Description
Name	Create a label to identify the group.
Company	<p>The parent company of the group. The company to which the group belongs.</p> <ul style="list-style-type: none"> <li>If you already selected a company on the left then this field is pre-populated. You cannot edit this field.</li> <li>If you selected 'Show All' then you need to choose a parent company for the group.                             <ul style="list-style-type: none"> <li>Type first few letters of the company name and select the company from the options.</li> </ul> </li> </ul>

'Add Group' dialog - Table of Parameters	
Devices	<p>Choose devices which will be members of the group.</p> <ul style="list-style-type: none"> <li>Type the first few letters of the device name and select from the suggestions.</li> <li>Repeat the process to add more devices.</li> <li>Note - You can only add devices which are enrolled to the parent company.</li> </ul> <p><b>Tip:</b> You can add devices at a later stage too.</p>

- Fill the details and click 'Add'.

The new group will be created under the company. You can add or remove devices and manage profiles applied to the devices in the group at any time. See [Edit a Device Group](#) for more details.



- Repeat the process to add more groups.
- The new groups will be listed for the selected company/department. The added groups will also be listed in the hierarchical structure on the left for the company/department.
- Appropriate configuration profiles can now be applied to each new group. See [Assign Configuration Profiles to a Device Group](#) for more details.

## 5.1.2. Edit a Device Group

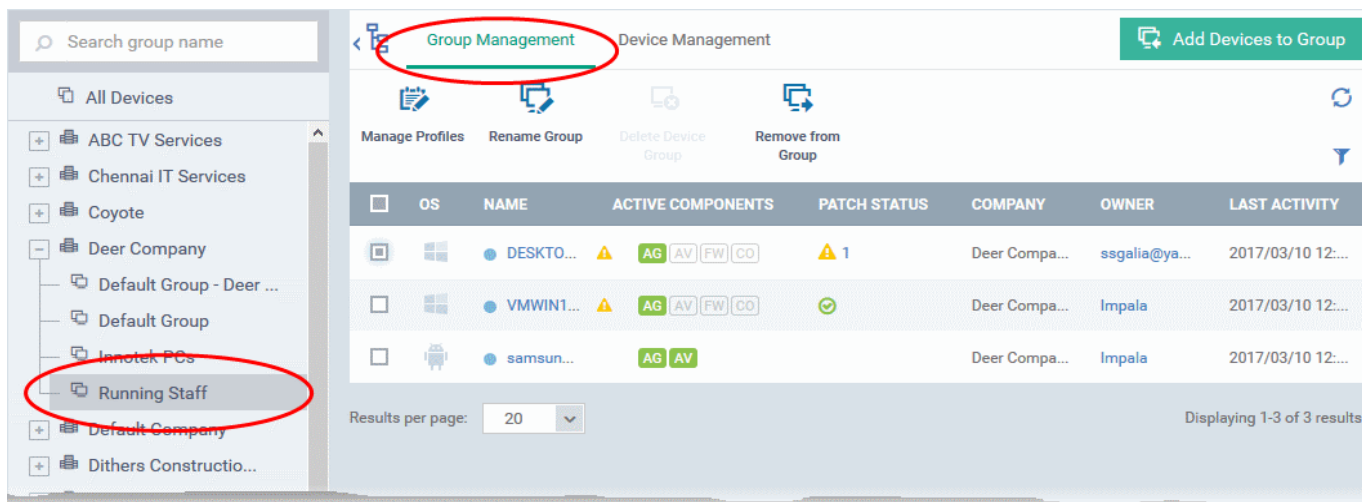
The 'Group Management' interface lets you view/add/remove devices, rename the group and manage group policies.

- [View or edit a device group](#)
- [Add new devices to a group](#)
- [Remove devices from a group](#)
- [Rename a group](#)
- [Assign Configuration profiles to a device group](#)
- [Export the list of devices in a group](#)
- [Remove a group](#)

**To view or edit a device group**



- Click 'Devices' > 'Device List'
- C1 MSP and ITarian MSP customers should choose the company/department whose group is to be edited
- Click the name of the group to be edited from the left menu
- Click the 'Group Management' tab on the right

The group management interface for the selected group will open.




The list of devices included in the group will be displayed, with their details.

Device Group Details - Column Descriptions	
Column Heading	Description
OS	The operating system of the device.
Name	<p>The label assigned to the device by the user.</p> <ul style="list-style-type: none"> <li>• Grey text color indicates the device has been offline for the past 24 hours.</li> <li>• If no name is assigned, the model number of the device will be used as the name. You can assign a new name as required.</li> <li>• Click the device name to view device details.</li> <li>• See <b>Manage Windows Devices</b>, <b>Manage Mac OS Devices</b>, <b>Manage Linux Devices</b> and <b>Managing Android / iOS Devices</b> for more details.</li> </ul>
Active Components	<ul style="list-style-type: none"> <li>• Comodo Client Security modules which are enabled on the device</li> <li>• Examples include 'Antivirus', 'Firewall', 'Containment' and 'Agent Only'</li> </ul> <p>The possible components for each OS are as follows:</p> <ul style="list-style-type: none"> <li>• Android - Antivirus and agent (EM communication client)</li> <li>• iOS - Agent</li> <li>• Windows - Antivirus, agent, firewall and containment.</li> <li>• Mac OS - Antivirus and agent</li> <li>• Linux - Antivirus and agent</li> </ul>
Patch status	<p>The number of patches available for Windows endpoints. Patch statuses are as follows:</p> <ul style="list-style-type: none"> <li>•  - No patches required. All patches are up-to-date.</li> </ul>

	<p> - Critical patches are available. The number to the right shows how many are pending. Click the number to view and manage the patches. See <b>View and Install Windows and 3rd Party Application Patches</b> for more details.</p> <p> - Optional patches are available. Click the number to the right to view and manage the patches.</p>
Company	<p>The name of the company to which the device is enrolled.</p> <ul style="list-style-type: none"> <li>• C1 MSP customers/ITarian MSP customers can enroll devices to any of the companies they have created in C1/ITarian.</li> <li>• C1 Enterprise / ITarian Enterprise / EM standalone customers can only use the 'Default company'.</li> </ul>
Owner	<p>The device user.</p> <ul style="list-style-type: none"> <li>• Click the user name to open the 'View User' interface. See <b>View User Information</b> for more details.</li> </ul>
Last Activity	The date and time at which the device last communicated with the EM server.
<b>Controls</b>	
Add Devices to Group	Add devices of any operating system to the group. See <b>Add new devices to a group</b> for more details.
Manage Profiles	View and apply configuration profiles to all member devices in the group at once. See <b>Assign Configuration Profiles to a Device Group</b> for more details.
Rename Group	Change the label of the group.
Delete Device Group	<p>Remove unwanted device groups from EM.</p> <p>Note - You cannot delete a device group unless it is empty. Remove all member devices before deleting.</p> <p>See <b>Remove a Device Group</b> for more details.</p>
Remove from Group	Remove unwanted devices from the group. See <b>Remove devices from a group</b> for more details.
Export	<p>Save a list of devices in the group in .csv format.</p> <p>The exported .csv is available in 'Dashboard' &gt; 'Reports'</p> <p>See <b>Export the List of Devices in a Group</b> for more details.</p>

- Click column headers to sort the items in ascending/descending order of entries in that column.

## Search and Filter Options

- Click the funnel button  at the right end to open the filter options.
  - To filter the items or search for a device based on its OS, online status, name, patch status, company. Owner and/or a period of last activity, enter the search criteria in part or full in the text box and click 'Apply'.
- To display all the items again, remove / deselect the search key from filter and click 'OK'.
- EM returns 20 results per page when you perform a search. To increase the number of results displayed per page up to 200, click the arrow next to 'Results per page' drop-down.

## Add New Devices to a Group

- Click 'Devices' > 'Device List'
- C1 MSP customers / ITarian MSP customers - choose the parent company on the left
- Click the name of the group you want to edit
- Click the 'Group Management' tab
- Click 'Add Devices to Group' at the top right.

**Note:** You can only add devices which belong to the same company as the group.

The interface will list all devices enrolled to the company that are not already in the target group:

The first screenshot shows the 'Group Management' tab with the 'Add Devices to Group' button circled in red. The table below it has the following data:

OS	NAME	ACTIVE COMPONENTS	PATCH STATUS	COMPANY	OWNER	LAST ACTIVITY
Windows	DESKTOP-TT...	AG AV FW CO	1	Deer Company	ssgalia@yahoo.c...	2017/03/10 02:02:43 ...

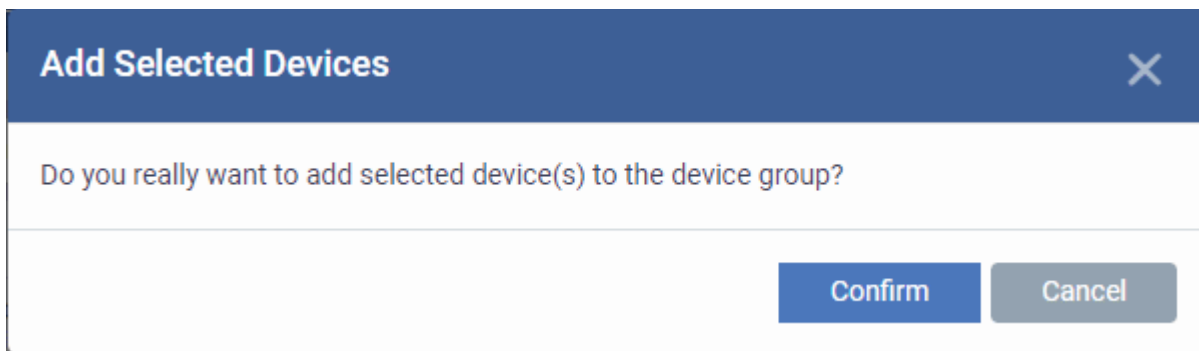
The second screenshot shows the 'Add Selected Devices' button circled in red. The table below it has the following data:

OS	NAME	ACTIVE COMPONENTS	PATCH STATUS	COMPANY	OWNER	LAST ACTIVITY
Windows	VMWIN10CO...	AG AV FW CO	✓	Deer Company	Impala	2017/03/10 02:17:46 ...
Android	samsung_SM...	AG AV		Deer Company	Impala	2017/03/10 02:13:22 ...
Android	Sony Ericsson...	AG AV		Deer Company	Impala	2016/08/07 02:25:53 ...

- Select the devices to be added to the group and click 'Add Selected Devices'.

**Tip:** You can filter or search for specific devices using the filter options that appear on clicking the funnel icon at the top right.

A confirmation dialog will appear.



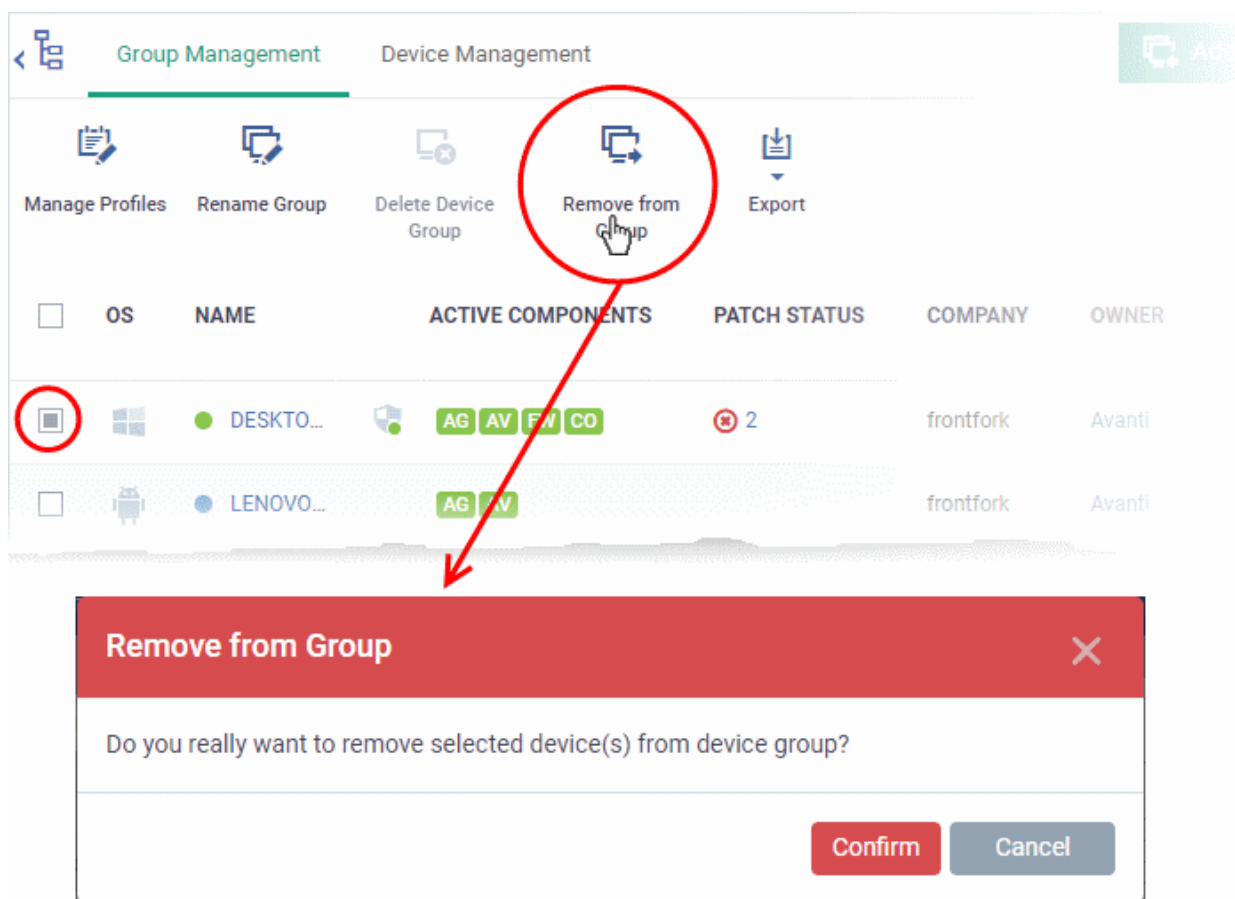
- Click 'Confirm'. The devices will be added to the group.

Once the device(s) are added to the group, the configuration profiles, associated with the group, will be applied to the device, in addition to the profiles, which are already in effect on the device.

**Tip:** You can add a device to a group from the 'Device Details' interface too. For more details, see [View and Manage Device Group Membership](#).

## Remove Devices from a Group

- Click 'Devices' > 'Device List'
- C1 MSP customers / ITarian MSP customers - choose the parent company on the left
- Click the name of the group you want to edit
- Click the 'Group Management' tab
- Choose the devices you want to remove
- Click 'Remove from Group'





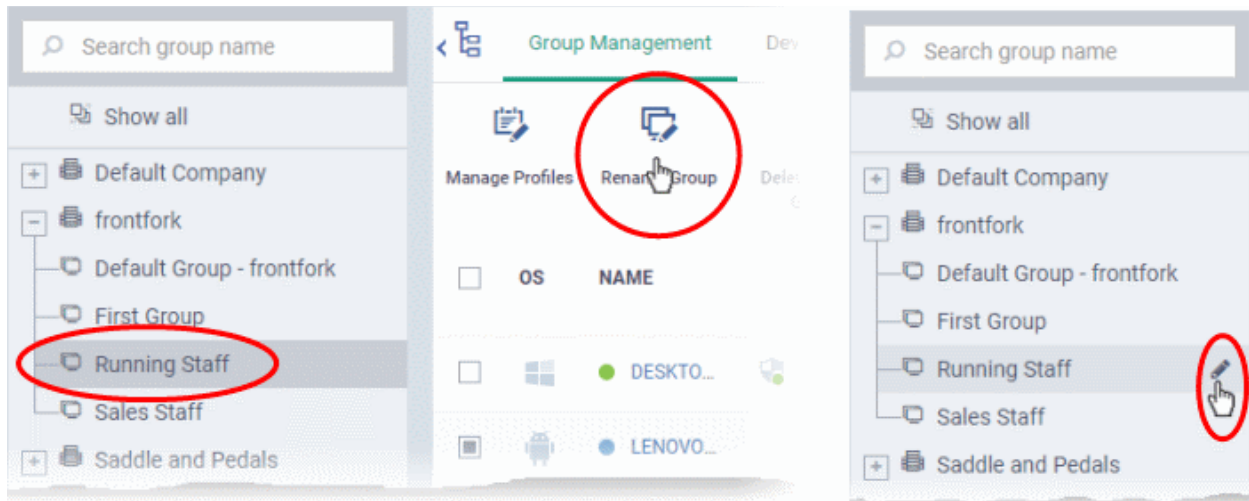
- Click 'Confirm' in the confirmation dialog.

If a device is removed from a group, any group profiles will also be removed from the device.

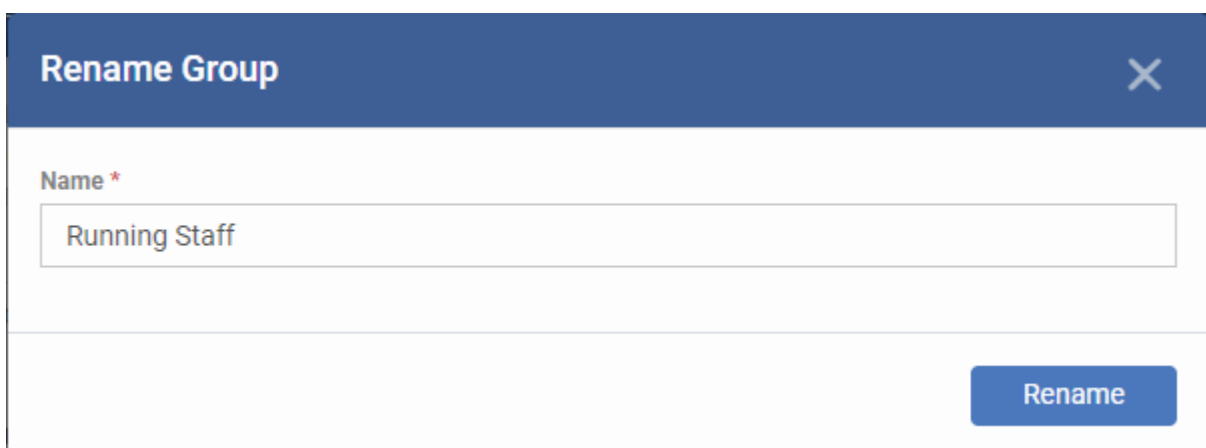
**Tip:** You can remove the membership of a device to a group, from the 'Device Details' interface too. For more details, see [View and Manage Device Group Membership](#).

## Rename a Group

- Click 'Devices' > 'Device List'
- C1 MSP customers / ITarian MSP customers - choose the parent company on the left
- Click the name of the group you want to edit
- Click the 'Group Management' tab
- Click 'Rename Group'
- Alternatively, move your mouse over the group name and click the pencil icon



The 'Rename Group' dialog will open.



- Enter a new name for the group in the 'Name' text box and click 'Rename'.

The group will be updated with the new name.

## Export the List of Devices in a Group

- Click 'Devices' > 'Device List'

- C1 MSP customers / ITarian MSP customers - choose the parent company on the left
- Click the name of the group you want to edit
- Click the 'Group Management' tab
- Click the 'Export' button above the table then choose 'Export to CSV':

The screenshot shows the 'Group Management' tab in the Endpoint Manager interface. At the top, there are navigation tabs for 'Group Management' and 'Device Management', and an 'Add' button. Below these are several action buttons: 'Manage Profiles', 'Rename Group', 'Delete Device Group', 'Remove from Group', and 'Export'. The 'Export' button is circled in red. A dropdown menu is open under 'Export', with 'Export to CSV' highlighted in a blue box. Below the buttons is a table with the following columns: OS, NAME, ACTIVE COMPONENTS, PATCH STATUS, COMPANY, and OWNER. The table contains three rows of device information.

<input type="checkbox"/>	OS	NAME	ACTIVE COMPONENTS	PATCH STATUS	COMPANY	OWNER
<input type="checkbox"/>	Windows	DESKTO...	AG AV FW CO	2	frontfork	Avanti
<input type="checkbox"/>	Android	LENOVO...	AG AV		frontfork	Avanti
<input type="checkbox"/>	Windows	DESKTO...	AG AV FW CO		frontfork	herculespop...

- The CSV file will be available in 'Dashboard' > 'Reports'
- See **Reports** in **The Dashboard** for more details.

## 5.1.3. Assign Configuration Profiles to a Device Group

You can view profiles currently assigned to a device group, add new profiles or remove existing profiles.

- See **Configuration Profiles** if you need help to create a profile.

### **To view and manage the profiles applied to a group**

- Click 'Devices' > 'Device List'
- C1 MSP customers / ITarian MSP customers - choose the parent company on the left
- Click the name of the group you want to edit
- Click the 'Group Management' tab
- Click 'Manage Profiles' from the options at the top
- This will show a list of all profiles associated with the device:

The screenshot shows the Endpoint Manager interface. On the left is a navigation menu with categories: DASHBOARD, DEVICES, USERS, CONFIGURATION TEMPLATES, APPLICATION STORE, and APPLICATIONS. The main area displays a breadcrumb trail: Device List / Saddle and Pedals / Default Group - Saddle and Pedals. Below this is a search bar for group names and a list of groups including 'Default Customer', 'Fork Springs Regional Tr...', 'frontfork', 'Saddle and Pedals', 'Default Group - Saddle and...', and 'First Linux Group'. On the right, a 'Group Management' panel is visible, with the 'Manage Profiles' button circled in red. An arrow points from this button to the 'Manage Profiles of Default Group - Saddle and Pedals' section below.

### Manage Profiles of Default Group - Saddle and Pedals

Add Profiles

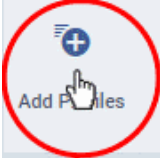
Remove Profiles




<input type="checkbox"/>	OS TYPE	PROFILE NAME	CREATED BY
<input type="checkbox"/>		Android Devices in Sales Dept.	herculespopular22@gmail.com
<input type="checkbox"/>		Patch Procedure	herculespopular22@gmail.com
<input type="checkbox"/>		First Profile	herculespopular22@gmail.com


### To add a new profile

- Click 'Add Profiles' at the top.
- Select the profiles you want to apply to the group then click 'Save'.

### Manage Profiles of Default Group - Saddle and Pedals




 Add Profiles






 Remove Profiles  

<input type="checkbox"/>	OS TYPE	PROFILE NAME	CREATED BY
<input type="checkbox"/>		Android Devices in Sales Dept.	herculespopular22@gmail.com

---

### Add Profiles to Default Group - Saddle and Pedals

 Save  

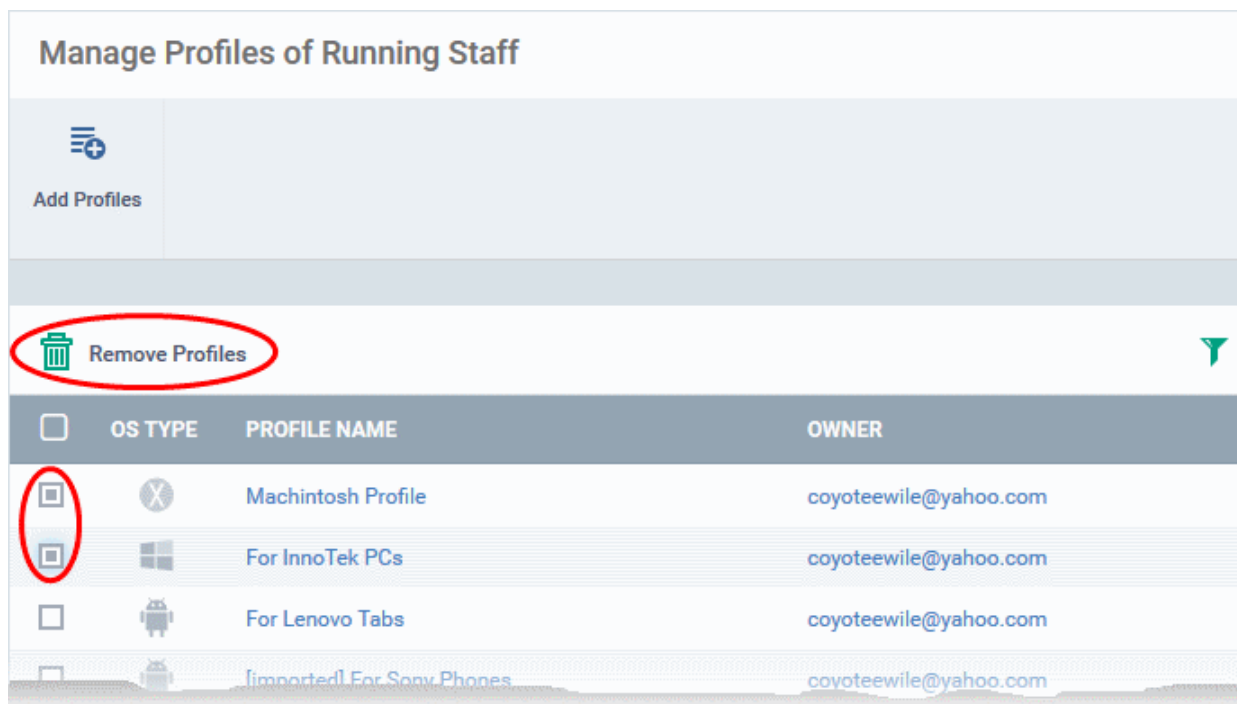
<input type="checkbox"/>	OS TYPE	PROFILE NAME	CREATED BY
<input type="checkbox"/>		Finance Dept Android Devices	herculespopular22@gmail.com
<input type="checkbox"/>		Android - Security Level 1 Profile v.6.23	admin
<input checked="" type="checkbox"/>		iOS Purchase	herculespopular22@gmail.com
<input type="checkbox"/>		iOS - Security Level 1 Profile v.6.23	admin
<input type="checkbox"/>		Mas OS for Stores Dept	herculespopular22@gmail.com

**Tip:** Click the funnel icon at top-right to filter the list or search for a specific profile.

EM applies all profiles which are appropriate for a device's operating system.

#### To remove a profile from a group

- Select the profile(s) to be removed, from the 'Manage Profiles' interface and click 'Remove Profiles'



The profile(s) will be removed from member devices of the group, where applied, according to their operating system(s).

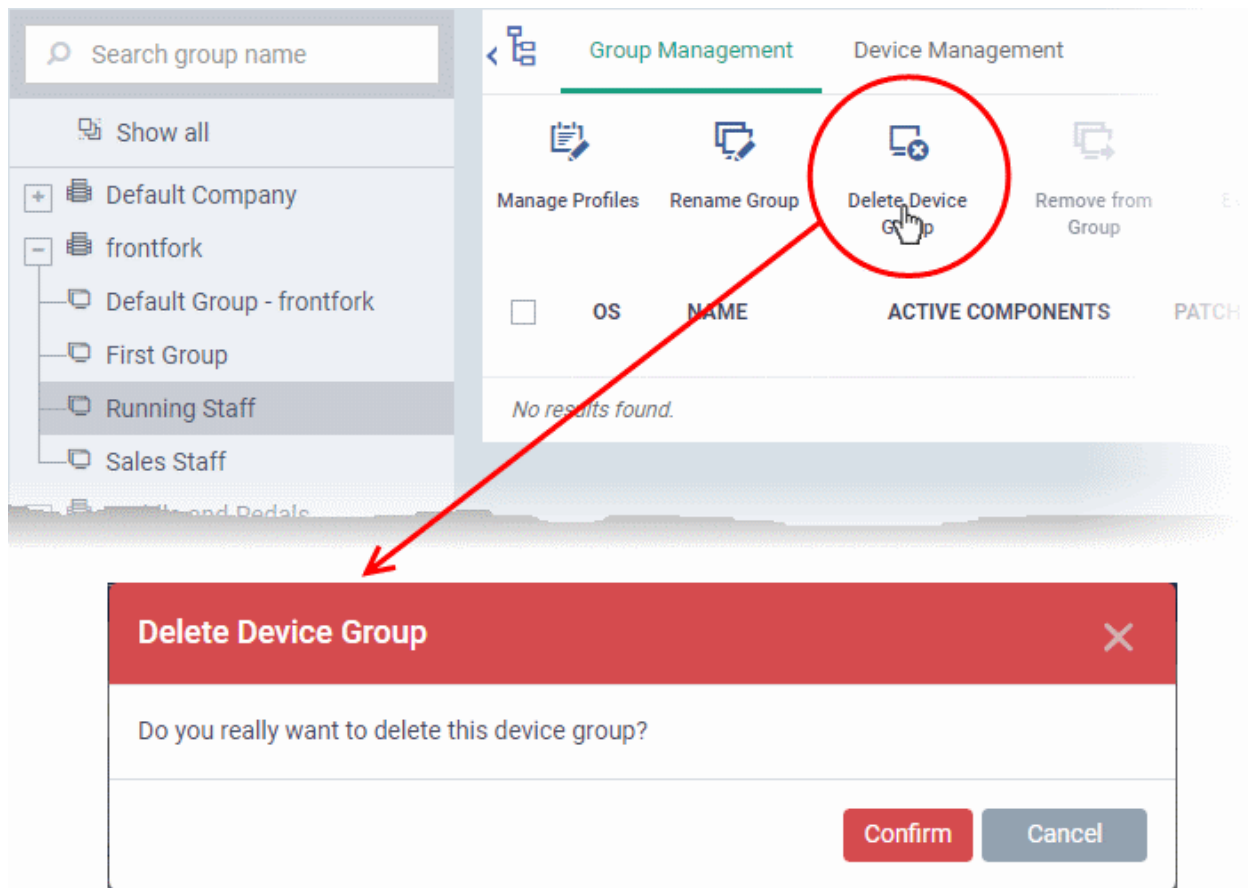
**Note:** Disassociating a profile from a device group will remove the profile from devices only if it is applied because the device is a member of that group. If the same profile is applied to a member device through some other source, (like the profile is applied to the user of the device or a group to which the user belongs), then the profile will not be removed.

## 5.1.4. Remove a Device Group

- Note - you cannot delete a device group unless it is empty. Remove all member devices first.

### To remove a device group

- Click 'Devices' > 'Device List'
- C1 MSP customers / ITarian MSP customers - choose the parent company on the left
- Click the name of the group you want to edit
- Click the 'Group Management' tab
- Ensure there are no devices in the group. See **Remove all devices from the group** if required.
- Click 'Delete Device Group'.



- Click 'Confirm' to apply your changes

The device group will be removed from EM.

## 5.2. Manage Devices

- Click 'Devices' > 'Device List' > 'Device Management'

**Note:** If you haven't done so already, you should first **enroll users** then **enroll their devices**.

- The 'Device Management' screen is an inventory of all mobile devices and endpoints for a company.
- It shows each device's connection and patch status, which security components are enabled, recent activity, and more.

From this area you can:

- Enroll new devices for management
- Add or remove profiles on any selected device
- Install Comodo Client Security and other packages on Windows endpoints
- Install Comodo Client Security on Mac OS endpoints
- Install Comodo Client Security on Linux endpoints
- Update Comodo Client Security and Communication Client on Windows endpoints
- Take remote control of Windows and Mac OS devices
- Browse folders and files on Windows endpoints
- View and manage currently running processes on Windows endpoints



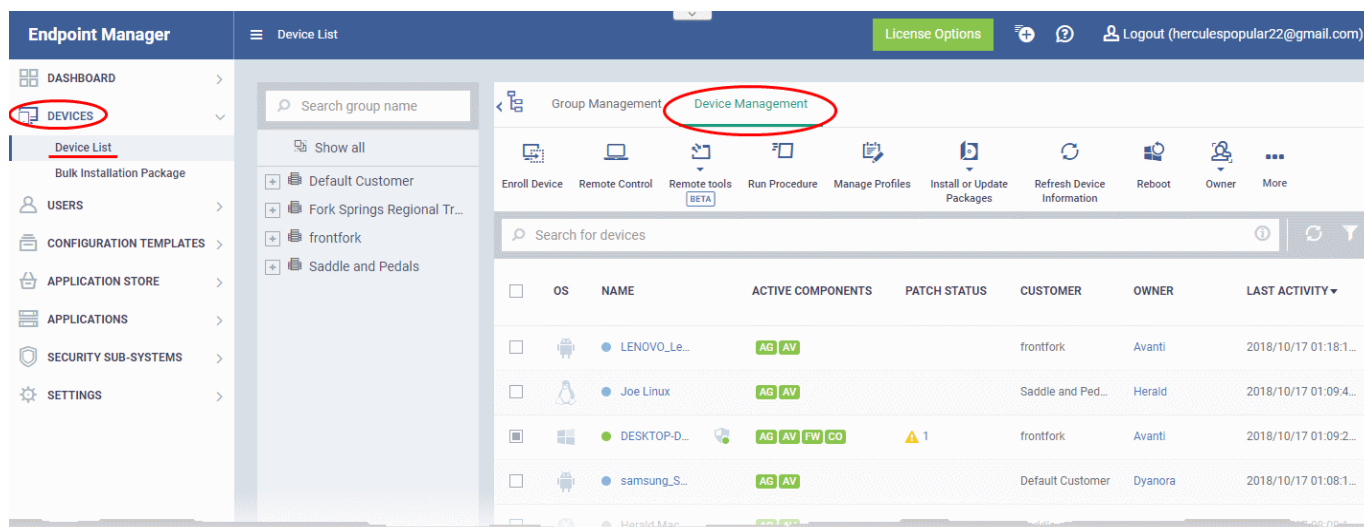
- View the list of applications currently installed on Windows endpoints
- Remotely uninstall unwanted applications from Windows endpoints
- Remotely run procedures on Windows endpoints
- Remotely install latest OS and third-party application patches on Windows endpoints
- Remotely restart Windows endpoints
- Sound an alarm on mobile devices
- Send custom text messages to mobile devices
- Remotely wipe mobile devices
- Set and reset mobile device lock-screen passcodes
- Remotely lock mobile and Mac OS devices
- Remove devices from EM management
- View detailed information about any device by simply clicking the device name
- View and edit device owner information by clicking the owner name
- View and manage device group memberships of a device

### To open the 'Device Management' interface

- Click the 'Devices' > 'Device List'
- Click the 'Device Management' tab at the top of the main configuration pane

The interface shows devices belonging to the company or group selected on the left.

- Select 'Show All' to view every device enrolled to EM.



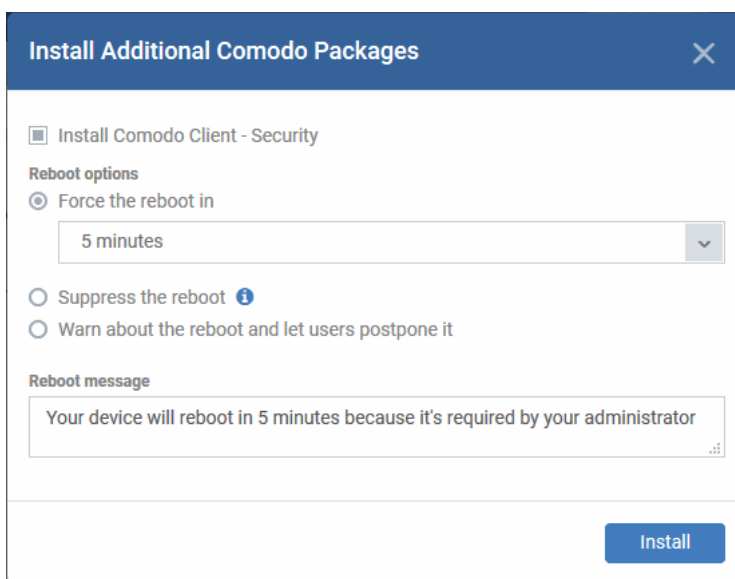
Devices - Column Descriptions	
Column Heading	Description
OS	The operating system of the device.
Name	The label assigned to the device by the user. If no name is assigned, the model number of the device will be used as the name.  The circle to the left of the name shows the device's connection status: <ul style="list-style-type: none"> <li>● Gray - Device is not reachable. The connection maybe down or the endpoint is</li> </ul>

switched off.

- Blue - Slow connection. The device is connected but commands and messages may take some time to execute since the endpoint is busy.
- Green - Good connection. Commands should be executed in real time.

Windows endpoints also have a shield icon to the right of their name. The shield has a colored circle on it which indicates the status of Comodo Client Security (CCS):


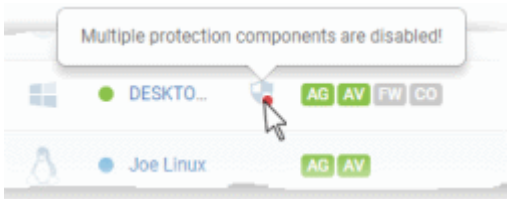




- 🛡️ Yellow - CCS is not installed on the endpoint.
  - Click the shield icon to remotely install CCS on the endpoint.
  - The 'Install Additional Comodo Packages' dialog will appear.






- CCS requires the endpoint to be restarted in order for the installation to take effect.
- Configure the 'Restart' options and click 'Install'.
- See the [explanation of remote installation of CCS in Remotely Install and Update Packages on Windows Devices](#) for more details

- 🛡️ Gray - Outdated clients. Communication Client (CC) and/or Comodo Client Security (CCS) on the endpoint require updates.

Note. This status is only shown on endpoints that have CC 6.16 + and CCS 10.0 + installed.

	<ul style="list-style-type: none"> <li>  <b>Red</b> - The endpoint is at risk. One or more of security components (AV, FW or containment) may have been disabled by the user.             <ul style="list-style-type: none"> <li>• Place your mouse over the icon to view the warning:                 <div style="text-align: center;">  </div> </li> </ul> </li> <li>  <b>Amber</b> - The endpoint needs attention. The virus signature database might be out-dated or the endpoint needs to be re-started after installation of CCS.             <ul style="list-style-type: none"> <li>• Place your mouse over the icon to view the full message</li> </ul> </li> <li>  <b>Green</b> - The endpoint is secure. All installed components are up and running.         </li> <li>  <b>Blue</b> - CCS is in 'Silent Mode'.             <p><b>Note:</b> CCS lets users enable 'Silent Mode' if they do not want to be disturbed by product notifications. For example, when running a full-screen presentation.</p> <p>Alerts and notifications are suppressed and operations that could interfere with their work are postponed.</p> </li> <li>  - Communication with CCS on the endpoint has been lost.         </li> </ul> <ul style="list-style-type: none"> <li>• Click the device name to open the device details interface. See <a href="#">Manage Windows Devices</a>, <a href="#">Manage Mac OS Devices</a> and <a href="#">Manage Android / iOS Devices</a> for more details.</li> </ul>
<p>Active Components</p>	<p>Indicates which modules are installed on the device. Possible components are 'Agent', 'Antivirus' (AV), 'Firewall' (FW) and 'Containment'.</p> <ul style="list-style-type: none"> <li>• Android devices - The agent will automatically install the AV (antivirus) component.</li> <li>• iOS devices - Only the agent (EM client) will be installed</li> <li>• Windows endpoints - Available components are - Agent, AV, FW (firewall) and Containment. These components are installed automatically when a profile featuring the components is installed.</li> <li>• Mac OS endpoints - Available components are EM Agent and AV</li> </ul> <p>Component status is indicated by color:</p> <ul style="list-style-type: none"> <li>• Green - Installed and active</li> <li>• Gray - Installed but disabled by profile setting</li> <li>• Blue (only applies to the 'Containment' module) - The containment module is baselining the device. During the baseline period, unknown files are auto-submitted to Valkyrie for analysis, but are not placed in containment. See <a href="#">Baseline Settings</a> in <a href="#">Containment Settings</a> for help to configure baseline settings.</li> <li>• Blank - Component is not installed.</li> </ul>

Patch status	<ul style="list-style-type: none"> <li>Indicates the number of patches available for Windows endpoints. Patch status icons are as follows: <ul style="list-style-type: none"> <li> - No patches required. All patches are up-to-date.</li> <li> - Critical patches are available. The number to the right shows how many are pending. Click the number to view and manage the patches. See <b>View and Install Windows and 3rd Party Application Patches</b> for more details.</li> <li> - Optional patches are available. Click the number to the right to view and manage the patches.</li> </ul> </li> </ul>
Company	<p>The name of the company to which the device is enrolled.</p> <ul style="list-style-type: none"> <li>Comodo One MSP customers can enroll devices to any of the companies they have created in C1.</li> <li>Comodo One Enterprise customers / EM standalone customers can only use the 'default company'.</li> </ul>
Owner	<p>The device user.</p> <ul style="list-style-type: none"> <li>Click the user name to open the 'View User' interface. See <b>View User Information</b> for more details.</li> </ul>
Last Activity	<p>The date and time at which the device last communicated with the EM agent.</p>

- Click a column header to sort items in ascending/descending order of entries in that column.

## Search and Filter Options

- The search box at the top allows you filter devices based on any parameter in the table.
- Alternatively, you can click the funnel button  on the right to open filter options.



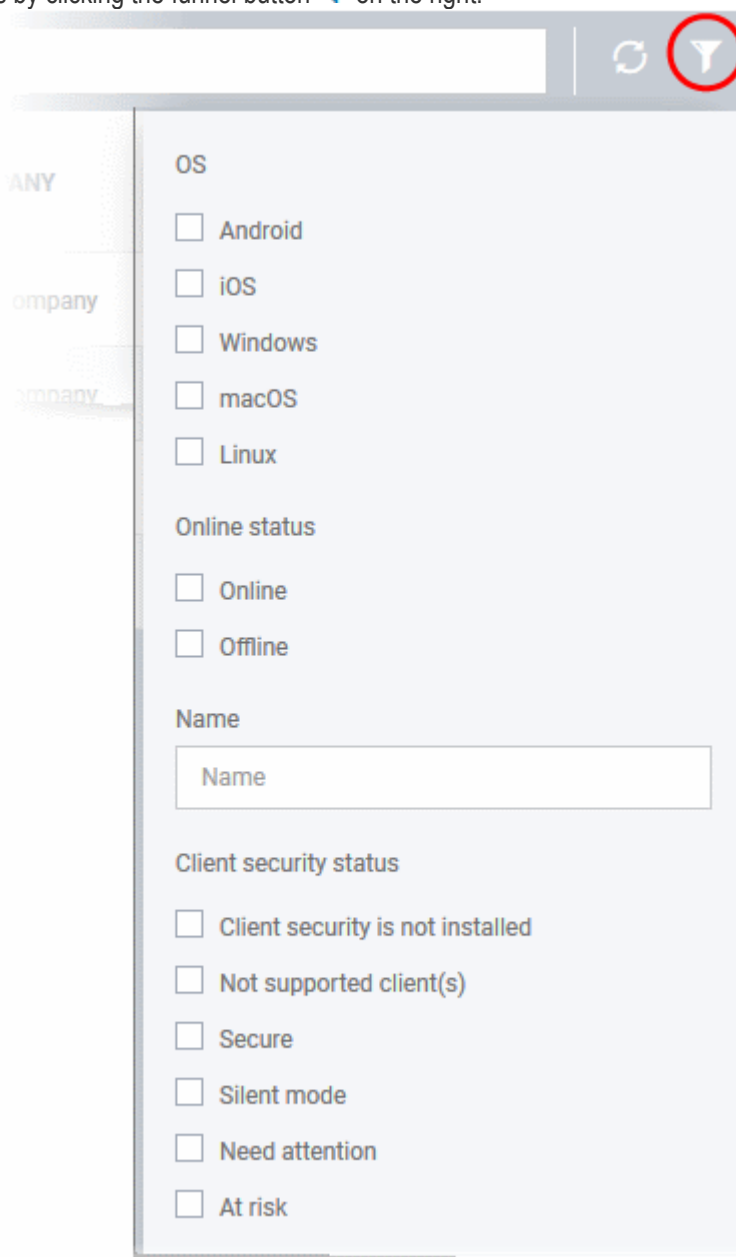
- Click the info-box at right of the search field to view hints about search methods
- Enter your search criteria and click the magnifying glass to view devices matching the criteria.

You can search using the following criteria:

- OS - Enter the operating system of the devices you wish to view.
- Online/Offline status - Type 'Online' or 'Offline'
- Name - Enter the name of the device in part or full
- CSS Status - Type one of the following values as required:
  - Not installed
  - Not supported
  - Secure

- Silent mode
- Need attention
- At risk
- Company - Enter the customer company name in part or full
- Owner - Enter the name/email address of the device owner in part or full
- Last Activity - Enter a date in YYYY/MM/DD format to filter devices by the time of their last connection with EM.
  - You can use operators such as '<', '>', '<=' and '>=' to view devices before or after the date.
  - To view devices within a range, enter start and end dates as follows: YYYY/MM/DD - YYYY/MM/DD
- Clear any search terms and click the magnifying glass to view all devices again.

You can also access filters by clicking the funnel button  on the right:



- EM shows 20 results per page by default. Click the arrow next to 'Results per page' to increase this to a max. of 200.

- Use the left and right arrows and the page numbers to navigate to the page you want to view.

Please use the following links to find out more:

- **Add New Devices**
- **Manage Windows Devices**
  - **View and Edit Device Name**
  - **View Summary Information**
  - **View Hardware Information**
  - **View Network Information**
  - **View and Manage Profiles Associated with Windows Device**
  - **View and Manage Applications Installed on a Device**
  - **View List of Files on the Device**
  - **View CCS Configuration Exported from the Device**
  - **View MSI Files Installed on the Device through Endpoint Manager**
  - **View and Install Windows and Third Party Application Patches**
  - **View Antivirus Scan History**
  - **View and Manage Device Group Memberships**
  - **View Device Logs**
- **Manage Mac OS Devices**
  - **View and Edit Mac OS Device Name**
  - **View Summary Information**
  - **Manage Installed Applications**
  - **View and Manage Profiles Associated with the Device**
  - **View Mac OS Packages Installed on the Device through Endpoint Manager**
  - **View and Manage Device Group Memberships**
- **Manage Linux Devices**
  - **View and Edit Linux Device Name**
  - **View Summary Information of Linux Device**
  - **View Network Information of a Linux Device**
  - **View and Manage Profiles Associated with a Linux Device**
  - **View Linux Packages Installed on a Device through Endpoint Manager**
  - **View and Manage Device Group Memberships**
- **Manage Android / iOS Devices**
  - **View and Edit Device Name**
  - **View Summary Information**
  - **Manage Installed Applications**
  - **View and Managing Profiles Associated with the Device**
  - **View Sneak Peek Pictures to Locate Lost Device**
  - **View the Location of the Device**
  - **View and Manage Device Group Memberships**

## 5.2.1. Add New Devices

Device enrollment is covered in the users section of this guide.

- See **Enroll User Devices** for help to add new devices.

## 5.2.2. Manage Windows Devices

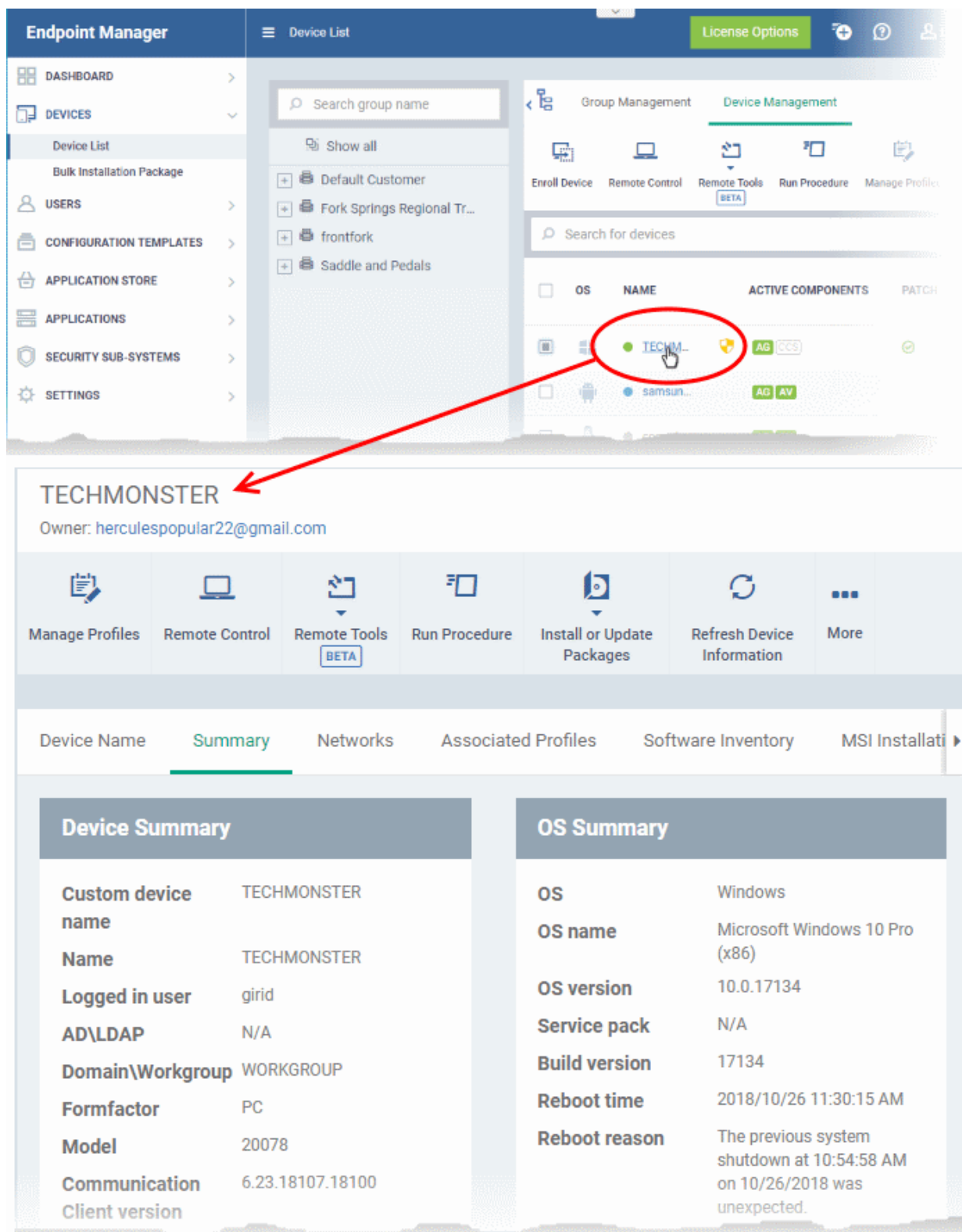
- The device details page lets you view a device's hardware and software, installed components and network connections.
- You can also manage device profiles, installed applications, patches and device group membership.

**Note:** If you haven't done so already, you should first **enroll users** then **enroll their devices**.

### View and manage a Windows device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the main configuration pane
  - Select a company or group to view devices in that groupOr
  - Select 'Show all' to view every device enrolled to Endpoint Manager
- Click the name of any Windows device to open its details pane:



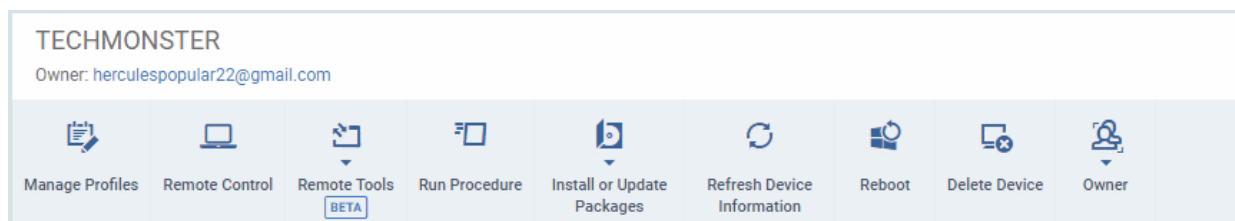


The details screen contains a maximum of thirteen tabs:

- **Device Name** - The device label. You can change this as per your preference. See **View and Edit Device Name** for more details.
- **Summary** - General details about the device. This includes hardware and OS information, resource usage data, and an overview of CCS configuration. See **View Summary Information** for more details.
- **Hardware** - Hardware configuration of the selected device. This tab is only available if legacy Comodo RMM agent is installed. See **View Hardware Information** for more details.

- **Networks** - Information about the device's network card, MAC address, IP address, and more. See [View Network Information](#) for more details.
- **Associated Profiles** - Details of the profiles deployed on the device. See [View and Manage Profiles Associated with the Device](#) for more details.
- **Software Inventory** - Applications installed on the device. See [View Applications Installed on a Device](#) for more details.
- **File List** - Inventory of files on the device along with their file rating ('Unrecognized', 'Trusted' or 'Malicious'). See [View the Files on a Device](#) for more details. Note - the 'File List' tab is only available if Comodo Client Security is installed on the device. See [Remotely Install and Update Packages on Windows Devices](#) for more details.
- **Exported Configurations** - Saved Comodo Client Security configuration files. These files let you export CCS settings to different endpoints. See [View CCS Configurations Exported from the Device](#) for more details. Note - the 'Exported Configurations' tab is only available for devices with Comodo Client Security installed. See [Remotely Install and Update Packages on Windows Devices](#) for more details.
- **MSI Installation State** - MSI packages that have been installed on the device via Endpoint Manager. See [View MSI Files Installed on the Device through Endpoint Manager](#) for more details.
- **Patch Management** - A list of available patches for the device. See [View and Install Windows and 3rd Party Application Patches](#) for more details.
- **Antivirus Scan History** - A list of all threats identified on the device over time, and the actions taken by Endpoint Manager in response. See [View Antivirus Scan History](#) for more details. Note - the 'Antivirus Scan History' tab is only available if Comodo Client Security is installed on the device. See [Remotely Install and Update Packages on Windows Devices](#) for more details.
- **Groups** - A list of device groups to which the endpoint belongs. You can also manage group membership from here. See [View and Manage Device Group Membership](#) for more details.
- **Logs** - View event logs from activities recorded on the device. See [View Device Logs](#) for more details.
  - **Alert Logs** - Alerts generated because of a breach of monitoring conditions or because of a procedure deployment.
  - **Monitoring Logs** - Monitoring rules can be added to an EM policy to observe resource usage on a device. For example, you may wish to create a log entry if CPU usage goes above 75% for a certain period of time.
  - **Script Logs** - Script procedures that were run on the Windows device. Scripts can be run manually or automatically via a profile schedule.
  - **Patch Logs** - A record of operating system patch installations. Patches can be installed manually or automatically via a profile schedule.
  - **Third Party Patch Logs** - A record of patch installations for non-Comodo applications.
  - **Installation Logs** - Apps installed on the device from the Windows Application store (Application Store > Windows Application Store). See [Install Windows Apps on Devices](#) for more details.

You can remotely perform various tasks on the device using the buttons above the table:



- **Manage Profiles** - Add/remove configuration profiles to/from the device. These profiles are in addition to any group profiles applied to the device. See [Assign Configuration Profiles to Selected Devices](#) for more details.

- **Remote Control** - Access the endpoint over a remote desktop connection. See **Remote Management of Windows and Mac OS Devices** for more details.

**Tip:** Customers using our legacy RMM product can connect to Windows endpoints using the RDP feature built into that product. See <https://help.comodo.com/topic-289-1-719-8539-Introduction-to-Remote-Monitoring-and-Management-Module.html> for more details.

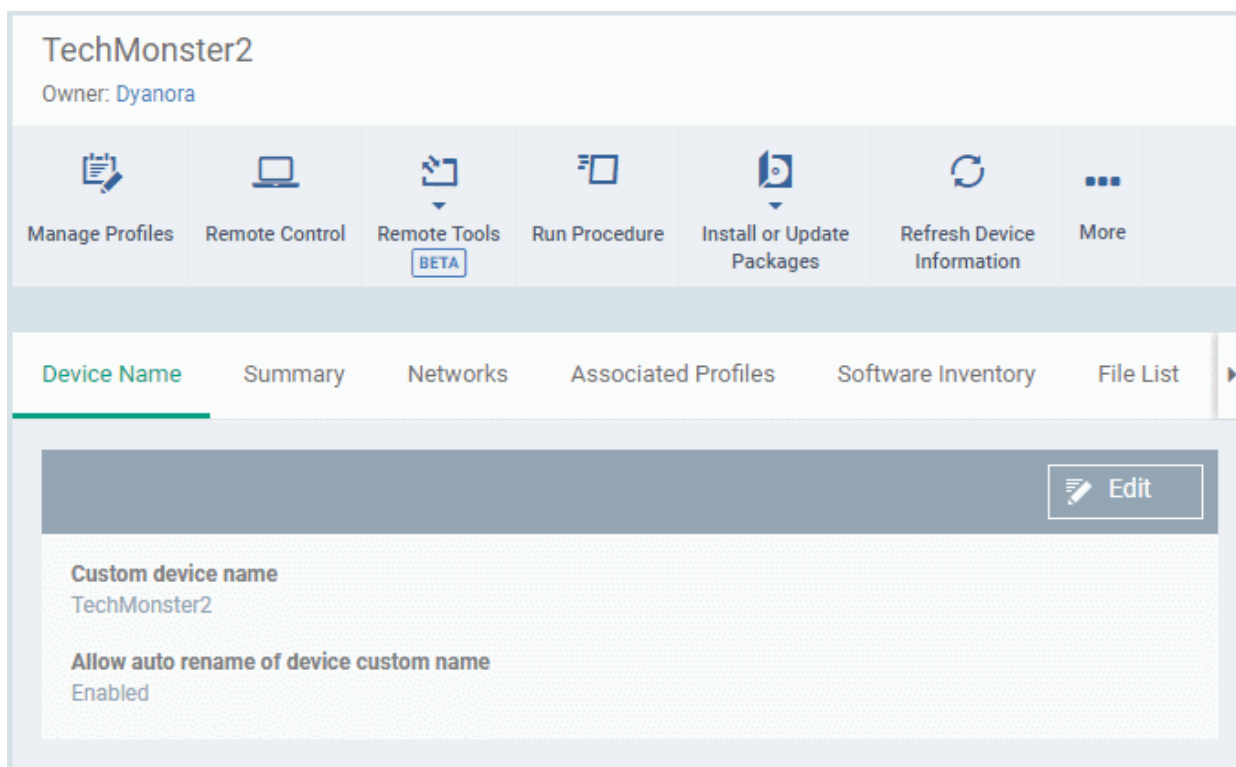
- **Remote tools** - Explore files and folders on the managed Windows device. See **Remotely Browse Folders and Files on Windows Devices** for more details.
- **Run Procedure** - Execute script, patch and third-party application patch procedures on the device. See **Apply Procedures to Windows Devices** for more details.
- **Install or update MSI Packages** - Remotely install Comodo endpoint security software and third party Windows packages. See **Remotely Install and Update Packages on Windows Devices** for more details.
- **Refresh Device Information** - Contacts the device and updates system information. See **Update Device Information** for more details.
- **Reboot** - Remotely restart the device. See **Restart Selected Windows Devices** for more details.
- **Export Security Configurations** - Export the device's current CCS configuration as a profile. Exported profiles can be viewed under the **Exported CCS Configurations** tab. These can then be imported later as a Windows profile, potentially for deployment to other devices. See **Import Windows Profiles** for more details.
- **Delete Device** - Removes the device from Endpoint Manager. See **Remove a Device** for more details.
- **Change Owner** - Change the user with whom the device is associated. You can also change the type of device to corporate or personal. See **Change a Device's Owner** and **Change the Ownership Status of a Device** for more details.

## 5.2.2.1. View and Edit Device Name

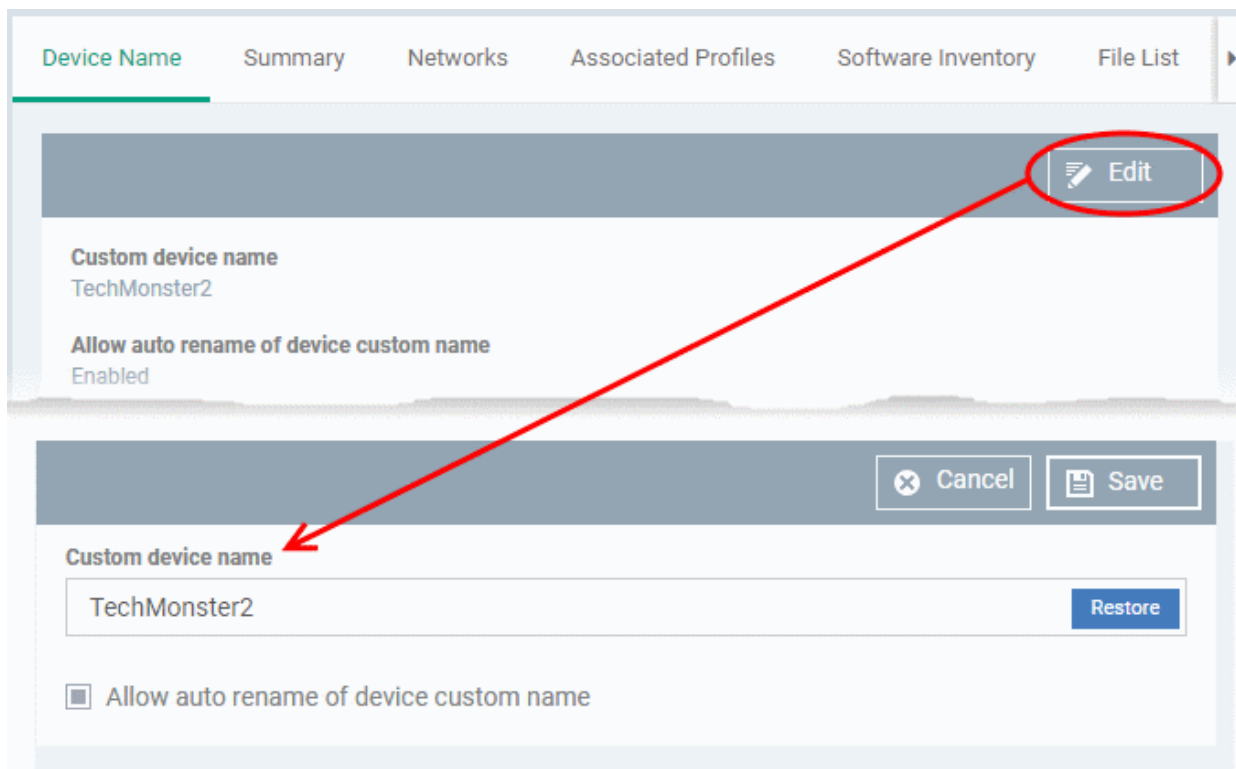
- Enrolled devices are listed by the name assigned to them by their owner.
- If no name was assigned then the actual device name or model number will be used.
- Admins can change the device name according to their preferences. If you change a device name, the name will apply in Endpoint Manager but will not change the name on the endpoint itself.
- If 'Allow Auto Rename of Device Custom Name' is enabled then the custom name will be replaced automatically by the device name/model number during the next sync. To retain the custom name for the device, make sure to disable this option.

### To change a device name

- Click the 'Devices' link on the left and choose 'Device List'
- Click the 'Device Management' tab at the top of the main configuration pane
  - Select a company or a group to view the list of devices in that groupOr
  - Select 'Show all' to view every device enrolled to EM
- Click on any Windows device then select the 'Device Name' tab



- Custom device name - The current name of the device.
- Allow auto rename of device custom name - Indicates whether the device's name will automatically replace the custom name in the list during the next sync with the EM communication client.
- To change the name of the device, click the 'Edit' button at the right.



- Enter the new name in the 'Custom Device Name' field
- Make sure the 'Allow Auto Rename of Device Custom Name' is disabled to retain the custom name in the list. If this is enabled, the custom name will be automatically replaced with the device's name or model number during the next sync with the EM communication client on the device.

- Click 'Save' for your changes to take effect.

The device will be listed with its new name.

- To restore the name of the device as it was at the time of enrollment, click 'Edit' from the 'Device Name' interface, click 'Restore' at the right and click 'Save'.

## 5.2.2.2. View Summary Information

The 'Summary' tab contains general device information, including operating system details, hardware details, last activity, CCS configuration and resource usage.

### To view the device summary

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab
  - Select a company or a group to view devices in that group
 Or
  - Select 'Show all' to view every device enrolled to EM
- Click on the name of a Windows device then open the 'Summary' tab:

Device Name	Summary	Networks	Associated Profiles	Software Inventory	MSI Installation State	Patch Management																																									
<h3>Device Summary</h3> <table> <tr><td><b>Custom device name</b></td><td>TECHMONSTER</td></tr> <tr><td><b>Name</b></td><td>TECHMONSTER</td></tr> <tr><td><b>Logged in user</b></td><td>admin</td></tr> <tr><td><b>AD\LDAP</b></td><td>N/A</td></tr> <tr><td><b>Domain\Workgroup</b></td><td>WORKGROUP</td></tr> <tr><td><b>Formfactor</b></td><td>PC</td></tr> <tr><td><b>Model</b></td><td>20078</td></tr> <tr><td><b>Communication Client version</b></td><td>6.23.18107.18100</td></tr> <tr><td><b>Processor</b></td><td>Intel(R) Core(TM) i3-2310M CPU @ 2.10GHz</td></tr> <tr><td><b>Serial number</b></td><td>2673613304111</td></tr> <tr><td><b>System model</b></td><td>20078</td></tr> <tr><td><b>System manufacturer</b></td><td>LENOVO</td></tr> <tr><td><b>Ownership type</b></td><td>Not specified</td></tr> <tr><td><b>Last connection</b></td><td>2018/10/26 12:02:49 PM</td></tr> </table>		<b>Custom device name</b>	TECHMONSTER	<b>Name</b>	TECHMONSTER	<b>Logged in user</b>	admin	<b>AD\LDAP</b>	N/A	<b>Domain\Workgroup</b>	WORKGROUP	<b>Formfactor</b>	PC	<b>Model</b>	20078	<b>Communication Client version</b>	6.23.18107.18100	<b>Processor</b>	Intel(R) Core(TM) i3-2310M CPU @ 2.10GHz	<b>Serial number</b>	2673613304111	<b>System model</b>	20078	<b>System manufacturer</b>	LENOVO	<b>Ownership type</b>	Not specified	<b>Last connection</b>	2018/10/26 12:02:49 PM	<h3>OS Summary</h3> <table> <tr><td><b>OS</b></td><td>Windows</td></tr> <tr><td><b>OS name</b></td><td>Microsoft Windows 10 Pro (x86)</td></tr> <tr><td><b>OS version</b></td><td>10.0.17134</td></tr> <tr><td><b>Service pack</b></td><td>N/A</td></tr> <tr><td><b>Build version</b></td><td>17134</td></tr> <tr><td><b>Reboot time</b></td><td>2018/10/26 11:30:15 AM</td></tr> <tr><td><b>Reboot reason</b></td><td>The previous system shutdown at 10:54:58 AM on 10/26/2018 was unexpected.</td></tr> </table>				<b>OS</b>	Windows	<b>OS name</b>	Microsoft Windows 10 Pro (x86)	<b>OS version</b>	10.0.17134	<b>Service pack</b>	N/A	<b>Build version</b>	17134	<b>Reboot time</b>	2018/10/26 11:30:15 AM	<b>Reboot reason</b>	The previous system shutdown at 10:54:58 AM on 10/26/2018 was unexpected.
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<b>Reboot reason</b>	The previous system shutdown at 10:54:58 AM on 10/26/2018 was unexpected.																																														

- **Device Summary** - Basic hardware, software, user and connection information. Includes device name, user, operating system, active directory domain, ownership type, IP address, local time zone and more.
- **OS Summary** - Detailed information about the device operating system. Includes OS build, service pack availability, last restart time, reason for last reboot and more.
- **Security Products Info** - Details about the Comodo security client installed on the endpoint. The security client provides the antivirus, firewall and containment services required to protect the device. Information in this section includes active security components, database update status, the amount of time remaining in baseline mode, and more.
- **Performance Metrics** - Current hardware resource usage on the device. Includes CPU, RAM, network and disk. The details are refreshed every 30 seconds.



## 5.2.2.3. View Hardware Information

**Note:** This section is only available for devices that have the legacy Comodo RMM agent installed.

This screen contains basic details about a device's motherboard and hardware setup (RAM slots, processor type etc).

### To view a device's hardware details

- Click the 'Devices' link on the left and choose 'Device List'
- Click the 'Device Management' tab at the top of the main configuration pane
  - Select a company or a group to view the list of devices in that group
  - Or
  - Select 'Show all' to view every device enrolled to EM
- Click on any Windows device then select the 'Hardware' tab

The screenshot displays the Endpoint Manager interface for a device named 'DESKTOP-TTPO9PR' with owner 'cheff'. A toolbar at the top includes icons for 'Manage Profiles', 'Install MSI/Packages', 'Refresh Information', 'Reboot', 'Delete Device', 'Change Owner', 'Change Ownership Type', and 'Run Procedure'. Below the toolbar is a navigation menu with tabs for 'Device Name', 'Summary', 'Hardware' (which is selected and highlighted in green), 'Networks', 'Associated Profiles', 'Software Inventory', and 'MSI Installation State'. The main content area shows the 'Hardware Information' section with the following details:

- Motherboard Manufacturer:** Oracle Corporation
- Motherboard Product:** VirtualBox
- Number Of Ram Slots:** 0
- Rams:** 0
- Processors:** 0
  - Model:** Intel(R) Core(TM) i3-6100 CPU @ 3.70GHz
  - Manufacturer:** GenuineIntel

## 5.2.2.4. View Network Information

The 'Networks' screen shows details about the network(s) to which an endpoint is connected.

### To view a device's network details

- Click the 'Devices' link on the left and choose 'Device List'
- Click the 'Device Management' tab at the top of the main configuration pane
  - Select a company or a group to view the list of devices in that group
  - Or
  - Select 'Show all' to view every device enrolled to EM
- Click on any Windows device then select the 'Networks' tab

**TECHMONSTER**  
Owner: herculespopular22@gmail.com

Manage Profiles | Remote Control | Remote Tools **BETA** | Run Procedure | Install or Update Packages | Refresh Device Information | Reboot | More

Device Name | Summary | **Networks** | Associated Profiles | Software Inventory | MSI Installation State

**Device Network N°1**

<b>Name</b>	Qualcomm Atheros AR9285 Wireless Network Adapter
<b>Local address</b>	192.168.0.101
<b>Subnet</b>	255.255.255.0
<b>Gateway</b>	192.168.0.1
<b>DNS 1</b>	192.168.0.1
<b>DNS 2</b>	N/A
<b>MAC Address</b>	68:A3:C4:9F:C4:AB
<b>DHCP</b>	192.168.0.1
<b>Connection Speed</b>	225 Mbit/s

**Device Network N°2**

<b>Name</b>	Microsoft Wi-Fi Direct Virtual Adapter
<b>Local address</b>	N/A

### 5.2.2.5. View and Manage Profiles Associated with a Device

The 'Associated Profiles' tab lists all active configuration profiles on an endpoint. A profile may be applied to a device for any of the following reasons:

- Because it is a default profile
- It was specifically applied to the device
- It was specifically applied to the user
- The device belongs to a device group which has a group profile
- The user belongs to a user group which has a group profile

For more details on configuration profiles, see [Profiles for Windows Devices](#).

#### To view and manage the profiles associated with a device

- Click the 'Devices' link on the left and choose 'Device List'
- Click the 'Device Management' tab at the top of the main configuration pane
  - Select a company or a group to view the list of devices in that group



Or

- Select 'Show all' to view every device enrolled to EM
- Click on any Windows device then select the 'Associated Profiles' tab

**TECHMONSTER**  
Owner: herculespopular22@gmail.com

Manage Profiles
Remote Control
Remote Tools BETA
Run Procedure
Install or Update Packages
Refresh Device Information
Reboot
More

Device Name
Summary
Networks
Associated Profiles
Software Inventory
MSI Installation State

NAME	SOURCE ASSOCIATED	INFORMATION ABOUT ASSOCIATION
<a href="#">Default Profile for Windows</a>	Device Group: <a href="#">Default Group - frontfork</a>	Successfully processed
<a href="#">Finance Department Windows Computers</a>	Device	Successfully processed
<a href="#">Suspicious Files Folder for John</a>	Device Group: <a href="#">Default Group - frontfork</a>	Successfully processed
<a href="#">First Profile</a>	User Group: <a href="#">Marketing Staff</a>	Successfully processed

Associated Profiles - Column Descriptions	
Column Heading	Description
Name	The profile label. <ul style="list-style-type: none"> <li>• Click the name of a profile to open the 'Edit Profile' interface.</li> <li>• See <a href="#">Edit Configuration Profiles</a> for more details.</li> </ul>
Source Associated	The source through which the profile was applied to the device. Configuration profiles can be applied to a device in different ways: <ul style="list-style-type: none"> <li>• Profiles can be directly applied to the device. See <a href="#">Assign Configuration Profiles to Selected Devices</a> for more details</li> <li>• Profiles applied to a user are deployed to all devices belonging to them. See <a href="#">Assign Configuration Profile(s) to a User's Devices</a> for more details</li> <li>• Profiles applied to a user group are deployed to all devices owned by group members. See <a href="#">Assign Configuration Profile to a User Group</a> for more details</li> <li>• Profiles applied to a device group are deployed to all member devices in the group. See <a href="#">Assign Configuration Profile to a Device Groups</a> for more details</li> <li>• Click a source to view its details interface.</li> </ul>
Information about Association	The status of profile application to the device.

- Click the 'Name' column header to sort the items in the alphabetical order of the names of the items

## Add or Remove Profiles

Profiles can be added or removed from the device clicking 'Manage Profiles' option at the top. See [Assign Configuration Profiles to Selected Devices](#) for more details.

### 5.2.2.6. View and Manage Applications Installed on a Device

- The 'Software Inventory' is a list of all applications installed on a device.
- The interface also lets you remotely uninstall applications.

#### To view applications installed on a device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view devices in the group
  - Or
  - Select 'Show all' to view every device enrolled to EM
- Click the name of a Windows device then select the 'Software Inventory' tab:

**TechMonster2**  
Owner: Dyanora

Manage Profiles | Remote Control | Remote Tools (BETA) | Run Procedure | Install or Update Packages | Refresh Device Information | More

Device Name | Summary | Networks | Associated Profiles | **Software Inventory** | File List

Update Software Inventory | Uninstall Application(s)

<input type="checkbox"/>	SOFTWARE ▲	VENDOR	VERSION	INSTALLATION DATE
<input checked="" type="checkbox"/>	ActivePresenter		6.1.4	2018/10/26
<input type="checkbox"/>	Adobe Acrobat Reader DC	Adobe Systems Incorporated	19.008.20080	2018/10/24
<input type="checkbox"/>	COMODO Client - Security	COMODO Security Solutions, Inc.	10.8.0.7041	2018/10/26
<input type="checkbox"/>	Comodo Dragon	Comodo	69.0.3497.81	2018/10/25
<input type="checkbox"/>	Google Chrome	Google Inc.	70.0.3538.67	2018/10/19
<input type="checkbox"/>	Intel(R) Processor Graphics	Intel Corporation	10.18.10.2540	2018/10/19

### Installed Apps - Column Descriptions

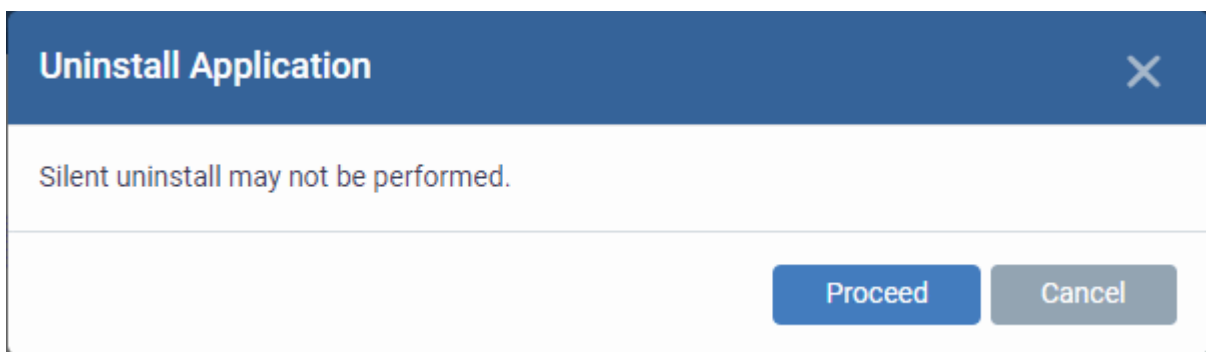
Column Heading	Description
Software	The name of the application.
Vendor	The publisher of the application.
Version	The version number of the application.
Installation Date	The date at which the application was installed on the device.

- Click 'Update Software Inventory' to retrieve the latest list of applications from the endpoint

## Remotely uninstall applications

Supported 3rd party applications can be remotely uninstalled from the Endpoint Manager. See **EM Supported 3rd Party Applications** for a full list.

- Select an application in the list
- Click 'Uninstall Selected Application'
- An uninstall command will be sent to the device.
- You will see the following message if the software cannot be uninstalled without notifying the device user:




- Click 'Proceed' to continue with the uninstall.

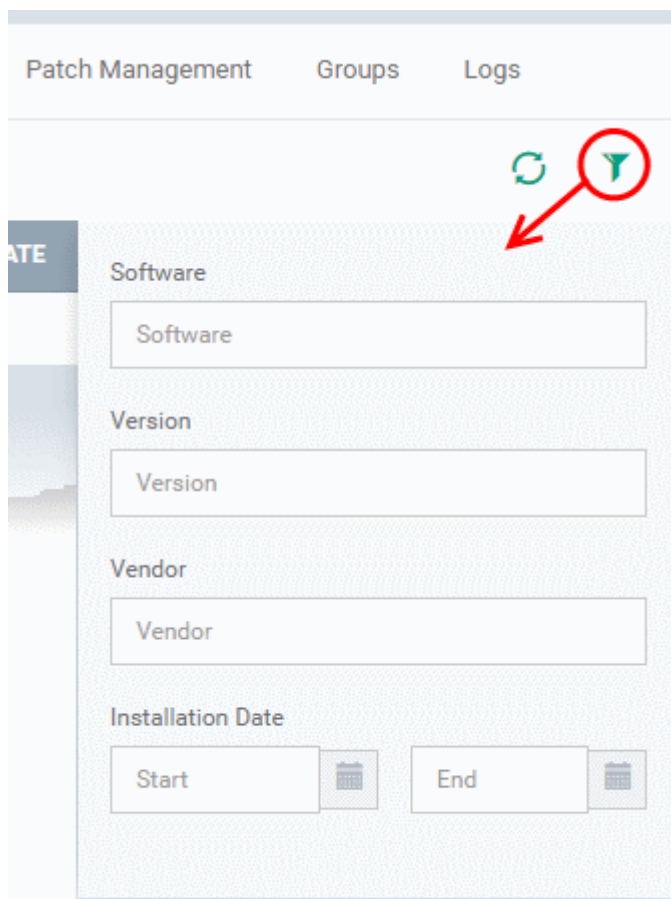
The application will be uninstalled from the selected device.

### Tip:

- You can uninstall an application from *selected or all* Windows devices from the 'Global Software Inventory'.
- Click 'Applications' > 'Global Software Inventory' to access this area.
- See **View and Manage Applications Installed on Windows Devices** if you need more help with this.

## Sorting, Search and Filter Options

- Click the 'Software', 'Vendor' and 'Version' column headers to sort items in alphabetical or ascending/descending order
- Click the funnel button  on the right to open filter options



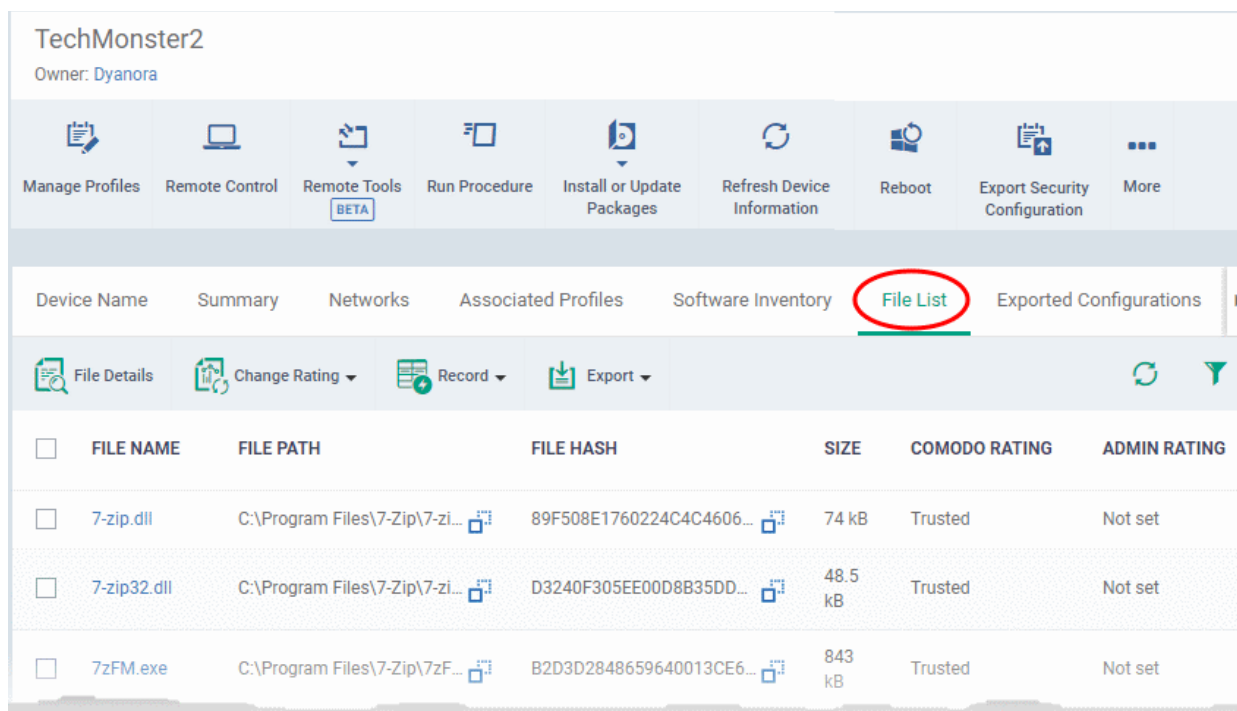
- Type search criteria in the search fields to find an application based on name, version and/or vendor.
- Enter 'Start' and 'End' dates to search for applications installed during a certain period of time.
- Click 'Apply' to run your filter
- To display all items again, remove all search terms and click 'Apply'.
- By default, 20 results are shown per page. Click the arrow next to 'Results per page' to increase the number up to 200.



## 5.2.2.7. View the Files on a Device

- The 'File List' tab shows executable files found on a device along with their trust rating.

### To view files on a Windows device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' on the left to view every device enrolled to EM
- Click the name of a Windows device then select the 'File List' tab:



File List - Table of Column Descriptions	
Column Heading	Description
File Name	The label of the executable file or application.
File Path	The installation location of the application at the endpoint. <ul style="list-style-type: none"> <li>Click the  icon to copy the path to the clipboard.</li> </ul>
File Hash	The SHA1 hash value of the executable file. <ul style="list-style-type: none"> <li>Click the  icon to copy the hash value to the clipboard.</li> </ul>
Size	The size of the executable file.
Comodo Rating	The trust rating of the file as per the Comodo File Look-up service, reported by the CCS installations at the endpoints
Admin Rating	The trust rating of the file as manually set by the administrator, if any.

Comodo Client Security monitors all file activity on a Windows endpoint. New executables are scanned against the Comodo files database and rated as 'Unrecognized', 'Trusted' or 'Malicious'. You can configure this behavior in the 'File Rating settings' section of the configuration profile applied to the device. See **File Rating settings** in **Creating a Windows Profile** for more details.

### Unrecognized Files

Files that could not be identified as 'Trusted' or 'Malicious' by Comodo Client Security (CCS) are reported as 'Unrecognized' to Endpoint Manager. You can review these files and manually rate them as 'Trusted' or 'Malicious' if required.

- The rating you set is purely a local trust rating for the file. It does not affect the global rating set by Comodo.
- The 'Valkyrie' section of a profile lets you auto-upload unknown files to the cloud for behavior analysis. See **Valkyrie Settings** for more details

**Background Note:** Valkyrie is a file verdicting service that tests unknown files with a range of static and dynamic

checks. The results of these tests produce a trust verdict on the file. This verdict can be viewed in the 'Windows File List' > 'Valkyrie Processed Files' tab. See [View List of Valkyrie Analyzed Files](#) for more details.

## Trusted Files

Files are identified as trusted in the following ways:

- Cloud-based file lookup service (FLS) - Whenever a file is first accessed, Comodo Client Security (CCS) on an endpoint will check the file against Comodo's master whitelist and blacklists. The file will be awarded trusted status if:
  - The application is from a vendor included in the Trusted Software Vendors list;
  - The application is included in the extensive and constantly updated Comodo safelist.
- Administrator rating - Admins can assign a 'Trusted' rating to files from the Application Control interface
- User Rating - Users can assign a 'Trusted' rating to files at the local CCS installation in two ways:
  - In response to an alert. If an executable is unknown then it may generate a HIPS alert on the local endpoint. Users could choose 'Treat this as a Trusted Application' at the alert
  - The user can assign 'Trusted' rating to any file from the 'File List' interface.

CCS creates a hash of all files assigned 'Trusted' status by the user. In this way, even if the file name is changed later, the file will retain its trusted status as the hash remains same. This is particularly useful for developers who are creating new applications that, by their nature, are unknown to the Comodo safe list.

## Malicious Files

Files identified as malicious by the File Look-Up Service (FLS) will not be allowed to run by default. These files are reported as malware to EM.

## The File List screen

Possible file ratings are 'Unrecognized', 'Trusted' or 'Malicious'. Administrators can manually set the file rating at their discretion.


- Files rated as 'Trusted' are allowed to run.
- Files rated as 'Malicious' are quarantined and not allowed to run.
- Files rated as 'Unrecognized' are run inside the container - an isolated operating environment. Contained applications are not permitted to access files or user data on the host machine.

Any ratings set by the administrator are propagated to all enrolled endpoints.

Admins can also view a history of purged files. Purged files are those which existed on devices at one point in time, but are not currently present on any device. To view these files, apply the filter named 'Show Purged Files'. See the explanation of [Filter Options](#) given below.

**Tip:** if you wish to see all files across all managed devices, please view the **'Applications'** and **'Application Control'** interfaces. See **'Applications > Mobile Applications'** to view applications in mobile devices.

## Sorting, Search and Filter Options

- Click any column header to sort items in alphabetical order
- Click the funnel icon  to open more filter options:
  - Use the check-boxes to show or hide purged, non-executable, hidden or unrecognized files.
  - Use the search fields to filter by file name, file path or SHA1 hash value. You can also filter by file size and the number of devices on which the file is present.
  - Use the drop-down boxes to filter items by Comodo and/or admin rating
  - Clear any search filters and click 'OK' to display all items again.

You can use any combination of filters simultaneously to search for specific apps.

## Manage Applications

The 'File List' interface allows you to:

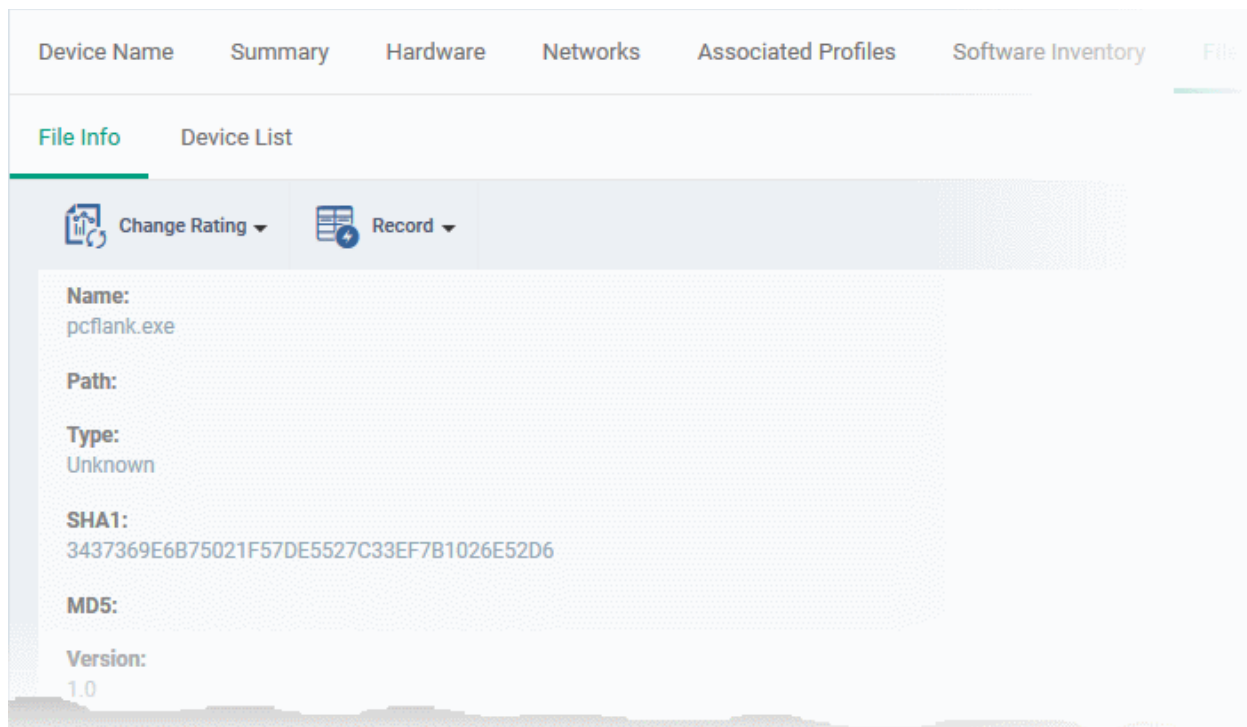
- **View the details of files in the list**
- **View Process Activities of a File**
- **Assign Admin rating to a file**
- **Hide/Display selected files in the list**
- **Export the list of selected files to a CSV file**
- **Remove files from the list**

### View file details

- Simply click on a file in the list or select a file and click 'File Details' at the top.
- The File Details screen contains two tabs:
  - **File info** - Shows basic file details and the devices on which the file is present. You can also change the trust rating of the file in this area.
  - **Device List** - Displays the list of managed Windows devices on which the file is discovered. The 'Device List' interface also allows you to view the process activities of the file in respective devices.

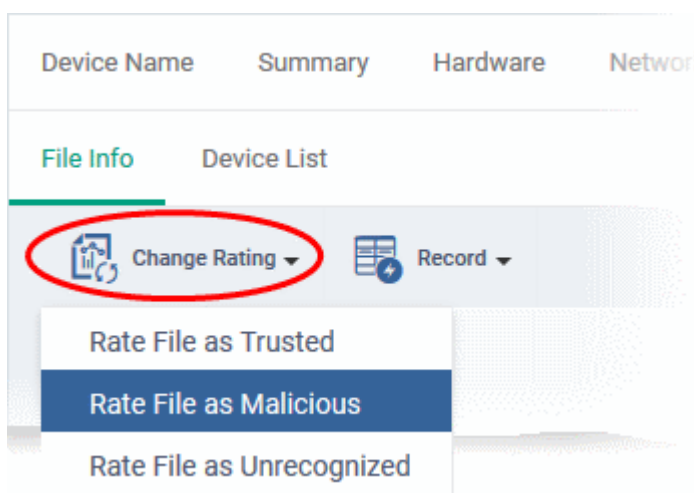
### File info

- The file info screen shows file name, installation path, file type, version, size, hash values and the date the file was first encountered. The screen also shows the file's trust rating and the number of endpoints on which the file is present.



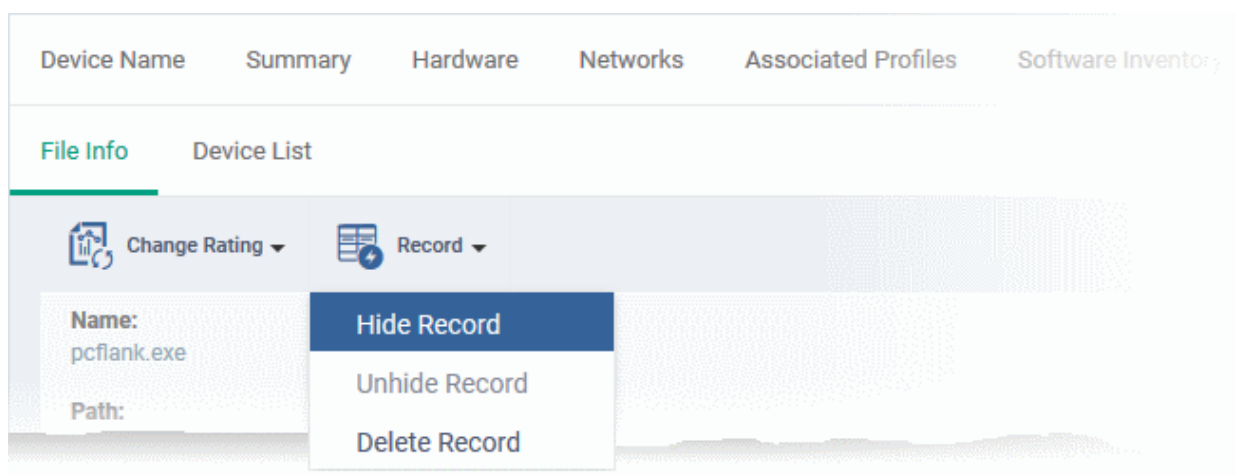
- The 'Change Rating' button allows you to manually set the file's rating as 'Trusted', 'Malicious' or 'Unrecognized':





The new rating will be sent to all endpoints.

- The 'Record' button lets you hide, display or remove the file from the 'File List' screen.



## Device List Screen

- The device list screen shows the list of endpoints on which the item was discovered. The screen also shows the installation path, the installation date and the file rating assigned by Comodo Client Security. The Viruscope column shows detailed info on processes started by the file. See the explanation under [View Process Activities of a File](#) for more details.

Device Name	Summary	Hardware	Networks	Associated Profiles	Software Inventory	File List	Exported Configurations
File Info						Device List	<a href="#">← Back to Device File List</a>
Delete							
<input type="checkbox"/>	NAME	OWNER	COMPANY	PATH	AGE	RATING ON COMPUTER	VIRUSSCOPE
<input type="checkbox"/>	DESKTOP-HIP81N3	Dyanora	Dithers Construction Company	C:\Suspicious\PCFlank\PCFlank\pcflank.exe	Apr 25, 2017	Malicious	<a href="#">View processes</a>
Results per page: 20						Displaying 1 of 1 results	

- You can remove the file from device(s) by selecting a device then clicking 'Delete'

## View Process Activities of a File

**Note:** In order to fetch process activity data, VirusScope should be enabled in the profile in effect on the endpoint. See [Configuring VirusScope Settings](#) in [Creating a Windows Profile](#) for more details.

### To view the activities of a file on the endpoint

- Click the file name from the 'File List' screen to open the 'File Details' screen
- Click the 'Device List' tab
- Click the 'View Processes' link in the 'Viruscope' column in the row of the device name.
- This will open a list of processes executed by the file on the selected endpoint in chronological order:

Device Name Summary Hardware Networks Associated Profiles Software Inventory **File List** Exported Configurations

File Info **Device List** [← Back to Device File List](#)

Delete

<input type="checkbox"/>	NAME	OWNER	COMPANY	PATH	AGE	RATING ON COMPUTER	VIRUSSCOPE
<input type="checkbox"/>	DESKTOP-HIP81N3	Dyanora	Dithers Construction Company	C:\Suspicious\PCFlank\PCFlank\pcflank.exe	Apr 25, 2017	Malicious	<a href="#">View processes</a>

**Process List of Unknown file**

PID	CREATED AT	FILE PATH	DETAILS
2988	May 31, 2017	C:\Suspicious\PCFlank\PCFlank\pcflank.exe	<a href="#">View Activity</a>
4368	May 30, 2017	C:\Suspicious\PCFlank\PCFlank\pcflank.exe	<a href="#">View Activity</a>

Results per page: 20 [v](#) Displaying 1-2 of 2 results

- Click 'View Activity' to see detailed information about each process. The 'Process Activity' interface has two tabs:
  - **Summary** - Displays the name of the device and the installation path of the executable
  - **Activity** - Displays a chronological list of activities by the selected process, including details of files modified by the process.

**Process Unknown file**

Summary **Activity**

DATE	ACTION	PATH	DETAILS
May 31, 2017	Create Process	C:\Program Files\Internet Explorer\iexplore.exe	<a href="#">Details</a>

Results per page: 20 [v](#) Displaying 1 of 1 results

The 'Activity' - Table of Column Descriptions	
Column Heading	Description
Date	The date and time of process execution
Action	The task executed by the process on the target file
Path	The location of the target file
Details	A link to view more information about the action

- You can inspect a particular activity by clicking the 'Details' link:

**Process Unknown file**

Summary Activity

DATE	ACTION	PATH	DETAILS
May 31, 2017	Create Process	C:\Program Files\Internet Explorer\iexplore.exe	<a href="#">Details</a>

Results per page: 20  Displaying 1 of 1 results

**iexplore.exe**

**Details**

**Date:**  
2017/05/31 12:17:07 PM

**Action:**  
Create Process

**Path:**  
C:\Program Files\Internet Explorer\iexplore.exe

**Object Type:**  
Not available

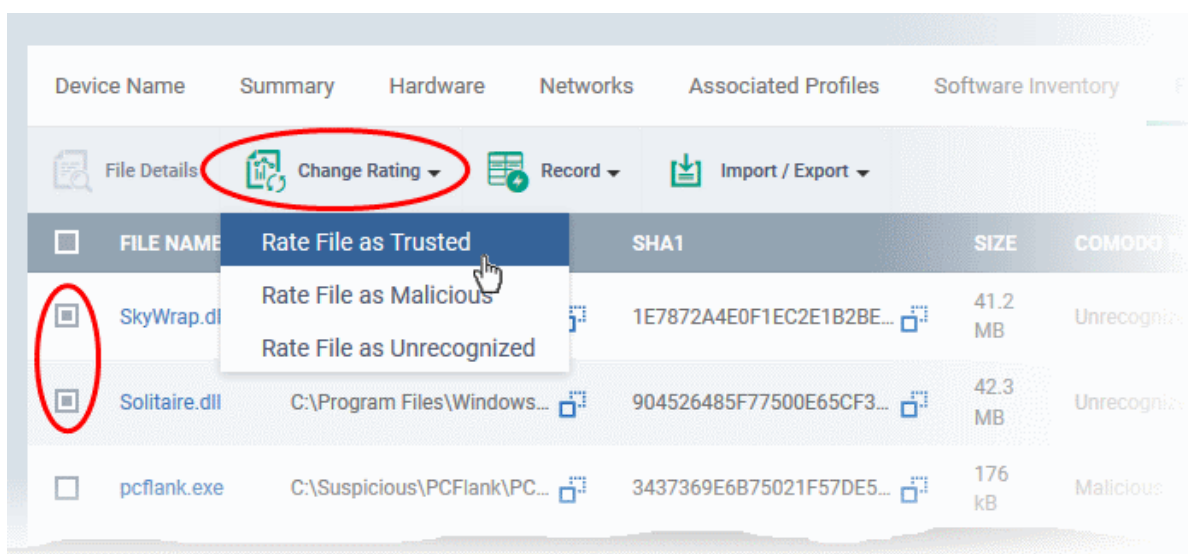
## Assign Admin Rating to a File

- Each file on an endpoint is automatically scanned and assigned a trust rating by Comodo Client Security.
- These ratings can be either '**Unrecognized**', '**Trusted**' or '**Malicious**'. The rating for each file is shown in the 'Comodo Rating' column of the 'File List' screen.
- The file rating determines whether or how the file is allowed to run:
  - Trusted** - The file will be allowed to run normally. It will, of course, still be subject to the standard protection mechanisms of Comodo Client Security (behavior monitoring, host intrusion prevention etc).
  - Malicious** - The file will not be allowed to run. It will be automatically quarantined or deleted depending on admin preferences.

- **Unknown** - The file will be run inside the container. The container is a virtual operating environment which is isolated from the rest of the endpoint. Files in the container write to a virtual file system, use a virtual registry and cannot access user or operating system data.
- Automatic file rating can be configured in the 'File Rating' section of the configuration profile active on the endpoint. See **File Rating settings** in **Creating a Windows Profile** for more details.
- Click 'Change Rating' in the 'File List' interface to manually set a rating for a selected file or files. The new rating will be propagated to all endpoints and will determine the file's run-time privileges. Admin assigned ratings will be shown in the 'Admin Rating' column of the interface:

## To assign a file rating to a file

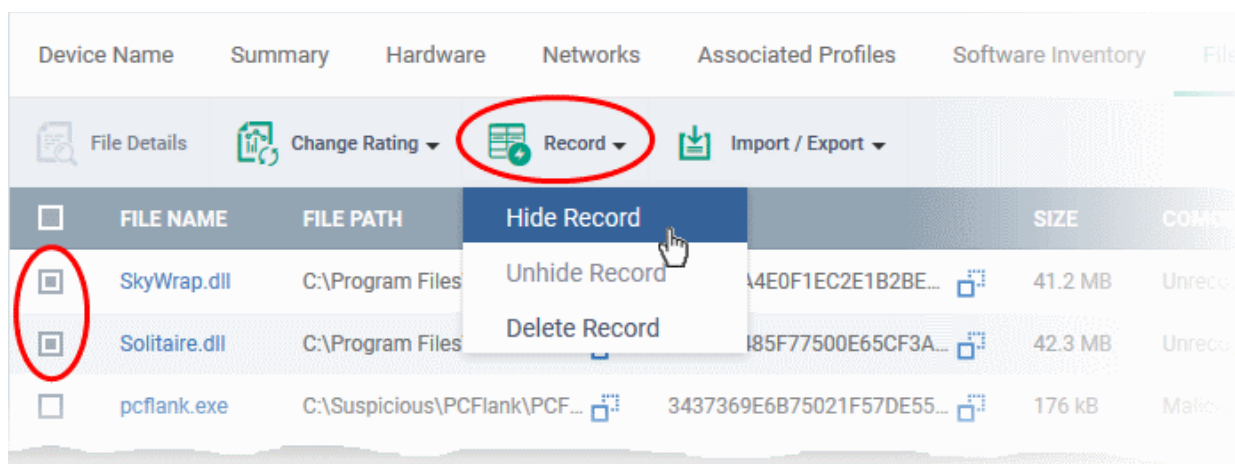
- Select the file(s) whose rating you want to change and click the 'Change Rating' button.
- Choose the rating you want to from the drop-down:



As mentioned, the new admin rating will be set and sent to all endpoints. The Admin Rating will determine the file's run-time privileges.

## Hide/Display Selected Files

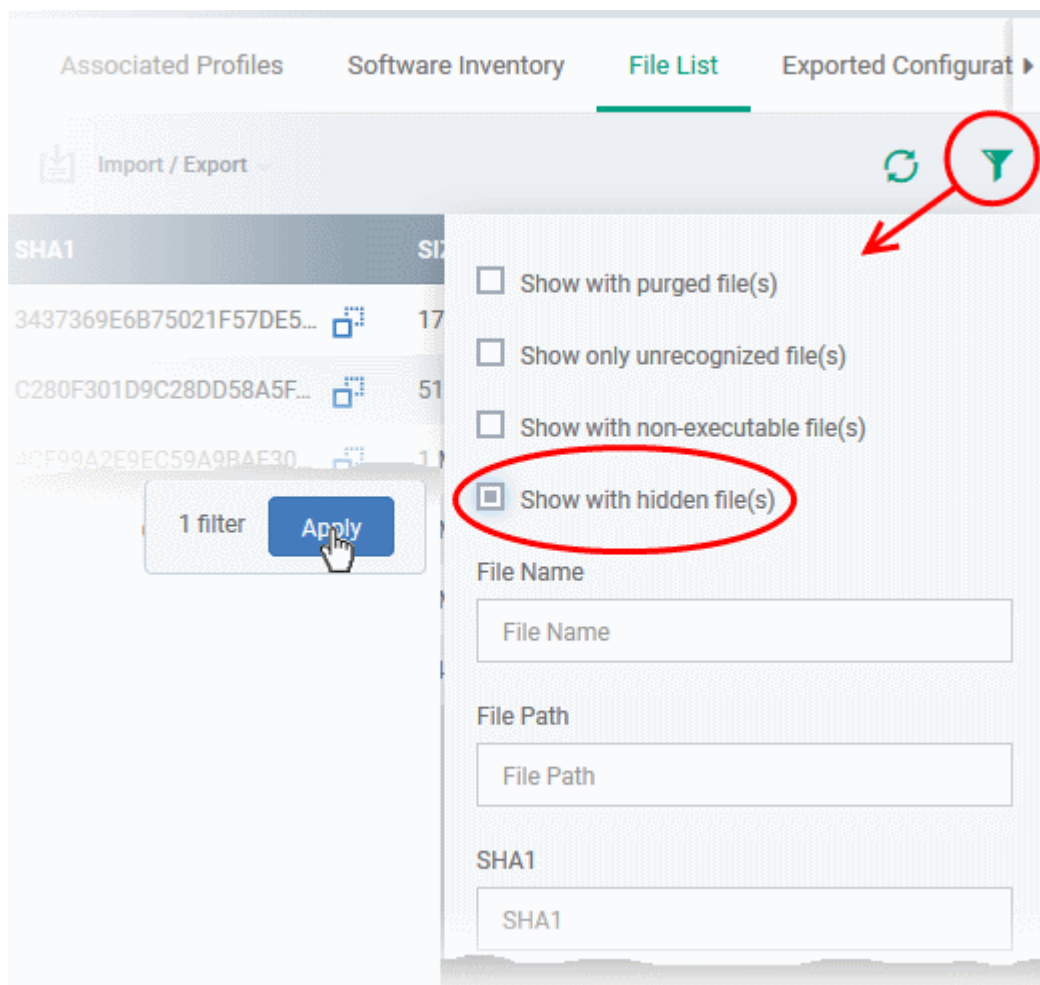
- Select the file(s) you want to hide and click 'Record' at the top



- Select 'Hide / Unhide / Delete Record' as required.

## To view hidden files

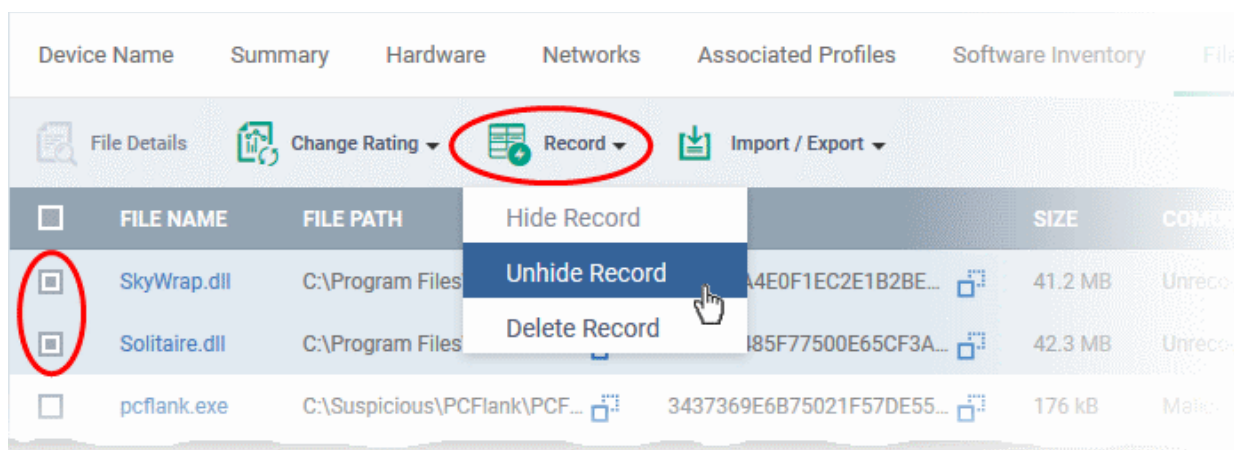
- Click the funnel icon at the top-right to open the filter options
- Select 'Show with hidden file(s)' and click 'Apply'



The hidden files will be added to the list in the 'File List' screen. The files will be highlighted with a gray stripe.

### To restore hidden files

- Click the funnel icon at the top-right to open the filter options
- Enable 'Show with hidden file(s)'
- Select the hidden files you want to restore and click 'Unhide Record' from the drop-down



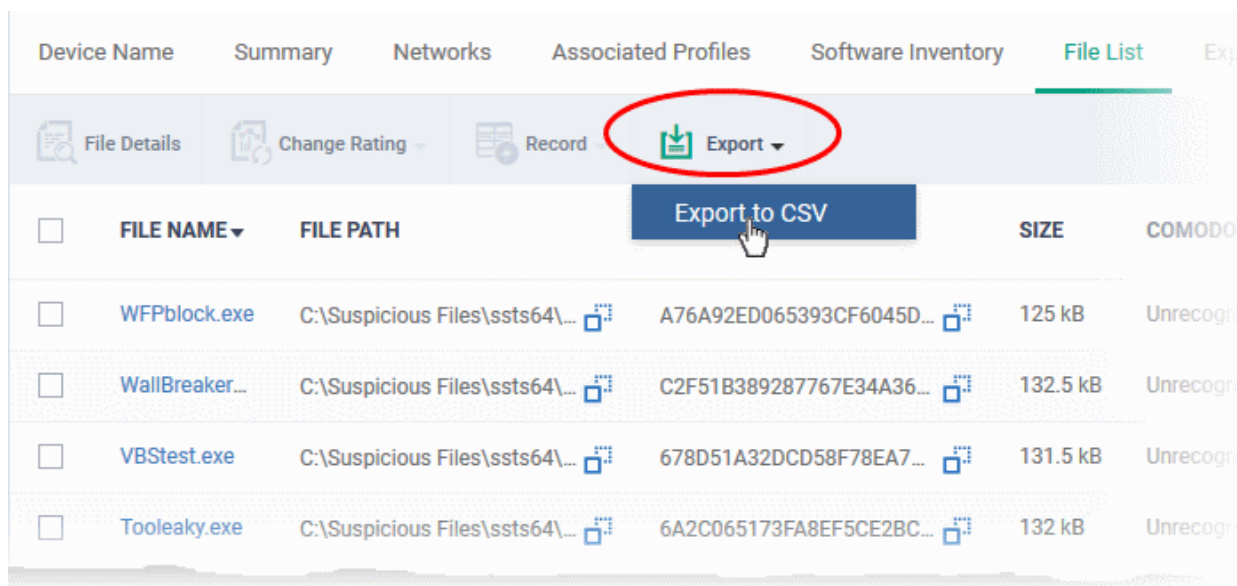
The files will be displayed in the permanently.



## Export the List of Files

You can export the 'File List' to a comma-separated values (CSV) file as follows:

- Click the 'Export' button above the table then choose 'Export to CSV':

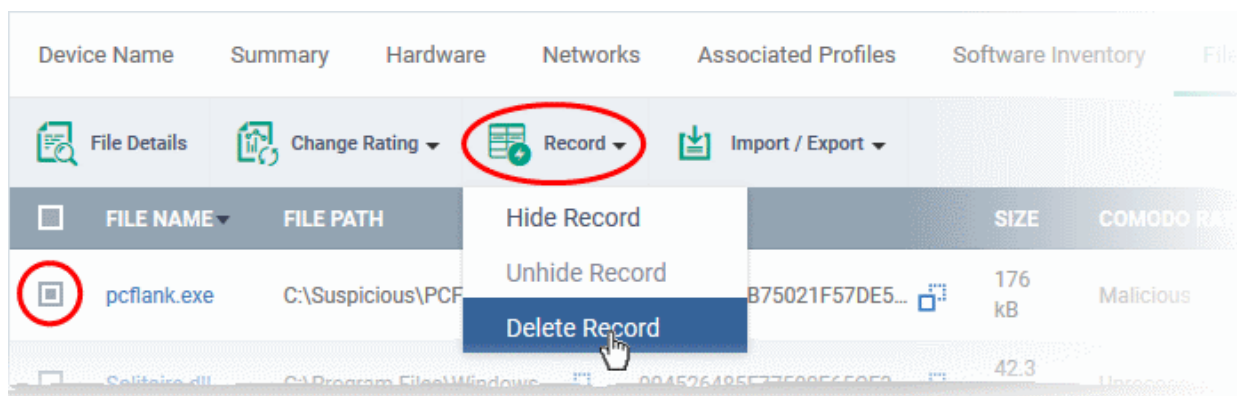


- The CSV file will be available in 'Dashboard' > 'Reports'
- See **Reports** in **The Dashboard** for more details.

## Remove files from the list

You can remove items you no longer wish to see in 'File List' screen. Deleted files will only be removed from the list. They will remain on the endpoints themselves.

- Select the files you want to remove and click 'Record' at the top
- Choose 'Delete Record' from the drop-down



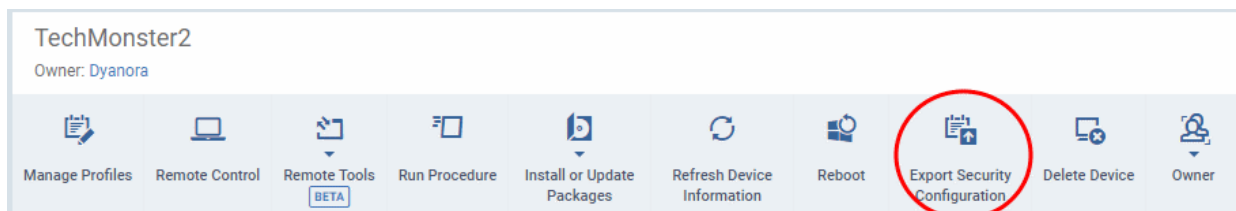
### 5.2.2.8. View Exported Configurations and Import Profiles

- You can create a new Windows profile out of the CCS configuration on an endpoint.
- This is useful if you want to copy the configuration of an endpoint to multiple other endpoints

#### To export a CCS configuration

- Click the 'Devices' tab on the left and choose 'Device List'
- Click the 'Device Management' tab at the top of the main configuration pane

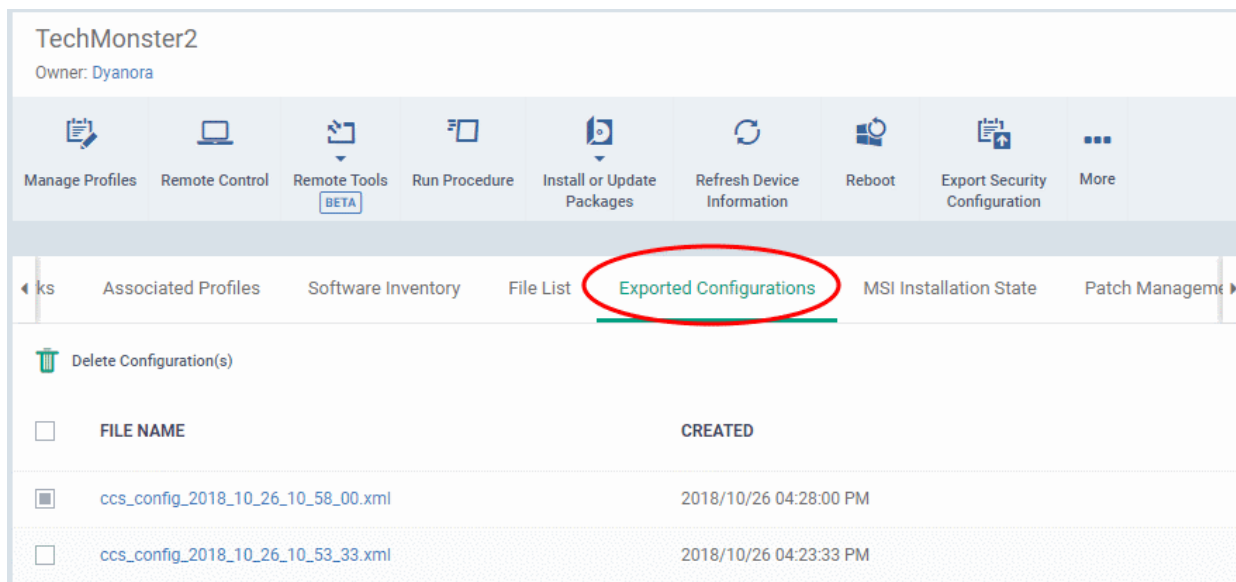
- Select a company or a group to view their devices
- Or
- Select 'Show all' on the left to view every device enrolled to EM
- Click on the Windows device whose configuration you wish to export to open its 'Device Details' interface
- Click the 'Export Security Configuration' button at the top.



The CCS configuration will be exported as an .xml file with date/time stamp suffix in the file name. The profile will be saved on the EM server and can be viewed by clicking the 'Exported Configurations' tab of the device details interface of the same device.

### To view and manage exported profiles

- Click the 'Devices' tab on the left and choose 'Device List'
- Click the 'Device Management' tab at the top of the main configuration pane
  - Select a company or a group to view their devices
  - Or
  - Select 'Show all' on the left to view every device enrolled to EM
- Click the name of a Windows device then select the 'Exported Configurations' tab:



### The 'Exported Security Configuration' List - Table of Column Descriptions

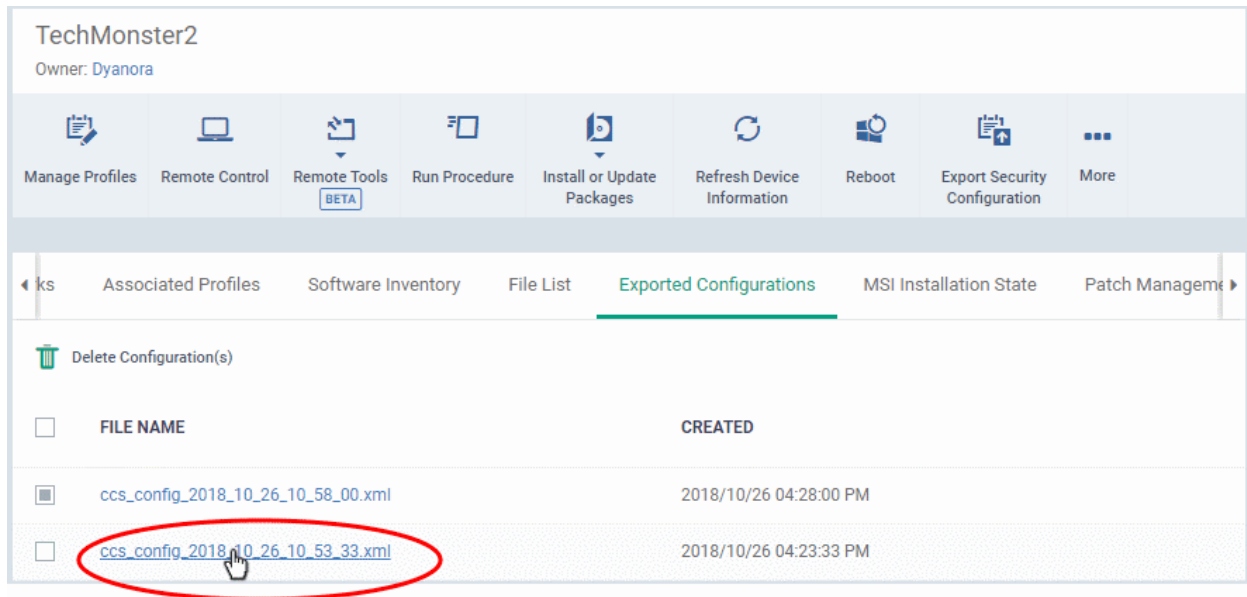
Column Heading	Description
File Name	The label of the exported file.
Created	Date and time at which the CCS configuration was exported

- Click any column header to sort items in alphabetic or ascending/descending order



## To import and save the security configuration

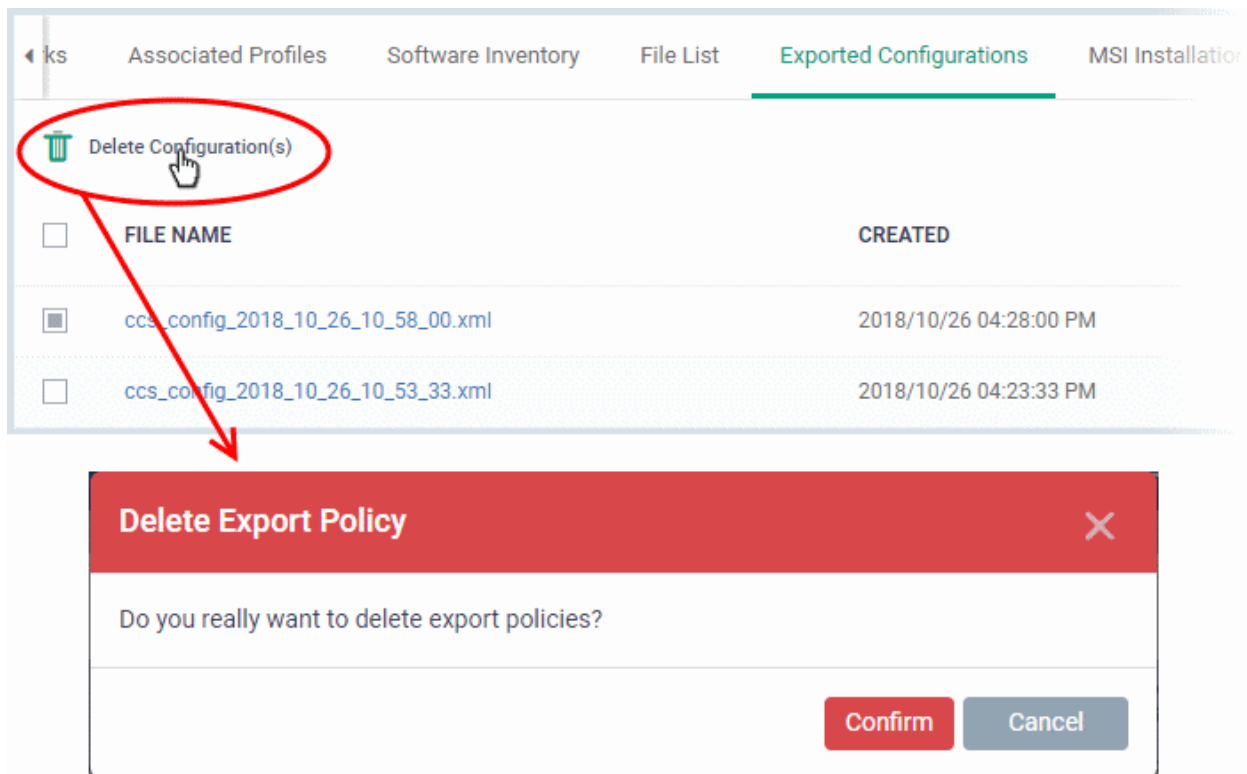
- Click on the file name that you want to import as a profile



The file will be imported as an .xml file.

To import the saved configuration file as a Windows profile, see '**Step 2 - Import the .xml file as a profile for application to required endpoints or endpoint group(s)**' in '**Importing Windows Profiles**'.

- To remove a file from the list, select it and click 'Delete'
- Click 'Confirm' to remove the file from the list

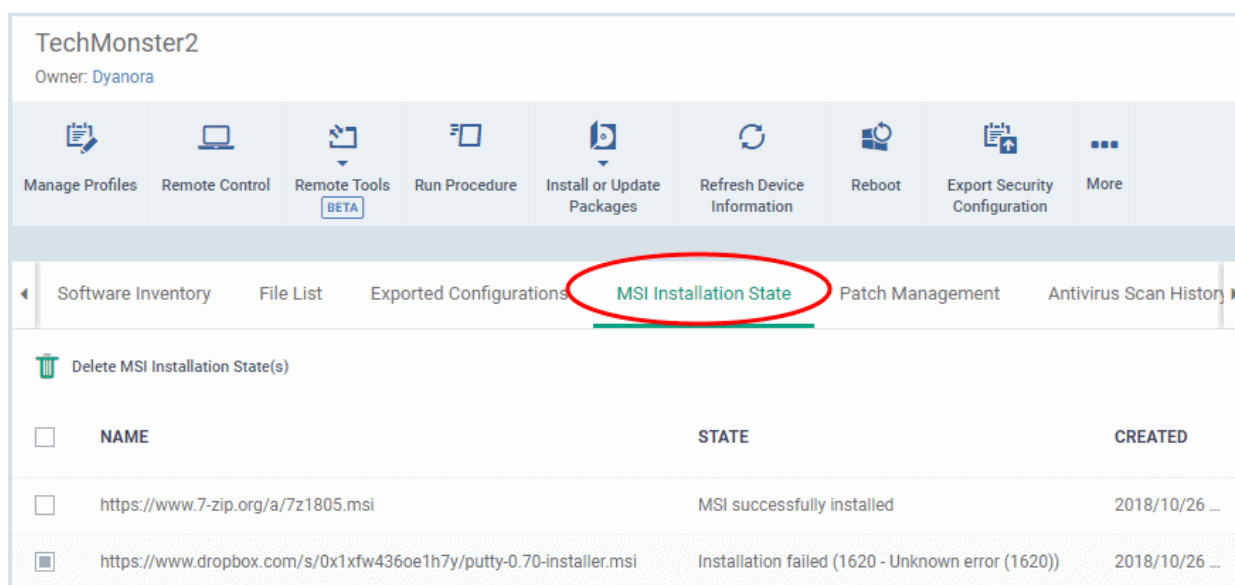


## 5.2.2.9. View MSI Files Installed on a Device through Endpoint Manager

- You can remotely install Endpoint Manager packages onto managed endpoints.
- These may be Comodo applications or third-party MSI packages. See **Remotely Install and Update Packages on Windows Devices** if you want to know more about this process.

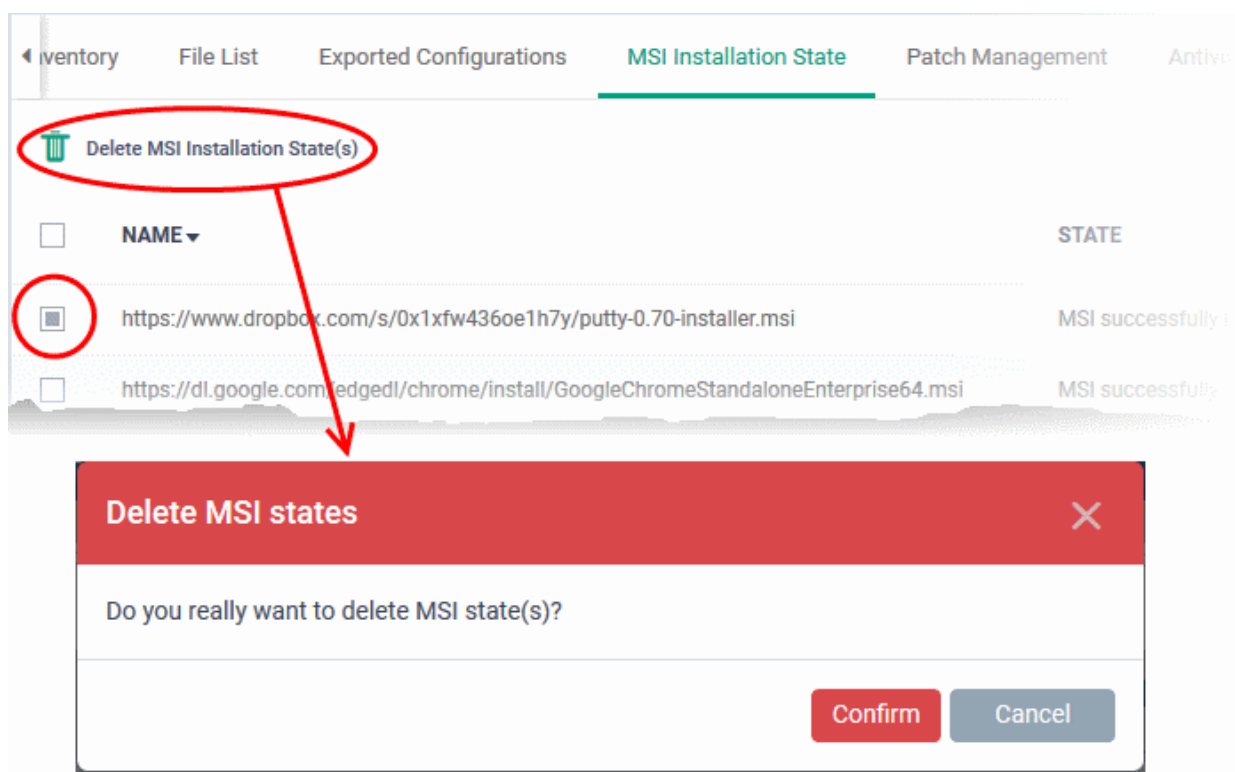
### To view MSI file installation list on the device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab then
  - Select a company or a group to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click on the name of a Windows device then select the 'MSI Installation State' tab:



MSI Installation State - Table of Column Descriptions	
Column Heading	Description
Name	The source URL/file name of the MSI file.
State	The installation status of the MSI file.
Created	The date and time the MSI file installation command was sent.

- Click any column header to sort items in alphabetic or ascending/descending order
- To delete an entry from the list, select it and click 'Delete MSI Installation State(s)'.



- Click 'Confirm' to remove the file from the list

Only the chosen entry will be removed from the list but the package will not be uninstalled from the endpoint.

## 5.2.2.10. View and Manage Patches for Windows and 3rd Party Applications

- Windows and 3rd party applications have to be kept up-to-date to protect them from vulnerabilities.
- The 'Patch Management' feature lets you view all available patches and deploy them remotely. You can install multiple patches on a device simultaneously.
  - This section tells you how to patch individual devices via the 'Device Details' screen.
  - Alternatively, there is a full patch management interface at 'Applications' > 'Patch Management'. Go here if you want to install patches on multiple devices. See '**Patch Management**' for help with this.

**Note:** Hidden OS patches are not visible in the device's 'Patch Management' screen. Click 'Applications' > 'Patch Management' > 'Operating System' tab to hide/unhide patches. See '**Install OS Patches on Windows Endpoints**' for more details.

### Process in brief

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
- Click the name of a Windows device to open its details page
- Select the 'Patch Management' tab
- Choose the patches you want to install from the 'Operating System' and 'Third Party' tabs
- Click 'Install Patches'. Each tab has a separate install button.

TechMonster2  
Owner: Dyanora

Manage Profiles Remote Control Remote Tools (BETA) Run Procedure Install or Update Packages Refresh Device Information Reboot Export Security Configuration More

Software Inventory File List Exported Configurations MSI Installation State **Patch Management** Antivirus Scan His

Operating System Third Party Applications

Install Patch(es) Uninstall Patch(es) Check Available Updates

<input type="checkbox"/>	TITLE	KB	BULLETIN	CLASSIFICATION	SEVERITY	REBOOT	RELEASE DATE	STATUS
<input type="checkbox"/>	Japanese Language Pack - Windows 7 Service Pack 1 (KB2483139)	2483139		Update		No	2011/02/22	Available
<input type="checkbox"/>	Czech Language Pack - Windows 7 Service Pack 1 (KB2483139)	2483139		Update		No	2011/02/22	Available

- **Operating System** - Shows all installed and pending OS patches for the device. Additional details are available for each patch, including classification, severity, release date, installation status and knowledgebase articles.
- **Third Party Applications** - Shows applications on the device for which updates are available. The version numbers of the currently installed version and the latest available version are shown. The 'severity' column tells you the importance of the update.

## View Windows patches available for a device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
- Click the name of a Windows device to open its details page
- Select the 'Patch Management' tab
- Click the 'Operating System' tab

**Note:**

- The 'Operating System' tab only shows Windows patches which are relevant to a device.
- Any hidden patches are not shown. Hidden patches can be configured in 'Application' > 'Patch Management'.
- For more details, see **hide patches** in **Install OS Patches on Windows Endpoints**.

Inventory   File List   Exported Configurations   MSI Installation State   **Patch Management**   Antivirus Scan History   Groups   Logs


**Operating System**   Third Party Applications

Install Patch(es)   Uninstall Patch(es)   Check Available Updates

<input type="checkbox"/>	TITLE	KB	BULLETIN	CLASSIFICATION	SEVERITY	REBOOT	RELEASE DATE	STATUS ▲
<input checked="" type="checkbox"/>	2018-09 Security Update for Adobe Flash Player for Windows 10 Version 1803 for x64-based Systems (KB4457146)	4457146		Security Update	Critical	Maybe	2018/10/17	Available
<input type="checkbox"/>	Update for Japanese Microsoft IME Standard Extended Dictionary (KB2734786)	2734786		Definition Update	Unspecified	No	2015/09/07	Installed
<input type="checkbox"/>	Windows Malicious Software Removal Tool x64 - October 2018 (KB890830)	890830		Update Rollup		Maybe	2018/10/09	Installed

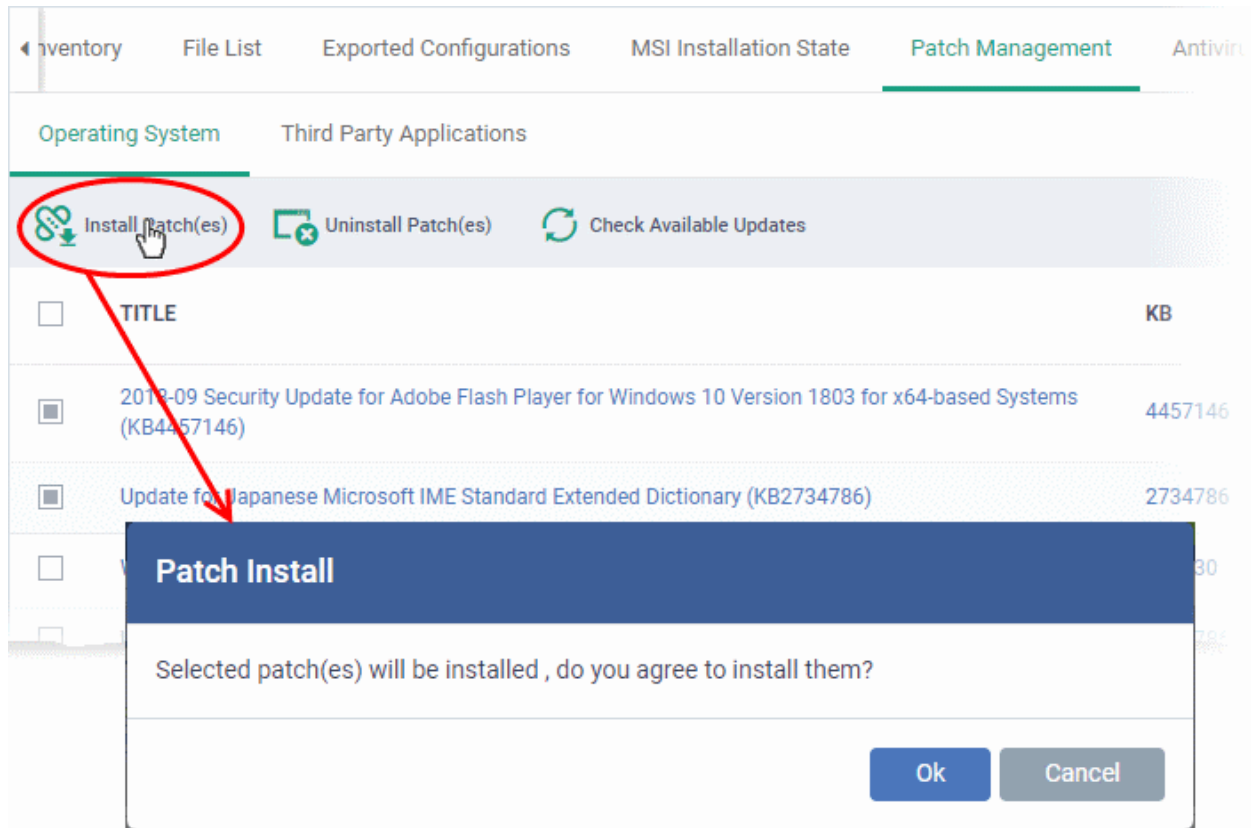
Operating System Patches - Column Descriptions	
Column Heading	Description
Title	The descriptive name of the patch. <ul style="list-style-type: none"> <li>Click the name to view patch details. See <b>View Details of a Patch</b> for more details.</li> </ul>
KB	The Microsoft knowledgebase article for the patch. <ul style="list-style-type: none"> <li>Click the number to view the article.</li> </ul>
Bulletin	The Microsoft bulletin number that contains details about the patch. <ul style="list-style-type: none"> <li>Click the number to view the bulletin page.</li> </ul>
Classification	The category of the patch. The possible values are: <ul style="list-style-type: none"> <li>Update - Fixes a specific, non-critical problem. This type of patch does not address security-related bugs.</li> <li>Definition update - Updates to a product's internal database. For example, an update to the virus signature database for Windows Defender.</li> <li>Critical Update - Fixes a specific, critical problem, but not a security-related bug.</li> <li>Security update - Fixes a version specific, security related vulnerability</li> <li>Update rollup - A collection of updates, hotfixes, security updates and critical updates packaged together for easy deployment. These updates generally target a specific Windows component.</li> <li>Driver - Adds software for controlling peripherals or add-on devices that could be connected to the endpoint</li> <li>Feature pack - Adds new functionality distributed after an OS release.</li> <li>Service pack - Contains a collection of updates, hotfixes, security updates, critical updates and additional fixes.</li> <li>Tool - Installs a utility or feature for a specific task or a set of tasks.</li> </ul>

	<ul style="list-style-type: none"> <li>Upgrades - Updates the Windows OS version on the endpoint to the latest build.</li> </ul>
Severity	<p>The criticality of the patch. The severity levels are:</p> <ul style="list-style-type: none"> <li>Critical</li> <li>Important</li> <li>Low</li> <li>Moderate</li> <li>Unspecified</li> </ul>
Reboot	Whether or not the endpoint requires a restart to complete the patch installation.
Release Date	The date on which the patch was released by Microsoft
Status	Whether the patch has been installed on the device or not.
<b>Controls</b>	
Install Patch(es)	Deploy selected patches to the device. See <a href="#">Install missing patches on the device</a> for more details.
Uninstall Patch(es)	Remove previously installed patches or updates from the device. See <a href="#">Uninstall patches from a device</a> for more details.
Check Available Updates	Refresh patch inventory with the latest updates available for the device.

- Click any column header to sort the items in ascending/descending order of entries in that column
- Click the funnel icon  on the right to filter patches by various criteria, including by severity, by whether a patch is available, or by patch installation status.

## Install missing patches on the device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
- Click the name of a Windows device to open its details page
- Select the 'Patch Management' tab
- Click the 'Operating System' tab
- Identify patches with 'Available' status
  - Click the funnel icon on the right
  - Select 'Available' from the 'Status' drop-down
  - Click 'Apply'
- Select the patches you want to install
- Click 'Install Patch(es)':



- Click 'OK' in the confirmation dialog

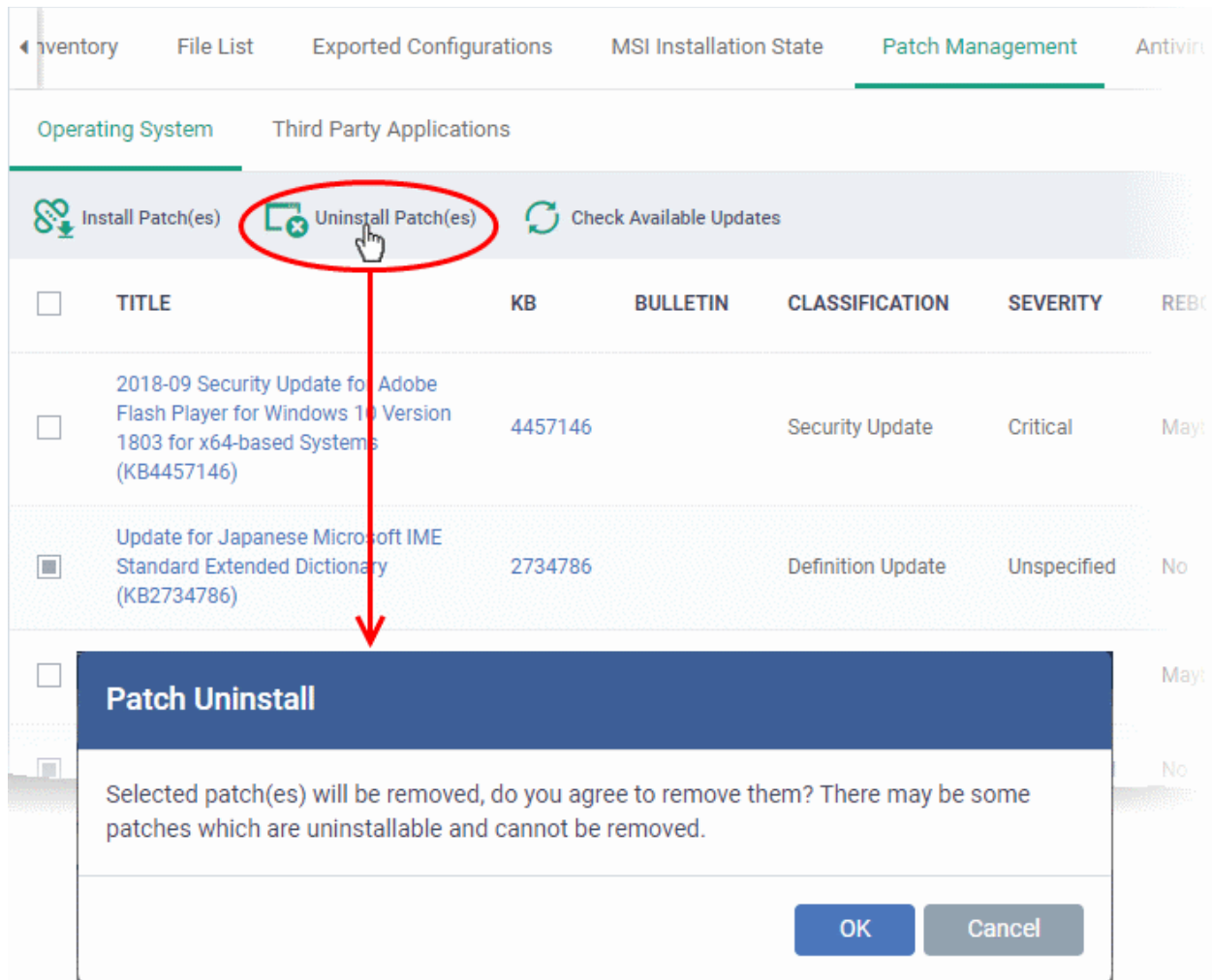
Install command successfully added to install queue. The process may take a while to be completed.

A command will be sent to install the selected patches.

## Uninstall patches and Windows updates from the device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
- Click the name of a Windows device to open its details page
- Select the 'Patch Management' tab
- Click the 'Operating System' tab
- Identify patches and updates with 'Installed' status
  - Click the funnel icon on the right
  - Select 'Installed' from the 'Status' drop-down
  - Click 'Apply'
- Select the items you want to uninstall
- Click 'Uninstall Patch(es)':





- Click 'OK' in the confirmation dialog

Uninstall command successfully added to uninstall queue. The process may take a while to be completed.

A command will be sent to remove the select patches/updates from the endpoint.

### View 3<sup>rd</sup> party application patches available for a device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
- Click the name of a Windows device to open its details page
- Click the 'Patch Management' tab then 'Third Party Applications':

SOFTWARE NAME	VENDOR	SOFTWARE CATEGORY	INSTALLED VERSION	INSTALLATION DATE	LATEST VERSION AVAILABLE	SEVERITY	RELEASE DATE
Microsoft OneDrive	Microsoft Corporation	Other	17.3.6743.1212	2018/02/06	17.3.7073.1013	Unspecified	2018/02/06

Third Party Applications - Column Descriptions	
Column Heading	Description
Software Name	<p>The label of the third party application.</p> <ul style="list-style-type: none"> <li>Click the name to view general application details and a list of devices on which the (outdated) application is installed. See <b>View Details of an Application</b> in <b>Install 3rd Party Application Patches on Windows Endpoints</b> for more details.</li> </ul>
Vendor	The software publisher.
Software Category	<p>The type of the application. Possible values include:</p> <ul style="list-style-type: none"> <li>Comodo Products</li> <li>Runtime applications</li> <li>Web Browsers</li> <li>Utilities</li> <li>Messaging</li> <li>File Compression utilities</li> <li>Developer Tools</li> <li>Documents</li> <li>Online Storage</li> <li>Other</li> </ul>
Installed Version	The version number of the application currently installed on the endpoint.
Installation Date	The date on which the application was installed on the endpoint.
Latest Version Available	The version number of the latest version of the application that is available from the publisher
Severity	<p>Indicates the level of severity of the update as determined by Microsoft. The severity levels are:</p> <ul style="list-style-type: none"> <li>Unspecified</li> <li>Critical</li> <li>Important</li> <li>Low</li> <li>Moderate</li> </ul>

Release Date	The date at which the latest version of the application was released.
<b>Controls</b>	
Install Patch(es)	Remotely install selected patches on the device. See <a href="#">Install 3<sup>rd</sup> party application patches on a device</a> for more details.

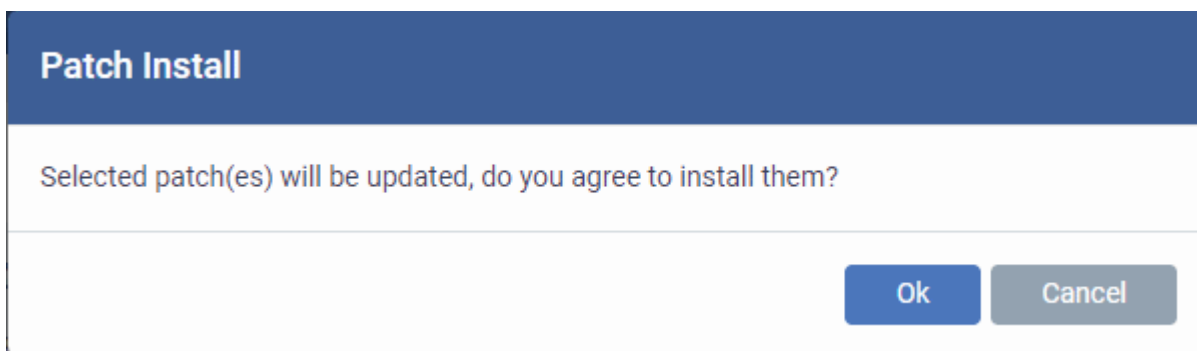
See [EM Supported 3rd Party Applications](#) to view a full list of applications that can be updated.

## Install 3rd party application patches on a device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
- Click the name of a Windows device to open its details page
- Select the 'Patch Management' tab then open 'Third Party Applications'
- Choose the patches you want to install
- Click the 'Install Patch(es)' button
- Select 'Update to the latest version' or 'Update to specific version' as required

The screenshot shows the 'Patch Management' section of the Endpoint Manager interface. The 'Third Party Applications' tab is active. The 'Install Patch(es)' button is circled in red. Below it, a table lists applications with columns for 'VENDOR', 'SOFTWARE CATEGORY', and 'INSTALLED VERSION'. A red arrow points from the 'Update to a Specific Version' button to a modal dialog box titled 'Update to a Specific Version'. Inside the dialog, a dropdown menu is open, showing version options 5.1.50907.0 and 5.1.50901.0, with the dropdown arrow icon circled in red.

- Click 'Send'
- Click OK in the confirmation dialog:



- A command will be sent to the endpoint to install the patch:

«Update to a Specific Version» command has been sent

- Once the command is received, the communication client (CC) on the endpoint will check whether the update is available on any other devices in the network.
- If available, CC downloads the patch from the other device over a peer-to-peer connection. This reduces bandwidth consumption and speeds up the deployment process.
- If the update is not available on the local network, CC downloads the update from the EM patch portal.

## 5.2.2.11. View Antivirus Scan History

The 'Antivirus Scan History' tab shows items identified as malware on an endpoint. You can also see the malware's installation path and the action taken against the file.

You can only view scan history on endpoints that have Comodo Client Security installed. The scan history covers manual scans and automatic scans run as part of a configuration profile.

### To view Antivirus Scan history of the device

- Click the 'Devices' tab on the left and choose 'Device List'
- Click the 'Device Management' tab at the top of the main configuration pane
  - Select a company or a group to view their devices
- Or
  - Select 'Show all' on the left to view every device enrolled to EM
- Click the name of a Windows device then select the 'Antivirus Scan History' tab:

**Note:** The 'Antivirus Scan History' tab is available only for endpoints with Comodo Client Security installed.

Antivirus Scan History- Table of Column Descriptions	
Column Heading	Description
Malware Name	Descriptive label of the malicious item
Path	The installation location of the malicious item on the device
Action Taken	The CCS response to the item
Action Status	The success or failure of the action
Scan Identification Number	Unique identifier assigned to the scan which found the malware
Date	Date and time at which the scan was performed.

## Sorting, Search and Filter Options

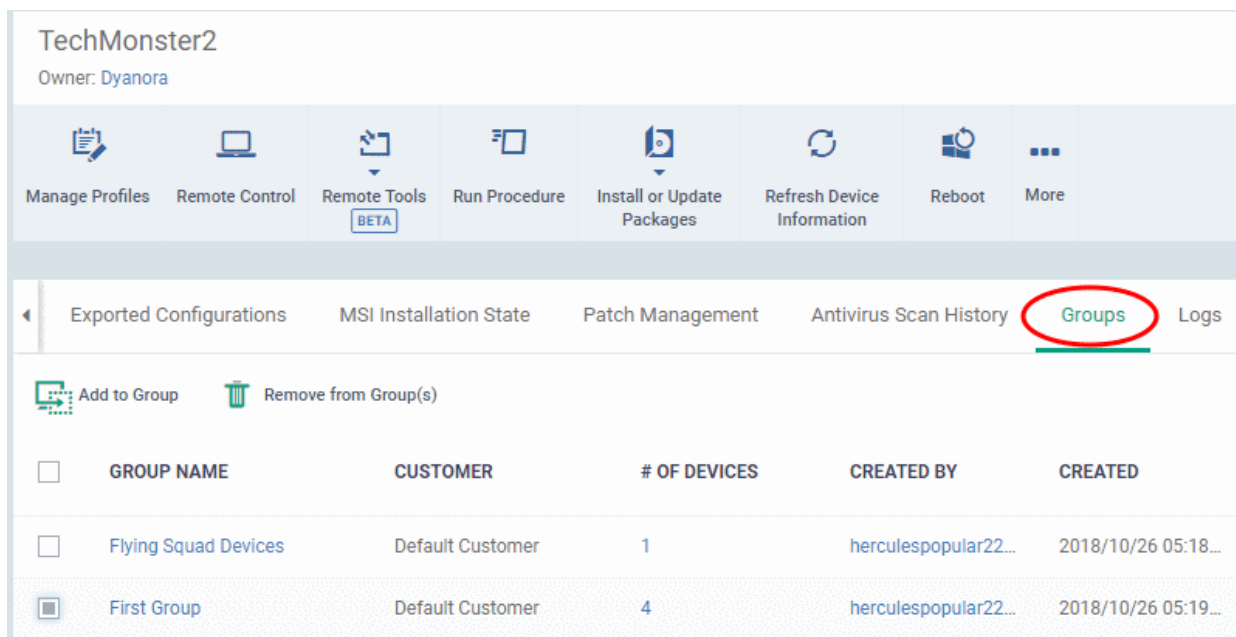
- Click any column header to sort items in alphabetic or ascending/descending order
- EM returns 20 results per page when you perform a search. Click the arrow next to 'Results per page' to increase the number of results up to 200.

### 5.2.2.12. View and Manage Device Group Membership

The 'Groups' tab shows device groups to which the Windows endpoint belongs. You can remove the device from a group or add it to a new group.

#### To view and manage device group membership

- Click the 'Devices' tab on the left and choose 'Device List'
- Click the 'Device Management' tab at the top of the main configuration pane
  - Select a company or a group to view their devices
 Or
  - Select 'Show all' on the left to view every device enrolled to EM
- Click the name of a Windows device then select the 'Groups' tab:



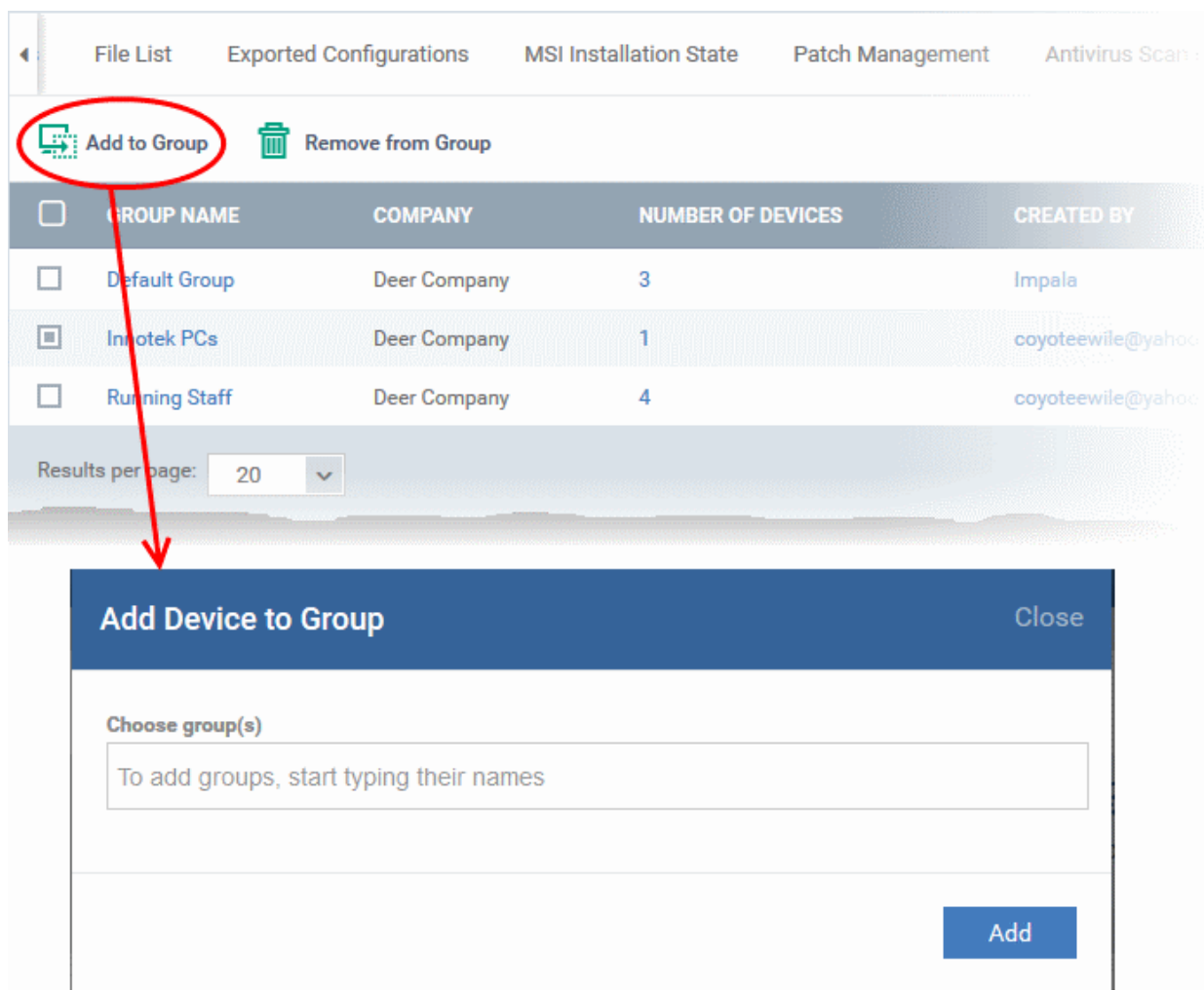
- The interface lists all groups of which the device is a member.
- Any group profiles will also be applied to the endpoint.

See [Assign Configuration Profiles to a Device Group](#), for more details about applying configuration profiles to device groups.

Device Groups - Table of Column Descriptions	
Column Heading	Description
Group	The group label. <ul style="list-style-type: none"> <li>• Click the group name to view and edit group details.</li> <li>• See <a href="#">Edit a Device Group</a> for more details.</li> </ul>
Customer	The name of the company for which the group was created.
Number of Devices	The total count of devices in the group. <ul style="list-style-type: none"> <li>• Click the number to view and edit group details.</li> <li>• See <a href="#">Edit a Device Group</a> for more details.</li> </ul>
Created By	Name of the admin who created the group. <ul style="list-style-type: none"> <li>• Click the name to view the admin's details.</li> <li>• See <a href="#">View the Details of a User</a> for more details.</li> </ul>
Created	The date and time at which the group was created.

### To add the device to a new group

- Click 'Add to Group'



The 'Add Device to Group' dialog will appear.

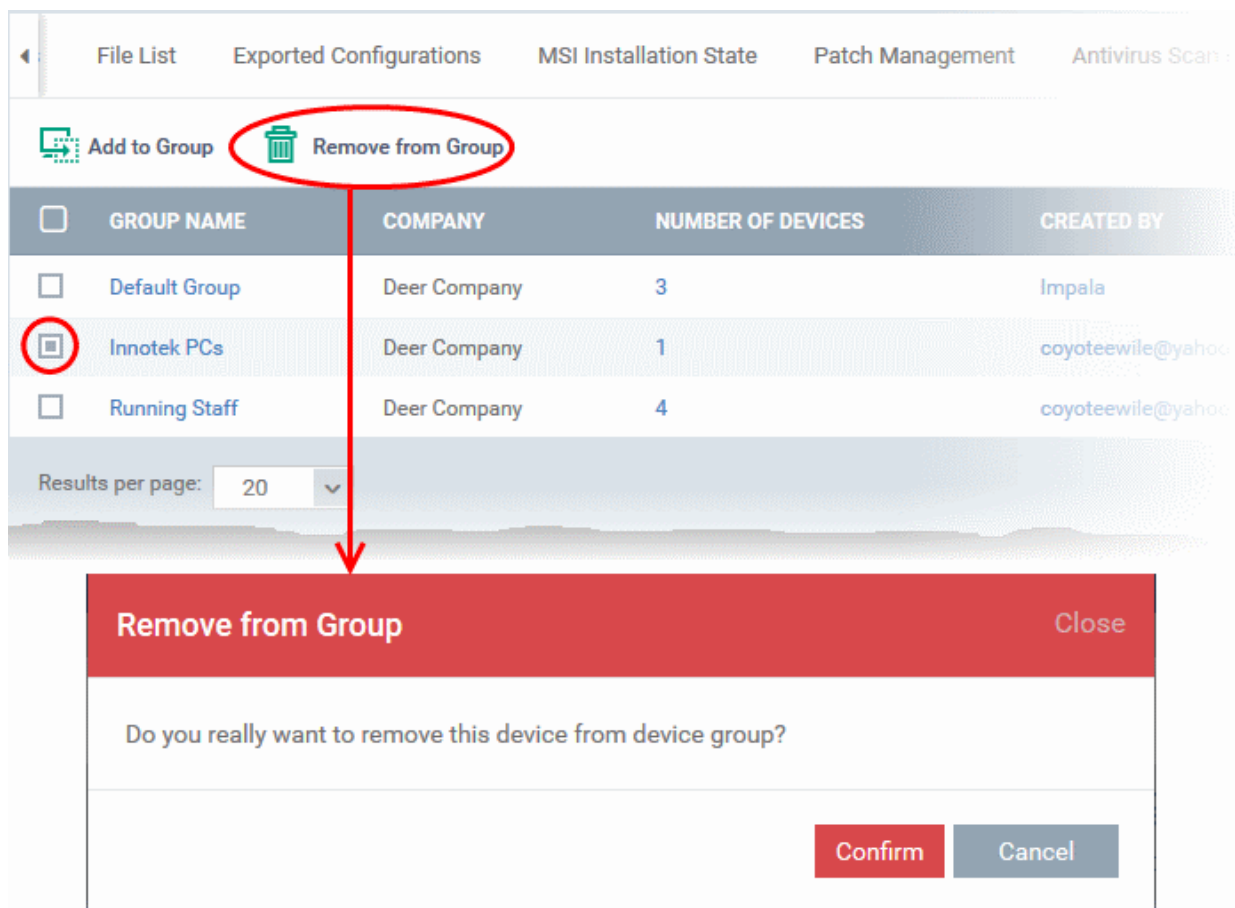
- **Choose Group(s)** - Start typing the name of the group which you want the endpoint to join. Select the correct group from the list of suggestions.
- Repeat the process to add the device to other groups.
- Click 'Add'.

The device will be added to the group or groups.

### To remove the device from a group

- Select the group from the list and click 'Remove from Group'.





A confirmation dialog will appear.

- Click 'Confirm' to remove the device from the group.

The device will be removed from the group. Group profiles will also be removed from the device.

### 5.2.2.13. View Device Logs

Endpoint Manager collects logs from managed Windows devices for various events.

Logs are created, for example:

- When a condition is breached in a monitoring procedure
- When an alert is generated on the device
- When a script or patch procedure is executed
- When an app from the 'Windows Application Store' is installed ('Application Store' > 'Windows Application Store')
- When an app is remotely uninstalled via EM.

#### To view device logs

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device enrolled to EM
- Click the name of a Windows device then select the 'Logs' tab:

DESKTOP-D80SVJJ  
Owner: Avanti

Manage Profiles Remote Control Remote tools **BETA** Run Procedure Install or Update Packages Refresh Device Information Reboot Export Security Configuration More

Device List Exported Configurations MSI Installation State Patch Management Antivirus Scan History Groups **Logs**

Alert Logs Monitoring Logs Script Logs Patch Logs Third Party Patch Logs Installation Logs Uninstallation Logs

ALERT NAME	TRIGGER NAME	TRIGGER TYPE	HITS COUNT (24H PERIOD)
Custom Alert	Second Monitor [Suspicious Files Folder for John]	Monitor	43
Default Alert	Recommended Performance Monitoring	Monitor	2

The interface has six sub-tabs:

- **Alert Logs**
- **Monitoring Logs**
- **Script Logs**
- **OS Patch Logs**
- **Third Party Patch Logs**
- **Installation Logs**
- **Uninstallation Logs**

## View Alert Logs

'Alerts Logs' logs are generated after a failed procedure deployment or a breach of monitoring conditions.

### To view alert logs

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device enrolled to EM
- Click the name of the Windows device then select the 'Logs' tab
- Select 'Alert Logs'

Inventory File List Exported Configurations MSI Installation State Patch Management Antivirus Scan History Groups **Logs**

**Alert Logs** Monitoring Logs Script Logs Patch Logs Third Party Patch Logs Installation Logs Uninstallation Logs

ALERT NAME	TRIGGER NAME	TRIGGER TYPE	HITS COUNT (24H PERIOD)
Custom Alert	Second Monitor [Suspicious Files Folder for John]	Monitor	70
Default Alert	Install SentinelOne software	Procedure	1
Default Alert	Recommended Performance Monitoring	Monitor	2

Alert Logs - Table of Column Descriptions	
Column Heading	Description
Alert Name	The label of the alert that generated the log. Different alerts can be configured for specific events. <ul style="list-style-type: none"> <li>Click the alert name to view and configure its settings</li> <li>See <b>'Manage Alerts'</b> for more details.</li> </ul>
Trigger Name	The monitor, procedure or condition that was breached. <ul style="list-style-type: none"> <li>Click the trigger name to view and configure its settings</li> <li>See <b>Manage Monitors</b> and <b>Manage Procedures</b> for more details.</li> </ul>
Trigger Type	The category of trigger, either 'Monitoring' or 'Procedure'.
Hits Count (24 H Period)	The number of time this condition was triggered in the past 24 hours.

## View Monitoring Logs

- The 'Monitoring Logs' tab shows events which met the conditions of a monitor
  - Monitors are procedures which keep track of specific items on an endpoint. For example, you may set a monitor to track disk usage does not exceed a certain percentage.
  - Monitors can be added to the 'Monitoring' section of a configuration profile
- Logs are displayed for the past 24 hours.
  - See **Manage Monitors** for help to create monitors.
  - See **Monitor Settings** for help to add monitors to profiles

### To view monitoring logs

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device enrolled to EM
- Click the name of the Windows device then select the 'Logs' tab
- Click 'Monitoring Logs'

Alert Logs						
MONITOR NAME	STATUS	HIT COUNT	LAST HIT TIME	LAST UPDATE TIME	DETAILS	
Second Monitor [Suspicious Files Folder for John]	Off	255	2018/09/06 12:33:39 PM	2018/09/06 12:33:41 PM	<a href="#">Details</a>	
CPU [Monitoring Important Data]	Off	0	Not modified	2018/09/06 10:27:34 AM	<a href="#">Details</a>	
For Finance Dept Computers	Off	0	Not modified	2018/09/06 09:40:26 AM	<a href="#">Details</a>	
Recommended Performance Monitoring	Off	5	2018/08/28 11:31:26 AM	2018/08/28 11:31:56 AM	<a href="#">Details</a>	

Monitoring Logs - Table of Column Descriptions	
Column Heading	Description
Monitor Name	The label of the monitoring condition that was violated. <ul style="list-style-type: none"> <li>Click the name to view and manage the parameters of the monitoring condition.</li> <li>See '<b>Monitor Settings</b>' and '<b>Manage Monitors</b>' for more details.</li> </ul>
Status	Whether or not the monitor is currently active on the device.
Hit Count	The number of times the monitoring condition was breached during the last 24 hours.
Last Hit Time	Date and time the monitoring rule was last broken.
Last Update Time	Date and time when the information was last refreshed.
Details	<ul style="list-style-type: none"> <li>Click the 'Details' link to view a log of the breach events.</li> <li>See <b>View Details of Monitoring Logs</b> (given below) for more information.</li> </ul>

## View Details of Monitoring Logs

- To view the conditions of a monitoring rule, click the 'Details' link:

The screenshot shows the 'Monitoring Logs' interface. The top navigation bar includes 'File List', 'Exported Configurations', 'MSI Installation State', 'Patch Management', 'Antivirus Scan History', 'Groups', and 'Logs' (circled in red). Below this, there are sub-tabs for 'Alert Logs', 'Monitoring Logs' (circled in red), 'Script Logs', 'Patch Logs', 'Third Party Patch Logs', 'Installation Logs', and 'Uninstallation Logs'. The main table lists monitoring rules with columns: MONITOR NAME, STATUS, HIT COUNT, LAST HIT TIME, LAST UPDATE TIME, and DETAILS. The 'Second Monitor [Suspicious Files Folder for John]' row has its 'Details' link circled in red. A red arrow points from this link to the 'Log Detail' section. The 'Log Detail' section has 'Statuses' and 'Tickets' tabs. The 'Statuses' tab is active, showing a table with columns: TIME, STATUS, and ADDITIONAL INFORMATION. The table contains four entries for the 'Network Bandwidth Monitor' rule, showing status changes (OFF and ON) and timestamps.

Details are displayed under two tabs:

**Statuses** - Displays the date and time when the breach occurred. Also displays details of the monitoring rule that was broken.

Monitoring Log Details - 'Statuses' tab - Table of Column Descriptions	
Column Heading	Description
Time	Date and time of the breach event.
Status	Displays the status of the device at the time of monitoring.
Additional Information	Provides details on the condition monitored and the breach

**Tickets** - Shows any service desk tickets raised for the alert.

Log Detail <span style="float: right;">← Back</span>		
<span>Statuses</span> <u><span>Tickets</span></u>		
LINK	STATUS	CREATED ON
<a href="https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=134">https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=134</a>	Closed	2018/09/06 12:17:34 PM
<a href="https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=134">https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=134</a>	Closed	2018/09/06 12:03:31 PM
<a href="https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=132">https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=132</a>	Open	2018/09/06 11:32:04 AM
<a href="https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=132">https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=132</a>	Closed	2018/09/06 11:31:51 AM

Monitoring Log Details - 'Tickets' tab - Table of Column Descriptions	
Column Heading	Description
Link	A link to the support ticket created for the breach event. <ul style="list-style-type: none"> <li>Click the link to open the ticket in service desk.</li> </ul>
Status	Indicates whether the ticket is open or closed
Created On	The date and time at which the ticket was created.

## View Script Procedure Logs

- The 'Script Logs' tab shows script procedures that were manually run on Windows devices as well as those run automatically via a profile.
- For more details on creating and running script procedures, see [Manage Procedures](#).

### To view script procedures logs

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device enrolled to EM
- Click the name of the Windows device then select the 'Logs' tab
- Click 'Script Logs'

PROCEDURE NAME	STARTED AT	STARTED BY	LAUNCH TYPE	EXECUTED BY	FINISHED AT	STATUS	LAST STATUS UPDATE	DETAILS
<a href="#">Install Cobian Backup 11 software</a>	2018/09/06 12:29:10 PM	<a href="#">herculespopular22@gmail.com</a>	RunOver	Logged in User	2018/09/06 12:31:32 PM	Finished success	2018/09/06 12:31:32 PM	<a href="#">Details</a>
<a href="#">Install SentinelOne software</a>	2018/09/06 12:27:08 PM	<a href="#">herculespopular22@gmail.com</a>	RunOver	Logged in User	2018/09/06 12:27:12 PM	Failed	2018/09/06 12:27:12 PM	<a href="#">Details</a>
<a href="#">Copy users desktop contents to a remote server</a>	2018/09/06 09:46:17 AM	<a href="#">herculespopular22@gmail.com</a>	RunOver	Logged in User	2018/09/06 09:47:54 AM	Finished success	2018/09/06 09:47:54 AM	<a href="#">Details</a>

Script Procedure Logs - Table of Column Descriptions	
Column Heading	Description
Procedure Name	The label of the script procedure that was run on the device. <ul style="list-style-type: none"> <li>Click the procedure name to view the configuration parameters of the script procedure.</li> <li>See <b>Manage Procedures</b> for more details.</li> </ul>
Started At	The date and time when the procedure commenced.
Started By	Who or what launched the procedure. <ul style="list-style-type: none"> <li>A profile name will be shown here if the procedure was scheduled in a profile which is active on the device.</li> <li>An admins name or email address will be shown if the procedure was run manually.                             <ul style="list-style-type: none"> <li>Click the name/email address to view the details of the admin.</li> </ul> </li> </ul>
Launch Type	Whether the procedure was scheduled or run manually.
Executed By	The user account type used by Endpoint Manager to execute the procedure.
Finished At	The date and time when the procedure was completed.
Status	Whether the script successfully executed or not. You can configure an alert if a procedure deployment fails. See <b>'Manage Procedures'</b> for more details.
Last Status Update	The date and time when the information was last updated.
Details	<ul style="list-style-type: none"> <li>Click the 'Details' link to view a log of the procedure's execution.</li> <li>See the explanation of <b>View Details of Script Procedure Logs</b> given below.</li> </ul>

## View Script Procedure Log details



- Click the 'Details' link to view details about a procedure's execution:

The screenshot shows the 'Script Logs' tab selected in the top navigation bar. Below it, a table lists procedure execution records. The second record, 'Install SentinelOne software', is highlighted with a red circle around its 'Details' link. A red arrow points from this link to the 'Log Detail' section below. The 'Log Detail' section has two tabs: 'Statuses' (selected) and 'Tickets'. The 'Statuses' tab displays a table with columns for 'TIME', 'STATUS', and 'ADDITIONAL INFORMATION'. The first row shows a failed execution at 2018/09/06 12:27:12 PM with a detailed traceback error message: 'urllib2.HTTPError: HTTP Error 401: UNAUTHORIZED'. The second row shows a started execution at 2018/09/06 12:27:08 PM.

PROCEDURE NAME	STARTED AT	STARTED BY	LAUNCH TYPE	EXECUTED BY	FINISHED AT	STATUS	LAST STATUS UPDATE	DETAILS
Install Cobian Backup 11 software	2018/09/06 12:29:10 PM	herculespopular22@gmail.com	RunOver	Logged in User	2018/09/06 12:31:32 PM	Finished success	2018/09/06 12:31:32 PM	<a href="#">Details</a>
Install SentinelOne software	2018/09/06 12:27:08 PM	herculespopular22@gmail.com	RunOver	Logged in User	2018/09/06 12:27:12 PM	Failed	2018/09/06 12:27:12 PM	<a href="#">Details</a>

TIME	STATUS	ADDITIONAL INFORMATION
2018/09/06 12:27:12 PM	Failed	<pre>Traceback (most recent call last):   File "&lt;string&gt;", line 140, in &lt;module&gt;   File "&lt;string&gt;", line 53, in Download   File "C:\Program Files (x86)\COMODO\Comodo ITSM\lib\urllib2.py", line 154, in return opener.open(url, data, timeout)   File "C:\Program Files (x86)\COMODO\Comodo ITSM\lib\urllib2.py", line 437, in response = meth(req, response)   File "C:\Program Files (x86)\COMODO\Comodo ITSM\lib\urllib2.py", line 550, in 'http', request, response, code, msg, hdrs)   File "C:\Program Files (x86)\COMODO\Comodo ITSM\lib\urllib2.py", line 475, in return self._call_chain(*args)   File "C:\Program Files (x86)\COMODO\Comodo ITSM\lib\urllib2.py", line 409, in result = func(*args)   File "C:\Program Files (x86)\COMODO\Comodo ITSM\lib\urllib2.py", line 558, in raise HTTPError(req.get_full_url(), code, msg, hdrs, fp) urllib2.HTTPError: HTTP Error 401: UNAUTHORIZED</pre>
2018/09/06 12:27:08 PM	Started	

The details are displayed under two tabs:

**Statuses** - The date and time at which successive stages in the procedure were run, their success status and results.

Script Procedure Log Details - 'Statuses' tab - Table of Column Descriptions	
Column Heading	Description
Time	The date and time of the procedure execution.
Status	Whether the execution was successful or not.
Additional Information	Provides details on the execution: <ul style="list-style-type: none"> <li>If successful, displays the results of the procedure execution</li> <li>If failed, displays the reason for not running the procedure</li> </ul>

**Tickets** - Displays tickets raised for any failed procedures.



Log Detail		
← Back		
<a href="#">Statuses</a>	<a href="#">Tickets</a>	
LINK	STATUS	CREATED ON
<a href="https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=133">https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=133</a>	Open	2018/09/06 11:57:03 AM
Results per page: 20	Displaying 1 of 1 results	

Script Procedure Log Details - 'Tickets' tab - Table of Column Descriptions	
Column Heading	Description
Link	A link to the support ticket created for the breach event. <ul style="list-style-type: none"> <li>Click the link to open the ticket in service desk.</li> </ul>
Status	Indicates whether the ticket is open or closed
Created On	The date and time at which the ticket was created.

## View OS Patch Procedure Logs

- The 'Patch Logs' tab shows OS patch procedures that were manually run on Windows devices as well as those run automatically via a profile.
- For more details on creating and running patch procedures, see [Manage Procedures](#).

### To view patch procedures logs

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device enrolled to EM
- Click the name of the Windows device then select the 'Logs' tab
- Click 'Patch Logs'

DESKTOP-Q74RLIJ  
Owner: herculespopular22@gmail.com

Manage Profiles Remote Control Remote tools **BETA** Run Procedure Install or Update Packages Refresh Device Information Reboot Export Security Configuration Delete Device Owner

Profiles Software Inventory File List Exported Configurations MSI Installation State Patch Management Antivirus Scan History Groups **Logs**

Alert Logs Monitoring Logs Script Logs **Patch Logs** Third Party Patch Logs Installation Logs Uninstallation Logs

PROCEDURE NAME	STARTED AT	STARTED BY	LAUNCH TYPE	FINISHED AT	STATUS	LAST STATUS UPDATE	DETAILS
<a href="#">Security patch updates</a>	2018/07/10 12:35:00 PM	<a href="#">Patch Procedure</a>	Scheduled	2018/07/10 12:35:00 PM	Finished success	2018/07/10 12:35:00 PM	<a href="#">Details</a>
<a href="#">Security patch updates</a>	2018/07/10 12:34:59 PM	<a href="#">Patch Procedure</a>	Scheduled	2018/07/10 12:34:59 PM	Finished success	2018/07/10 12:34:59 PM	<a href="#">Details</a>

Patch Procedure Logs - Table of Column Descriptions	
Column Heading	Description
Procedure Name	The label of the patch procedure that was run on the device. <ul style="list-style-type: none"> <li>Click the procedure name to view and manage the configuration parameters of it.</li> <li>See <b>'Manage Procedures'</b> for more details.</li> </ul>
Started At	The date and time when the procedure commenced.
Started By	Who or what launched the procedure. <ul style="list-style-type: none"> <li>A profile name will be shown here if the procedure was scheduled in a profile which is active on the device.</li> <li>An admin's name or email address will be shown if the procedure was run manually.                             <ul style="list-style-type: none"> <li>Click the name/email address to view the details of the admin..</li> </ul> </li> </ul>
Launch Type	Whether the procedure was scheduled or run manually.
Finished At	The date and time when the procedure was completed.
Status	Whether the OS patch procedure was successfully executed or not. You can configure an alert if a procedure deployment fails. See <b>'Manage Procedures'</b> for more details.
Last Status Update	The date and time when the information was last updated.
Details	<ul style="list-style-type: none"> <li>Click the 'Details' link to view a log of the procedure's execution.</li> <li>See the explanation of <b>View Details of OS Patch Procedure Logs</b> given below.</li> </ul>

## View OS Patch Procedure Log details

- Click the 'Details' link to view details about a procedure's execution:



The details are displayed under two tabs:

**Statuses** - The date and time at which successive stages in the procedure were run, their success status and results.

OS Patch Procedure Log Details - 'Statuses' tab - Table of Column Descriptions	
Column Heading	Description
Time	Date and time of the procedure execution.
Status	Whether the execution was successful or not.
Additional Information	Provides details on the execution: <ul style="list-style-type: none"> <li>• If successful, displays the results of the procedure execution</li> <li>• If failed, displays the reason for not running the procedure</li> </ul>

**Tickets** - Displays tickets raised for any failed procedures.

LINK	STATUS	CREATED ON
<a href="https://coyote.servicedesk.comodo.com/scp/tickets.php?id=780">https://coyote.servicedesk.comodo.com/scp/tickets.php?id=780</a>	Open	2018/03/19 12:22:25 PM
<a href="https://coyote.servicedesk.comodo.com/scp/tickets.php?id=780">https://coyote.servicedesk.comodo.com/scp/tickets.php?id=780</a>	Open	2018/03/19 12:16:57 PM

Monitoring Log Details - 'Tickets' tab - Table of Column Descriptions	
Column Heading	Description

Link	A link to the support ticket created for the breach event. <ul style="list-style-type: none"> <li>Click the link to open the ticket in service desk.</li> </ul>
Status	Indicates whether the ticket is open or closed
Created On	The date and time at which the ticket was created.

## View Third Party Patch Procedure Logs

- The third-party patch tab shows logs of patch deployments run on third party applications.
- This includes procedures that were run manually and those run automatically via a profile.
- If you need help to create patch procedures, see [Manage Procedures](#).

### To view third party patch procedures logs

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device enrolled to EM
- Click the name of the Windows device then select the 'Logs' tab
- Click 'Third Party Patch Logs'

DESKTOP-D80SVJJ  
Owner: Avanti

Manage Profiles Remote Control Remote tools **BETA** Run Procedure Install or Update Packages Refresh Device Information Reboot Export Security Configuration Delete Device Owner

File List Exported Configurations MSI Installation State Patch Management Antivirus Scan History Groups **Logs**

Alert Logs Monitoring Logs Script Logs Patch Logs **Third Party Patch Logs** Installation Logs Uninstallation Logs

PROCEDURE NAME	STARTED AT	STARTED BY	LAUNCH TYPE	FINISHED AT	STATUS	LAST STATUS UPDATE	DETAILS
On-demand patching	2018/09/06 10:42:37 AM	herculespopular22@gmail.com	On Demand	2018/09/06 10:43:53 AM	Overall operations success	2018/09/06 10:43:53 AM	Details
On-demand patching	2018/09/06 09:50:48 AM	herculespopular22@gmail.com	On Demand	2018/09/06 09:52:47 AM	Overall operations fail	2018/09/06 09:52:47 AM	Details

### Third Party Patch Logs - Table of Column Descriptions

Column Heading	Description
Procedure Name	The label of the procedure that was run on the device. <ul style="list-style-type: none"> <li>Click the procedure name to view and manage the configuration parameters of the third party patch procedure.</li> <li>See <a href="#">'Manage Procedures'</a> for more details.</li> </ul>

Started At	The date and time when the procedure commenced.
Started By	Who or what launched the procedure. <ul style="list-style-type: none"> <li>A profile name will be shown here if the procedure was scheduled in a profile which is active on the device.</li> <li>An admin's name or email address will be shown if the procedure was run manually.                     <ul style="list-style-type: none"> <li>Click the name/email address to view the details of the admin..</li> </ul> </li> </ul>
Launch Type	Indicates whether the procedure was scheduled or run manually.
Finished At	The date and time when the procedure was completed.
Status	Whether the third party patch procedure was successfully executed or not. <ul style="list-style-type: none"> <li>You can configure an alert if a procedure deployment fails. See '<b>Manage Procedures</b>' for more details.</li> </ul>
Last Status Update	Date and time when the information was last updated.
Details	<ul style="list-style-type: none"> <li>Click the 'Details' link to view a log of the procedure's execution.</li> <li>See explanation of <b>View Details of Third Party Patch Procedure Logs</b> given below.</li> </ul>

## View Third Party Patch Procedure Log details

- Click the 'Details' link to view details about a procedure's execution:

The screenshot shows the 'Logs' section of the Endpoint Manager interface. It features a navigation menu at the top with options like 'File List', 'Exported Configurations', 'MSI Installation State', 'Patch Management', 'Antivirus Scan History', 'Groups', and 'Logs'. Below this is a sub-menu with 'Alert Logs', 'Monitoring Logs', 'Script Logs', 'Patch Logs', 'Third Party Patch Logs', 'Installation Logs', and 'Uninstallation Logs'. The main area contains a table with columns: PROCEDURE NAME, STARTED AT, STARTED BY, LAUNCH TYPE, FINISHED AT, STATUS, LAST STATUS UPDATE, and DETAILS. The first row shows 'On-demand patching' with a 'Details' link circled in red. A red arrow points from this link to the 'Log Detail' view below, which has a 'Back' button and two tabs: 'Statuses' and 'Tickets'. The 'Statuses' tab is active, displaying a log with columns: TIME, STATUS, and ADDITIONAL INFORMATION. The log entries show the procedure starting, resolving, and finishing successfully.

PROCEDURE NAME	STARTED AT	STARTED BY	LAUNCH TYPE	FINISHED AT	STATUS	LAST STATUS UPDATE	DETAILS
On-demand patching	2018/09/06 10:42:37 AM	herculespopular22@gmail.com	On Demand	2018/09/06 10:43:53 AM	Overall operations success	2018/09/06 10:43:53 AM	<a href="#">Details</a>
On-demand patching	2018/09/06 10:42:37 AM	herculespopular22@gmail.com	On Demand	2018/09/06 10:43:53 AM	Overall operations success	2018/09/06 10:43:53 AM	<a href="#">Details</a>

TIME	STATUS	ADDITIONAL INFORMATION
2018/09/06 10:43:53 AM	Overall operations success	All Operations are finished successfully.
2018/09/06 10:43:53 AM	Operation finished success	Script runner exited normally with exit code 0. Operation probably completed for Opera Stable
2018/09/06 10:42:37 AM	Operation started	Operation is in progress for Opera Stable 54.0.2952.41.
2018/09/06 10:42:37 AM	Operation resolve success	Resolving Operation is completed.

The details are displayed under two tabs:

**Statuses** - The date and time at which successive stages in the procedure were run, their success status and results.

Third Party Patch Log Details - 'Statuses' tab - Table of Column Descriptions	
Column Heading	Description
Time	Date and time of the procedure execution.
Status	Whether the execution was successful or not.
Additional Information	Provides details on the execution: <ul style="list-style-type: none"> <li>• If successful, displays the results of the procedure execution</li> <li>• If failed, displays the reason for not running the procedure</li> </ul>

**Tickets** - Displays tickets raised for any failed procedures.

Third Party Patch Log Details - 'Tickets' tab - Table of Column Descriptions	
Column Heading	Description
Link	A link to the support ticket created for the breach event. <ul style="list-style-type: none"> <li>• Click the link to open the ticket in service desk.</li> </ul>
Status	Indicates whether the ticket is open or closed
Created On	The date and time at which the ticket was created.

## View Installation Logs

- 'Installation Logs' tab - shows installations of third party applications from the Windows application Store ('Application Store' > 'Windows Application Store').
- See **Install Windows Apps on Devices** for more details on remote installation

### To view installation logs

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device enrolled to EM
- Click the name of the Windows device then select the 'Logs' tab



- Click 'Installation Logs'

DESKTOP-D80SVJJ  
Owner: Avanti

Manage Profiles Remote Control Remote tools **BETA** Run Procedure Install or Update Packages Refresh Device Information Reboot Export Security Configuration More

File List Exported Configurations MSI Installation State Patch Management Antivirus Scan History Groups **Logs**

Alert Logs Monitoring Logs Script Logs Patch Logs Third Party Patch Logs **Installation Logs** Uninstallation Logs

PROCEDURE NAME	STARTED AT	STARTED BY	LAUNCH TYPE	FINISHED AT	STATUS	LAST STATUS UPDATE	DETAILS
On-demand installation	2018/09/06 11:57:29 AM	<a href="#">herculespopular22@gmail.com</a>	On Demand	2018/09/06 12:01:38 PM	Overall operations success	2018/09/06 12:01:38 PM	<a href="#">Details</a>
On-demand installation	2018/09/06 11:42:17 AM	<a href="#">herculespopular22@gmail.com</a>	On Demand	2018/09/06 11:42:17 AM	Overall operations fail	2018/09/06 11:42:17 AM	<a href="#">Details</a>

Installation Logs - Table of Column Descriptions	
Column Heading	Description
Procedure Name	The label of the procedure that ran the installation. The possible value is 'On-demand patching'.
Started At	The date and time when the installation commenced.
Started By	The administrator who started the remote installation. <ul style="list-style-type: none"> <li>• Click the name/email address to view the details of the admin..</li> </ul>
Launch Type	Indicates whether the procedure was scheduled or run manually. The possible value is 'On Demand'
Finished At	The date and time when the installation was completed.
Status	Whether the remote installation was successful, in progress, or failed.
Last Status Update	The date and time when the information was last refreshed.
Details	<ul style="list-style-type: none"> <li>• Click the 'Details' link to view a log of the procedure's execution.</li> <li>• See explanation of <b>View Details of Installation Logs</b> given below.</li> </ul>

### View Details of Installation Logs

- Click the 'Details' link to view details about a procedure's execution:

File List	Exported Configurations	MSI Installation State	Patch Management	Antivirus Scan History	Groups	Logs	
Alert Logs	Monitoring Logs	Script Logs	Patch Logs	Third Party Patch Logs	Installation Logs	Uninstallation Logs	
PROCEDURE NAME	STARTED AT	STARTED BY	LAUNCH TYPE	FINISHED AT	STATUS	LAST STATUS UPDATE	DETAILS
On-demand installation	2018/09/06 11:57:29 AM	herculespopular22@gmail.com	On Demand	2018/09/06 12:01:38 PM	Overall operations success	2018/09/06 12:01:38 PM	<a href="#">Details</a>

**Log Detail** ← Back

Statuses

TIME	STATUS	ADDITIONAL INFORMATION
2018/09/06 12:01:38 PM	Overall operations success	All Operations are finished successfully.
2018/09/06 12:01:37 PM	Operation finished success	Script runner exited normally with exit code 0. Operation probably completed for AnyDVD
2018/09/06 12:00:24 PM	Operation started	Operation is in progress for AnyDVD 8.2.6.0.
2018/09/06 12:00:23 PM	Operation finished success	Script runner exited normally with exit code 0. Operation probably completed for Advance
2018/09/06 11:57:29 AM	Operation started	Operation is in progress for Advanced Installer 15.0.
2018/09/06 11:57:29 AM	Operation resolve success	Resolving Operation is completed.
2018/09/06 11:57:29 AM	Operation resolve started	Resolving Operation is started.

The 'Log Details' pane shows the date and time at which successive stages in the installation were run, their success status and results.

Installation Log Details - 'Statuses' tab - Table of Column Descriptions	
Column Heading	Description
Time	Date and time each stage in the installation was run.
Status	Whether the execution was successful or not.
Additional Information	Show current installation progress. <ul style="list-style-type: none"> <li>If the install fails, this area shows the reason.</li> </ul>

## View Uninstall Logs

- The uninstallation tab contains logs about the removal of third party applications from devices. There are two ways in which you can remotely uninstall applications:
  - 'Device Details' interface - You can uninstall selected application(s) from an individual device.
    - Click 'Devices' > 'Device List' > 'Device Management'

- Click the name of a Windows device and select the 'Software Inventory' tab
  - Select the applications and click 'Uninstall Selected Application' on the top
  - See **View and Manage Applications Installed on a Device** for more details
- ii. 'Global Software Inventory' interface - You can uninstall selected application(s) from all managed devices on which the are currently installed.
- Click 'Applications' > 'Global Software Inventory'
  - Select the application to be uninstalled
  - Click 'Uninstall' on the top
  - See **View and Manage Applications Installed on Windows Devices** for more details

## To view uninstallation logs

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device enrolled to EM
- Click the name of the Windows device then select the 'Logs' tab
- Click 'Uninstallation Logs'

PROCEDURE NAME	STARTED AT	STARTED BY	LAUNCH TYPE	FINISHED AT	STATUS	LAST STATUS UPDATE	DETAILS
On-demand Uninstallation	2018/09/06 11:25:44 AM	herculespopular22@gmail.com	On Demand	2018/09/06 11:26:06 AM	Overall operations success	2018/09/06 11:26:06 AM	<a href="#">Details</a>
On-demand Uninstallation	2018/09/06 10:14:00 AM	herculespopular22@gmail.com	On Demand	2018/09/06 10:14:25 AM	Overall operations success	2018/09/06 10:14:25 AM	<a href="#">Details</a>
On-demand Uninstallation	2018/09/06 09:57:36 AM	herculespopular22@gmail.com	On Demand	2018/09/06 09:58:38 AM	Overall operations success	2018/09/06 09:58:38 AM	<a href="#">Details</a>

**Uninstallation Logs - Table of Column Descriptions**

Column Heading	Description
Procedure Name	The name of the procedure that initiated the application uninstallation.
Started At	The date and time when the uninstallation commenced.
Started By	The administrator who started the remote uninstallation. <ul style="list-style-type: none"> <li>• Click the name/email address to view the details of the administrator.</li> </ul>
Launch Type	Indicates whether the procedure was scheduled or run manually. The possible value is 'On Demand'
Finished At	The date and time when the uninstallation was completed.
Status	Whether the remote uninstallation was successful, in progress, or failed.
Last Status Update	The date and time when the information was last refreshed.
Details	<ul style="list-style-type: none"> <li>• Click the 'Details' link to view a log of the procedure's execution.</li> </ul>

- See explanation of **View Details of Uninstallation Logs** given below.

## View Details of Uninstallation Logs

- Click the 'Details' link to view details about a remote uninstallation execution:

TIME	STATUS	ADDITIONAL INFORMATION
2018/09/06 10:14:25 AM	Overall operations success	All Operations are finished successfully.
2018/09/06 10:14:24 AM	Operation finished success	Script runner exited normally with exit code 0. Operation probably completed for AVS Media
2018/09/06 10:14:00 AM	Operation started	Operation is in progress for AVS Media Player 4.6.1.126.
2018/09/06 10:14:00 AM	Operation resolve success	Resolving Operation is completed.
2018/09/06 10:14:00 AM	Operation resolve started	Resolving Operation is started.

The 'Log Details' pane shows the date and time at which successive stages in the uninstallation were run, their success status and results.

Installation Log Details - 'Statuses' tab - Table of Column Descriptions	
Column Heading	Description
Time	Date and time each stage in the uninstallation was run.
Status	Whether the execution was successful or not.
Additional Information	Show current installation progress. <ul style="list-style-type: none"> <li>• If the uninstallation failed, this area shows the reason.</li> </ul>

## 5.2.3. Manage Mac OS Devices

The details page of a Mac OS device shows OS and security information about the device. The screen also lets you manage endpoint profiles, remotely install Mac OS packages and configure group membership.

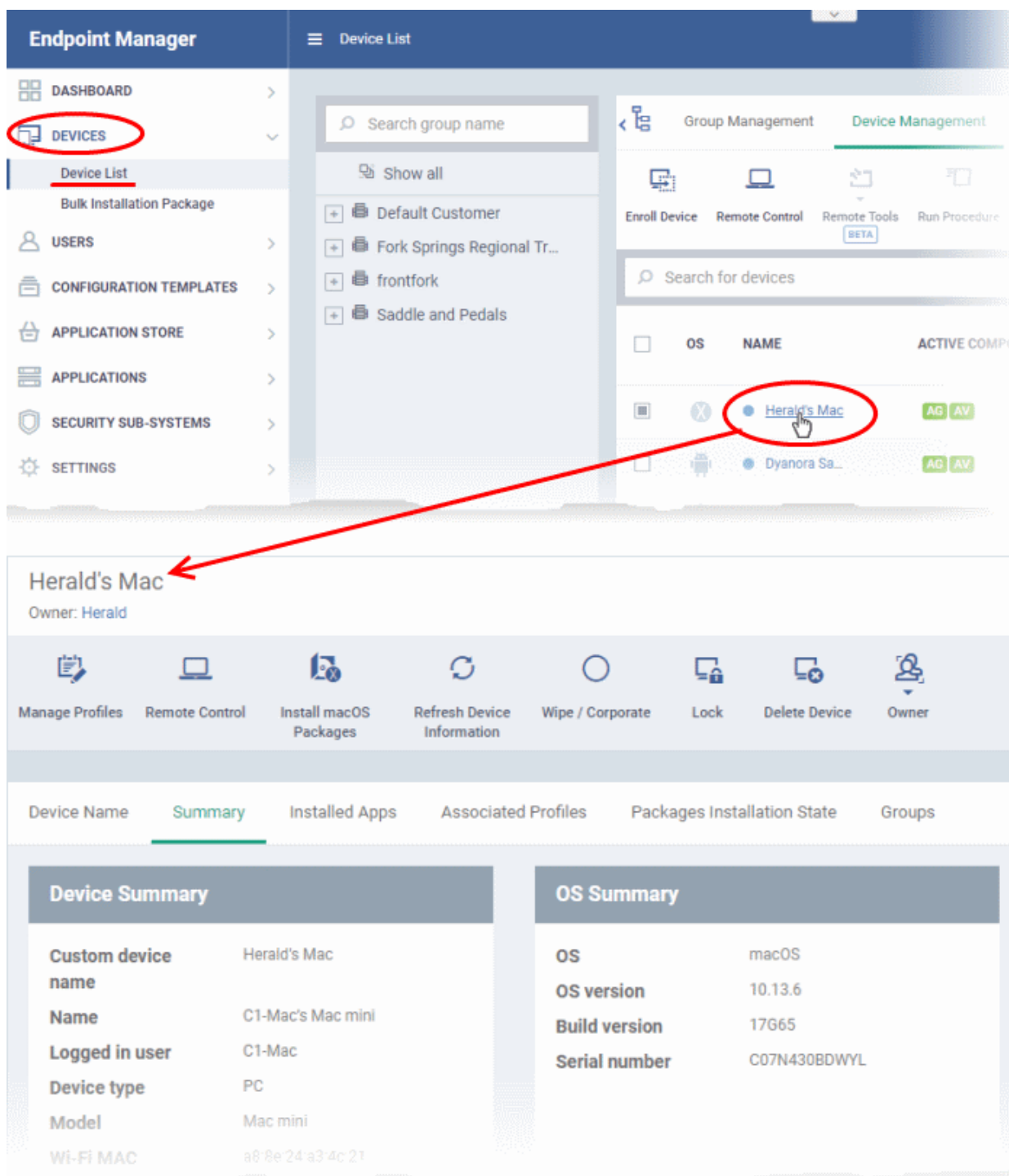
**Note:** If you haven't done so already, you should first **enroll users** then **enroll their devices**.

### To view and manage a Mac OS device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group in the middle column to view only their devices

Or

- Select 'Show all' to view every device added to EM
- Click the name of any Mac OS device to open its 'Device Details' pane:

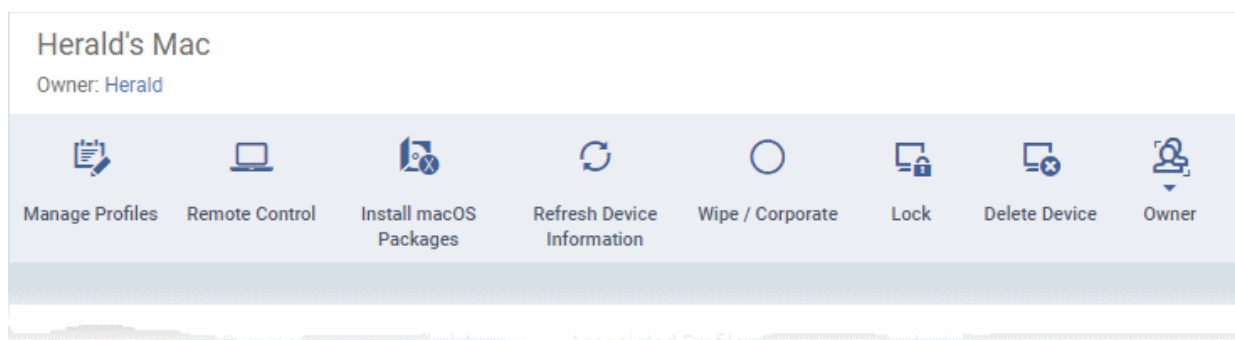


Device details are shown in six tabs:

- **Device Name** - The device label. You can change this as per your preferences. See **View and Edit Mac OS Device Name** for more details.
- **Summary** - General details of the device, including device information, OS details, Network details and security configuration. See **Summary Information of Mac Device** for more details.
- **Installed Apps** - A list of applications currently installed on the device, along with their versions. See **View Installed Applications** for more details.

- **Associated Profiles** - Profiles deployed on the device. See **View and Manage Profiles Associated with the Device** for more details.
- **Package Installation State** - Mac OS packages that have been installed on the device via Endpoint Manager. See **View Mac OS Packages Installed on a Device through Endpoint Manager** for more details.
- **Groups** - Device groups to which the endpoint belongs. You can manage group membership from here. See **View and Manage Device Group Memberships** for more details.

Administrators can remotely perform various tasks on the device using the options at the top of the interface.



- **Manage Profiles** - Add or remove device profiles. See **Assign Configuration Profiles to Selected Devices** for more details.
- **Remote Control** - Establish a remote desktop connection to an endpoint. See **Remote Management of Windows and Mac OS Devices** for more details
- **Install Mac OS Packages** - Remotely install Comodo Client Security (CCS) for Mac package. See **Remotely Install Packages onto Mac OS Devices** for more details.
- **Refresh Information** - Contacts the device and updates displayed information. See **Update Device Information** for more details.
- **Wipe / Corporate** - Delete data stored on the device if it is lost or stolen. See **Wipe Selected Devices** for more details.
- **Lock/Unlock Mac OS** - Remotely lock or unlock the device if it is lost, misplaced or stolen. See **Lock / Unlock Selected Devices** for more details.
- **Remove a Device** - Removes the device from Endpoint Manager. See **Remove a Device** for more details.
- **Owner** - Change the user with whom the device is associated. You can also change the type of device to corporate or personal. See **Change a Device's Owner** and **Change the Ownership Status of a Device** for more details.

### 5.2.3.1. View and Edit Mac OS Device Name

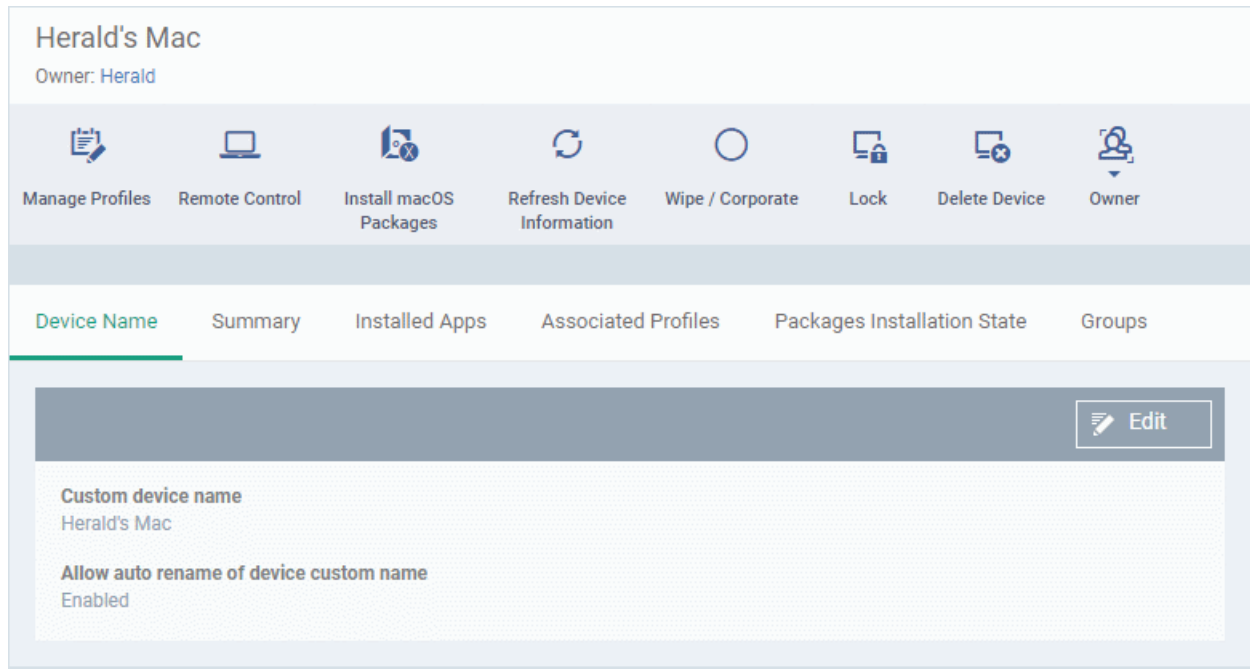
- Enrolled devices are listed by the name assigned to them by their owner.
- If no name was assigned then the actual device name or model number will be used.
- Admins can change the device name as required. Name changes apply only in Endpoint Manager. The name will not change on the endpoint itself.
- If 'Allow Auto Rename of Device Custom Name' is enabled then the custom name will be replaced automatically by the device name/model number during the next sync. To retain the custom name for the device, make sure to disable this option.

#### To change a device name

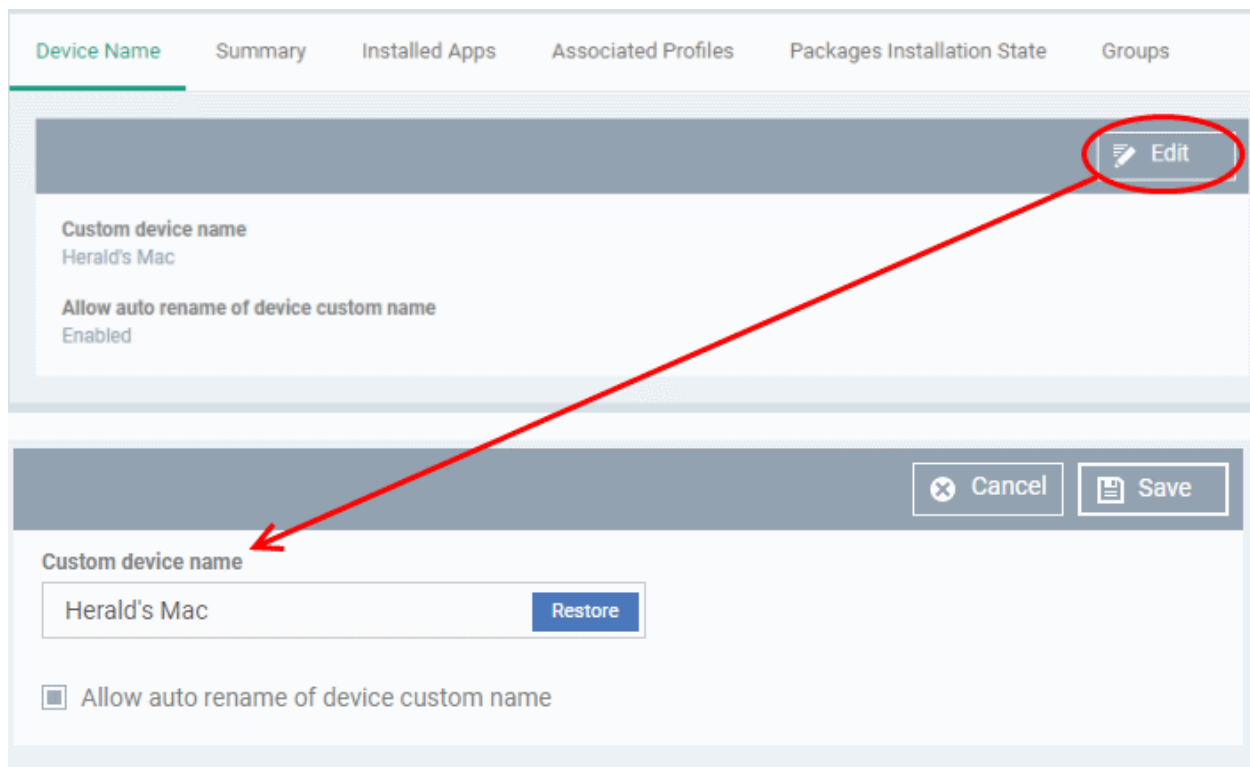
- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons



- Select a company or group on the left to view only their devices  
Or
- Select 'Show all' on the left to view every device enrolled to EM
- Click on any Mac OS device then select the 'Device Name' tab



- **Custom device name** - The current name of the device.
- **Allow auto rename of device custom name** - Enabled - The device's real name will automatically replace the custom name in this list during the next sync. Disabled - the custom name is kept in EM
- Click the 'Edit' button at the right to change the name of the device.



- Enter the new name in the 'Custom Device Name' field



- Make sure the 'Allow Auto Rename of Device Custom Name' is disabled to retain the custom name in the list. If this is enabled, the custom name will be automatically replaced with the device's name or model number during the next sync with the EM communication client on the device.
- Click 'Save' for your changes to take effect.

The device will be listed with its new name.

- To restore the name of the device as it was at the time of enrollment, click 'Edit' from the 'Device Name' interface, click 'Restore' at the right and click 'Save'.

## 5.2.3.2. Summary Information of Mac Device

The 'Summary' tab contains information about the device operating system, network connection, CCS configuration and more.

### To view the device summary

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group to view just their devicesOr
  - Select 'Show all' to view every device add to EM
- Click on any Mac OS device then select the 'Summary' tab (if it is not already open).

**Herald's Mac**  
Owner: Herald

Manage Profiles

Remote Control

Install macOS Packages

Refresh Device Information

Wipe / Corporate

Lock

Delete Device

Owner

Device Name    Summary    Installed Apps    Associated Profiles    Packages Installation State    Groups

**Device Summary**

<b>Custom device name</b>	Herald's Mac
<b>Name</b>	C1-Mac's Mac mini
<b>Logged in user</b>	C1-Mac
<b>Device type</b>	PC
<b>Model</b>	Mac mini
<b>Wi-Fi MAC</b>	a8:8e:24:a3:4c:21
<b>Last connection</b>	2018/10/31 10:16:18 AM
<b>Registered</b>	2018/10/30 04:44:05 PM
<b>IMEI</b>	N/A
<b>Communication Client version</b>	6.23.18211.18100
<b>Ownership type</b>	Not specified
<b>Local time zone</b>	UTC +05:30

**OS Summary**

<b>OS</b>	macOS
<b>OS version</b>	10.13.6
<b>Build version</b>	17G65
<b>Serial number</b>	C07N430BDWYL

**Network Summary**

<b>Bluetooth MAC</b>	a8-8e-24-a3-4c-22
<b>Wi-Fi MAC</b>	a8:8e:24:a3:4c:21
<b>Ethernet MAC</b>	0c:4d:e9:b8:2d:9a

**Security Products Info**

<b>Name</b>	COMODO Client - Security
<b>Version</b>	2.4.0.608
<b>Components</b>	<b>Antivirus</b> <b>on</b>
<b>Virus DB version</b>	29904
<b>Virus DB last update time</b>	2018/10/31 10:08:08 AM

- **Device Summary** - Device name, user, type, model, last sync time with the client, device ownership status and more.
- **OS Summary** - Details about the operating system of the device, including version and build.
- **Network Summary** - MAC addresses of the device for connection through Bluetooth, WiFi and Ethernet.
- **Security Products Info** - Details about Comodo Client Security (CCS) for Mac on the device, including version number, database version and update status.

### 5.2.3.3. View Installed Applications

- The 'Installed Apps' tab shows a list of all applications installed on a device.

## To view the list of applications

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click on any Mac OS device then select the 'Installed Apps' tab

**Herald's Mac**  
Owner: Herald

Manage Profiles Remote Control Install macOS Packages Refresh Device Information Wipe / Corporate Lock Delete Device More


Device Name Summary **Installed Apps** Associated Profiles Packages Installation State Groups

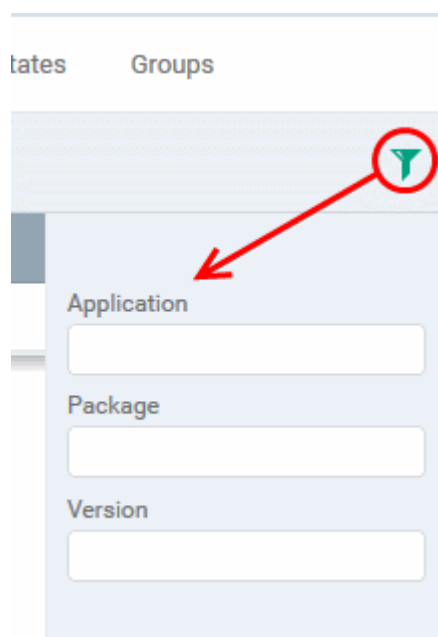
Update Application List

APPLICATION	PACKAGE	VERSION
COMODO Client - Security Scanner	com.COMODO.COMODO-Client--Security-Scanner	2.4.0
COMODO Scanner	com.COMODO.COMODO-Scanner	2.4.0
Run Diagnostics	com.COMODO.DiagnosticUtil	2.4.0
TrayMenu	com.COMODO.TrayMenu	2.4.0
Uninstall COMODO Client - Security	com.COMODO.Uninstall-COMODO-Antivirus	2.4.0

Installed Apps - Column Descriptions	
Column Heading	Description
Application	The name of the software. <ul style="list-style-type: none"> <li>• Click the name of the application to view the list of all Mac OS devices on which the app is found.</li> <li>• See <b>Manage Devices</b> for more details.</li> </ul>
Package	The source of the application. The Mac OS package from which the application was installed.
Version	The version number of the application.

## Sorting and Filtering Options

- Click any column header to sort the items in alphabetical order of entries in that column.
- Click the funnel icon  on the right to open the filter options.



- To filter the items or search for a specific item based on the app name, package or version, enter the search criteria in full or part in the respective text box and click 'Apply'

You can use any combination of filters at-a-time to search for specific devices.

- To display all the items again, remove / deselect the search key from filter and click 'OK'.
- EM returns 20 results per page when you perform a search. To increase the number of results displayed per page up to 200, click the arrow next to 'Results per page' drop-down.
- To reload the list with latest applications, click 'Update Application List'

## 5.2.3.4. View and Manage Profiles Associated with a Device

The 'Associated Profiles' tab lists all currently active configuration profiles on an endpoint.

A profile can be applied to a device for any of these reasons:

- Because it is a default profile for the device's operating system.
- Because the profile was specifically applied to the device
- Because the profile was applied to the device owner. The profile is then applied to all devices that the user owns.
- Because the profile was applied to a device group. The device is a member of the group and so inherits the profile.
- Because the profile was applied to a user group. The device inherits the profile because its owner is a member of the user group.

See **Profiles for Mac OS Devices** for more details on configuration profiles.

### To view and manage profiles associated with a device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click on any Mac OS device then select the 'Associated Profiles' tab

**Herald's Mac**  
Owner: Herald

Manage Profiles

Remote Control

Install macOS Packages

Refresh Device Information

Wipe / Corporate

Lock

Delete Device

Owner

Device Name	Summary	Installed Apps	Associated Profiles	Packages Installation State	Groups
<b>NAME</b>		<b>SOURCE ASSOCIATED</b>		<b>INFORMATION ABOUT ASSOCIATION</b>	
Flying Squad		User Group: Flying Squad		Successfully processed	
For Herald		Owner		Successfully processed	
Mas OS for Stores Dept		Device		Successfully processed	

Associated Profiles - Column Descriptions	
Column Heading	Description
Name	The profile label. <ul style="list-style-type: none"> <li>Click the name of a profile to open the 'Edit Profile' interface.</li> <li>See <b>Edit Configuration Profiles</b> for more details.</li> </ul>
Source Associated	How the profile was applied to the device. Profiles can be applied to a device in different ways: <ul style="list-style-type: none"> <li><b>Profile was directly applied to a device.</b> See <b>View and Manage Profiles Associated with a Device</b> for more details</li> <li><b>Profile was applied to a user.</b> These profiles are in-turn deployed to all devices belonging to the user. See <b>Assign Configuration Profiles to a Users' Devices</b> for more details</li> <li><b>Profile was applied to a user group.</b> These profiles are deployed to all devices owned by group members. See <b>Assign Configuration Profile to a User Group</b> for more details</li> <li><b>Profile was applied to a device group.</b> These profiles are deployed to all devices in the group. See <b>Assign Configuration Profile to a Device Group</b> for more details</li> <li>Click the source to view and manage profiles associated with that source.</li> </ul>
Information about Association	Whether the profile has been successfully applied to the device or is pending.

- Click the 'Name' column header to sort the items in the alphabetical order of the names of the items.

## Add or Remove Profiles

- Click 'Manage Profiles' to add or remove profiles. See **View and Manage Profiles Associated with a**

**Device** for a full overview of this interface.

## 5.2.3.5. View Mac OS Packages Installed on a Device through Endpoint Manager

- Endpoint Manager lets you remotely install packages on managed Mac OS endpoints.

**Note:** Currently only CCS can be remotely installed on Mac OS devices from EM. Support for other EM packages and third party Mac OS packages will be available in the future versions.

### To view list of Mac OS packages installed on an endpoint through EM

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click on any Mac OS device then select the 'Packages Installation State' tab

**Herald's Mac**  
Owner: Herald

Manage Profiles

Remote Control

Install macOS Packages

Refresh Device Information

Wipe / Corporate

Lock

Delete Device

Owner

Device Name
Summary
Installed Apps
Associated Profiles
Packages Installation State
Groups

Delete macOS Package Installation State

	NAME	STATE	CREATED
<input type="checkbox"/>	COMODO Client - Security v. 2.4.1.614	Package Successfully Installed	2018/10/31 12:15:06 PM

MSI Installation State - Table of Column Descriptions	
Column Heading	Description
Name	The label of the installation package.
State	Whether the installation was successful or not
Created	The date and time at which the installation command was sent.

- Click any column header to sort items in ascending/descending order of the entries in that column.
- Select an entry and click 'Delete mac OS Package Installation State' to remove it from the list.

The screenshot shows the 'Packages Installation State' tab in the Endpoint Manager interface. A table lists installed packages. A red circle highlights the 'Delete macOS Package Installation State' button. A red arrow points from this button to a confirmation dialog box titled 'Delete macOS package states'. The dialog asks 'Do you really want to delete macOS package state(s)?' and has 'Confirm' and 'Cancel' buttons.

Device Name	Summary	Installed Apps	Associated Profiles	Packages Installation State	Groups								
				<div style="border: 1px solid #ccc; padding: 5px;"> <div style="background-color: #f0f0f0; padding: 2px;"> <span style="font-size: 1.2em;">🗑️</span> Delete macOS Package Installation State                 </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">☐</th> <th style="width: 60%;">NAME</th> <th style="width: 20%;">STATE</th> <th style="width: 15%;">CREATED</th> </tr> </thead> <tbody> <tr> <td>☐</td> <td>COMODO Client - Security v. 2.4.1.614</td> <td>Package Successfully Installed</td> <td>2018/10/31 12:00</td> </tr> </tbody> </table> </div>	☐	NAME	STATE	CREATED	☐	COMODO Client - Security v. 2.4.1.614	Package Successfully Installed	2018/10/31 12:00	
☐	NAME	STATE	CREATED										
☐	COMODO Client - Security v. 2.4.1.614	Package Successfully Installed	2018/10/31 12:00										

- Click 'Confirm' to remove the entry from the list

Note - the entry will be removed from the list but the package will not be uninstalled from the device.

More reading - see [Remotely Install Packages on Mac OS Devices](#).

### 5.2.3.6. View and Manage Device Group Memberships

- Device groups let you deploy policies to multiple devices at once.

#### To manage device group membership

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click the name of a Mac OS device then select 'the 'Groups' tab



**Herald's Mac**  
Owner: Herald

Manage Profiles

Remote Control

Install macOS Packages

Refresh Device Information

Wipe / Corporate

Lock

Delete Device

Owner

Device Name	Summary	Installed Apps	Associated Profiles	Packages Installation State	Groups
<div style="display: flex; justify-content: space-between;"> <span> Add to Group</span> <span> Remove from Group(s)</span> </div>					
<input type="checkbox"/>	GROUP NAME	CUSTOMER	# OF DEVICES	CREATED BY	CREATED
<input type="checkbox"/>	Flying Squad Devices	Saddle and Pedals	1	herculespopular2...	2018/10/31 12:4...
<input checked="" type="checkbox"/>	Sales Team Devices	Saddle and Pedals	1	herculespopular2...	2018/09/05 03:5...

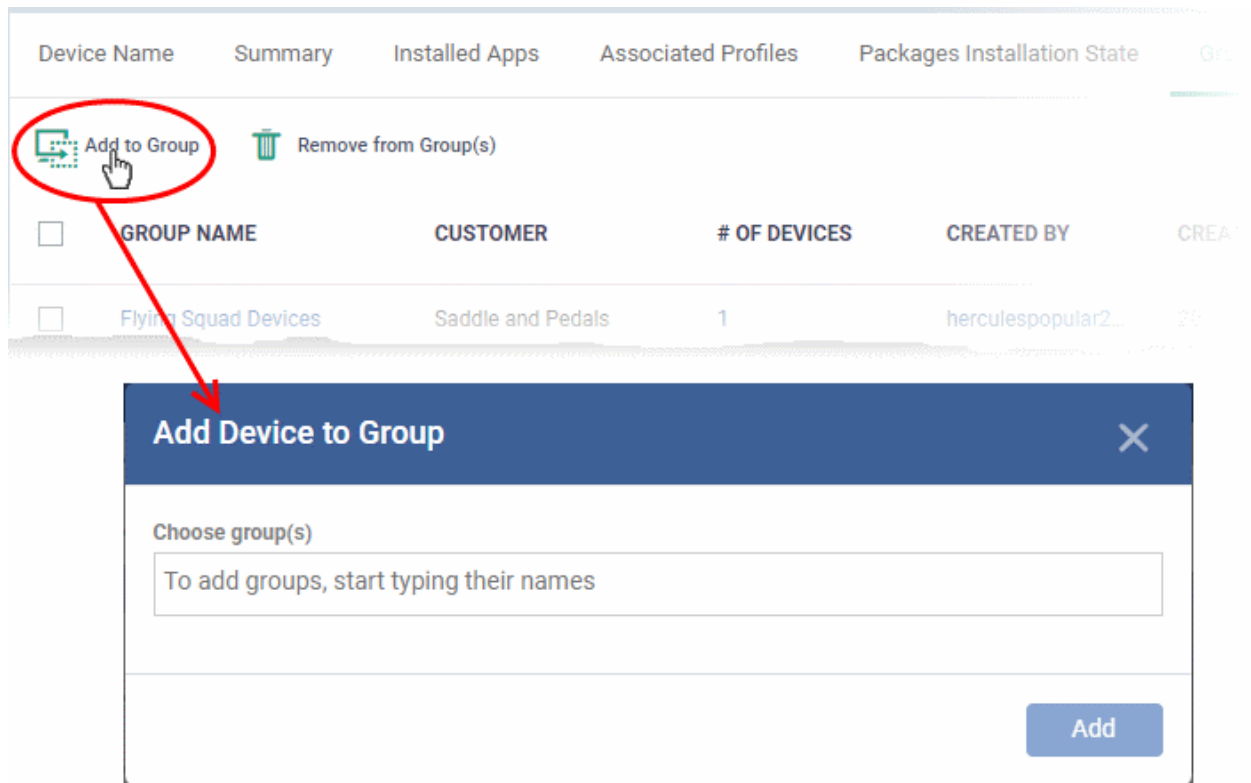
- The interface lists all groups of which the device is a member.
- Group profiles will also be applied to the endpoint.

See **Assign Configuration Profiles to a Device Group**, for more details about applying configuration profiles to device groups.

Device Groups - Table of Column Descriptions	
Column Heading	Description
Group	The group label. <ul style="list-style-type: none"> <li>• Click the group name to view and edit group details.</li> <li>• See <b>Edit a Device Group</b> for more details.</li> </ul>
Customer	The name of the company for which the group was created.
Number of Devices	The total count of devices in the group. <ul style="list-style-type: none"> <li>• Click the number to view and edit group details.</li> <li>• See <b>Edit a Device Group</b> for more details.</li> </ul>
Created By	Name of the admin who created the group. <ul style="list-style-type: none"> <li>• Click the name to view the admin's details.</li> <li>• See <b>View the Details of a User</b> for more details.</li> </ul>
Created	The date and time at which the group was created.

### To add the device to a new group

- Click 'Add to Group'
- Select the group to which you want to add the device:

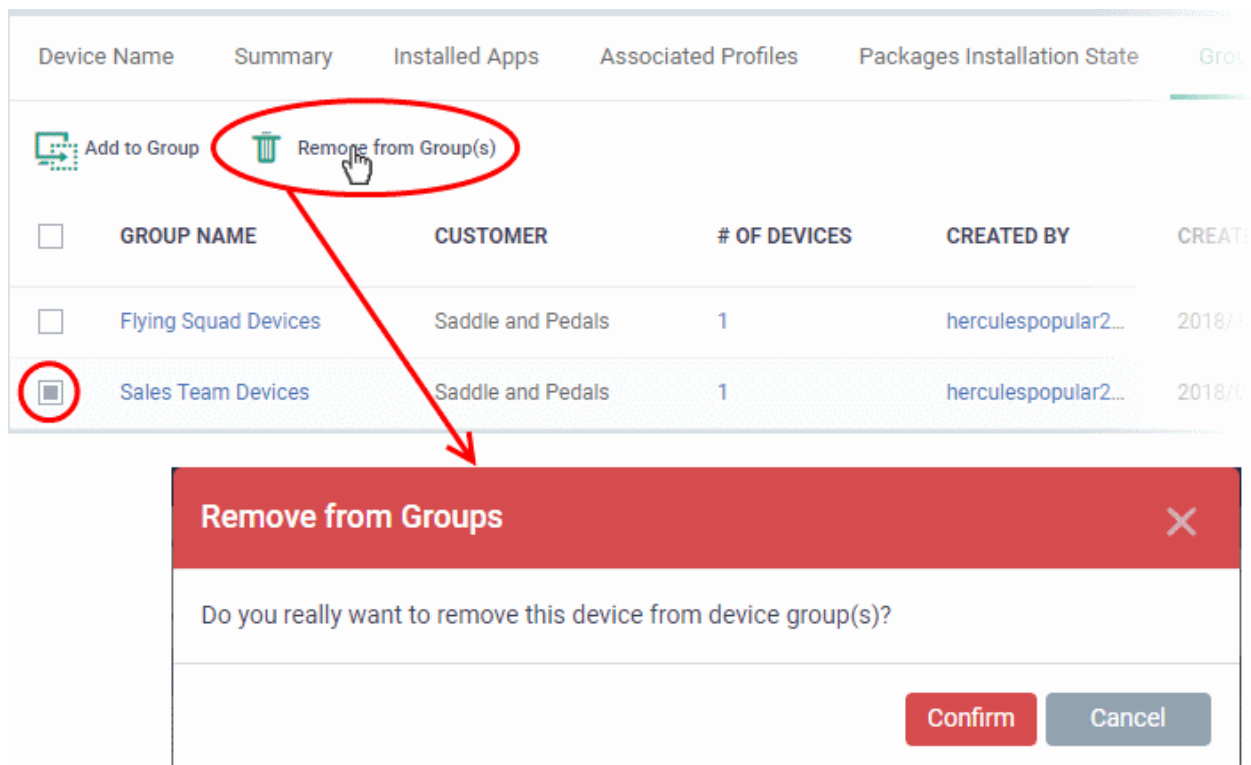


- Start entering the name of the group to which the device has to be associated in the 'Choose Group(s)' field and choose the group from the options.
- Repeat the process to add the device to other groups.
- Click 'Add'.

The device will be added to the group.

### To remove the device from a group

- Select the group from the list and click 'Remove from Group'.



- Click 'Confirm' to remove the device from the selected groups.

Note - Any group profiles will also be removed from the device.

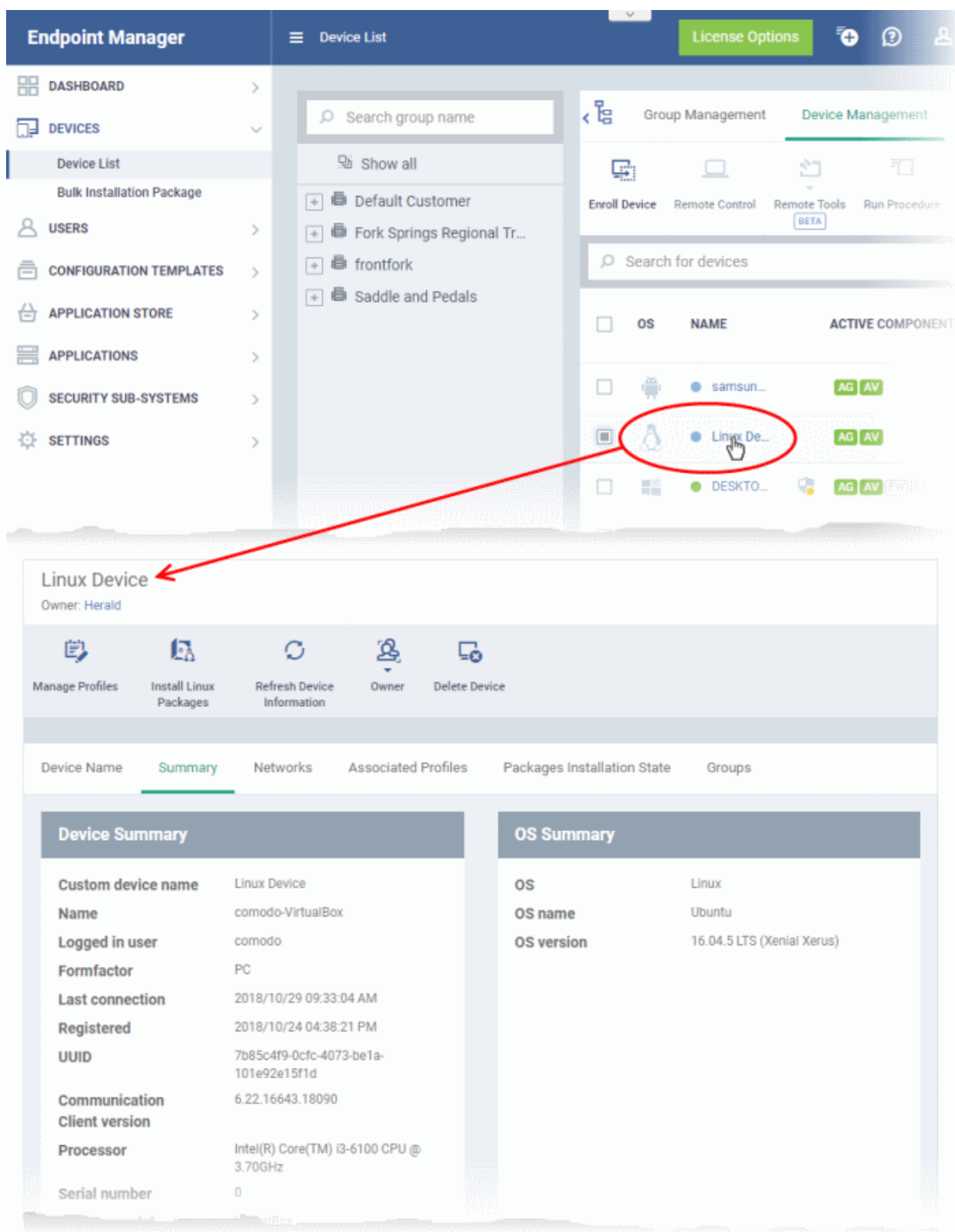
## 5.2.4. Manage Linux Devices

The details page of a Linux device shows OS and software data, security info from Comodo Client Security and other information. The screen also lets you manage endpoint profiles, remotely install Linux packages and configure group membership.

**Note:** If you haven't done so already, you should first **enroll users** then **enroll their devices**.

### To view and manage a Linux device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group in the middle column to view only their devicesOr
  - Select 'Show all' to view every device added to EM
- Click the name of any Linux device to open its 'Device Details' pane:

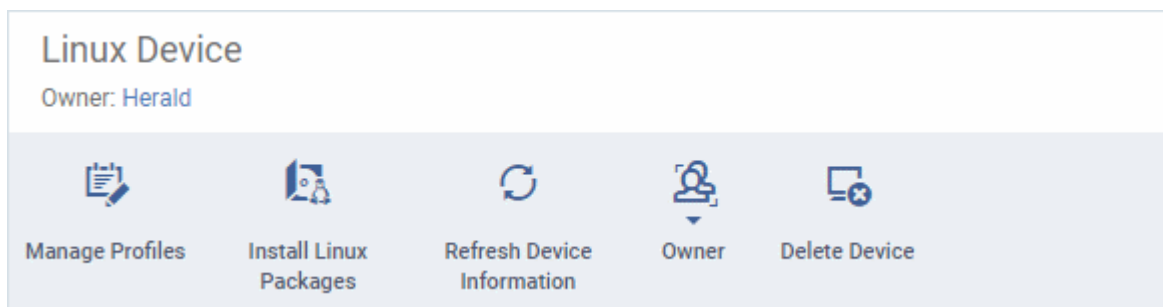


Device details are shown in six tabs:

- **Device Name** - The device label. You can change this as per your preferences. See [View and Edit Linux Device Name](#) for more details.
- **Summary** - General details of the device, including device information, OS details and security configuration. See [View Summary Information of Linux Device](#) for more details.
- **Networks** - Information about the network to which the device is connected, MAC address, IP address, and more. See [View Network Information of a Linux Device](#) for more details.

- **Associated Profiles** - Profiles deployed on the device. See **View and Manage Profiles Associated with a Linux Device** for more details.
- **Packages Installation State** - Linux packages that have been installed on the device via Endpoint Manager. See **View Linux Packages Installed on a Device through Endpoint Manager** for more details.
- **Groups** - Device groups to which the device belongs. You can manage group membership from here. See **View and Manage Device Group Memberships** for more details

Administrators can remotely perform various tasks on the device using the options at the top of the interface.



- **Manage Profiles** - Add or remove device profiles. See **Assign Configuration Profiles to Selected Devices** for more details.
- **Install Linux Packages** - Remotely install Comodo Client Security for Linux package. See **Remotely Install Packages on Linux Devices** for more details.
- **Refresh Information** - Contacts the device and updates displayed information. See **Update Device Information** for more details.
- **Owner** - Change the user with whom the device is associated. You can also change the type of device to corporate or personal. See **Change a Device's Owner** and **Change the Ownership Status of a Device** for more details.
- **Delete Device** - Removes the device from Endpoint Manager. See **Remove a Device** for more details.

## 5.2.4.1. View and Edit Linux Device Name

- Enrolled devices are listed by the name assigned to them by their owner.
- If no name was assigned then the actual device name or model number is used.
- Admins can change the device name as required. Name changes apply only in Endpoint Manager. The name will not change on the endpoint itself.
- 'Allow Auto Rename of Device Custom Name' - If enabled, the custom name will be replaced by the device name/model number during the next sync. Disable this option if you want to keep the custom name.

### To change a device name

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' on the left to view every device enrolled to EM
- Click on any Linux device then select the 'Device Name' tab

Linux Device  
Owner: Herald

Manage Profiles   Install Linux Packages   Refresh Device Information   Owner   Delete Device

Device Name   Summary   Networks   Associated Profiles   Packages Installation State   Groups

Custom device name  
Linux Device

Allow auto rename of device custom name  
Enabled

Edit

- **Custom device name** - The current name of the device.
- **Allow auto rename of device custom name** - Enabled - The device's real name will automatically replace the custom name in this list during the next sync. Disabled - the custom name is kept in EM
- Click the 'Edit' button at the right to change the name of the device.

Device Name   Summary   Networks   Associated Profiles   Packages Installation State   Groups

Custom device name  
Linux Device

Allow auto rename of device custom name

Cancel   Save

Custom device name  
Linux Device   Restore

Allow auto rename of device custom name

- Enter the new name in the 'Custom Device Name' field

- Make sure the 'Allow Auto Rename of Device Custom Name' is disabled to retain the custom name in the list. If this is enabled, the custom name will be automatically replaced with the original device's name or model number during the next sync with the communication client on the device.
- Click 'Save' for your changes to take effect.

The device will be listed with its new name.

- To restore the name of the device as it was at the time of enrollment, click 'Edit' from the 'Device Name' interface, click 'Restore' at the right of the 'Custom device name field' and click 'Save'.

## 5.2.4.2. Summary Information of Linux Device

The 'Summary' tab contains information about the device, its operating system and Comodo Client Security (CCS) version.

### To view the device summary

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click on any Linux device then select the 'Summary' tab (if it is not already open).



**Linux Device**  
Owner: Herald

Manage Profiles

Install Linux Packages

Refresh Device Information

Owner

Delete Device

Device Name
Summary
Networks
Associated Profiles
Packages Installation State
Groups

**Device Summary**

<b>Custom device name</b>	Linux Device
<b>Name</b>	comodo-VirtualBox
<b>Logged in user</b>	comodo
<b>Formfactor</b>	PC
<b>Last connection</b>	2018/10/29 09:33:04 AM
<b>Registered</b>	2018/10/24 04:38:21 PM
<b>UUID</b>	7b85c4f9-0cfc-4073-be1a-101e92e15f1d
<b>Communication Client version</b>	6.22.16643.18090
<b>Processor</b>	Intel(R) Core(TM) i3-6100 CPU @ 3.70GHz
<b>Serial number</b>	0
<b>System model</b>	VirtualBox
<b>System manufacturer</b>	innotek GmbH
<b>Ownership type</b>	Not specified

**OS Summary**

<b>OS</b>	Linux
<b>OS name</b>	Ubuntu
<b>OS version</b>	16.04.5 LTS (Xenial Xerus)

**Security Products Info**

<b>Name</b>	N/A
<b>Version</b>	N/A
<b>Components</b>	<b>Antivirus</b> <span style="float: right;">on</span>
<b>Virus DB version</b>	29859

- **Device Summary** - Device name, user, type, model, last sync time with the client, device ownership status and more.
- **OS Summary** - Details about the operating system of the device, including version and build.
- **Security Products Info** - Details about Comodo Client Security (CCS) on the device, including version number, database version and update status.

### 5.2.4.3. View Network Information of a Linux Device

- The 'Networks' tab shows information about the networks to which the device is connected. This includes the MAC address of the device and more.
- Each network is shown in a separate box

#### To view a device's network details

- Click 'Devices' > 'Device List'

- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devicesOr
  - Select 'Show all' to view every device added to EM
- Click on any Linux device then select the 'Networks' tab

The screenshot displays the 'Joe Linux' device page in the Endpoint Manager. At the top, the owner is listed as 'Herald'. Below this are five action buttons: 'Manage Profiles', 'Install Linux Packages', 'Refresh Device Information', 'Owner', and 'Delete Device'. A navigation bar below the buttons contains tabs for 'Device Name', 'Summary', 'Networks' (which is selected and highlighted with a green underline), 'Associated Profiles', 'Packages Installation State', and 'Groups'. The 'Networks' tab is active, showing a table for 'Device Network N°1' with the following details:

Device Network N°1	
<b>Name</b>	enp0s3
<b>Local address</b>	192.0.2.103
<b>Subnet</b>	255.255.255.0
<b>DNS 1</b>	127.0.1.1
<b>DNS 2</b>	
<b>MAC Address</b>	08:00:27:eb:f0:fd
<b>Connection Speed</b>	1 Gbit/s

#### 5.2.4.4. View and Manage Profiles Associated with a Linux Device

The 'Associated Profiles' tab lists all configuration profiles currently active on an endpoint. A profile may have been applied to a device because:

- It is a default profile
- It was specifically applied to the device
- It was specifically applied to the user of the device
- Because the device belongs to a device group
- Because the user of the device belongs to a user group

See **Profiles for Linux Devices** for more details on configuration profiles

#### To view and manage profiles associated with a device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devicesOr

- Select 'Show all' to view every device added to EM
- Click on any Linux device then select the 'Associated Profiles' tab

**Joe Linux**  
Owner: Herald

Manage Profiles

Install Linux Packages

Refresh Device Information

Owner

Delete Device

Device Name	Summary	Networks	Associated Profiles	Packages Installation State	Groups
NAME	SOURCE ASSOCIATED	INFORMATION ABOUT ASSOCIATION			
<a href="#">For Joe</a>	<a href="#">Owner</a>	Successfully processed			
<a href="#">New Linux</a>	<a href="#">Device Group: First Linux Group</a>	Pending			
<a href="#">Second Linux Profile</a>	<a href="#">Device</a>	Successfully processed			
<a href="#">First Linux Profile</a>	<a href="#">Device</a>	Successfully processed			

Associated Profiles - Column Descriptions	
Column Heading	Description
Name	The profile label. <ul style="list-style-type: none"> <li>• Click the name of a profile to open the 'Edit Profile' interface.</li> <li>• See <b>Edit Configuration Profiles</b> for more details.</li> </ul>
Source Associated	How the profile was applied to the device. Profiles can be applied to a device in different ways: <ul style="list-style-type: none"> <li>• <b>Profile was directly applied to a device.</b> See <b>View and Manage Profiles Associated with a Device</b> for more details</li> <li>• <b>Profile was applied to a user.</b> These profiles are in-turn deployed to all devices belonging to the user. See <b>Assign Configuration Profiles to a Users' Devices</b> for more details</li> <li>• <b>Profile was applied to a user group.</b> These profiles are deployed to all devices owned by group members. See <b>Assign Configuration Profile to a User Group</b> for more details</li> <li>• <b>Profile was applied to a device group.</b> These profiles are deployed to all devices in the group. See <b>Assign Configuration Profile to a Device Group</b> for more details</li> <li>• Click the source to view and manage profiles associated with that source.</li> </ul>
Information about Association	Whether the profile has been successfully applied to the device or is pending.

- Click the 'Name' column header to sort the items in the alphabetical order of the names of the items

Click the 'Manage Profiles' button to add or remove profiles. See [View and Manage Profiles Associated with a Device](#) for a full overview of this interface.

## 5.2.4.5. View Linux Packages Installed on a Device through Endpoint Manager

- Endpoint Manager lets you remotely install packages on managed Linux endpoints.

### To view Linux packages installed on a device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click on any Linux device
- Click the 'Packages Installation State' tab:

**Joe Linux**  
Owner: Herald

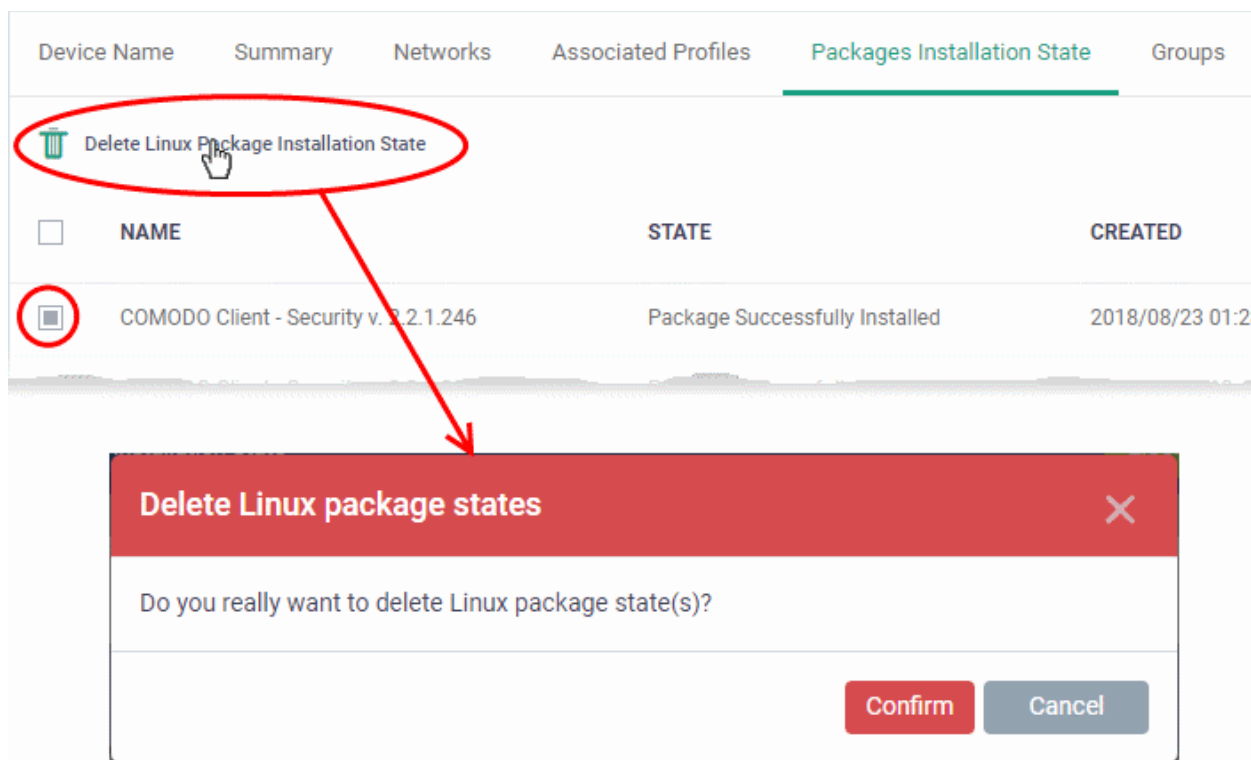
Manage Profiles | Install Linux Packages | Refresh Device Information | Owner | Delete Device

Device Name	Summary	Networks	Associated Profiles	Packages Installation State	Groups
Delete Linux Package Installation State					
<input type="checkbox"/>	NAME			STATE	CREATED
<input checked="" type="checkbox"/>	COMODO Client - Security v. 2.2.1.246			Package Successfully Installed	2018/08/23 01:28...
<input type="checkbox"/>	COMODO Client - Security v. 2.2.1.257			Package Successfully Installed	2018/08/29 12:44...

**Package Installation State - Table of Column Descriptions**

Column Heading	Description
Name	The URL/filename of the package.
State	Whether the installation was successful or not
Created	The date and time at which the installation command was sent.

- Click any column header to sort items in ascending/descending order of the entries in that column.
- Select an entry and click 'Delete Linux Package Installation State' to remove it from the list.



- Click 'Confirm' to remove the file from the list

Note - the entry will be removed from the list but the package will not be uninstalled from the device.

More reading - see [Remotely Install Packages on Linux Devices](#).

## 5.2.4.6. View and Manage Device Group Memberships

- Device groups let you deploy policies to multiple devices at once.

### To manage device group membership

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click the name of a Linux device then select the 'Groups' tab:

**Joe Linux**  
Owner: Herald

Manage Profiles
 Install Linux Packages
 Refresh Device Information
 Owner
 Delete Device

---

Device Name
Summary
Networks
Associated Profiles
Packages Installation State
Groups

Add to Group
 Remove from Group(s)

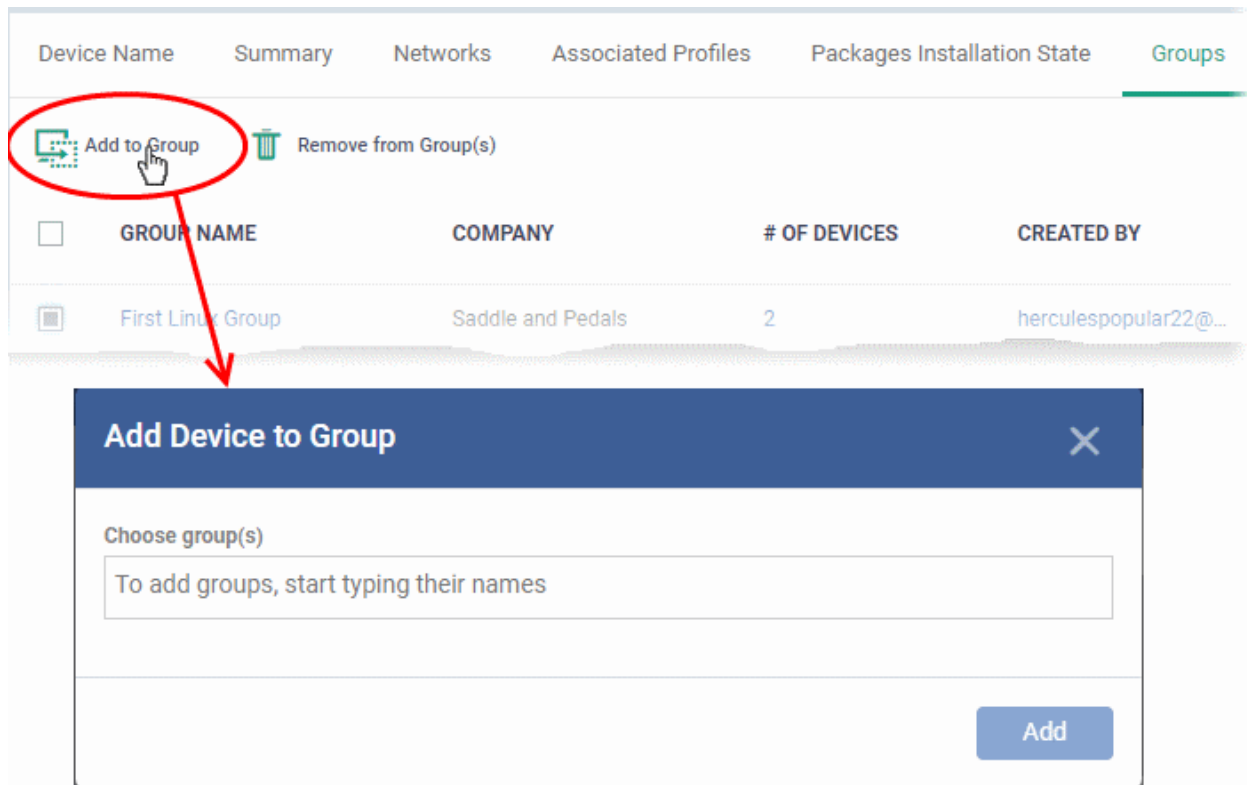
	GROUP NAME	COMPANY	# OF DEVICES	CREATED BY	CREATED
<input checked="" type="checkbox"/>	<a href="#">First Linux Group</a>	Saddle and Pedals	2	herculespopular22@...	2018/09/05 02:34:4...
<input type="checkbox"/>	<a href="#">Sales Team Devices</a>	Saddle and Pedals	10	herculespopular22@...	2018/09/05 03:51:2...

- The interface lists all groups of which the device is a member.
- Group profiles are applied to all endpoints in the group.
  - See [Assign Configuration Profiles to a Device Group](#) if you want to learn more about this process.

Device Groups - Table of Column Descriptions	
Column Heading	Description
Group	The group label. <ul style="list-style-type: none"> <li>• Click the group name to view and edit group details.</li> <li>• See <a href="#">Edit a Device Group</a> for more details.</li> </ul>
Customer	The name of the company for which the group was created.
Number of Devices	The total count of devices in the group. <ul style="list-style-type: none"> <li>• Click the number to view and edit group details.</li> <li>• See <a href="#">Edit a Device Group</a> for more details.</li> </ul>
Created By	Name of the admin who created the group. <ul style="list-style-type: none"> <li>• Click the name to view the admin's details.</li> <li>• See <a href="#">View the Details of a User</a> for more details.</li> </ul>
Created	The date and time at which the group was created.

### To add a device to a new group

- Click the 'Add to Group' button
- Select the group to which you want to add the device:



- Start typing the name of the group to see a list of suggestions.
- Repeat the process to add the device to other groups.
- Click the 'Add' button.

The device will be added to the group.

### To remove a device from a group

- Select the groups from which you want to remove the device
- Click the 'Remove from Group(s)' button:



The screenshot shows the 'Groups' tab in the Endpoint Manager interface. At the top, there are navigation tabs: Device Name, Summary, Networks, Associated Profiles, Packages Installation State, and Groups. Below these are two buttons: 'Add to Group' and 'Remove from Group(s)'. The 'Remove from Group(s)' button is circled in red. Below the buttons is a table with columns: GROUP NAME, COMPANY, # OF DEVICES, and CREATED BY. The table contains two rows: 'First Linux Group' and 'Sales Team Devices'. The 'First Linux Group' row is also circled in red. A red arrow points from the 'Remove from Group(s)' button to a modal dialog box titled 'Remove from Groups'. The dialog box contains the text 'Do you really want to remove this device from device group(s)?' and two buttons: 'Confirm' and 'Cancel'.

- Click 'Confirm' to remove the device from the selected groups.

Note - Any group profiles will also be removed from the device.

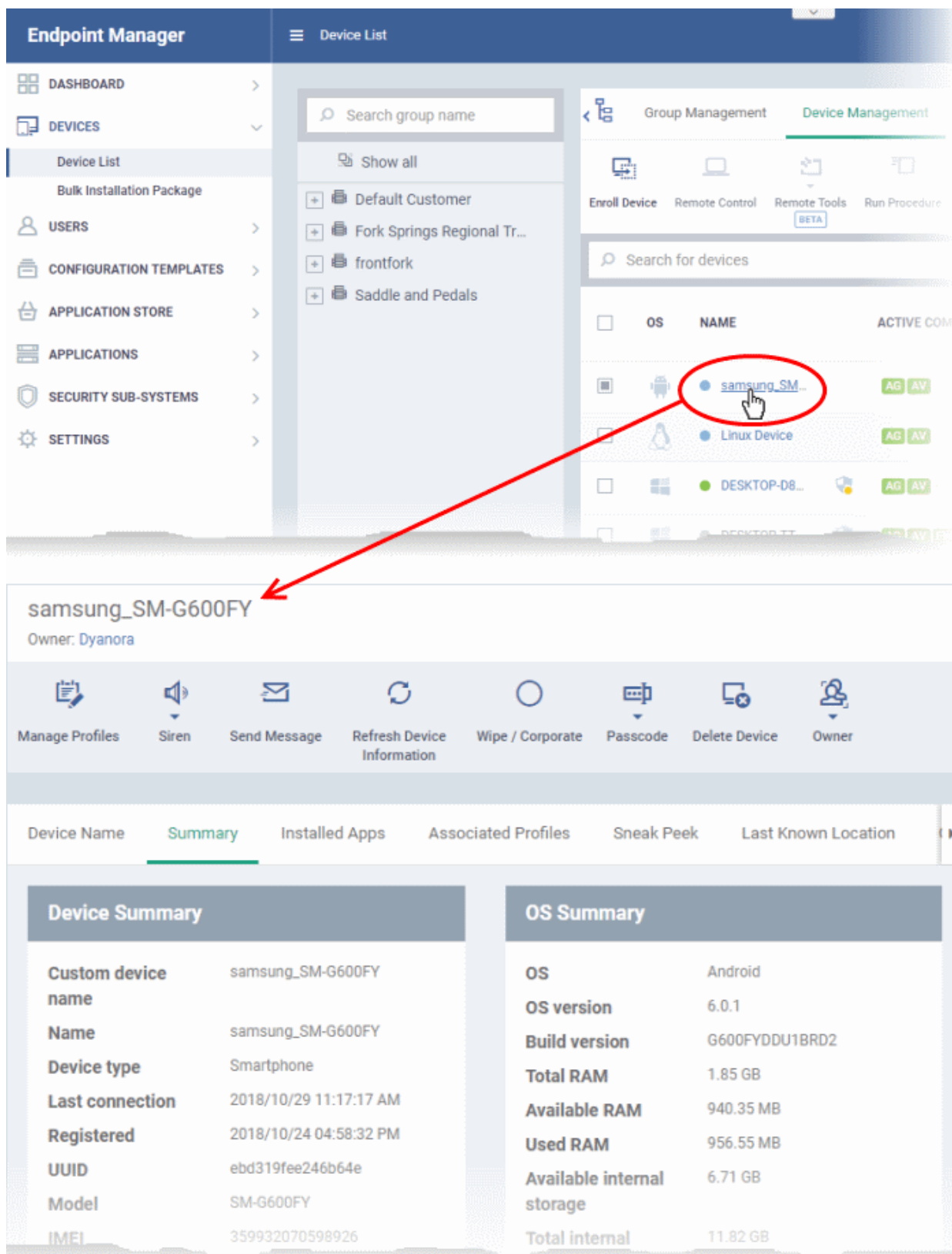
### 5.2.5. Manage Android/iOS Devices

- The device details page lets you view hardware/software details, manage profiles and manage installed apps.
- You can also send messages to or sound an alarm on the device, remotely lock the device, track device location and more.

**Note:** If you haven't done so already, you should first **enroll users** then **enroll their devices**.

#### To view and manage an individual device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click the name of any Android or iOS device to open the 'Device Details' pane:



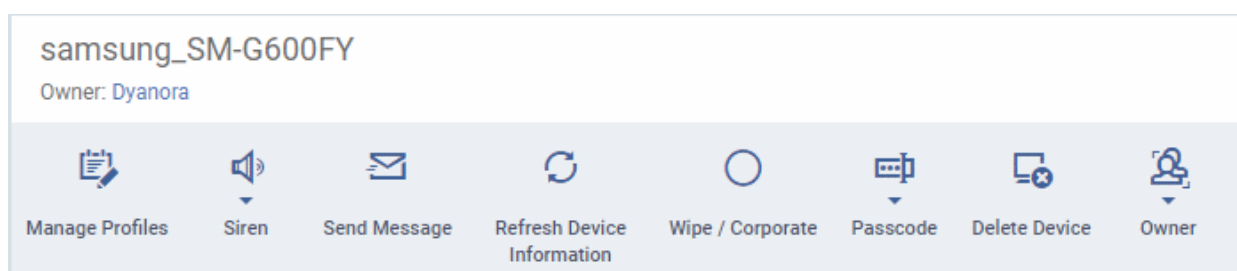
The device details screen has seven tabs:

- **Device Name** - Device label. Click the 'Edit' button if you wish to change the device name. See **View and Edit Device Name** for more details.
- **Summary** - General information about the device. Includes basic device information, operating system details, network details and security configuration. See **View Summary Information** for more details.
- **Installed apps** - Details of applications installed on the device. You can remotely block/release apps or

uninstall applications. See [Manage Installed Applications](#) for more details.

- **Associated Profiles** - Profiles which have been deployed to the device. You can add new profiles or remove existing profiles on the device. See [View and Manage Profiles Associated with a Device](#) for more details.
- **Sneak Peek** - Pictures captured by the 'Sneak Peek' feature of Endpoint Manager. The 'Sneak Peek' feature photographs the person holding the device if they enter the wrong passcode too many times. You must enable sneak peek on a profile to use the feature. See [View Sneak Peek Pictures to Locate Lost Devices](#) for more details.
- **Last Known Location** - The map location of the device when it last connected to Endpoint Manager. See [View the Location of the Device](#) for more details.
- **Groups** - Shows all groups of which the Android/iOS device is a member. You can manage group membership from this tab. See [View and Manage Device Group Memberships](#) for more details.

Device tasks are shown along the top of the interface:



- **Manage Profiles** - Add or remove device profiles. See [Assign Configuration Profiles to Selected Devices](#) for more details.
- **Siren** - Sound an alarm on the device to locate it. See [Generate Alarm on Devices](#) for more details.
- **Send Message** - Send a text message to the user. See [Send Text Message to Devices](#) for more details.
- **Refresh Information** - Obtain updated details from the device. See [Update Device Information](#) for more details.
- **Wipe / Corporate** - Delete all data stored in the device if it is lost or stolen. See [Wipe Data from Devices](#) for more details.
- **Passcode** - Create a new screen lock passcode for selected devices. You can also remotely lock or unlock the device. See [Set / Reset Screen Lock Password for Selected Devices](#) and [Lock / Unlock Selected Devices](#) for more details.
- **Delete Device** - Remove the device from Endpoint Manager. See [Remove a Device](#) for more details.
- **Owner** - Change the user with whom the device is associated. You can also change the type of device to corporate or personal. See [Change a Device's Owner](#) and [Change the Ownership Status of a Device](#) for more details.

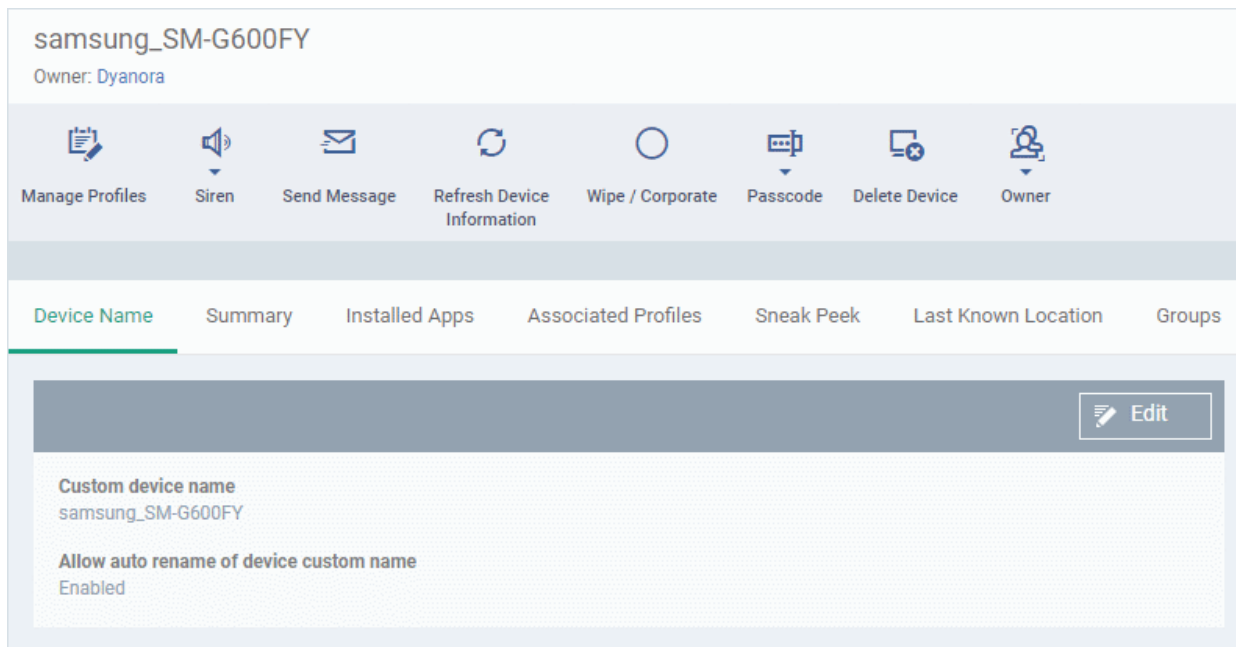
## 5.2.5.1. View and Edit Device Name

- Enrolled devices are listed by the name assigned to them by their owner.
- If no name was assigned then the actual device name or model number is used.
- Admins can change the device name according to their preferences. Name changes apply only in Endpoint Manager. The name will not change on the device itself.
- 'Allow Auto Rename of Device Custom Name' - If enabled, the custom name will be replaced automatically by the device name/model number during the next sync..

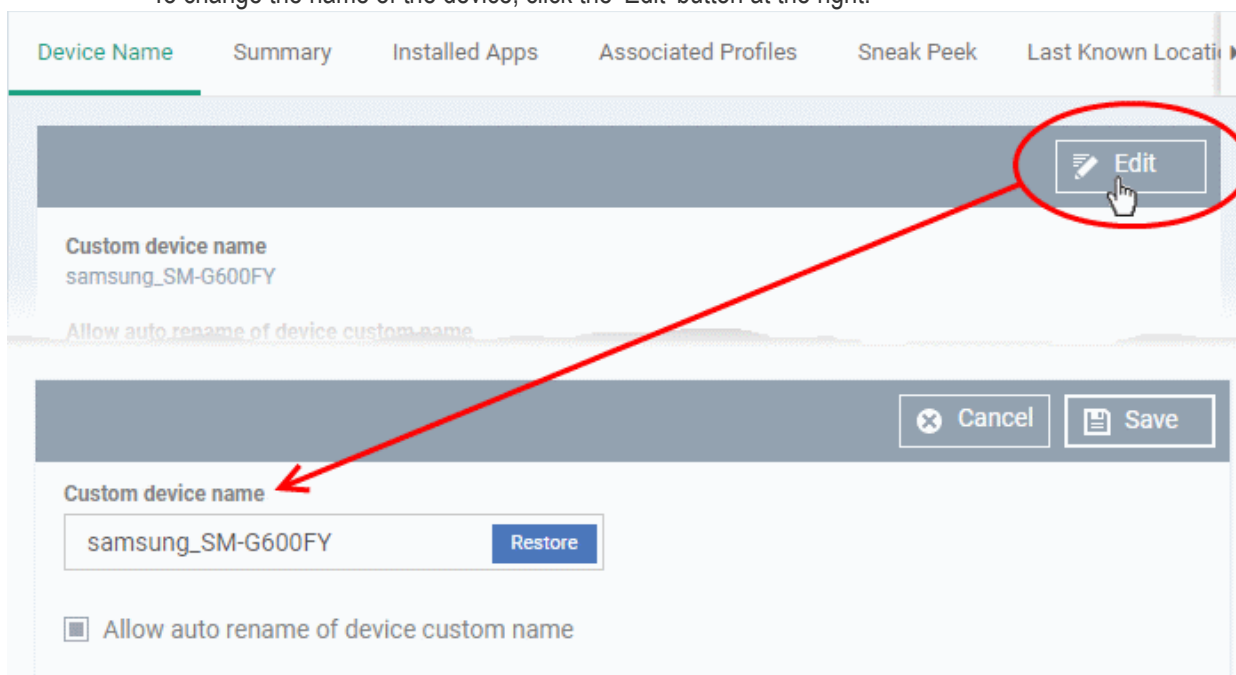
### To change the device's name

- Click 'Devices' > 'Device List'

- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' on the left to view every device enrolled to EM
- Click on any Android or iOS device then select the 'Device Name' tab



- Custom device name - The current name of the device.
- Allow auto rename of device custom name - Indicates whether the device's name will automatically replace the custom name in the list during the next sync with communication client.
- To change the name of the device, click the 'Edit' button at the right.



- Enter the new name in the 'Custom Device Name' field
- Make sure the 'Allow Auto Rename of Device Custom Name' is disabled to retain the custom name in the list. If this is enabled, the custom name will be automatically replaced with the device's name

or model number during the next sync with the communication client on the device.

- Click 'Save' for your changes to take effect.

The device will be listed with its new name.

- To restore the name of the device as it was at the time of enrollment, click 'Edit' from the 'Device Name' interface, click 'Restore' at the right and click 'Save'.


## 5.2.5.2. View Summary Information


The 'Summary' tab shows general information about the device, its operating system, network and security status.


### To view device information summary


- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or a group to view just their devices
- Or
  - Select 'Show all' to view every device added to EM
- Click on any Android or iOS device then open the 'Summary' tab (if it is not already open).


samsung\_SM-G600FY  
Owner: Dyanora


  
Manage Profiles


  
Siren

  
Send Message

  
Refresh Device Information

  
Wipe / Corporate

  
Passcode

  
More

Device Name
Summary
Installed Apps
Associated Profiles
Sneak Peek
Last Known Lo ▶

**Device Summary**

<b>Custom device name</b>	samsung_SM-G600FY
<b>Name</b>	samsung_SM-G600FY
<b>Device type</b>	Smartphone
<b>Last connection</b>	2018/10/29 11:53:19 AM
<b>Registered</b>	2018/10/24 04:58:32 PM
<b>UUID</b>	ebd319fee246b64e
<b>Model</b>	SM-G600FY
<b>IMEI</b>	359932070598926
<b>Serial number</b>	RZ8H71KHT0T
<b>Battery level</b>	78%
<b>Ownership type</b>	Not specified

**OS Summary**

<b>OS</b>	Android
<b>OS version</b>	6.0.1
<b>Build version</b>	G600FYDDU1BRD2
<b>Total RAM</b>	1.85 GB
<b>Available RAM</b>	940.35 MB
<b>Used RAM</b>	956.55 MB
<b>Available internal storage</b>	6.71 GB
<b>Total internal storage</b>	11.82 GB
<b>Available SD card space</b>	N/A
<b>Total SD card space</b>	N/A

**Network Summary**

<b>Phone number</b>	N/A
<b>Current network</b>	40440
<b>Current network name</b>	airtel (airtel)
<b>Bluetooth MAC</b>	E4:5D:75:84:02:12
<b>Wi-Fi MAC</b>	E4:5D:75:84:02:13
<b>Wi-Fi SSID</b>	"Airtel"
<b>Roaming</b>	No
<b>Cellular</b>	GSM

**Security Summary**

<b>Virus DB version</b>	73
<b>Signs DB version</b>	N/A
<b>Is unknown source enabled</b>	Yes
<b>Current application version</b>	6.13.2.14
<b>KNOX standard SDK version</b>	5.6

- **Device Summary** - Provides device details such as brand, model, International Mobile Equipment Identification (IMEI) number, last connection time, device battery level (at last connection time) and Ownership type of the device.
- **OS Summary** - Provides details about the device's Operating System, including version number, memory usage and available internal and external storage space.
- **Network Summary** - Provides details about the mobile and WiFi networks to which the device is connected, including the MAC addresses of the device for connection through Bluetooth and WiFi.
- **Security Summary** - Provides details about important security settings of the device. For Android devices, details from Comodo Mobile Security (CMS) like Virus Signature Database version and update status are displayed.

### 5.2.5.3. Manage Installed Applications

- The 'Installed Apps' tab shows all applications installed on a device with their package names and version numbers.
- You can block, unblock or remove apps as required.
- You can also see which other devices have the same applications installed.

#### To manage installed apps

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices  
Or
  - Select 'Show all' to view every device added to EM
- Click on any Android or iOS device then open the 'Installed Apps' tab



samsung\_SM-G600FY  
Owner: Dyanora

Manage Profiles
Siren
Send Message
Refresh Device Information
Wipe / Corporate
Passcode
Delete Device
Owner

Device Name
Summary
Installed Apps
Associated Profiles
Sneak Peek
Last Known Location

Block
 Unblock
 Uninstall
 Update Application List

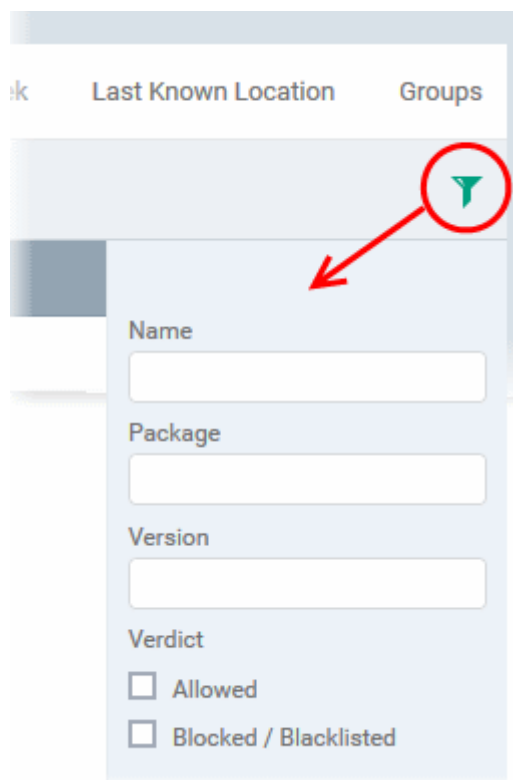
	NAME	PACKAGE ▲	VERSION	VERDICT
<input checked="" type="checkbox"/>	Test your Antivirus	avtester.underdog1987.com.pruebatuantivirus	1.0	Blacklisted (global)
<input type="checkbox"/>	AndroZip	com.agilesoftresource	4.7.4	Allowed
<input type="checkbox"/>	AnyConnect	com.cisco.anyconnect.vpn.android.avf	4.6.00143	Allowed
<input type="checkbox"/>	ES File Explorer	com.estrongs.android.pop	4.1.7.1.14	Allowed
<input type="checkbox"/>	Authenticator	com.google.android.apps.authenticator2	5.00	Allowed
<input type="checkbox"/>	SuperVPN	com.lizheng.supervpnfree	2.0.9	Allowed

Installed Apps - Column Descriptions	
Column Heading	Description
Name	The label of the application. <ul style="list-style-type: none"> <li>Click the application name to view all devices which have this app installed.</li> </ul> This is useful if you want to apply an action to all devices which have a certain app installed.
Package	The application ID on the vendor app store. For example, 'cn.wps.moffice_i18n' can be found at <a href="https://play.google.com/store/apps/details?id=cn.wps.moffice_i18n">https://play.google.com/store/apps/details?id=cn.wps.moffice_i18n</a> .
Version	The version number of the application.
Verdict	Whether the application is allowed, blocked or blacklisted by EM.

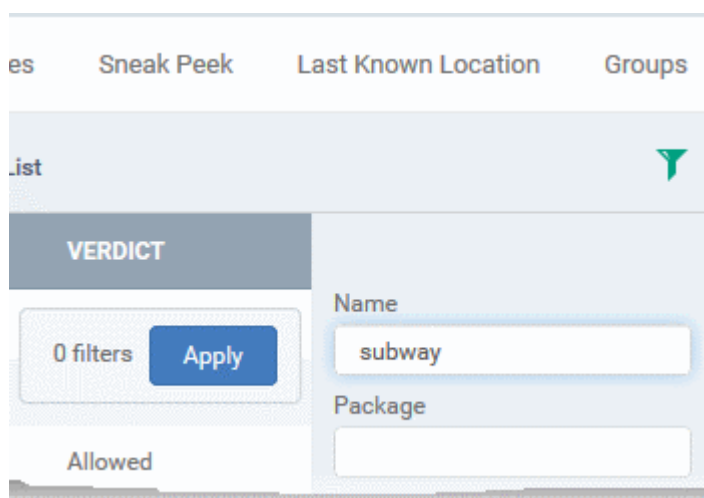
- The list of apps on a device is updated in Endpoint Manager every 24 hrs. To refresh the list immediately, click 'Update Application List'.

### Sorting and Filtering Options

- Click any column header to sort the items in alphabetical order.
- Click the funnel icon at the right to open the filter interface:



- You can filter/search specific items based on app name, package or version. To start, enter the search criteria in full or part in the respective search field and click 'Apply'



- Use the check-boxes under 'Verdict' if you wish to see only allowed or only blocked applications in the search results.

You can use any combination of filters to search for specific devices.

- To display all items again, clear the search box(es) and click 'Apply'.
- EM returns 20 results per page. Use the 'Results per page' drop-down to increase the number of results displayed up to a maximum of 200.

## Block Unwanted Apps

You can remotely block apps that are identified as malicious, suspicious or junk. The app is not uninstalled from the device but not allowed to run. Blocked apps can be released at a later date and allowed to run.

### To block selected apps

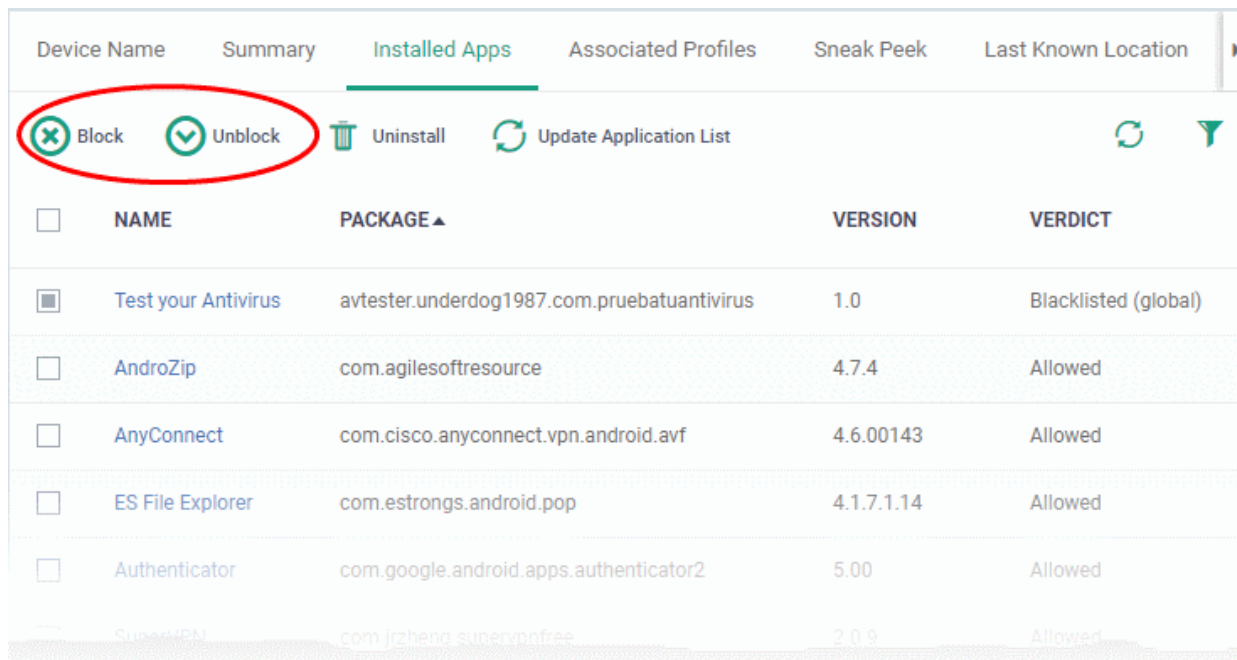
- Choose the app(s) that you wish to block and simply click the 'Block' button.

The verdict of the app(s) will change to 'Blocked' and they will not be allowed to run on the device.

### To release blocked apps

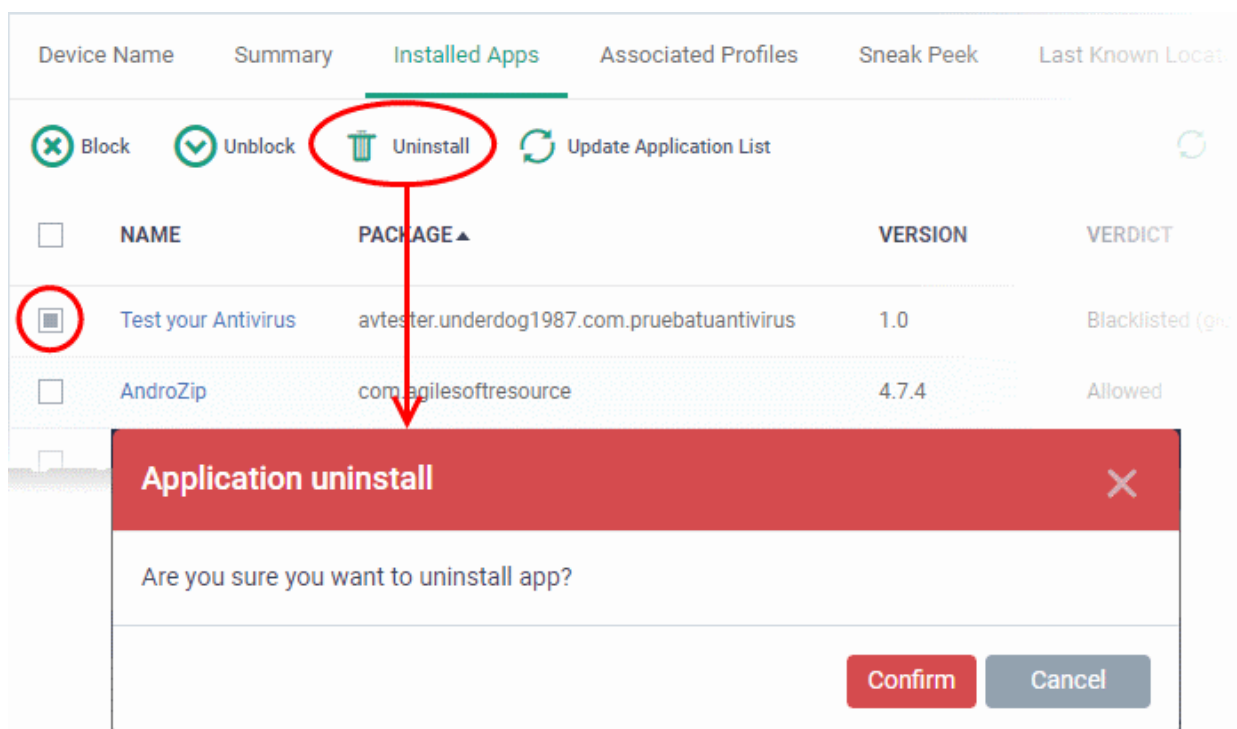
- Select the blocked app(s) and click 'Unblock'.

The verdict of the app(s) will change to 'Allowed' and they will be allowed to run on the device.



### Uninstall applications

- Select the app(s) and click 'Uninstall'.



- Click 'Confirm' to uninstall the selected app(s) from the device.

## 5.2.5.4. View and Manage Profiles Associated with a Device

The 'Associated Profiles' tab displays a list of all currently active configuration profiles on an Android/iOS device. A profile may have been applied to a device because:

- It is a default profile
- It was specifically applied to the device
- It was specifically applied to the user
- The device belongs to one or more device groups and inherited profiles from the group
- The user belongs to one or more user groups and inherited profiles from the group

See '[Profiles for Android Devices](#)', '[Profiles for iOS Devices](#)', '[Viewing and Managing Profiles](#)' and '[Managing Default Profiles](#)', for more details on profiles and default profiles.

### To view and manage associated profiles

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click on any Android or iOS device then open the 'Associated Profiles' tab

**Dyanora Samsung**  
Owner: Dyanora

Manage Profiles
Siren
Send Message
Refresh Device Information
Wipe / Corporate
Passcode
Delete Device
Owner

Device Name	Summary	Installed Apps	Associated Profiles	Sneak Peek	Last Known Location	Group: ▶
<b>NAME</b>	<b>SOURCE ASSOCIATED</b>		<b>INFORMATION ABOUT ASSOCIATION</b>			
<a href="#">Samsung Phones</a>	Device Group: <a href="#">Samsung Phones</a>		Successfully processed			
<a href="#">Android Devices in Sales Dept.</a>	Owner User Group: <a href="#">Marketing Staff</a>		Successfully processed			
<a href="#">Finance Dept Android Devices</a>	Device		Successfully processed			

Associated Profiles - Column Descriptions	
Column Heading	Description
Name	The profile label. <ul style="list-style-type: none"> <li>• Click the name of a profile to open the 'Edit Profile' interface.</li> <li>• See <a href="#">Edit Configuration Profiles</a> for more details.</li> </ul>
Source Associated	The channel through which the profile was applied to the device. Configuration profiles can be applied to a device in different ways:

	<ul style="list-style-type: none"> <li>• Profiles can be directly applied to the device. See <a href="#">Assign Configuration Profiles to Selected Devices</a> for more details.</li> <li>• Profiles applied to a user are deployed to all devices belonging to them. See <a href="#">Assign Configuration Profiles to User Devices</a> for more details.</li> <li>• Profiles applied to a user group are deployed to all devices owned by group members. See <a href="#">Assign Configuration Profiles to a User Group</a> for more details.</li> <li>• Profiles applied to a device group are deployed to all member devices in the group. See <a href="#">Assign Configuration Profiles to a Device Group</a> for more details.</li> <li>• Click a source to open the respective details interface.</li> </ul>
Information about Association	The status of profile application to the device.

## Add or Remove Profiles

Click 'Manage Profiles' at the top to add or remove profiles. See [Assign Configuration Profiles to Selected Devices](#) for more details.

### 5.2.5.5. View Sneak Peek Pictures to Locate Lost Devices

- Click 'Devices' > 'Device List' > click a device name > 'Sneak Peek'
- 'Sneak Peek' takes a photo of the device holder if the wrong password is entered a certain number of times. This helps you to recover mislaid or stolen Android devices.
- The photo is sent to Endpoint Manager along with the location and time it was taken.
- The feature can be enabled on a device profile. You can specify how many incorrect attempts should be allowed.
- If a front camera is not available, a photograph is taken using the rear-facing camera.

#### To view Sneak Peek pictures

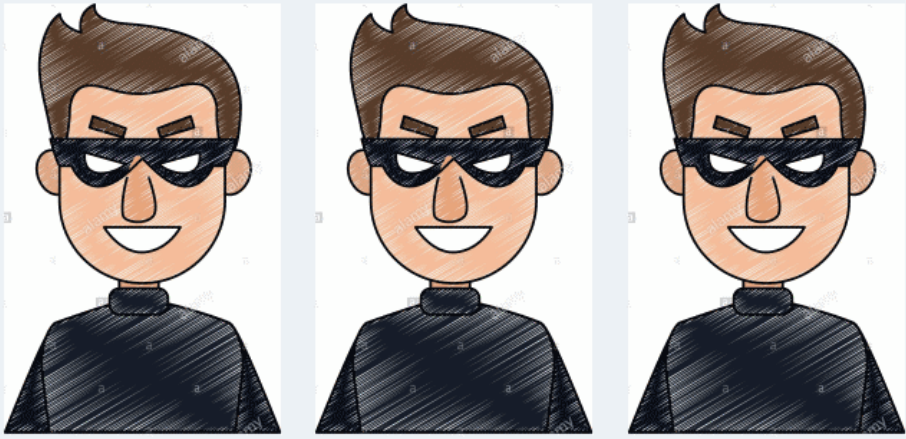
- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
 Or
  - Select 'Show all' to view every device added to EM
- Click on the name of any Android device then open the 'Sneak Peek' tab:

samsung\_SM-G600FY  
Owner: Dyanora

Manage Profiles | Siren | Send Message | Refresh Device Information | Wipe / Corporate | Passcode | Delete Device | Owner

Device Name | Summary | Installed Apps | Associated Profiles | **Sneak Peek** | Last Known Location | Groups

To get «Sneak Peek» pictures when your device lost or stolen, please configure the related settings in «Passcode» section under one of [Associated Profiles](#)  
To get device coordinates «Location Service» has to be active on the device



2018/08/13 10:37:53 AM | 2018/08/13 12:46:18 PM | 2018/08/13 12:48:18 PM

The page will display all Sneak Peek photographs collected by devices after a series of incorrect passcode entries:

**Note:** The images shown above are for illustration purposes only. The interface will actually show photographs picked-up by the device camera.

- Click on a picture to view see an enlarged view of the photograph and the location of the device at the time the photo was taken.



The screenshot displays the device profile for 'samsung\_SM-G600FY'. It features a cartoon avatar of a man with sunglasses. To the right of the avatar is a map showing the device's location near 'Vijaya Hospital'. Below the map is a table with the following data:

Latitude	Longitude	Date
13.0517076	80.2095006	2018/08/13 12:46:18 PM

A red arrow points from the timestamp '2018/08/13 10:37:53 AM' in the top image to the device profile. A trash can icon is located at the bottom right of the device profile window.

- To remove the sneak peek picture, click the trash can icon at bottom right.



## 5.2.5.6. View the Location of the Device

- The 'Last Known Location' tab shows from where the device most recently contacted Endpoint Manager.
- You can refresh the location by clicking the 'Update' link.

### To view the location

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click on the name of any Android or iOS device then open the 'Last Known Location' tab:

The location of the device will be shown on a map.

**samsung\_SM-G600FY**  
Owner: [Dyanora](#)

Manage Profiles
Siren
Send Message
Refresh Device Information
Wipe / Corporate
Passcode
Delete Device
Owner

Device Name
Summary
Installed Apps
Associated Profiles
Sneak Peek
Last Known Location

Update

Longitude	Latitude	Accuracy	Date
80.2094818	13.0517063	29 meters	2018/08/13 11:10:37 AM

The map shows the location of the device the last time it contacted EM.

- To view the current location of the device, click 'Update'.

## 5.2.5.7. View and Manage Device Group Memberships

- 'Device Details' > 'Groups' shows all groups of which the device is a member.
- You can remove the device from a group or add it to a new group.

### To view and manage device group membership

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click the name of any Android or iOS device then select the 'Groups' tab

The screenshot shows the 'Dyanora Samsung' device details page. At the top, the owner is listed as 'Dyanora'. Below this is a row of control buttons: Manage Profiles, Siren, Send Message, Refresh Device Information, Wipe / Corporate, Passcode, Delete Device, and Owner. A navigation bar below the buttons includes tabs for Device Name, Summary, Installed Apps, Associated Profiles, Sneak Peek, Last Known Location, and Groups (which is currently selected). Below the navigation bar, there are two action buttons: 'Add to Group' and 'Remove from Group(s)'. The main content area displays a table of group memberships:

<input type="checkbox"/>	GROUP NAME	CUSTOMER	# OF DEVICES	CREATED BY	CREATED
<input type="checkbox"/>	Samsung Phones	Default Customer	1	herculespopular22...	2018/10/29 01:58...
<input type="checkbox"/>	Flying Squad Devices	Default Customer	1	herculespopular22...	2018/10/26 05:18...

- The interface lists all groups of which the device is a member.
- Any device group profiles will also be applied to the endpoint.

For more details about applying configuration profiles to device groups, see [Assign Configuration Profiles to a Device Group](#).

Device Groups - Table of Column Descriptions	
Column Heading	Description
Group	The group label. <ul style="list-style-type: none"> <li>• Click the group name to view and edit group details.</li> <li>• See <a href="#">Edit a Device Group</a> for more details.</li> </ul>
Customer	The name of the company for which the group was created.
Number of Devices	The total count of devices in the group.

	<ul style="list-style-type: none"> <li>Click the number to view and edit group details.</li> <li>See <b>Edit a Device Group</b> for more details.</li> </ul>
Created By	<p>Name of the admin who created the group.</p> <ul style="list-style-type: none"> <li>Click the name to view the admin's details.</li> <li>See <b>View the Details of a User</b> for more details.</li> </ul>
Created	The date and time at which the group was created.

### To add the device to a new group

- Click 'Add to Group'

The screenshot shows the 'Add to Group' button circled in red. A red arrow points from this button to the 'Add Device to Group' dialog box. The dialog box has a title bar with 'Add Device to Group' and a 'Close' button. Below the title bar is a section titled 'Choose group(s)' with a search input field containing the placeholder text 'To add groups, start typing their names'. At the bottom right of the dialog is a blue 'Add' button.

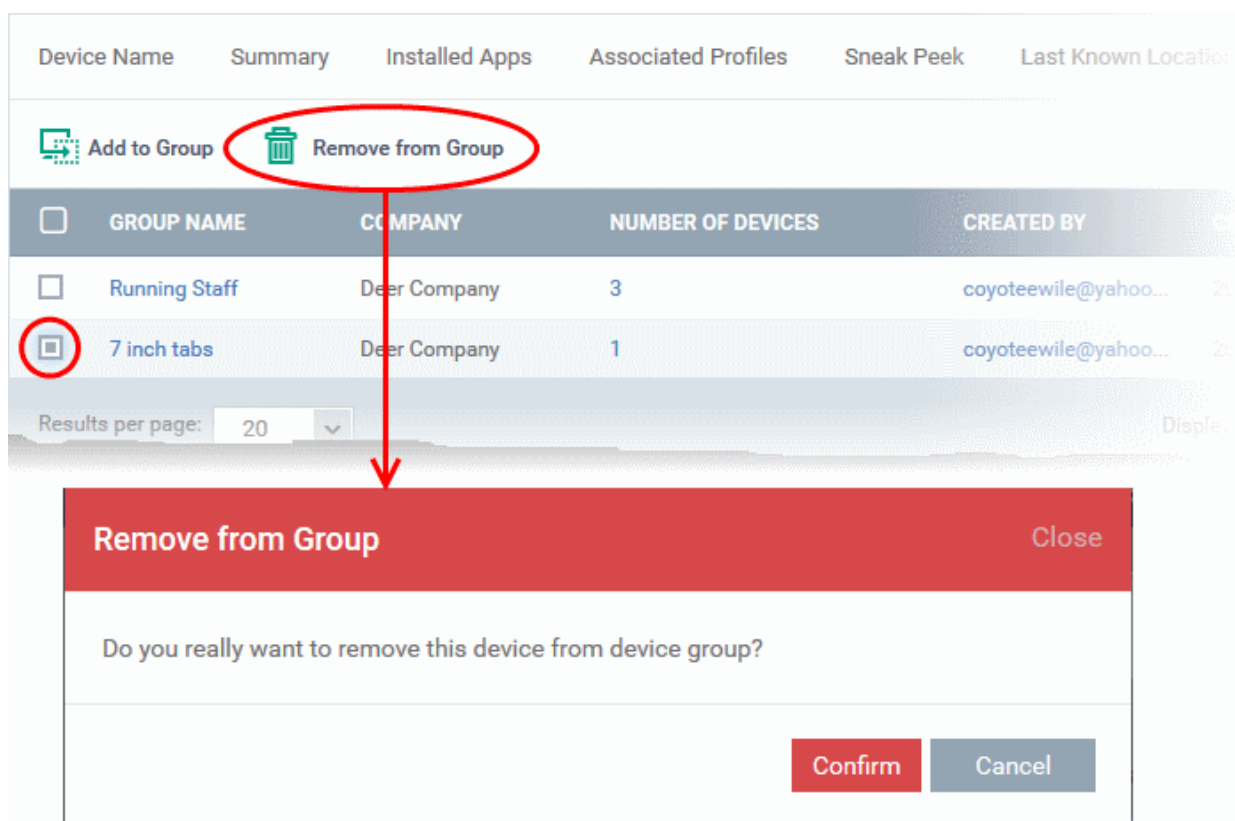
The 'Add Device to Group' dialog will appear.

- In the 'Choose Group(s)' field, start typing the name of the group to which you want to add the device. Select the desired group from the recommendations which appear.
- Repeat the process to add the device to other groups.
- Click 'Add'.

The device will be added to the group.

### To remove the device from a group

- Select the group from the list and click 'Remove from Group'.



A confirmation dialog will appear.

- Click 'Confirm' to remove the device from the group.

The device will be removed from the group. Any group configuration profiles will also be removed from the device.

## 5.2.6. View User Information

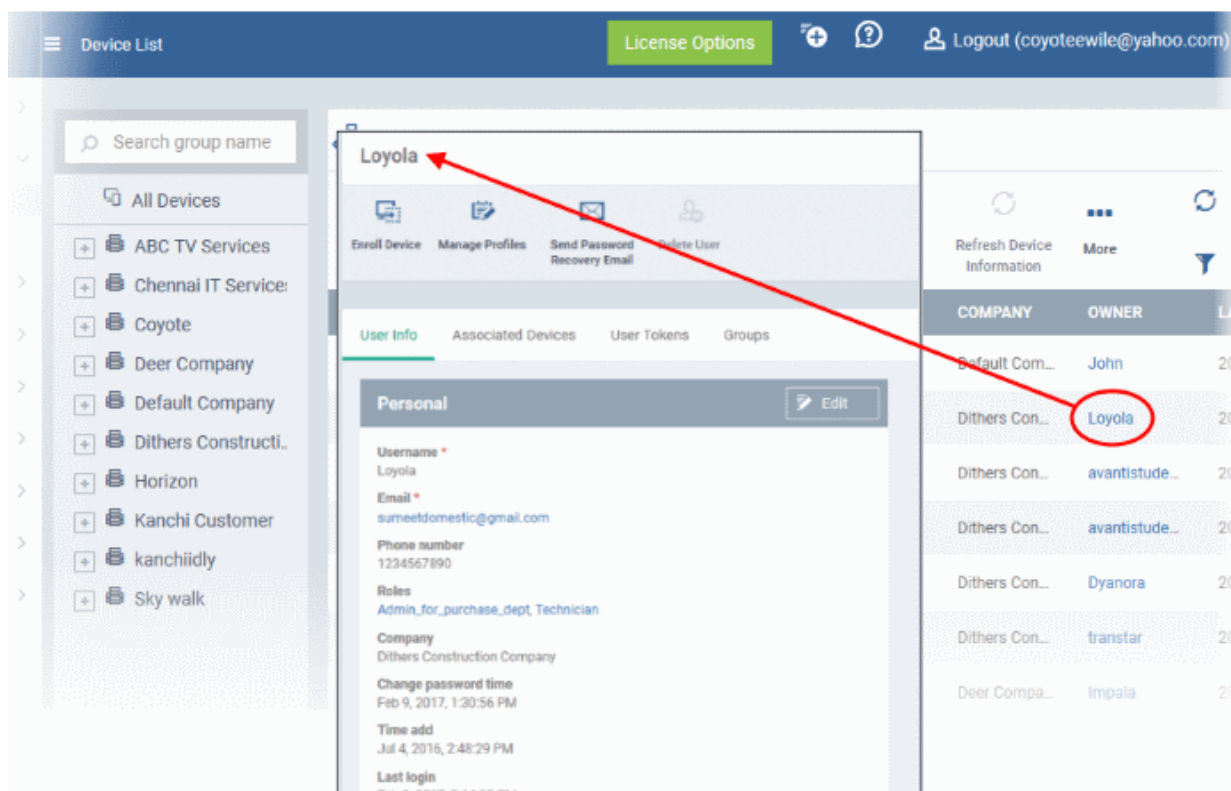
- User information tells you about the owner of a device. Details include email address and phone number.

### To view the user information of a device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM

The 'Owner' column shows the user of each device.

- Click the user's name to open the 'User Details' pane.
- Click the 'Edit' button to modify user details. For more details on this area, see ['Viewing the Details of a User'](#) section.



## 5.2.7. Remove a Device

- Click 'Devices' > 'Device List'
- Select target devices
- Click 'Delete Device'.

**Warning:** Once a device is deleted from EM, all configuration profiles and apps installed by EM will also be removed from the device.

**Windows Devices** - You can also choose to uninstall the Communication Client (CC) and/or the Comodo Client Security (CCS) software from the devices when removing the device.

**Android, iOS, Mac OS and Linux devices** - End users can manually uninstall the communication client and security software or the iOS profile from their devices. **Instructions for uninstalling the agent/software** are available at the end of this section.

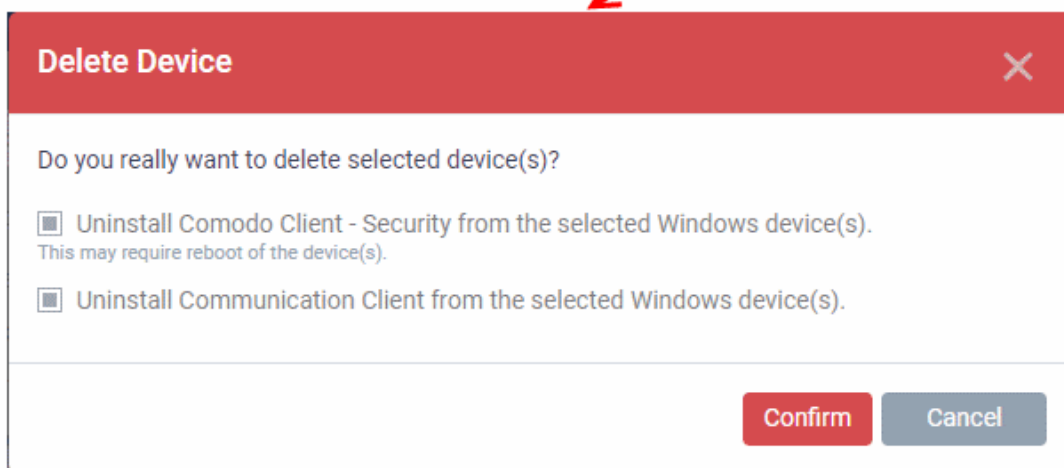
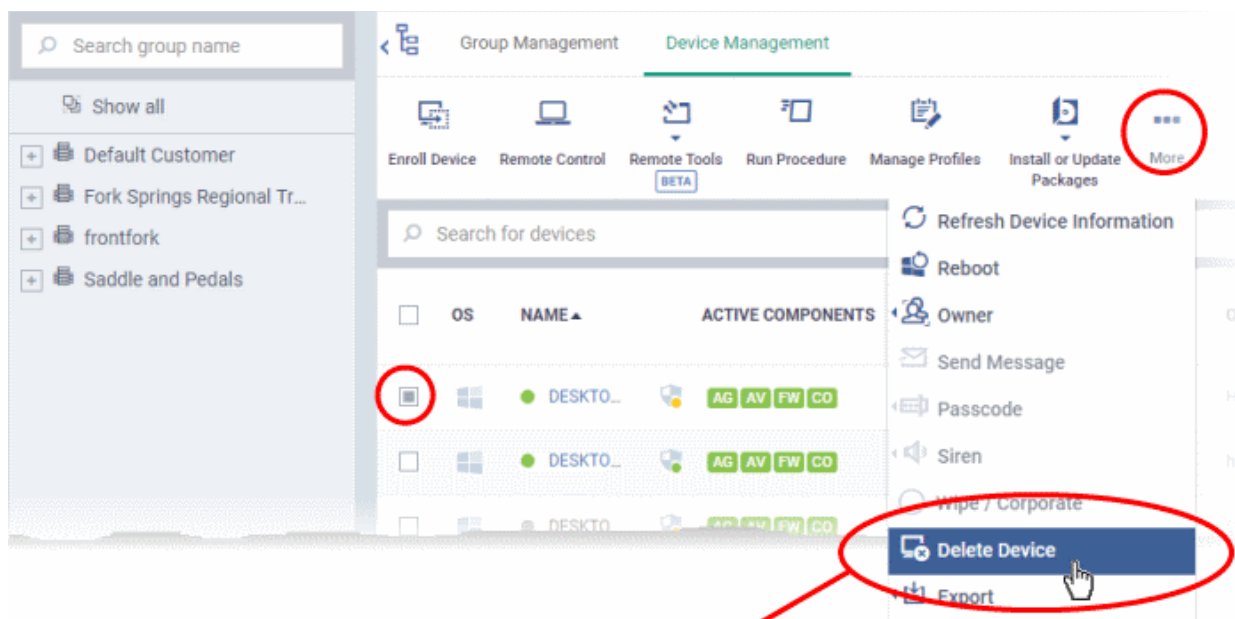
If you wish to reinstate the device in future then a new token should be sent to the user and the device should be re-enrolled as explained in **Enroll User Devices for Management**.

### To remove a device from Endpoint Manager

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Select the device(s) to be removed from the list.
- Click 'Delete Device' from the options at the top. If 'Delete Device' is not available, click 'More' at the top

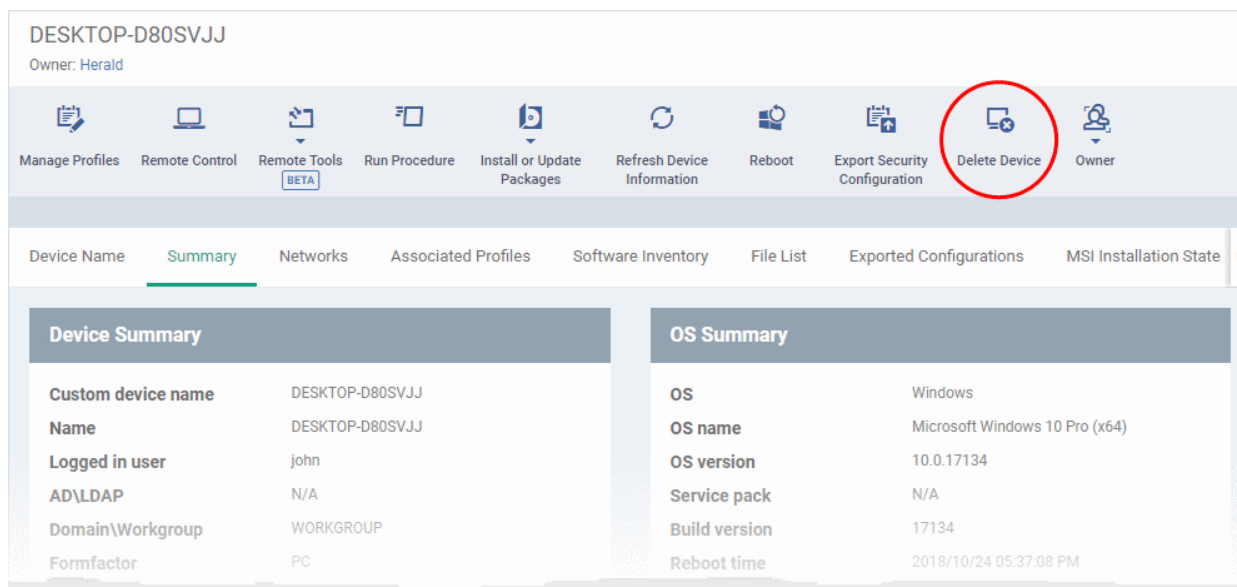


right and choose 'Delete Device' from the options.



Alternatively, you can remove a device from its device details interface.

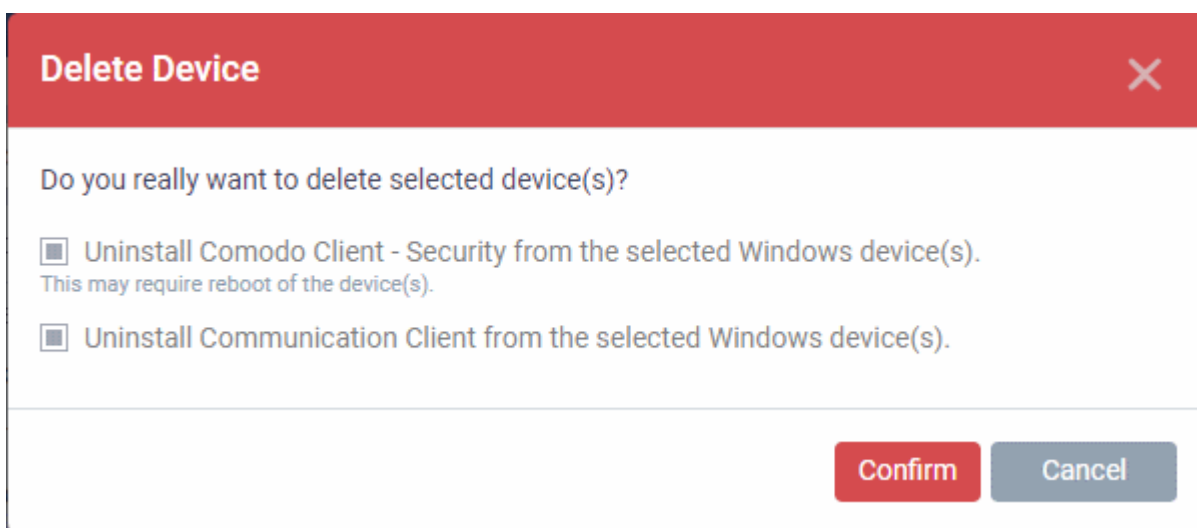
- Click 'Devices' and choose 'Device List'.
- Click on the name of the device to be removed to open the device details interface.



- Click 'Delete Device' from the options at the top. If 'Delete Device' is not available here, click 'More' at the top right and choose 'Delete Device' from the options.

The 'Delete Device' dialog will appear.

For Windows devices, you can choose to uninstall the communication client and/or the CCS software.



- Click 'Confirm' to remove the device from Endpoint Manager.

### To remove the communication client app from an Android device

- Navigate to 'Settings' > 'Apps' on the Android device
- Select 'Comodo Client'
- Tap the 'Uninstall' button.

The communication client app will be removed from the device.

### To remove the EM profile from an iOS device

- Navigate to 'Settings' > 'General' on the iOS device
- Select 'Profile' > 'Comodo Profiles' (certificate and EM)
- Tap the 'Remove' button.

The EM profile will be removed from the device.



## To remove the EM profile from Mac OS devices

- Navigate to 'Settings' > 'General' on the Mac OS endpoint.
- Select 'Profile' > 'Comodo Profiles' (certificate and Endpoint Manager)
- Click the 'Remove' button.

The Endpoint Manager profile will be removed from the device.

## To remove the communication client from Linux device

- Open the console terminal
- Enter the following command:  

```
$ sudo systemctl stop itsm && sudo systemctl disable itsm && sudo rm -f /etc/systemd/system/itsm.service && sudo rm -f /opt/COMODO.
```

## 5.2.8. Remote Management of Windows and Mac OS Devices

- Click 'Settings' > 'Portal Setup' > 'Extensions Management' to enable Remote Control for your account.

The 'Remote Control' feature lets you remotely access Windows and Mac OS devices to solve issues, install third party software and run system maintenance.

You can takeover Windows and Mac devices using the following tools:

- **Remote Control** - Windows and Mac OS devices. Recommended for most users.
- **Comodo Remote Monitoring and Management (RMM)** - Windows devices only. Legacy tool for Comodo RMM users.

### Remote Control

- You first need to install Remote Control (RC) on your admin computer:
  - Click 'Devices' > 'Bulk Installation Package'
  - Select the 'Remote Control by ITarian' tab
  - Choose the operating system of your admin machine
  - Click 'Download'
- Once installed, you can takeover devices:
  - By using the desktop application, or
  - From the EM console: 'Devices' > 'Device List' > 'Device Management' > select a device > click 'Remote Control'.
- You can select the location of the server nearest to your location for faster connection
- For an additional security, you can assign custom ports for use by remote connection protocols on the device. These can be configured in the 'Remote Control' component of the profile active on the device. For more details, see **Remote Control Settings** for Windows devices and **Remote control Settings for Mac OS Profile**.
- The viewer supports clip-board sharing between your computer and the managed device.
- You can also use key combinations such as 'Ctrl+Alt+Del', 'Alt+F4' and 'Ctrl+C' on the remote machine.
- If the managed endpoint has a multi-monitor setup, the viewer allows you to view individual monitors or all monitors at once.

See the following sections for more help:

- **Download and install the Remote Control Viewer**

- **Use the Desktop Application for Remote Control**

## Download and install the 'Remote Control' application

- Click 'Devices' > 'Bulk Installation Package' > Select the 'Remote Control by ITarian' tab > Choose the operating system of your admin machine > Click 'Download'.

**Tip:** Comodo One and ITarian customers - You can also download the remote control application from the Comodo One or ITarian portal.



- Click 'Tools' on the menu bar.
- Locate the 'Remote Control by ITarian' tile.
- Click 'Download'.
- Choose the operating system of your admin machine and click 'Download'.

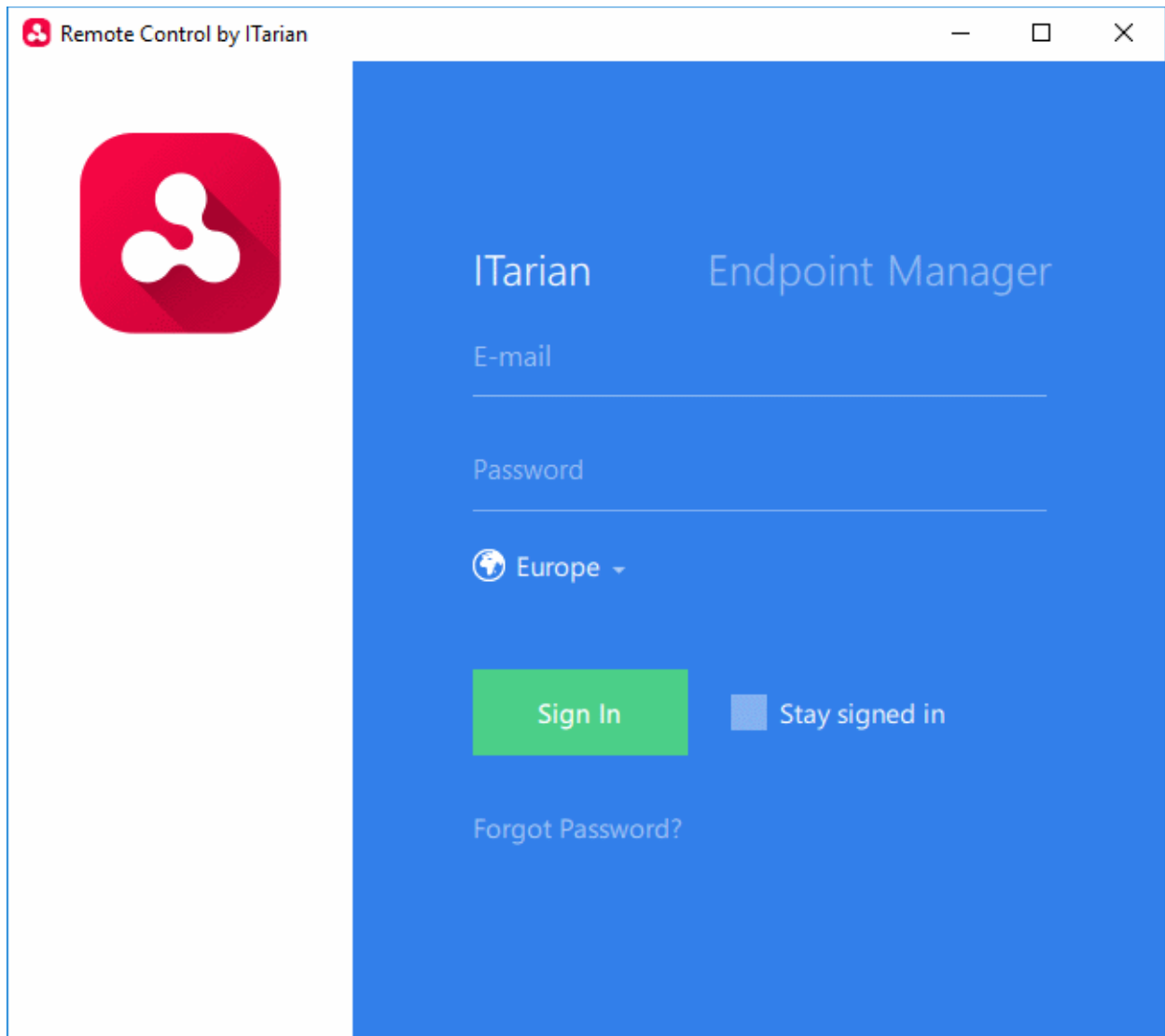
- See **Download Remote Control Tool** if you need any more help with this.

## Use the Desktop Application for Remote Control

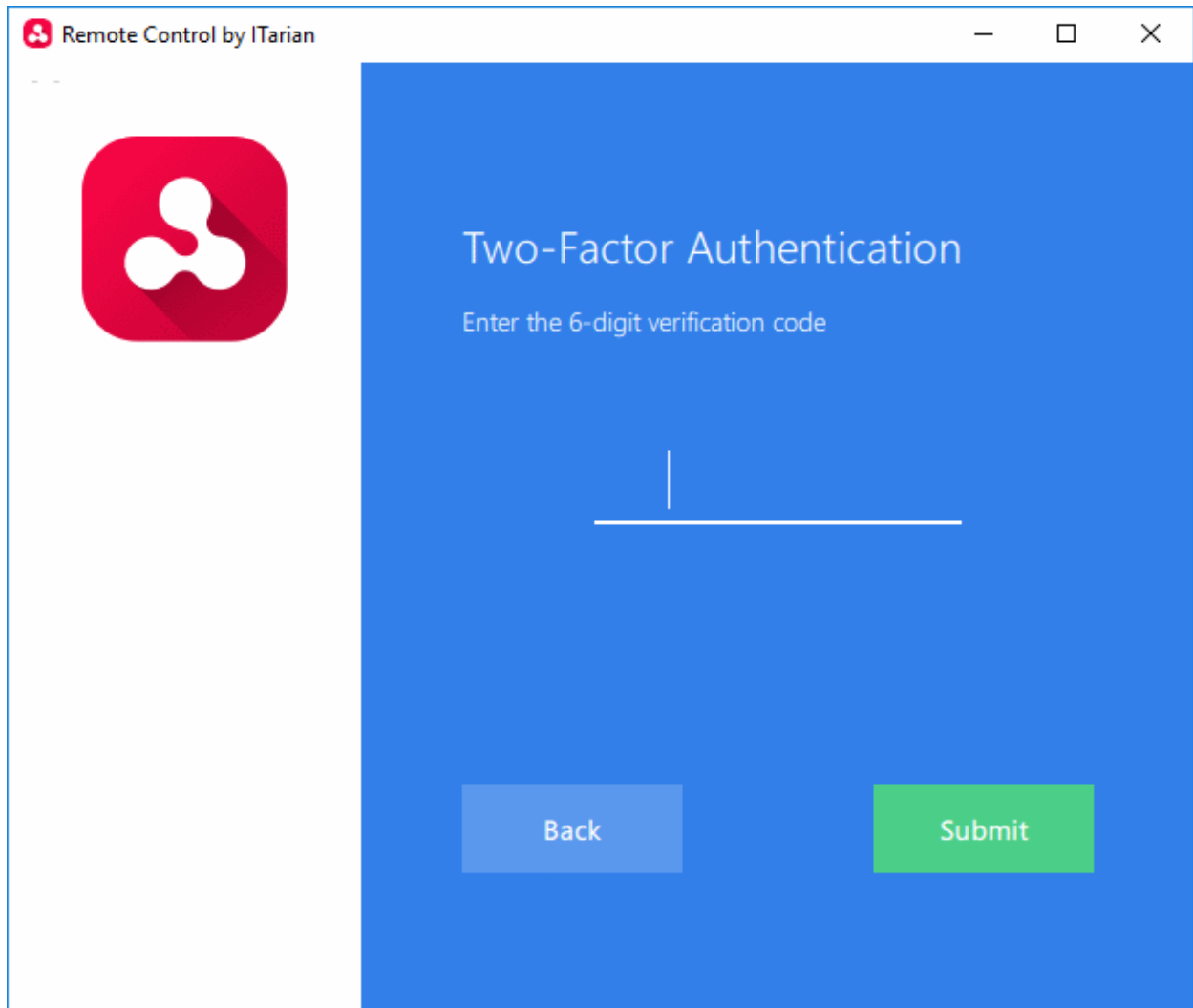
- Once installed, the remote control viewer can be launched from your desktop
- You can also take control direct from the EM interface:
  - Click 'Devices' > 'Device List' > 'Device Management' > select a Windows / Mac OS device > Click the 'Remote Control' button.

### To access the remote control viewer

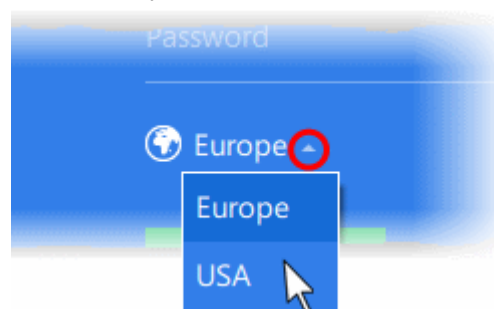
- Double click the desktop shortcut  or the system tray icon  to open the login screen:



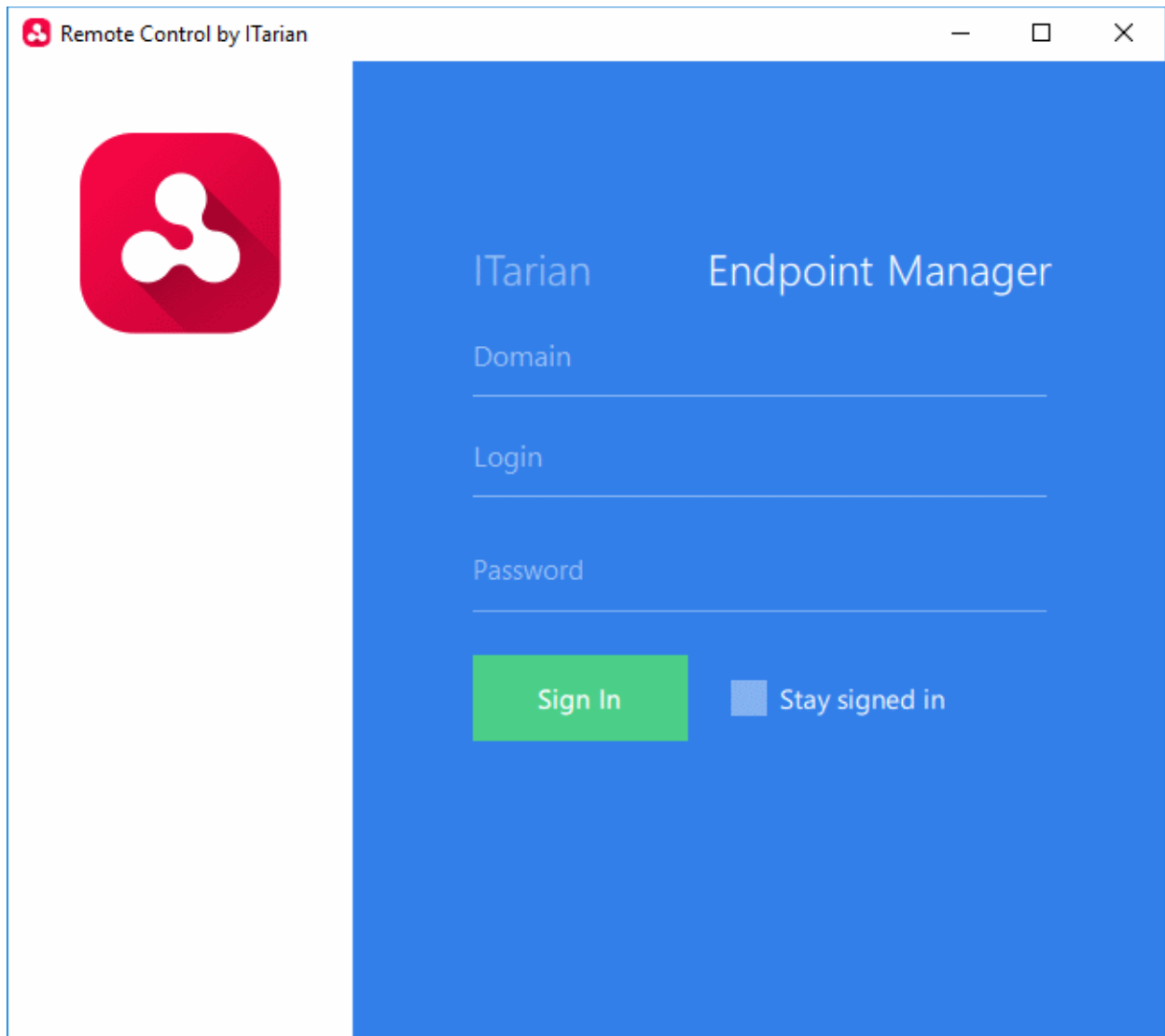
- **Comodo One and ITarian customers** - Click the 'ITarian' tab then login with your Comodo One / ITarian portal username and password
  - If 'Two-Factor Authentication' is enabled for your account, then you have to enter the authentication code generated in the 'Google Authenticator' app on your mobile device. [Click here](#) to find out how to configure two-factor login settings.



- Enter the code and click 'Submit'
  - The region selector allows you to choose the C1 or ITarian hosted service closest to your location. Select the location nearest to you for the best performance / fastest connection.



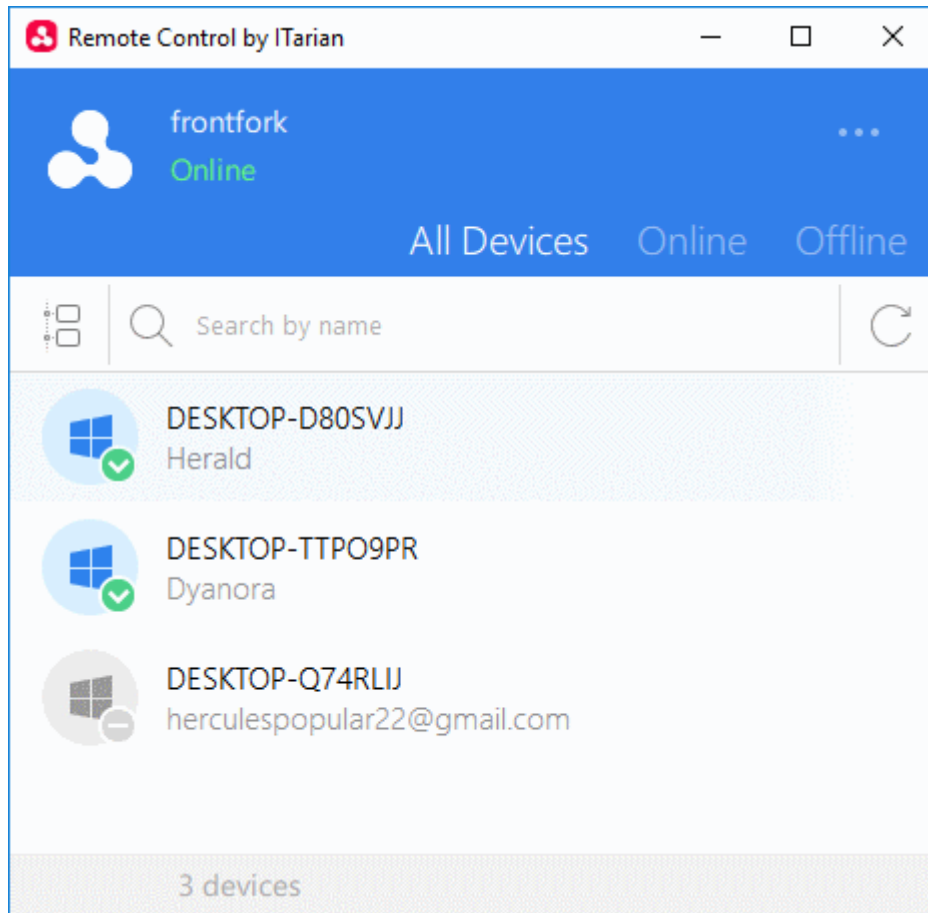
- Select 'Stay Signed in' if you want the RC application to store your login credentials. The application will not ask for your credentials to login in future.
  - Click 'Sign In'
- **Stand-alone Endpoint Manager customers** - Click the 'Endpoint Manager' tab then enter your Endpoint Manager URL and your login credentials. Your EM URL will use the format `https://<your company name>.cmdm.comodo.com`, where `<your company name>` is your EM company name.



- Select 'Stay Signed in' if you want the RC application to store your login credentials. The application will not ask for your credentials to login in future.
- Click 'Sign In'

**Tip:** The remote control application will save your login credentials even if you forget to enable 'Stay Signed in'.

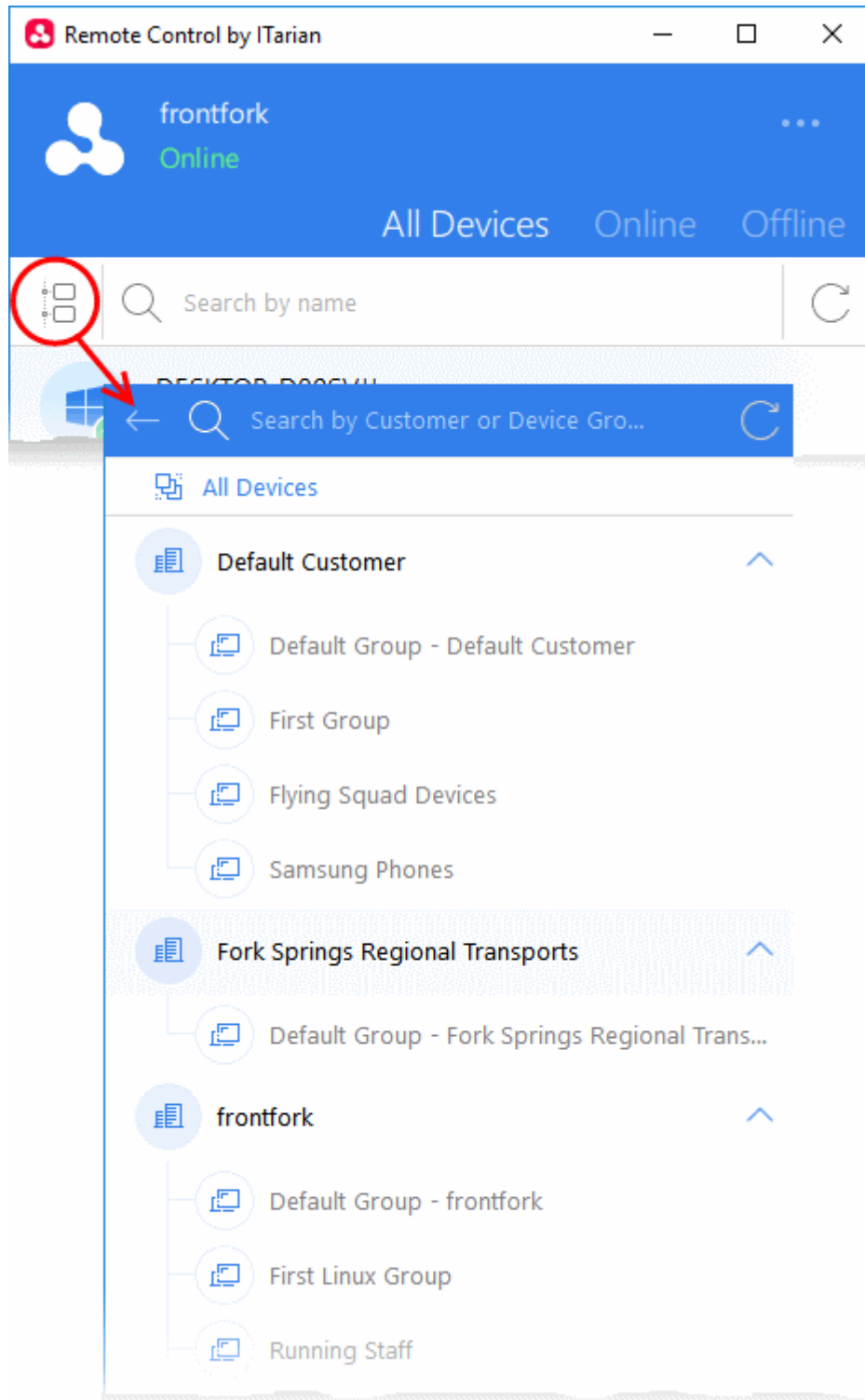
The viewer application will open with a list of enrolled Windows / Mac OS endpoints:




All devices are shown by default. You can filter by 'Online'/'Offline' status, or by 'Company'\ 'Group' (click the icon next the search box). You can also search individual devices by name. The next section contains more details:

### Search and Filter options


- Click the tree-structure icon on the left to search devices by Company/Group.



- Device groups are shown below each company's name.
- Use the search box to look for a specific company or group. Clear the search field to view all companies and groups.
- Click the refresh icon  to update the list with recently added companies/groups.
- Click a company name to view all device(s) belonging to the company.
- Click a device group to view all device(s) in the group.
- Click the arrow at the right of a company name to expand / collapse device groups list
- Click the back-arrow or 'All Devices' to view all again.

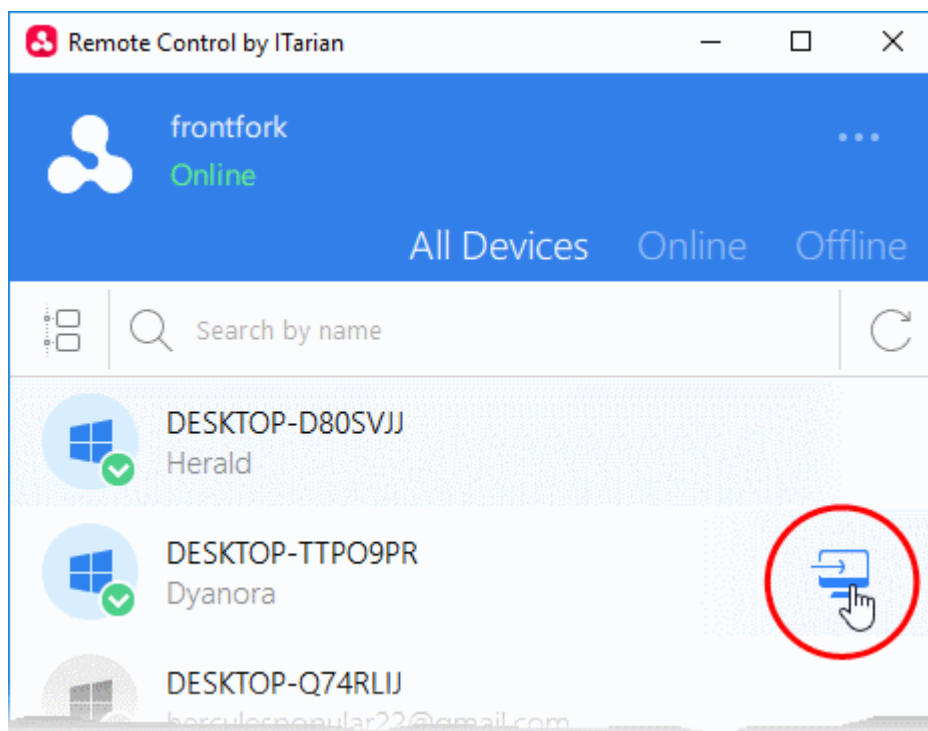


In the company / device group / all devices screen:

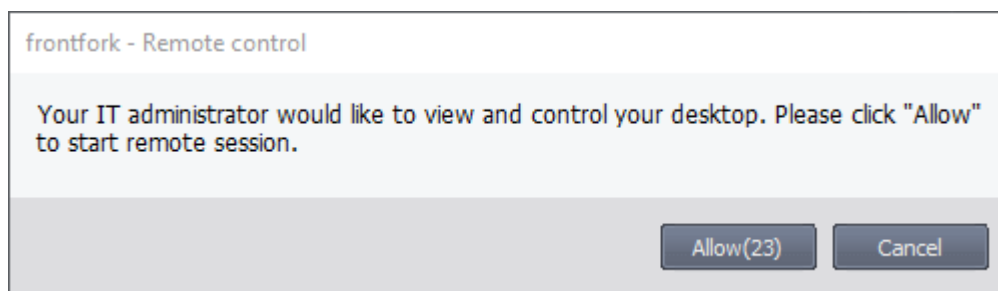
- To search for an endpoint, start typing its name in the search field and select from the suggestions
- To view an updated list of endpoints including those recently added, click the refresh icon 
- Use the 'Online' and 'Offline' tabs to filter the list based on endpoint connection status

### To remotely manage an endpoint

- Move your mouse over an endpoint and click the icon on the right:



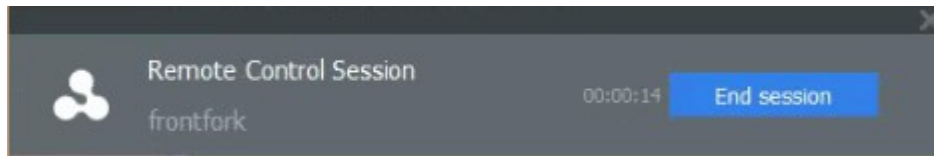
A request message will be shown to end-users if configured appropriately:



You have the following configuration options:

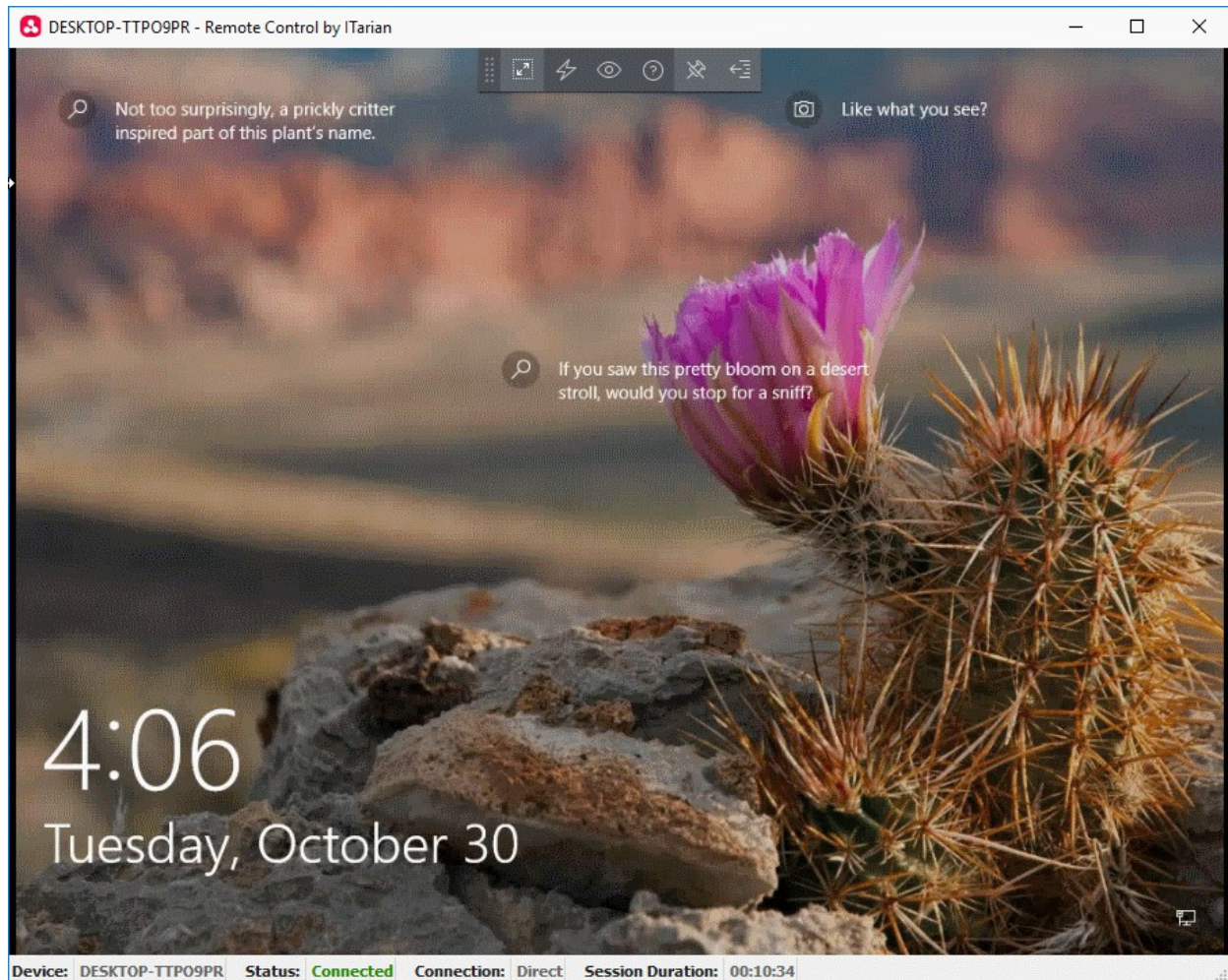
- You can take remote control of device without permission from the user
- You can ask for permission and take control if the user allows, or if the user does not respond within a certain time
- Disable remote control entirely
- See **Remote Control Settings** for more details.

Once the connection is established, a notification will appear on the endpoint stating that an administrator has taken control:



- The end-user can allow the session to continue or terminate it by clicking 'End session'.
- The message will be shown if the endpoint's profile is set to show the notification (in the 'Remote Control' section). See **Remote Control Settings** for more details.

The remote control application will show the desktop of the remote computer:

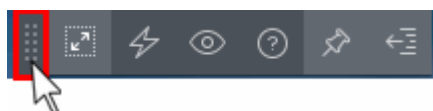


- You can now interact with the target device to perform tasks as required.
- The tool bar at the top of the client interface contains the following menus and settings:



Full Screen - The remote desktop will cover your entire display, without the operating system's window-framing interface.

- Click the same icon to exit full screen mode



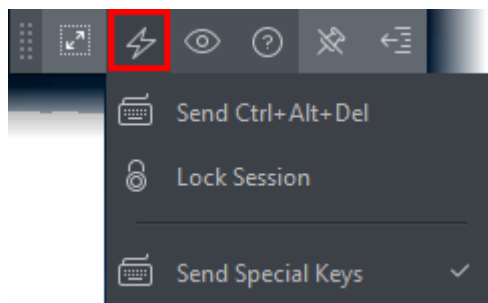
Position - Click and drag the tool bar to your preferred location.



Pin - Pin or unpin the tool bar to the title bar in full screen view.

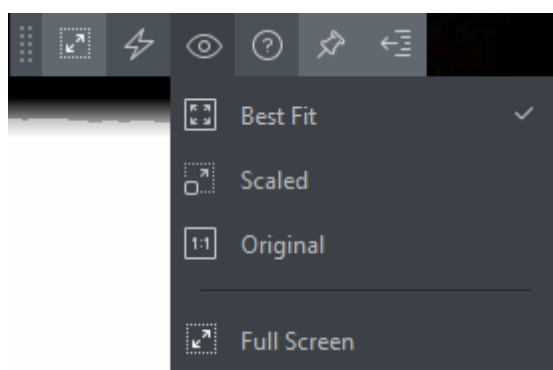


Minimize/Maximize - Show/hide tool bar options.



Actions - Send control commands to the endpoint.

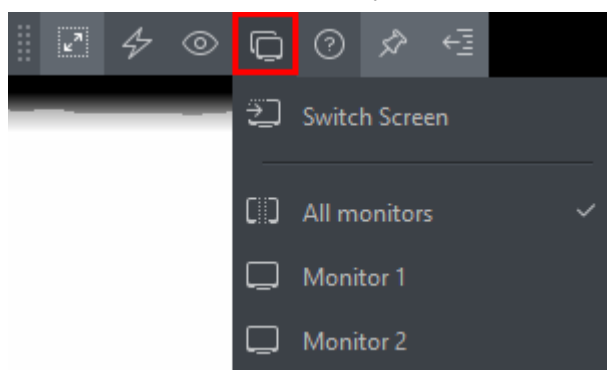
- **Send Ctrl + Alt + Del** - (Available only for Windows devices) Opens the Windows security screen. This allows you to lock the computer, log the current user out of the remote machine, change passwords, view the local task manager or shut down/restart/hibernate the machine.
- **Lock Session** - Locks the managed endpoint. A password will be required to unlock the endpoint.
- **Send Special Keys** - If enabled, allows you to send key combination commands such as Ctrl+C, Windows + R and so on.
  - The special key combinations are dependent on the operating systems of the local (admin) device and the managed remote device. See the [list of available special key combinations](#) given below.



View - Change the display size of the remote desktop. The available options are:

- **Best Fit** - Automatically adjusts the screen resolution for the best visual experience.
- **Scaled** - Displays the target desktop with the resolution of the admin computer
- **Original** - Displays the target desktop at its own resolution
- **Full screen** - Displays the remote desktop in full screen view

**Multi-Screen** - The multi-screen icon only appears if the target point endpoint has a multi-monitor setup. The drop-down shows all monitors connected to the endpoint and allows you to choose which to view.

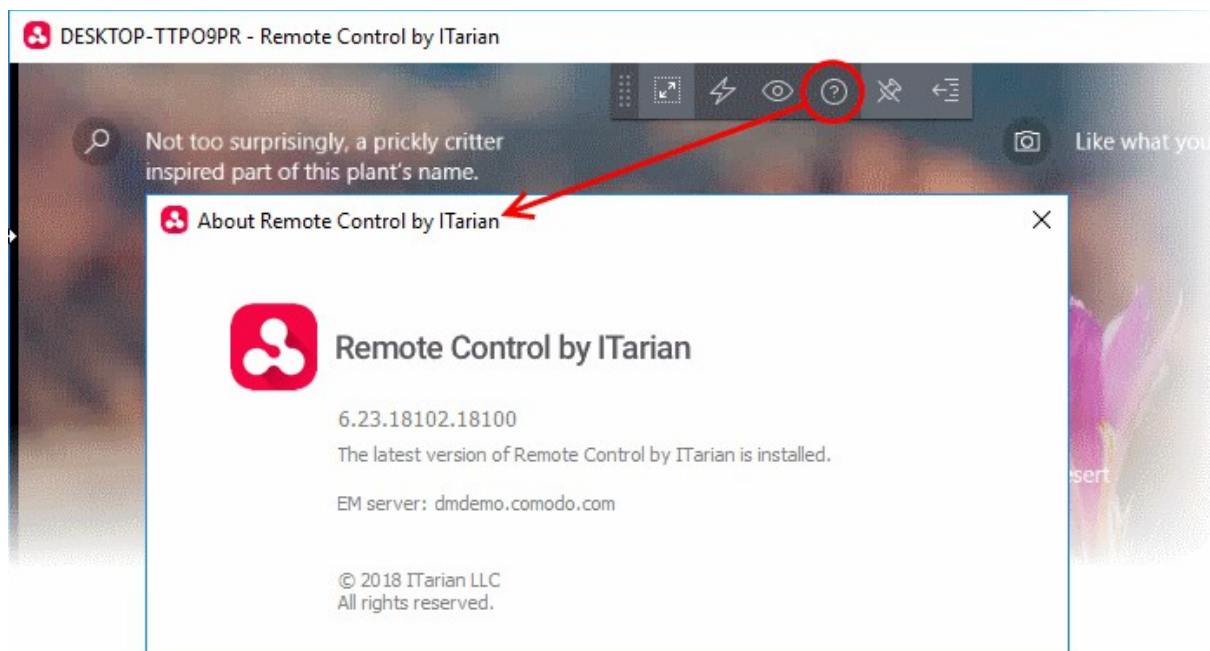


- Select 'Switch Screen' to move to the next screen on the list



- Select 'All Monitors' to view all connected screens simultaneously
- Select an individual monitor to view it in stand-alone mode

**Help** - Shows the 'About Remote Control' dialog which shows version number and copyright information.



## Available Special Key Combinations

Admin Device	Managed Remote Device	
	Windows	Mac OS
Windows	<p>'Windows' key is sent only to the remote device</p> <p>Shortcuts in combination with 'Windows' key are applied only to the remote device</p>	<p>'Windows'/'Command' key is sent only to the remote device. Exceptions:</p> <ul style="list-style-type: none"> <li>• Ctrl+Alt+Del</li> <li>• Win+L</li> </ul> <p>PRINT SCREEN and NUMLOCK are not sent to remote device</p> <p>NumPad digit keys always behave as arrow-keys on Mac OS</p> <p>'Context Menu' key is sent as zero scan code and appears as key 'a'.</p>
Mac OS	<p>All Shortcuts with 'Windows'/'Command' key are applied to the remote device, except 'Windows'/'Command' key+Esc</p> <p>Command+Tab - Switches between applications</p> <p>F11 - Shows desktop</p> <p>Ctrl +Up Arrow - Shows all Windows</p> <p>Ctrl+Down Arrow - Shows active application Window</p>	<p>If Apple is keyboard used:</p> <p>Media buttons (e.g. PLAY , STOP, MISSION CONTROL), POWER, EJECT keys and all system shortcuts with these keys are applied only to the local device.</p> <p>Shortcuts with COMMAND are applied to the remote device, except 'COMMAND' key+Esc</p> <ul style="list-style-type: none"> <li>• Command+Tab - Switches between</li> </ul>

	<p>applications</p> <ul style="list-style-type: none"> <li>• Ctrl +Up Arrow - Shows all Windows</li> <li>• Ctrl+Down Arrow - Shows active application Window</li> <li>• Fn+F11 - Shows desktop</li> <li>• Fn+F12 - Shows Dashboard or enable standard key in Keyboard settings</li> <li>• If non-Apple keyboard is used:</li> <li>• Shortcuts with WIN are applied to the remote device, except 'WIN' key+Esc</li> <li>• Command+Tab - Switches between applications</li> <li>• Ctrl +Up Arrow - Shows all Windows</li> <li>• Ctrl+Down Arrow - Shows active application Window</li> <li>• F11 - Shows desktop</li> <li>• F12 - Shows Dashboard</li> </ul>
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

- For a list of Keyboard Shortcuts in Windows, see <https://support.microsoft.com/en-us/help/12445/windows-keyboard-shortcuts>.
- For a list of Keyboard Shortcuts in Mac OS, see <https://support.apple.com/en-us/HT201236>.

### Use the RMM Console for Remote Control

Comodo's Remote Monitoring and Management (RMM) grants MSPs complete visibility and control over the systems they manage. C1 customers can use RMM to takeover Windows devices.

**Prerequisite** - You should have already installed the legacy RMM Technician Console on your admin computer and RMM plugins on the managed endpoints.

- Click 'Devices' > 'Device List' > 'Device Management' >
- Select a Windows device and click the 'Remote Control' button
- Select 'With RMM Plugin' from the drop-down
- See <https://help.comodo.com/topic-289-1-719-8569-Support-Sessions-Interface-%E2%80%93-An-Overview.html> for more details.

You can also open the RMM console on the system it is installed on and remotely manage all Windows devices enrolled to your account. Please note that you can open only one instance of RMM console at a time. For more details on using RMM, refer to its guide at <https://help.comodo.com/topic-289-1-719-8539-Introduction-to-Remote-Monitoring-and-Management-Module.html>.

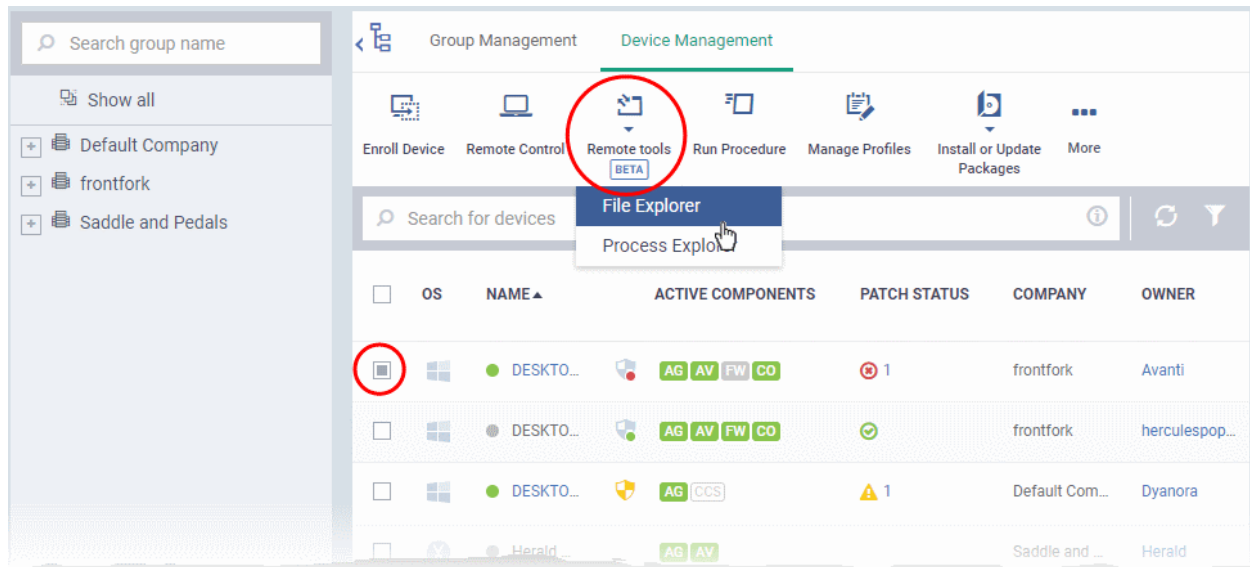
### 5.2.9. Remotely Browse Folders and Files on Windows Devices

- The 'File Explorer' interface lets you remotely access files/folders on any managed Windows device.
- You can also download files from the remote device to your computer.

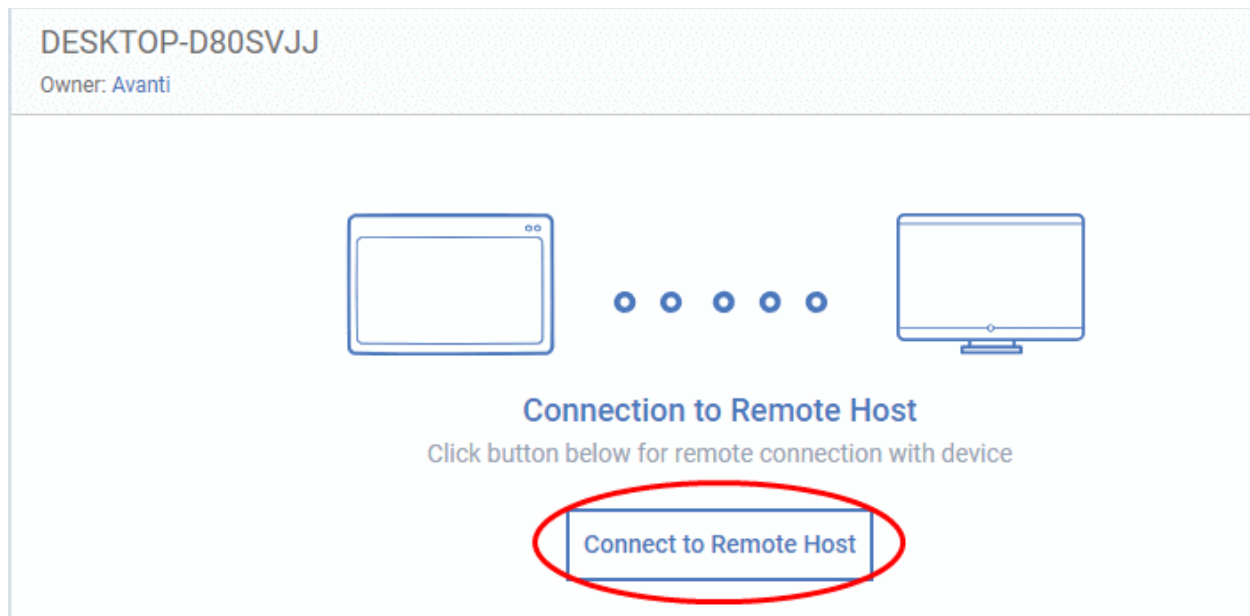
#### To view files on a managed Windows device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu

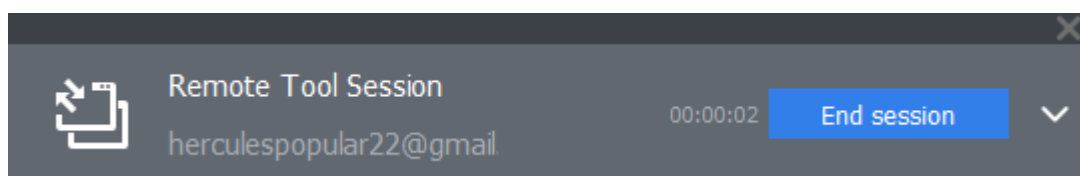
- Select a company or a group to view just their devices  
Or
- Select 'Show all' to view every device enrolled to Endpoint Manager
- Select the Windows device you want to view
- Click 'Remote Tools' then choose 'File Explorer' from the options



- Alternatively, click the name of the device to open 'Device Details' > select 'Remote Tools' > 'File Explorer' from the options at the top.

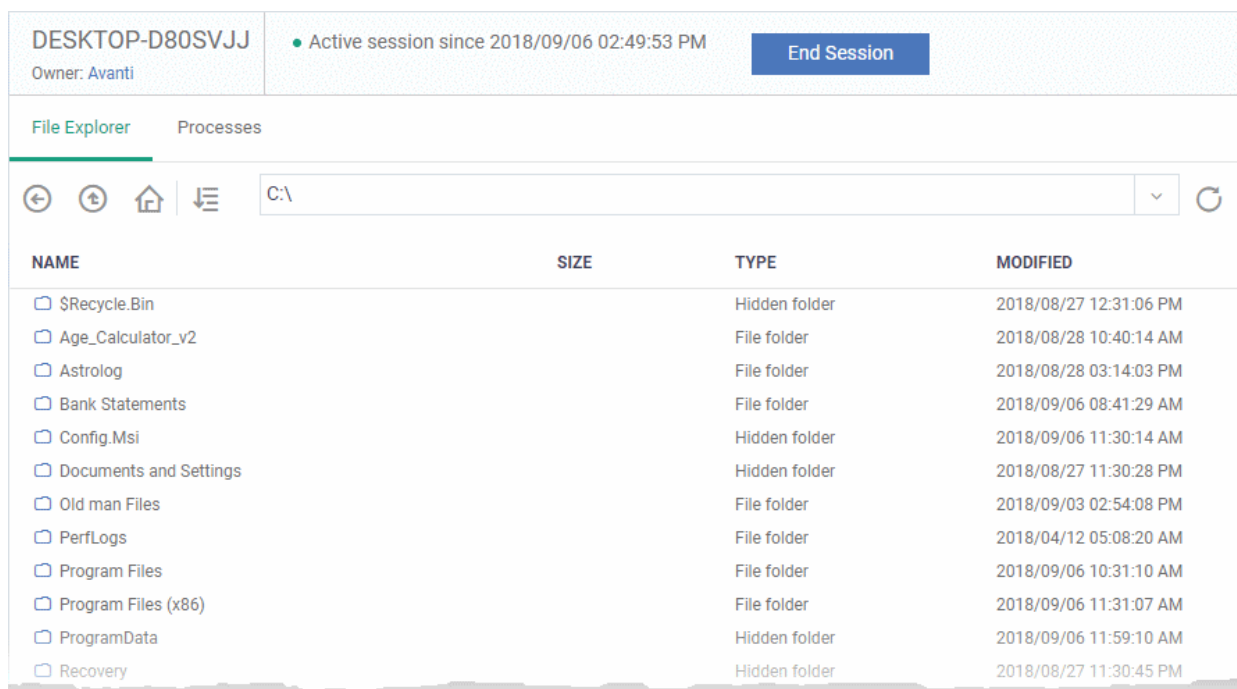


- Click 'Connect to Remote Host' in the confirmation screen to establish the connection.
- Once the connection is established, the user will be shown a notification.



- The user can terminate the session by clicking the 'End session' button.






The 'File Explorer' interface for the selected device will appear:



- Select the drive/partition on the selected remote device from the drop-down at the top
- The folders and the files, including the hidden items in the selected drive/partition will be shown in list view, inside the file explorer pane
- You can browse through any selected path by double-clicking on the folder

**Tip** - You can directly enter a folder path in the field at the top of the interface.

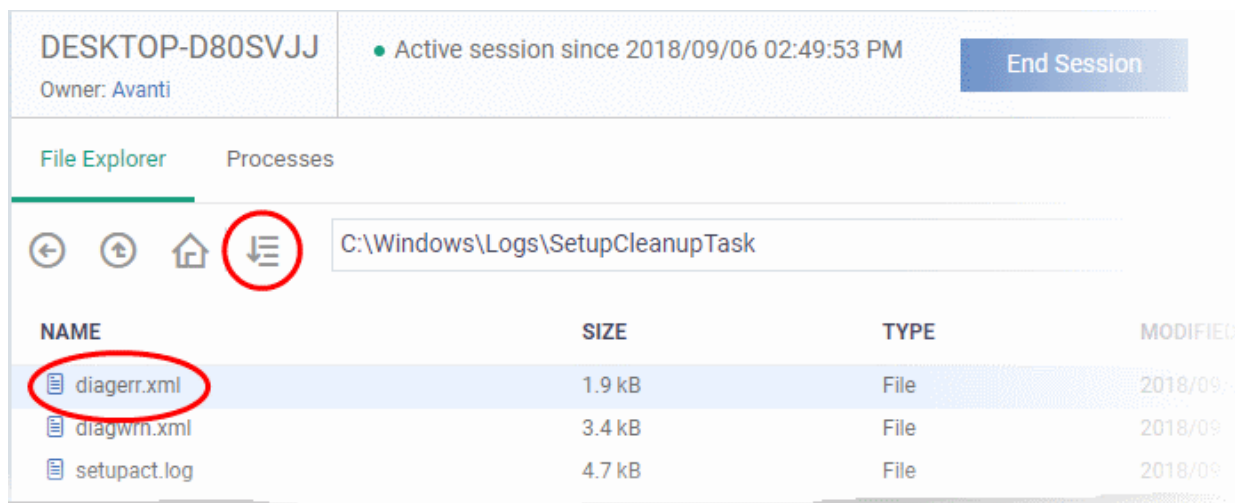
- The controls at the top let you to navigate through the folders and download selected folder/file to your computer.


-  - Returns to previous file path
-  - Returns to one level up folder path
-  - Takes you to root folder of the selected drive/partition
-  - Lets you to download the selected folder/file to your computer. See **Download Files from Remote Device** to your Computer for more details.
-  - Refreshes the contents of the displayed folder.

## Download Files from Remote Device to your Computer

- Navigate to the path of the folder to be downloaded
- Select the file

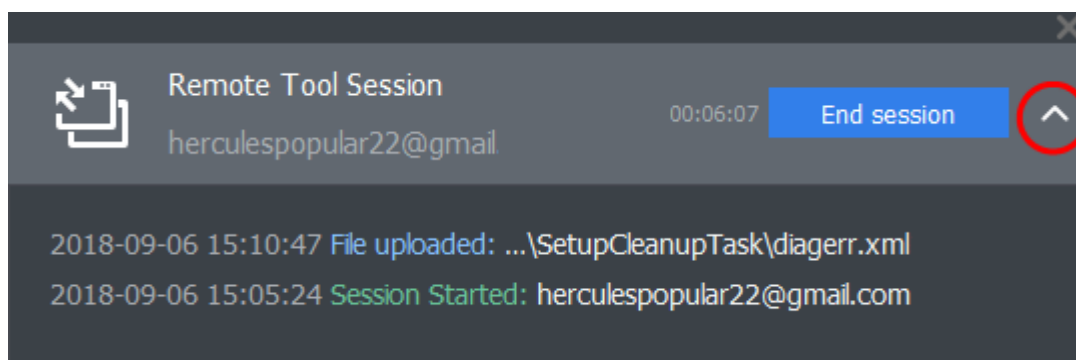




- Click the download icon 
- The file will be downloaded.

**Note:** Only files of size up to 50 MB can be downloaded

The device user can view your file activities by clicking the down arrow in the notification.



- To close the remote browsing session, click the 'End Session' button at the top.

Endpoint Manager logs your remote browsing sessions and file activities on the managed Windows computers. You can view the logs from the 'Dashboard' > 'Audit Logs' interface. See **Audit Logs** in **The Dashboard** for more details.

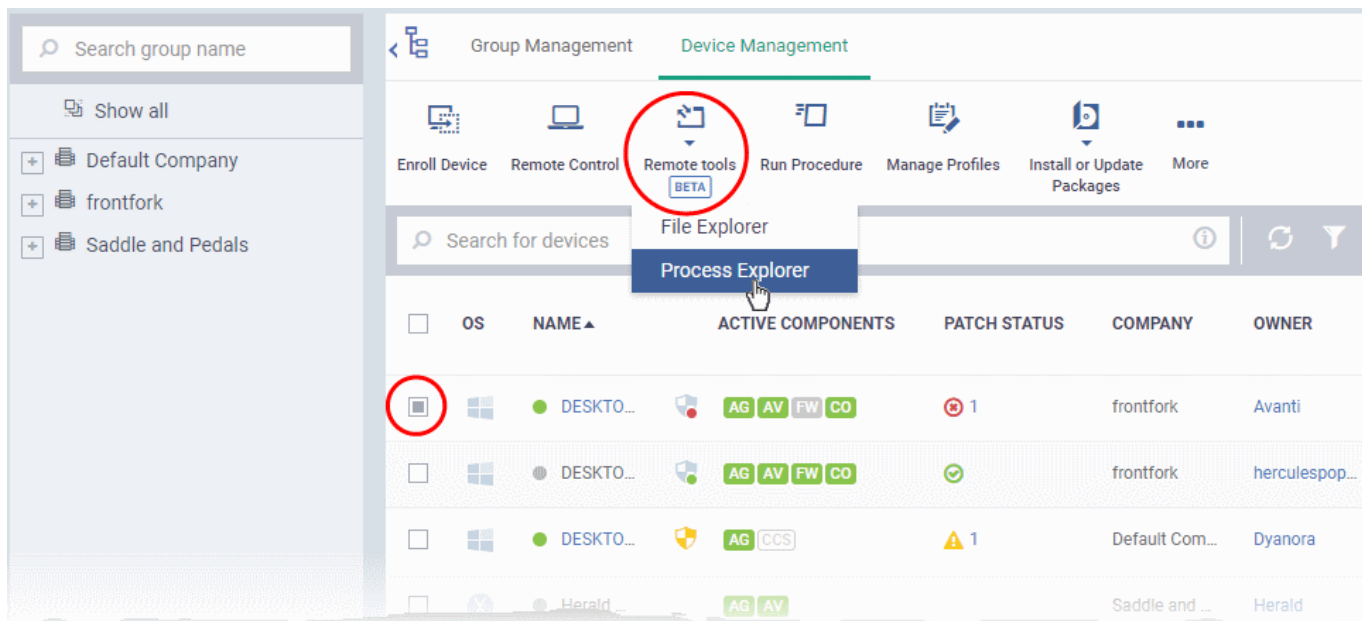
## 5.2.10. Remotely View and Manage Processes Running on Windows Devices

- The 'Processes' interface lets you remotely view running processes on any managed Windows device.
- You can also terminate any unwanted processes.

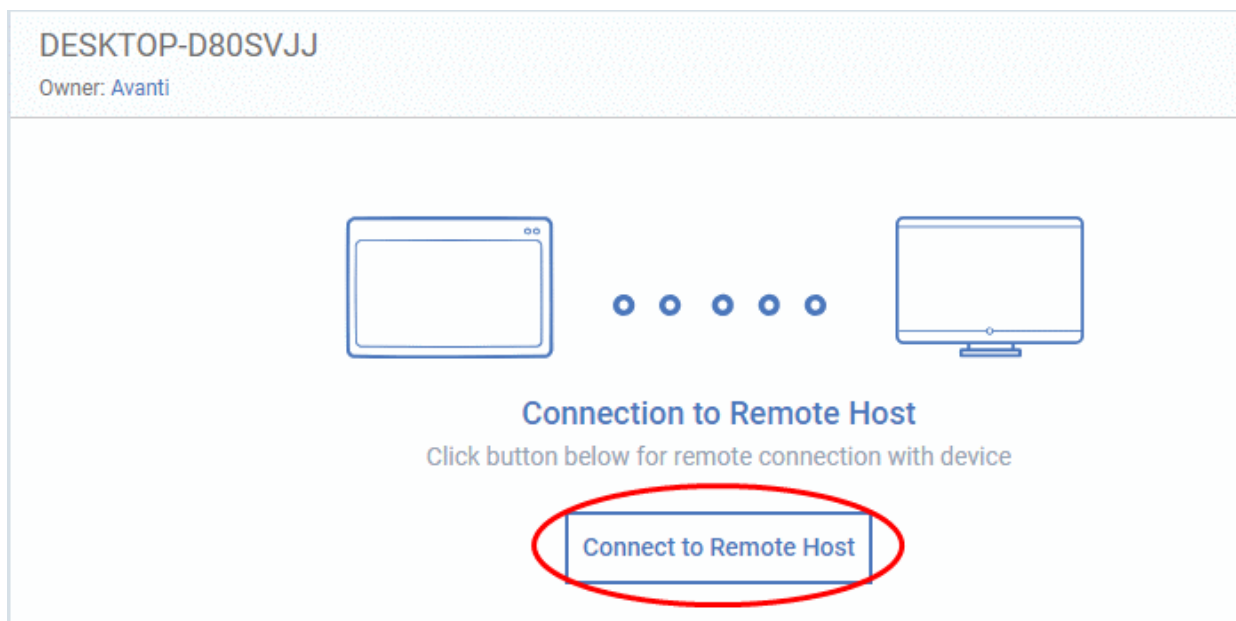
### View running processes on a managed Windows device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devicesOr
  - Select 'Show all' to view every device enrolled to EM

- Select the target Windows device
- Click 'Remote Tools' > 'Process Explorer':




- Click 'Connect to Remote Host' to establish the connection:



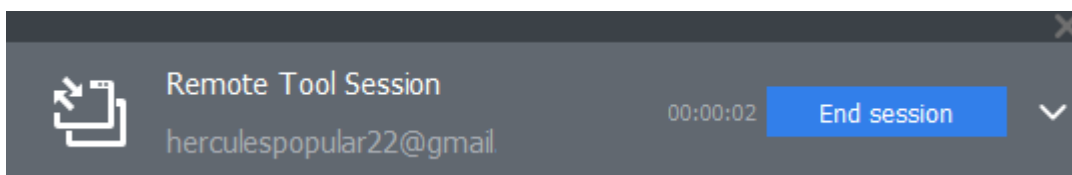
Once connected, all running processes on the device are shown in the EM interface:

The screenshot shows the 'Processes' tab in the Endpoint Manager interface. At the top, it displays the session ID 'DESKTOP-D80SVJJ', the owner 'Avanti', and the session status 'Active session since 2018/10/17 04:10:13 PM' with an 'End Session' button. Below this, there are tabs for 'File Explorer' and 'Processes'. A toolbar includes an 'End process' button and a 'Real-Time Auto Update' checkbox. A search bar is present above a table of running processes. The table has columns for App/Process, Account, PID, Status, CPU, Memory, Disk, Network, GPU, and Start Time. Several processes are listed, including ApplicationFrameHost, Astrolog, audiodg, backgroundTaskHost, and browser\_broker.

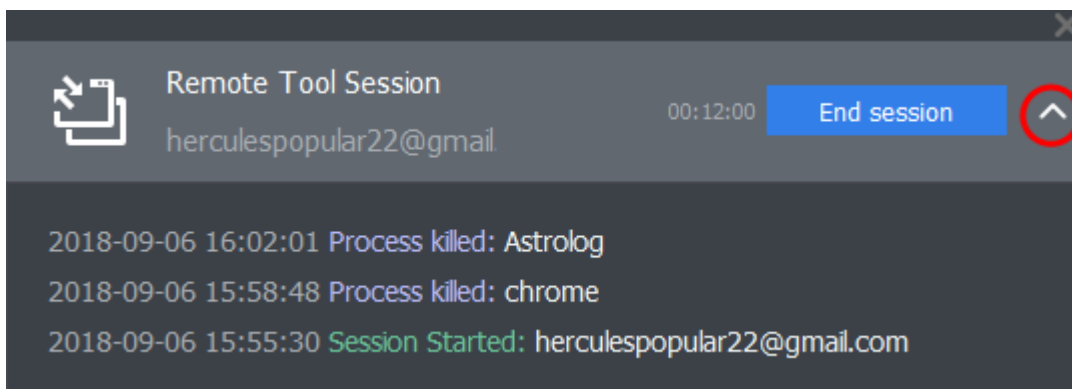
- Use the  button at top-right to toggle between flat list and tree list views
- Click the funnel icon to filter processes by various criteria
- Click the right arrow beside a process name to view its child-processes.
- Terminate running processes by selecting them then clicking the 'End Process' button
- 'Real Time Auto-Update' - gets the latest information about a process from an endpoint every few seconds

Processes - Column Descriptions	
Column Header	Descriptions
App/Process	The label of the process or the parent application that triggered the process.
Account	The user account with which the process the running. The system access privileges for the process are limited by the user account.
PID	The process identification number.
Status	Whether the process is running or suspended.
CPU Memory Disk Network GPU	Indicates the resource usage of the respective hardware/connection bandwidth by the process.
Start time	The date and time the process commenced.

- The following notification is shown on the endpoint while you are connected:



- The endpoint user can view your activities by clicking the arrow on the left:



## 5.2.11. Apply Procedures to Windows Devices

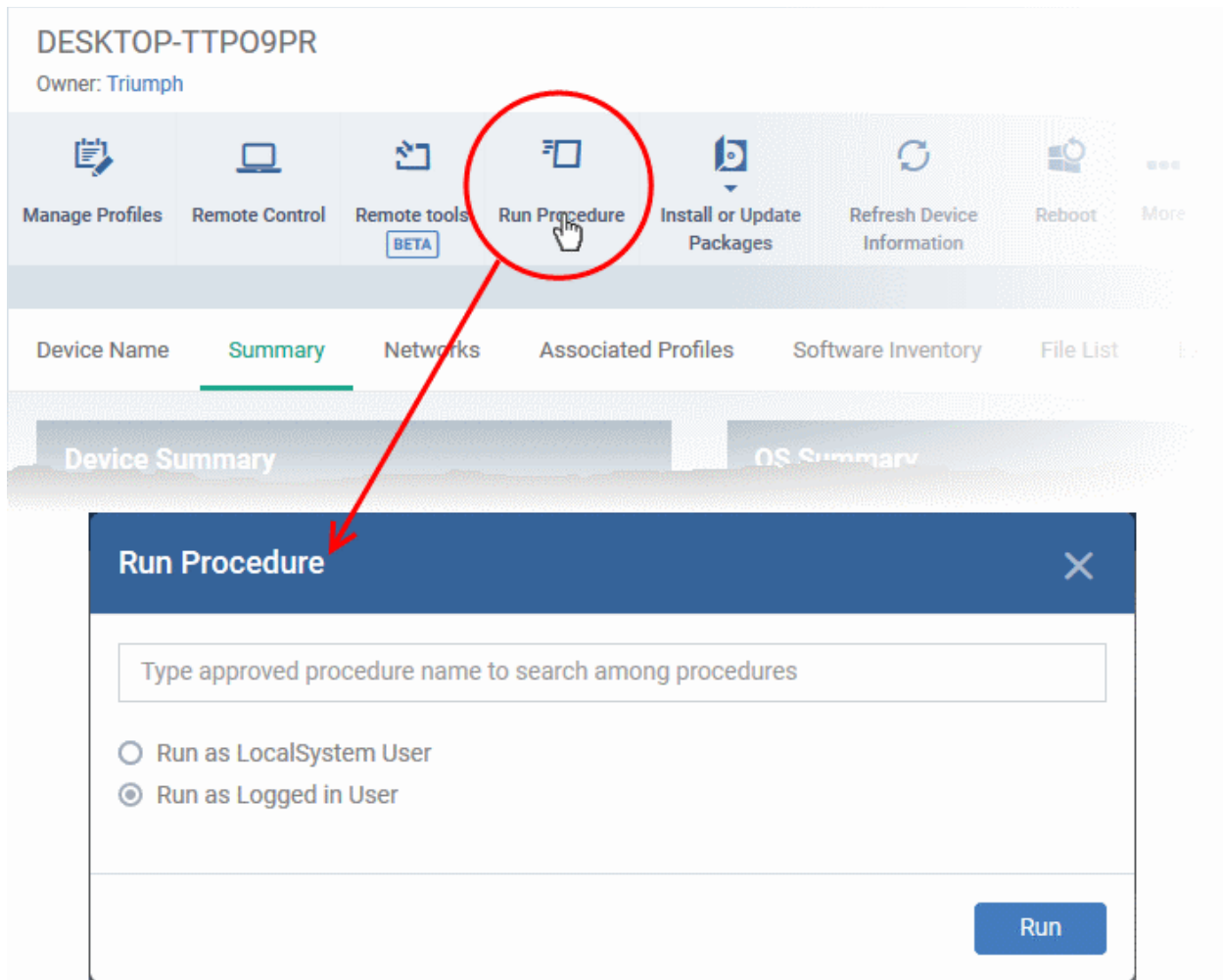
- Procedures are instruction sets designed to accomplish a specific task on target devices. There are two types - script procedures and patch procedures.
- Procedures can be run on single or multiple devices from the 'Devices' > 'Device List' screen.
  - You can also run them on an ad-hoc basis in 'Configuration Templates' > 'Procedures', or by adding them to a profile.
  - See **Directly Apply Procedures to Devices** and **Procedure Settings** for details about these methods.

This section explains how to run procedures from the 'Device Management' interface.

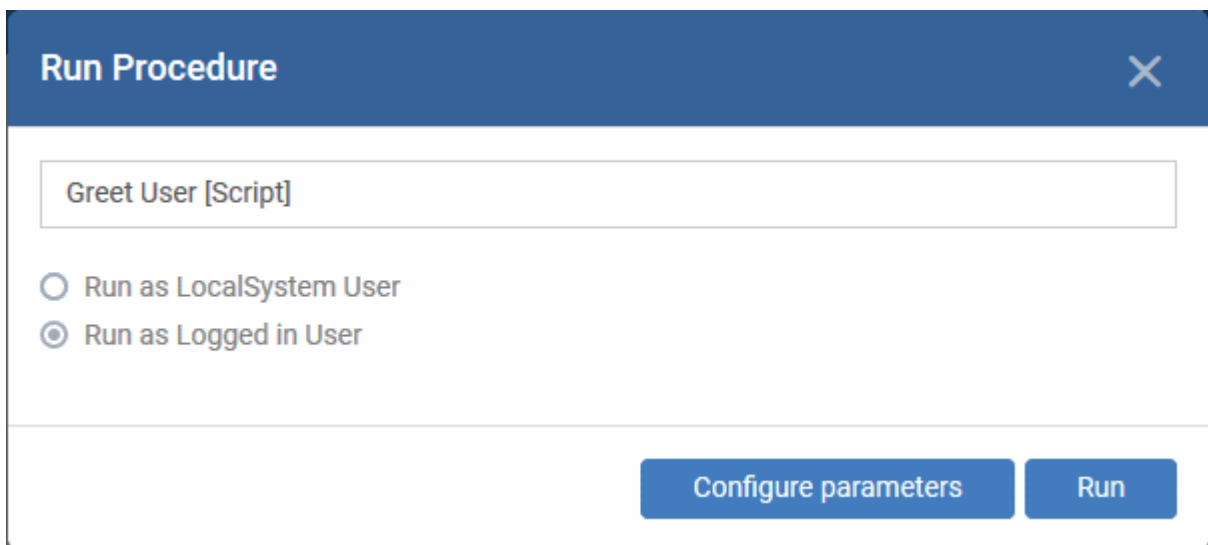
- **Apply procedures on a single device**
- **Apply procedures on multiple devices at once**

### To run a procedure on a single device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device enrolled to EM
- Select the target Windows device and click 'Run Procedure' on the top
- Or
- Click the name of a device to open its details page.
- Click 'Run Procedure' from the options at the top (or click 'More...' and choose 'Run Procedure' from the options)



- Type the first few characters of the name of the procedure in the 'Choose Procedure' text box. Select the procedure you want to apply from the search suggestions. Only one procedure can be run at a time. Please note only **approved** procedures will be listed.



- **Run as Local System User / Run as Logged in user** - Choose the user account with which the procedure has to be run on the device based on the access rights required for the procedure. Please note this option will not be available for a patch procedure.
- **Configure parameters** - Available only for script procedures defined with variable parameters and allows you to enter the values for them.

## To specify values for variable parameters

- Click 'Configure Parameters'

**Procedure parameters**

**Message (Data Type: String)**

Use default value

Hi, How are you?

**Title (Data Type: String)**

Use default value

Message from Administartor

Close Apply

A list of variable parameters will appear with their default values pre-populated.

- Enter the value for each parameter in the appropriate text box
- Select 'Use default value' if you want the default value to be applied for a parameter,
- Click 'Apply'

**Tip:** You can skip this step if you want to use default values for all parameters. For more info on default values, see [Create a Custom Procedure](#).

- Click the 'Run' button in the 'Run Procedure' dialog.

The command will be sent to the device and the selected procedure run. An alert will be generated if the procedure fails (presuming alerts have been configured). The process will be logged. You can view the procedure execution logs in two ways:

- From 'Device Logs' interface:
  - Click 'Devices' > 'Device List' > 'Device Management'
  - Click the device name to open its 'Device Details' interface
  - Select the 'Logs' tab and select 'Script Logs', 'Patch Logs' or 'Third Party Patch logs' depending on the type of the procedure
  - See [View Device Logs](#) for more details.
- From the 'Procedures' interface
  - Click 'Configuration Templates' > 'Procedures'
  - Click the name of the procedure to open the procedure configuration interface
  - Select the 'Execution Log' tab
  - See [View Procedure Results](#) for more details.

## To run a procedure on multiple devices at once

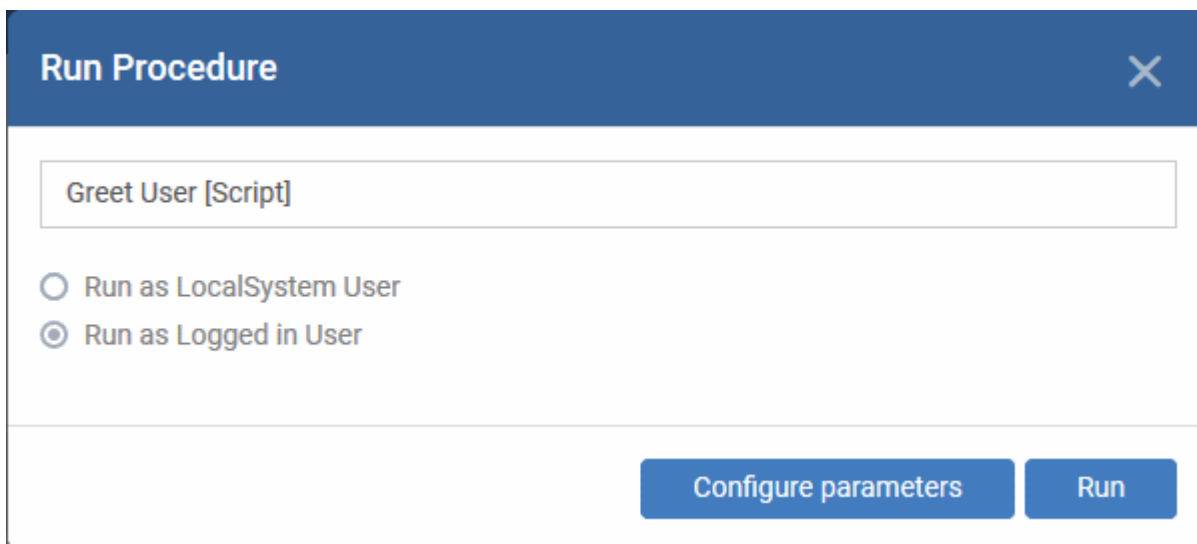
- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device enrolled to EM
- Select the Windows devices on which you want to run a procedure
- Click 'Run Procedure'. ( or click 'More...' and choose 'Run Procedure' from the options)

The screenshot shows the 'Device Management' section of the Endpoint Manager interface. The 'Run Procedure' button is circled in red. Below it, a modal dialog box titled 'Run Procedure' is open, showing a search box for procedure names and two radio button options: 'Run as LocalSystem User' and 'Run as Logged in User'. A 'Run' button is at the bottom right of the dialog.

	OS	NAME ▲	ACTIVE COMPONENTS	PATCH STATUS	COMPANY	OWNER
<input type="checkbox"/>	Windows	DESKTOP-T...	AG AV FW CO	✓	Saddle and Ped...	Triu...
<input type="checkbox"/>	Windows	DESKTOP-...	AG AV FW CO	✓	Saddle and Ped...	Imp...
<input type="checkbox"/>	Android	LENOVO_Le...	AG AV		Saddle and Ped...	Ava...

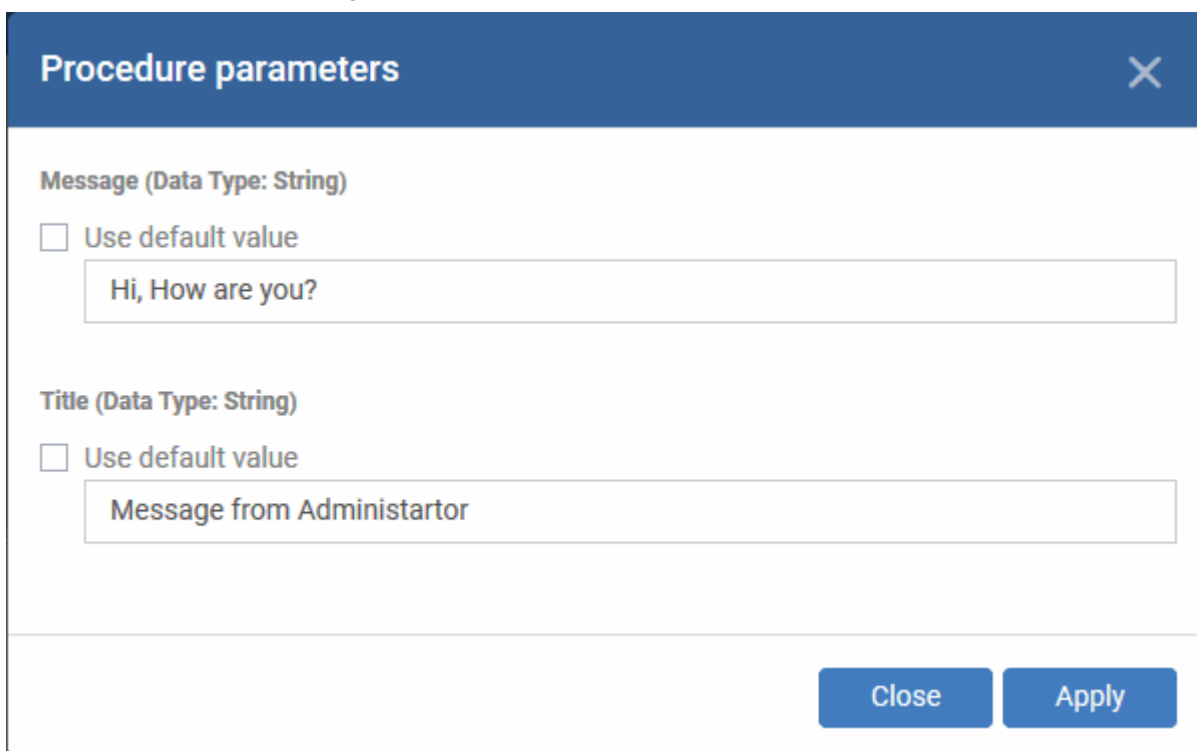
- Type the first few characters of the name of the procedure in the 'Choose Procedure' text box. Select the procedure you want to apply from the search suggestions. Only one procedure can be run at a time. Please note only **approved** procedures will be listed.





The 'Run Procedure' dialog box has a blue header with the title 'Run Procedure' and a close button (X). Below the header is a text input field containing 'Greet User [Script]'. Underneath are two radio button options: 'Run as LocalSystem User' and 'Run as Logged in User', with the latter selected. At the bottom right, there are two blue buttons: 'Configure parameters' and 'Run'.

- **Run as Local System User / Run as Logged in user** - Choose the user account with which the procedure has to be run on the device based on the access rights required for the procedure. Please note this option will not be available for a patch procedure.
- **Configure parameters** - Applicable only for script procedures defined with variable parameters and allows you to enter the values for them.  
**To specify values for variable parameters**
  - Click 'Configure Parameters'



The 'Procedure parameters' dialog box has a blue header with the title 'Procedure parameters' and a close button (X). It contains two sections. The first section is 'Message (Data Type: String)' with a checkbox 'Use default value' and a text input field containing 'Hi, How are you?'. The second section is 'Title (Data Type: String)' with a checkbox 'Use default value' and a text input field containing 'Message from Administrartor'. At the bottom right, there are two blue buttons: 'Close' and 'Apply'.

The list of variable parameters will appear with their default values pre-populated in their respective text fields

- Enter the value for each parameter in the respective text box
- Select 'Use default value' if you want the default value to be applied for a parameter,
- Click 'Apply'

**Tip:** You can skip this step If you want to use default values for all parameters. For more info on default values, see

## Create a Custom Procedure.

- Click the 'Run' button in the 'Run Procedure' dialog.

The command will be sent to the devices and the selected procedure will be run on them. An alert will be generated if the procedure fails (presuming alerts have been configured). The process will be logged. You can view the procedure execution logs in two ways:

- From 'Device Logs' interface:
  - Click 'Devices' > 'Device List' > 'Device Management'
  - Click the name of a device on which the procedure was run, to open its 'Device Details' interface
  - Select the 'Logs' tab and select 'Script Logs', 'Patch Logs' or 'Third Party Patch logs' depending on the type of the procedure
  - See **View Device Logs** for more details.
- From the 'Procedures' interface
  - Click 'Configuration Templates' > 'Procedures'
  - Click the name of the procedure to open the procedure configuration interface
  - Select the 'Execution Log' tab
  - See **View Procedure Results** for more details.

## 5.2.12. Remotely Install and Update Packages on Windows Devices

The 'Device Management' screen lets you install/update Comodo applications and third-party packages on managed Windows endpoints. You have the following options:

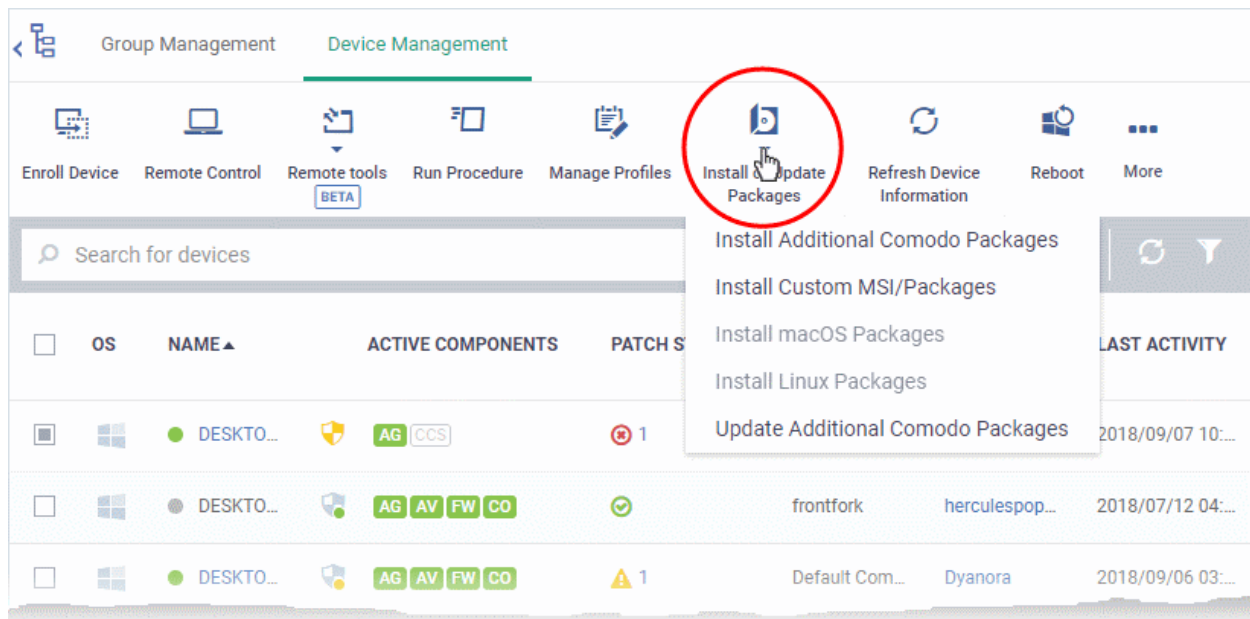
- Additional Comodo Packages - Install Comodo Client Security (CCS).
- Custom MSI/Packages - Install a package of your choice by specifying the URL of the package.
- Update Additional Comodo Packages - Install the latest versions of CCS and/or the communication client.

In both cases you can choose the following installation options:

- Force reboot after 5, 10, 15 or 30 minutes
- Suppress the reboot entirely
- Warn the end-user about the reboot and allow them to postpone it. You can also send a message to the end-user.

### To install MSI / EM packages

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top menu
  - Select a company or a group to view just their devicesOr
  - Select 'Show all' to view every device in EM
- Select your target Windows devices using the check-boxes on the left
- Click 'Install or Update Packages':



- Alternatively, click on the name of the device > select 'Install or Update Packages'.

The drop-down contains the following options:

- **Install Additional Comodo Packages**
- **Update Additional Comodo Packages**
- **Install Custom MSI/Packages**

**Tip:** You can remotely install CCS on a Windows endpoint by clicking the shield icon  next to the device name.

## To install EM packages

- Select 'Install Additional Comodo packages' from the 'Install or Update Packages' drop-down.

**Note:**

- The packages must be enabled in 'Extensions Management' to appear in this screen.
- Click 'Settings' > 'Portal Set-up' > 'Extensions Management' to enable or disable packages.
- See '**Manage Endpoint Manager Extensions**' if you wish to read more about extensions.

**Install Additional Comodo Packages** ✕

Install Comodo Client - Security

**Reboot options**

Force the reboot in

5 minutes
▼

Suppress the reboot ❗

Warn about the reboot and let users postpone it

**Reboot message**

Your device will reboot in 5 minutes because it's required by your administrator

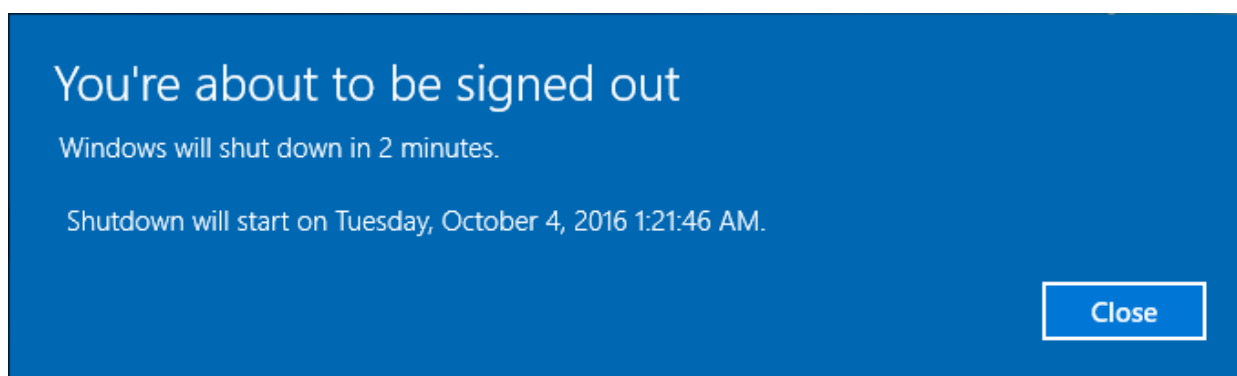
Install

- **Install Comodo Client - Security** - Available for endpoints that do not have CCS installed. CCS is a complete endpoint security suite which features a powerful antivirus, enterprise class firewall, advanced host intrusion prevention and automatic containment of unknown files. You can configure which CCS components are installed by applying a configuration profile.

CCS requires the endpoint to be restarted in order for the installation to take effect. You have the following reboot options:

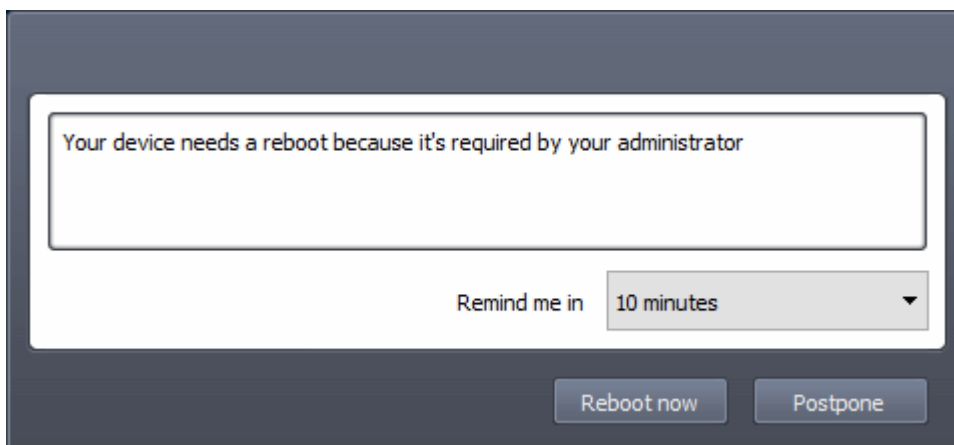
- **'Force the reboot in...'** - restart the end-point a certain period of time after installation. Choice of 5, 10, 15 or 30 minutes

The following message will be displayed on the device:



The device will be restarted automatically when the time period elapses.

- **'Suppress the reboot'** - Do not restart the machine after installation. CCS will only become fully functional after the device is restarted.
- **'Warn about the reboot and let users postpone it'** - Show an alert to the user which advises them that their computer needs to be restarted. You can enter a custom message which is shown to the user:



Users can restart the endpoint immediately by clicking 'Reboot now', or postpone it by picking a time in the 'Remind me in' drop-down.

Note: the CCS components which are active depends on the profile applied to the device. Components include firewall, antivirus, auto-containment, HIPS, Valkyrie and more.

- Click 'Devices' > 'Device List' > click device name > 'Associated Profiles', to see the profiles active on a device.
- Click 'Configuration Templates' > 'Profiles' to view and configure profiles
- See **View and Manage Profiles Associated with a Device**, **Assign Configuration Profile(s) to a User's Devices**, **Assign Configuration Profiles to a User Group** and **Assign Configuration Profiles to a Device Group** for help with profiles.

### Update EM Packages

- Select 'Update Additional Comodo packages' from the 'Install or Update Packages' drop-down
- The 'Update Additional Comodo packages' dialog lists all packages with available updates:

**Update Additional Packages** ✕

Update Communication Client ?

Update Comodo Client - Security ?

**Reboot options**

Force the reboot in (if required by CCS)

5 minutes ▼

Suppress the reboot i

Warn about the reboot and let users postpone it (if required by CCS)

**Reboot message**

Enter a message that the device owner will get before the reboot

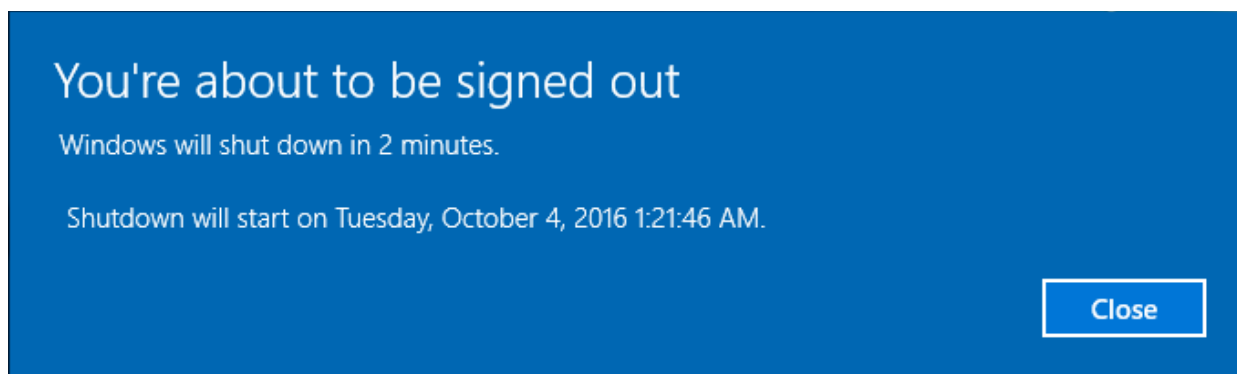
Update

- **Update Communication Client** - Only available for devices with an out-dated version of the the communication client. As the name suggests, the communication client allows EM to send and receive updates to/from devices.
- **Update Comodo Client - Security** - Install database and software updates for CCS on the device. Only available for endpoints with out-dated versions of CCS.

CCS requires the endpoint to be restarted in order for the installation to take effect. You have the following reboot options:

- **'Force the reboot in...'** - restart the end-point a certain period of time after installation. Choice of 5, 10, 15 or 30 minutes

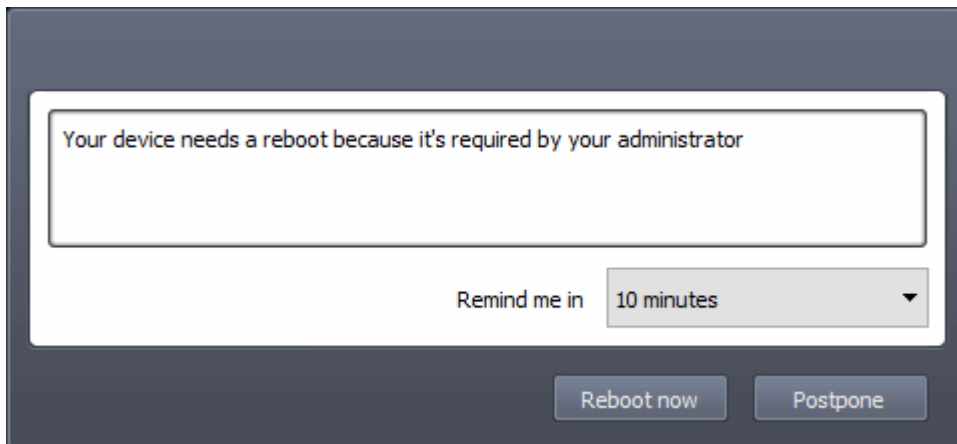
The following message will be displayed on the device:



The device will be restarted automatically when the time period elapses.

- **'Suppress the reboot'** - Do not restart the machine after installation. CCS will only become fully functional after the device is restarted.

- **'Warn about the reboot and let users postpone it'** - Show an alert to the user which advises them that their computer needs to be restarted. You can enter a custom message which is shown to the user:



Users can restart the endpoint immediately by clicking 'Reboot now', or postpone it by picking a time in the 'Remind me in' drop-down.

### **Install third-party MSI packages**

- Choose 'Install Custom MSI/Packages' from the 'Install or Update Packages' drop-down

The 'Install Custom MSI/Packages' dialog will appear.



## Install Custom MSI/Packages ✕

### Custom MSI

**MSI/Package URL \***

**Command-line options**

[Read more about command-line options](#)

**Reboot options**

Force the reboot in

Suppress the reboot ?

Warn about the reboot and let users postpone it

**Reboot message**

**Install**

- **MSI/Package URL** - enter the location of the installer. Make sure it is from a https site. For example, <https://www.hass.de/files/nodes/story/45/npp.6.8.4.installer.msi>
- **Command-line Options** - Enter any required installation switches (optional).
  - You need only enter the command here. E.g. /L or /quiet
  - Click the 'Read more' link to read more about command-line options.
- Choose the reboot option you prefer:
  - **'Force the reboot in...'** - restart the end-point a certain period of time after installation. Choice of 5, 10, 15 or 30 minutes

The following message will be displayed on the device:

## You're about to be signed out

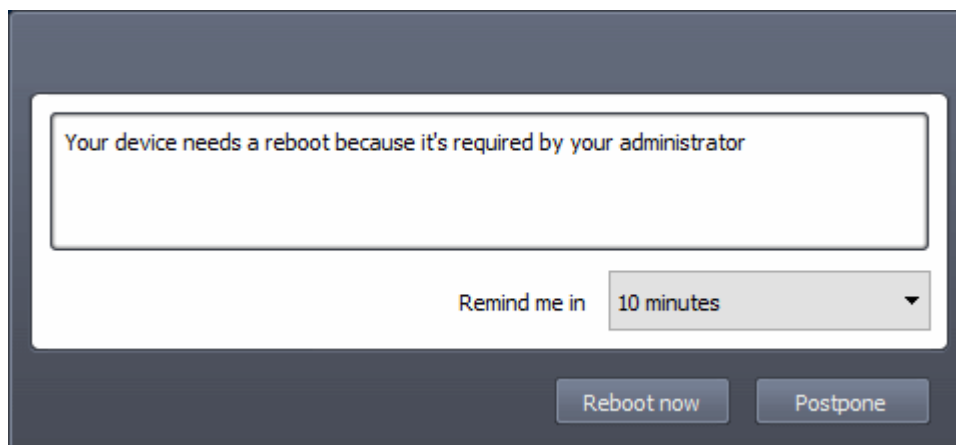
Windows will shut down in 2 minutes.

Shutdown will start on Tuesday, October 4, 2016 1:21:46 AM.

Close

The device will be restarted automatically when the time period elapses.

- **'Suppress the reboot'** - Do not restart the machine after installation. CCS will only become fully functional after the device is restarted.
- **'Warn about the reboot and let users postpone it'** - Show an alert to the user which advises them that their computer needs to be restarted. You can enter a custom message which is shown to the user:



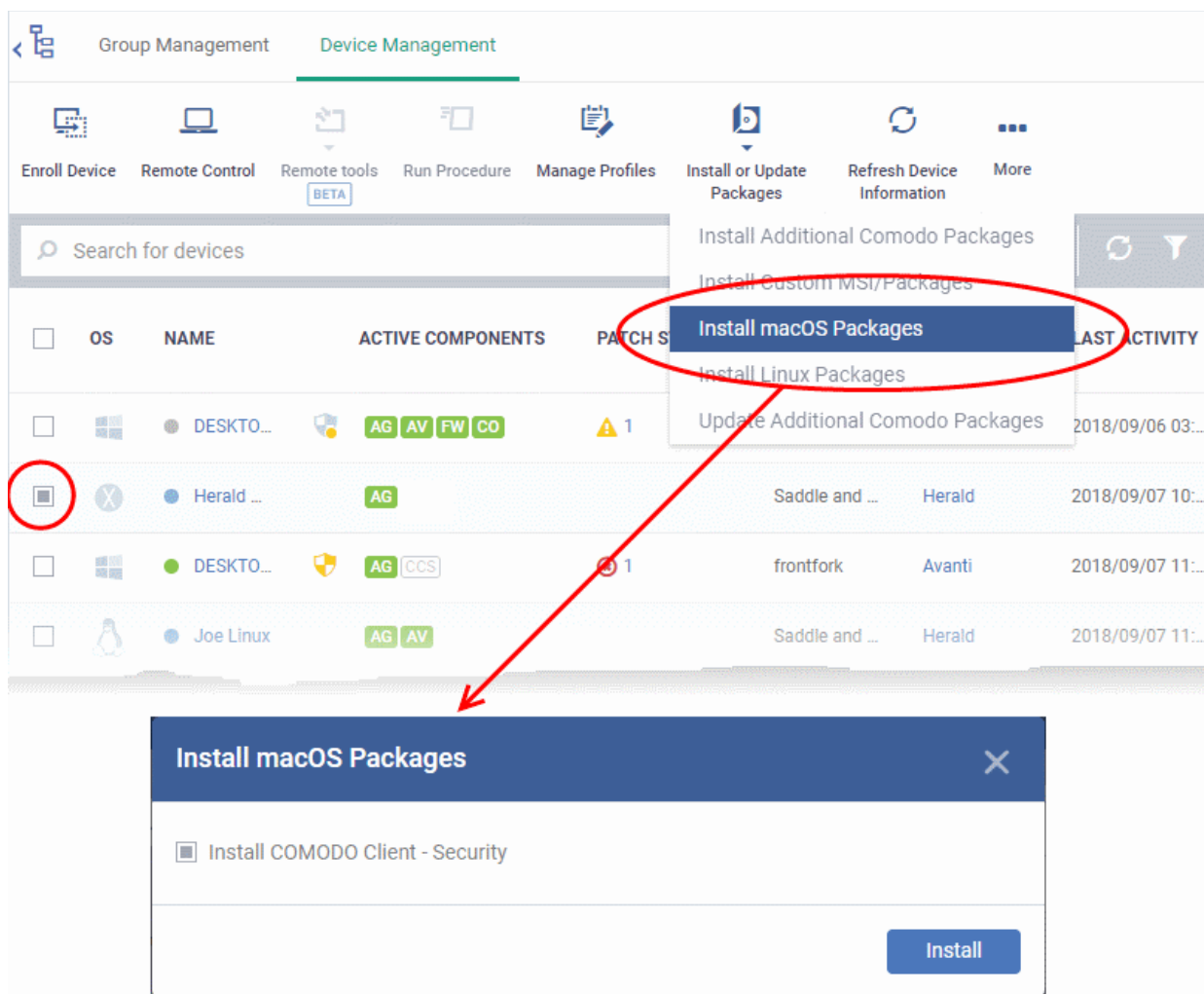
Users can restart the endpoint immediately by clicking 'Reboot now', or postpone it by picking a time in the 'Remind me in' drop-down.

### 5.2.13. Remotely Install Packages on Mac OS Devices

Admins can remotely install CCS onto Mac OS devices from the 'Device Management' interface.

#### To install Mac OS packages

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top menu
  - Select a company or a group to view just their devices
  - Or
  - Select 'Show all' to view every device in EM
- Select the target Mac OS devices using the check-boxes on the left
- Click 'Install or Update Packages' from the options at the top then choose 'Install macOS Packages'



- Alternatively, click on the name of the device > select 'Install mac OS Packages'.
- Choose 'Install Comodo Client - Security'
- Click 'Install'
- A command will be sent to target endpoints to install CCS. The application will become effective immediately after installation.
- You can view the installation status as follows:
  - Click 'Devices' > 'Device List'
  - Click on the name of the device > select 'Packages Installation State'.
  - See **View Mac OS Packages Installed on a Device through Endpoint Manager** for more details.

**Note:** The actual settings of CCS depends on the profile applied to the device:

- Click 'Devices' > 'Device List' > click device name > 'Associated Profiles', to see the profiles active on a device.
- Click 'Configuration Templates' > 'Profiles' to view and configure profiles

The following sections contain more help on profiles:

- **View and Manage Profiles Associated with a Device**
- **Assign Configuration Profile(s) to a User's Devices**

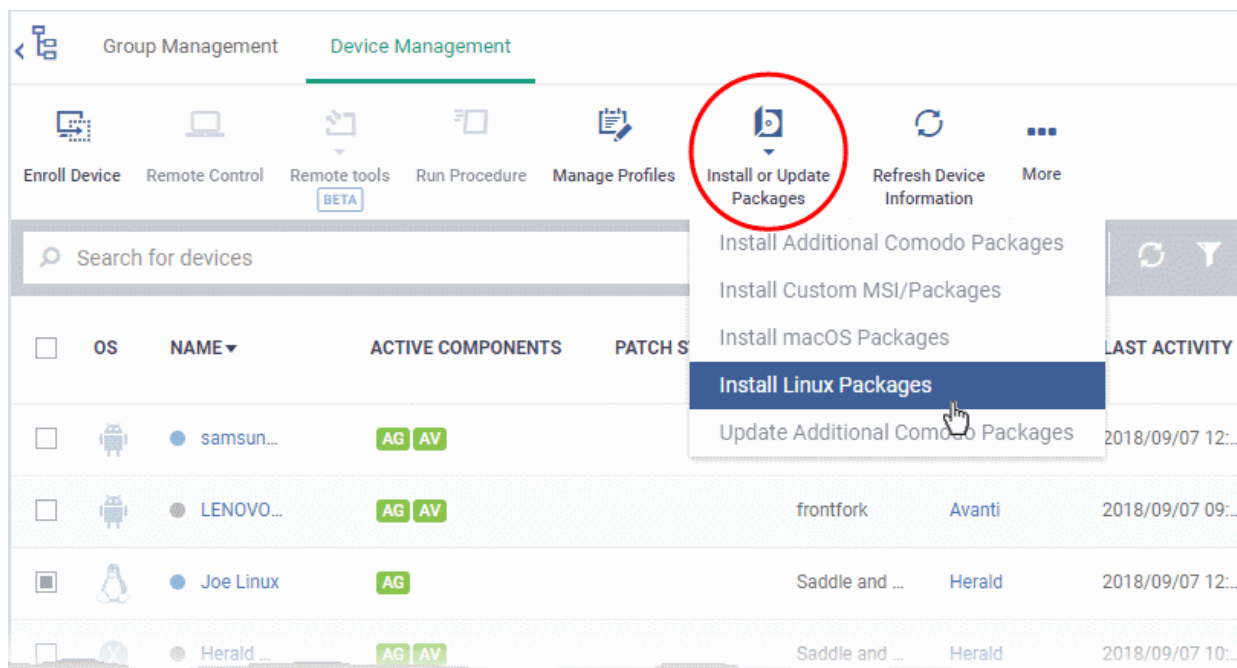
- **Assign Configuration Profiles to Selected Devices**
- **Assign Configuration Profiles to a User Group**
- **Assign Configuration Profiles to a Device Group**

## 5.2.14. Remotely Install Packages on Linux Devices

Admins can remotely install CCS onto Linux devices from the 'Device Management' interface.

### To install Mac OS packages

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top menu
  - Select a company or a group to view just their devices
- Or
  - Select 'Show all' to view every device in EM
- Select the target Linux devices using the check-boxes on the left
- Click 'Install or Update Packages' from the options at the top and choose 'Install Linux Packages'



- Alternatively, click on the name of the device > select 'Install Linux Packages'.
- Choose 'Install Comodo Client - Security'
- Click 'Install':
- A command will be sent to target endpoints to install CCS. The application will become effective immediately after installation.
- You can view the installation status as follows:
  - Click 'Devices' > 'Device List'
  - Click on the name of the device > select 'Packages Installation State'.
  - See **View Linux Packages Installed on a Device through Endpoint Manager** for more details.

**Note:** The actual settings of CCS depends on the profile applied to the device:

- Click 'Devices' > 'Device List' > click device name > 'Associated Profiles', to see the profiles active on a device.
- Click 'Configuration Templates' > 'Profiles' to view and configure profiles

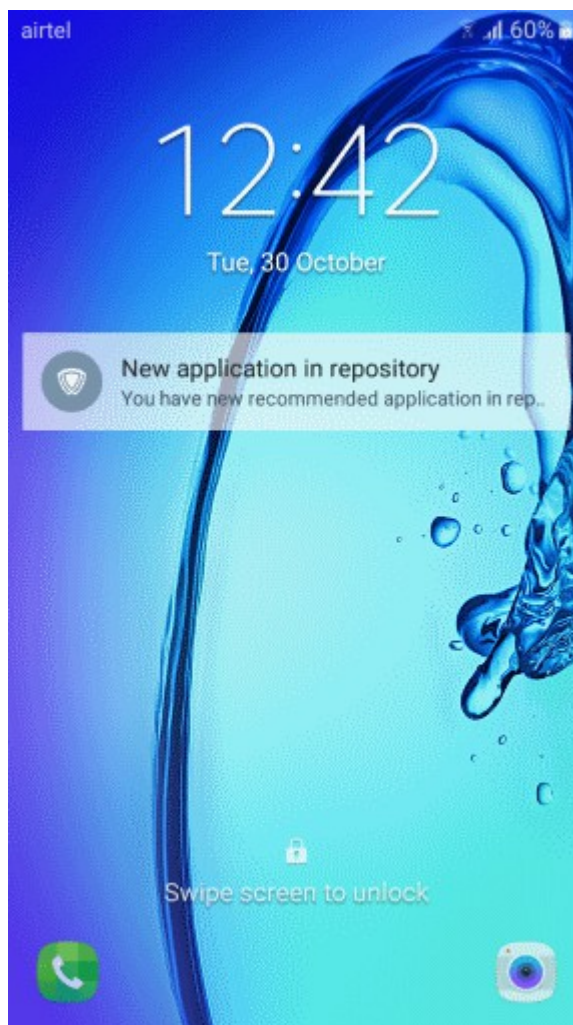
The following sections contain more help on profiles:

- **View and Manage Profiles Associated with a Device**
- **Assign Configuration Profile(s) to a User's Devices**
- **Assign Configuration Profiles to a User Group**
- **Assign Configuration Profiles to a Device Group**

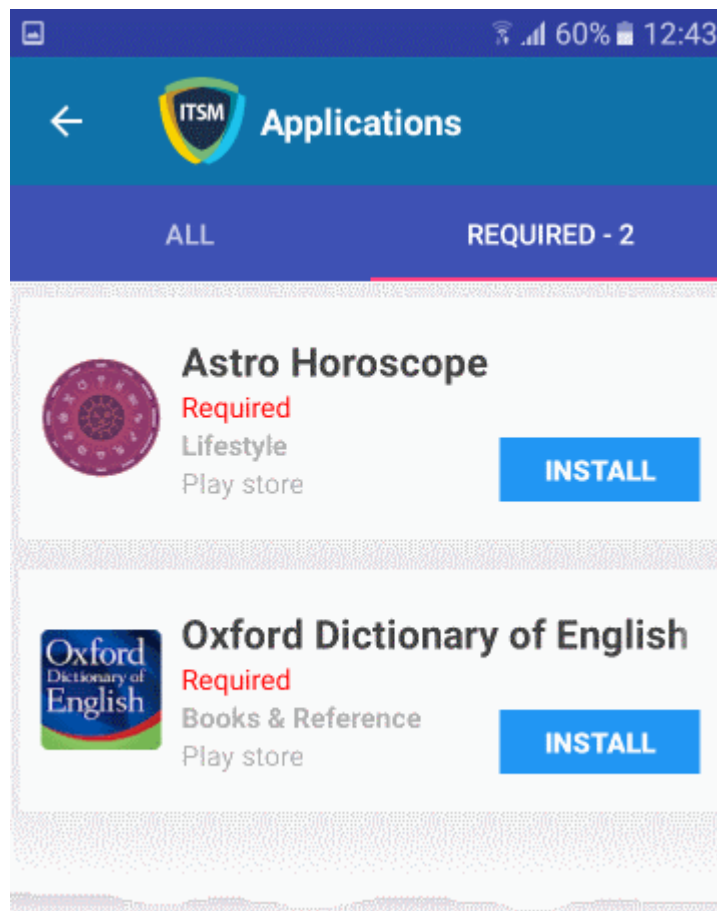
## 5.2.15. Install Apps on Android/iOS Devices

- Endpoint Manager allows you to push applications to all enrolled mobile devices
- You can add apps that you intend to distribute to devices to the EM **Application Store**.
  - Click 'Application Store' > 'iOS Store' or 'Android Store'
  - See **Application Store** for help to upload apps
- The sync between the EM server and the devices takes place every 24 hours. Alternatively, you can sync immediately by clicking 'Inform Devices Now' in the Android / iOS application store interface.

Managed devices are sent notifications about newly added apps:

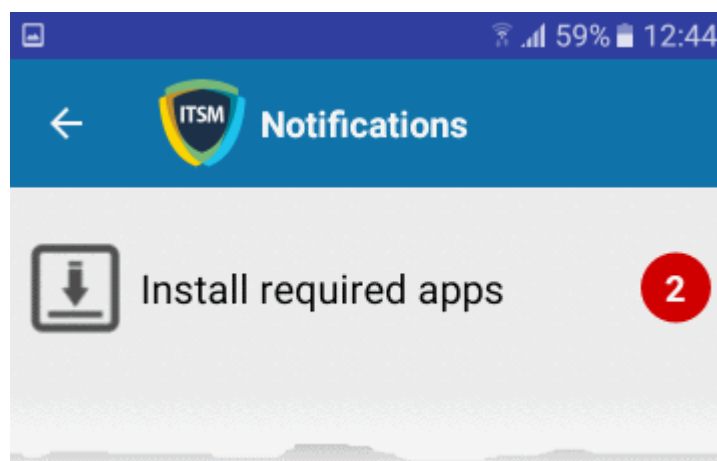


Users should tap the notification to open the 'Applications' page:



- **All** - Displays all apps available for installation, including mandatory and optional apps.
- **Required** - Apps that must be installed to comply with the EM profile applied to the device.
- Tap 'Install' to download and install the apps.

Endpoint Manager also sends notification to devices if a mandatory or recommended app is uploaded to the **Application Store**.



- Tap 'Install required apps' to install mandatory apps.

## 5.2.16. Generate an Alarm on Devices

- If a device is mislaid, lost or stolen, you can make it sound an alarm to help locate it. The alarm will sound



at full volume, even if it is set to silent mode.

- You can stop the alarm from the same interface.
- The alarm can also be generated on several devices at once to grab the attention of users.

**Note:** This feature is available only for Android devices.

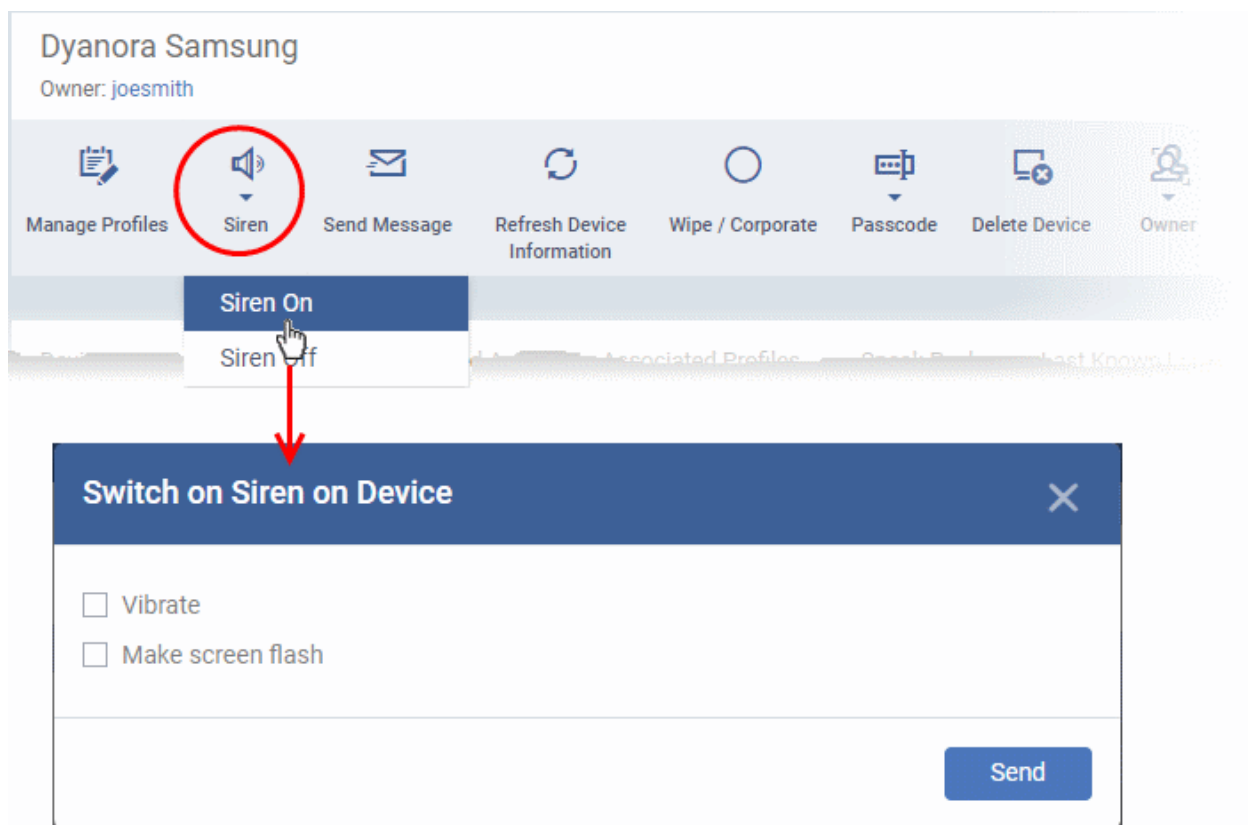
- **Generate alarm on a single device**
- **Generate alarm on several devices**

### To generate alarm on a single device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click the name of the device on which you want to sound an alarm

The device details interface opens.

- Click 'Siren' on the top then choose 'Siren On'



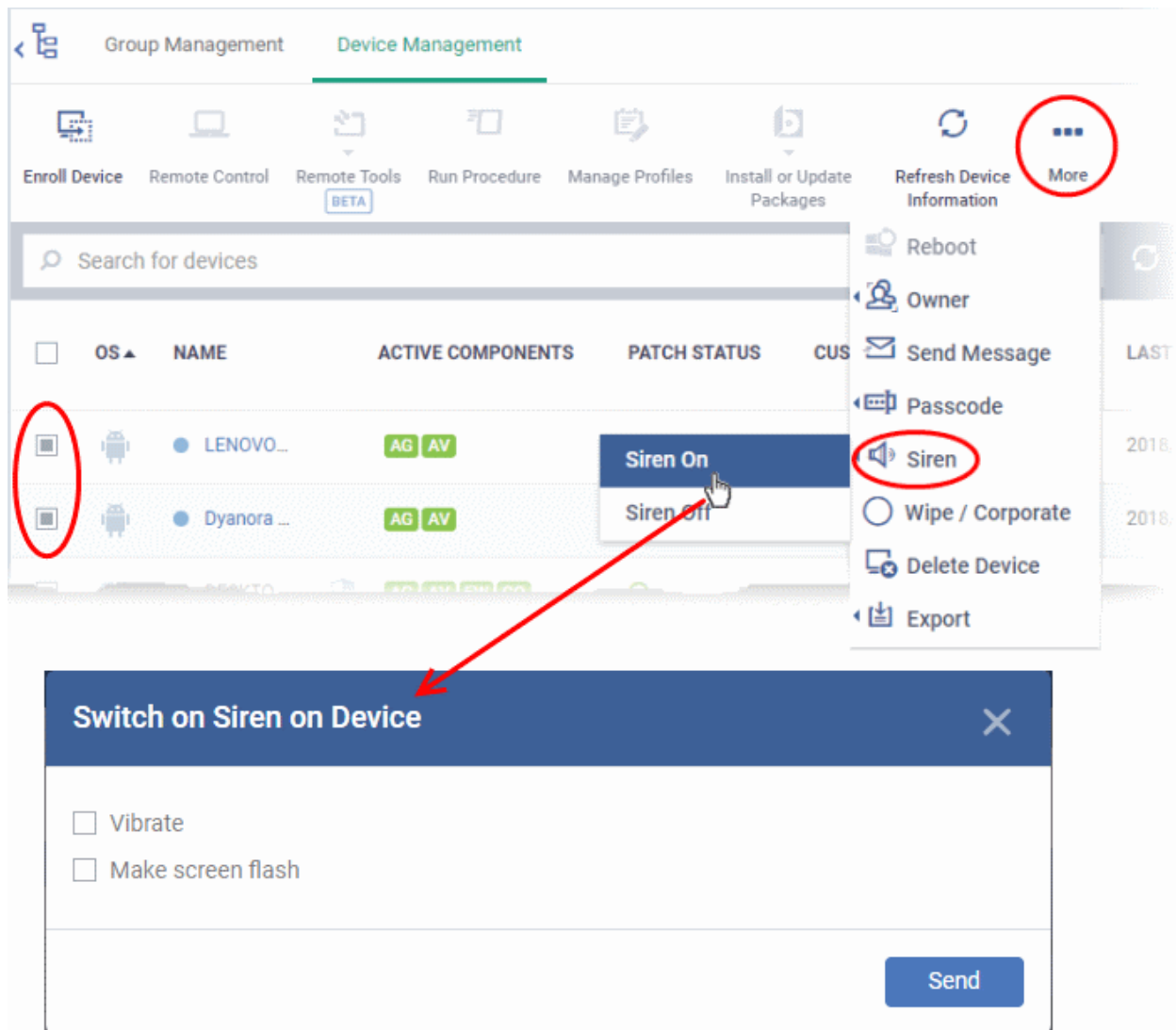
You can also choose the following extras:

- Vibrate - The device will vibrate along with the siren
- Make screen flash - The device screen will flash intermittently along with the siren
- Click the 'Send' button to issue the alarm.
- To switch off the alarm, click 'Siren' > 'Siren Off' from the same interface.

### To generate alarm on several devices



- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Select the devices on which you want to sound an alarm
- Click 'Siren' at the top and choose Siren On' or click 'More...!', select 'Siren' and choose 'Siren On'



You can also choose the following extras:

- Vibrate - The devices will vibrate along with the siren
- Make screen flash - The devices' screen will flash intermittently along with the siren
- Click the 'Send' button to issue the alarm

### To stop the alarm

- Select the device(s) which should stop sounding an alarm, from the 'Device Management' interface.
- Click 'Siren' at the top and choose 'Siren Off'

## 5.2.17. Lock / Unlock Selected Devices

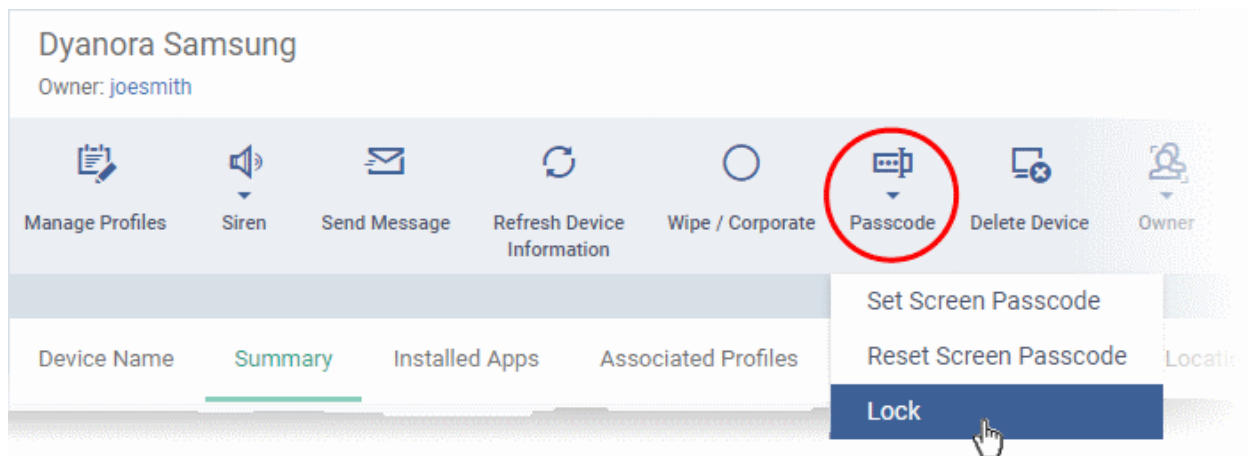
- Admins can remotely lock devices to prevent them being accessed by unauthorized persons, or to generally block access to the device.
- Locked devices can only be opened by entering a passcode on the device.

The following sections contain more information on:

- **Locking a single device**
- **Locking several devices at-once**

### To remotely lock a single device

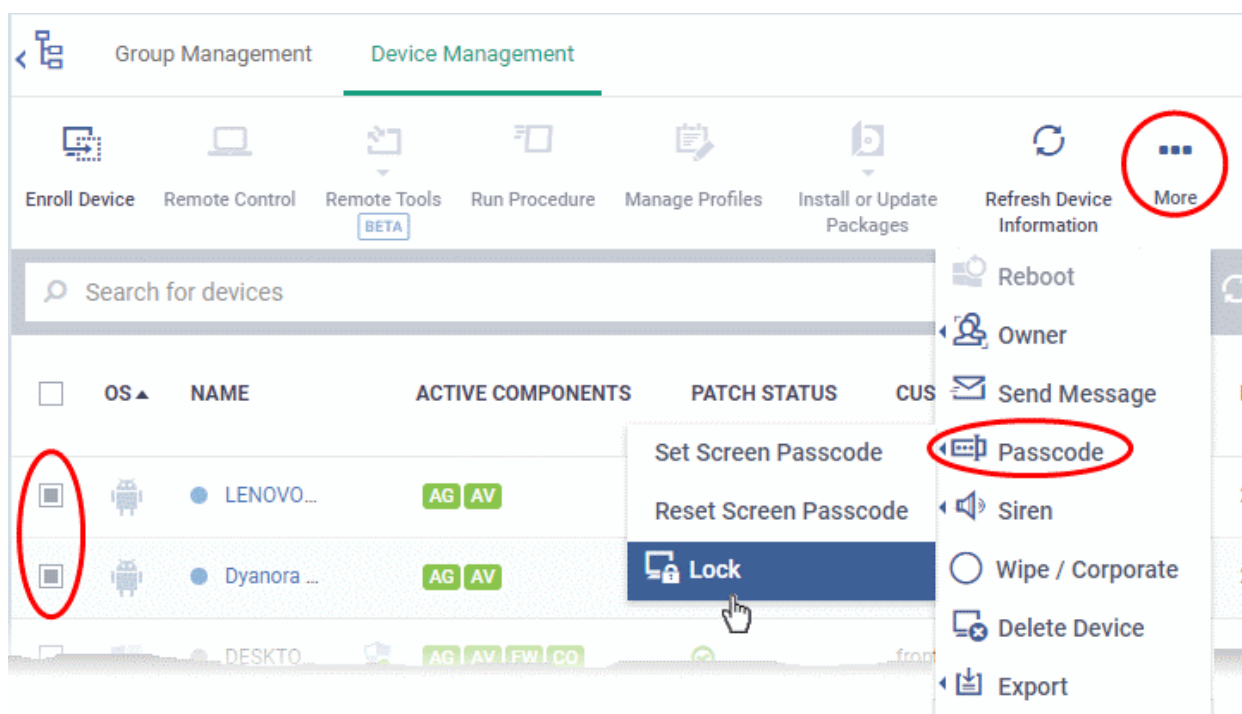
- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click the name of the device you want to lock. This opens the device details interface.
- Click the 'Passcode' button at the top and choose 'Lock'.
  - If 'Passcode' is not displayed, click 'More...' , select 'Passcode' and choose 'Lock' from the options



A command to lock the device is sent immediately. The device can only be unlocked by entering the screen lock password.

### To remotely lock several devices at-once

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Select all devices that you want to lock
- Click the 'Passcode' button at the top
  - Or click 'More...' and select 'Passcode' from the drop-down.
- Choose 'Lock' from the options



The lock command is sent. The devices will be locked and the user(s) can unlock the device(s) by entering the screen lock password.

## 5.2.18. Wipe Selected Devices

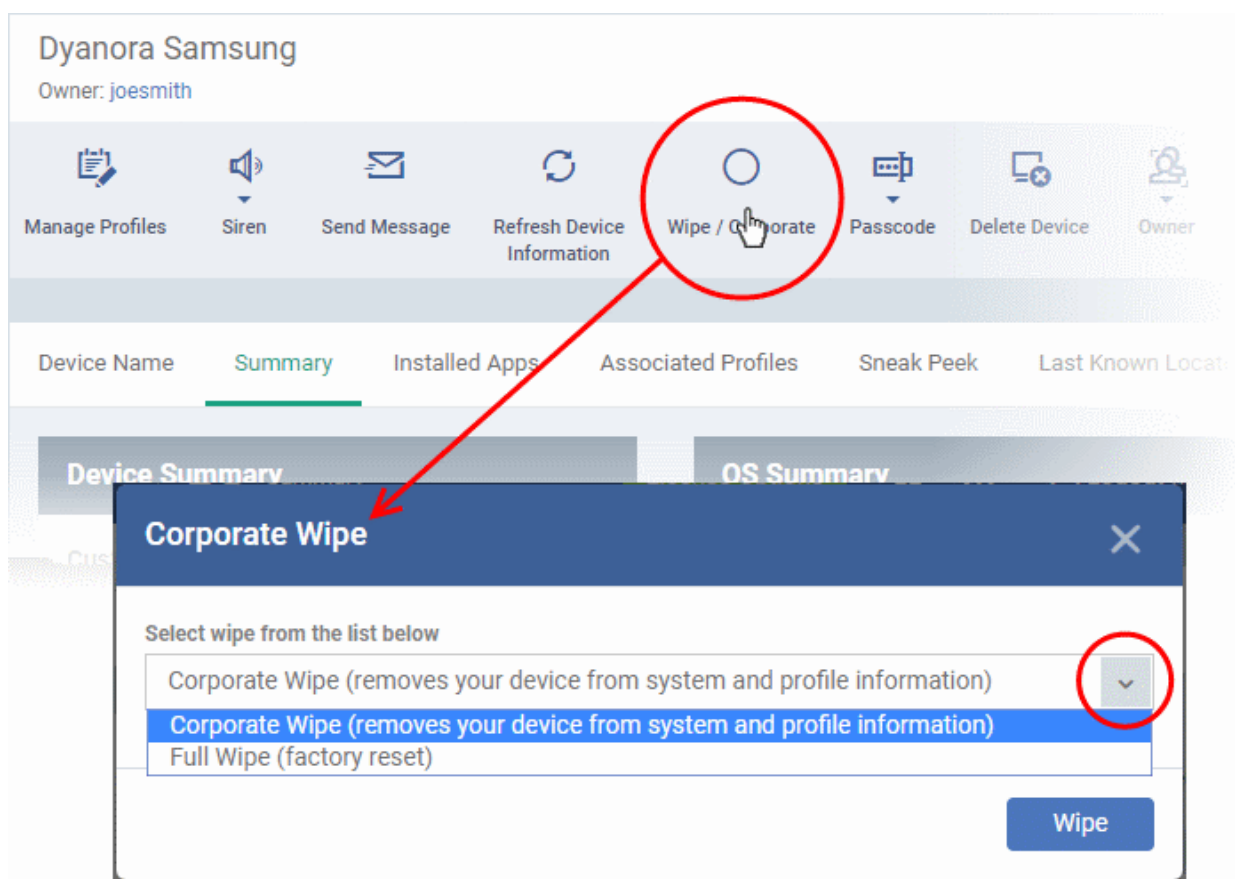
- Click 'Devices' > 'Device List' > select a device > Click 'More' > 'Wipe/Corporate'
- Confidential documents and sensitive information can be stolen from a lost or stolen device.
- To prevent such data loss, admins can remotely erase the contents of a lost device.
  - Additionally, you can configure a profile to wipe a device if the wrong password is entered a set number of times.
  - Click 'Configuration Templates' > 'Profiles' > click on an iOS/Android profile > 'Add Profile Section' > 'Passcode', to set this feature.

The following sections explain how to:

- **Wipe a single device**
- **Wipe several devices at-once**

### Wipe a single device

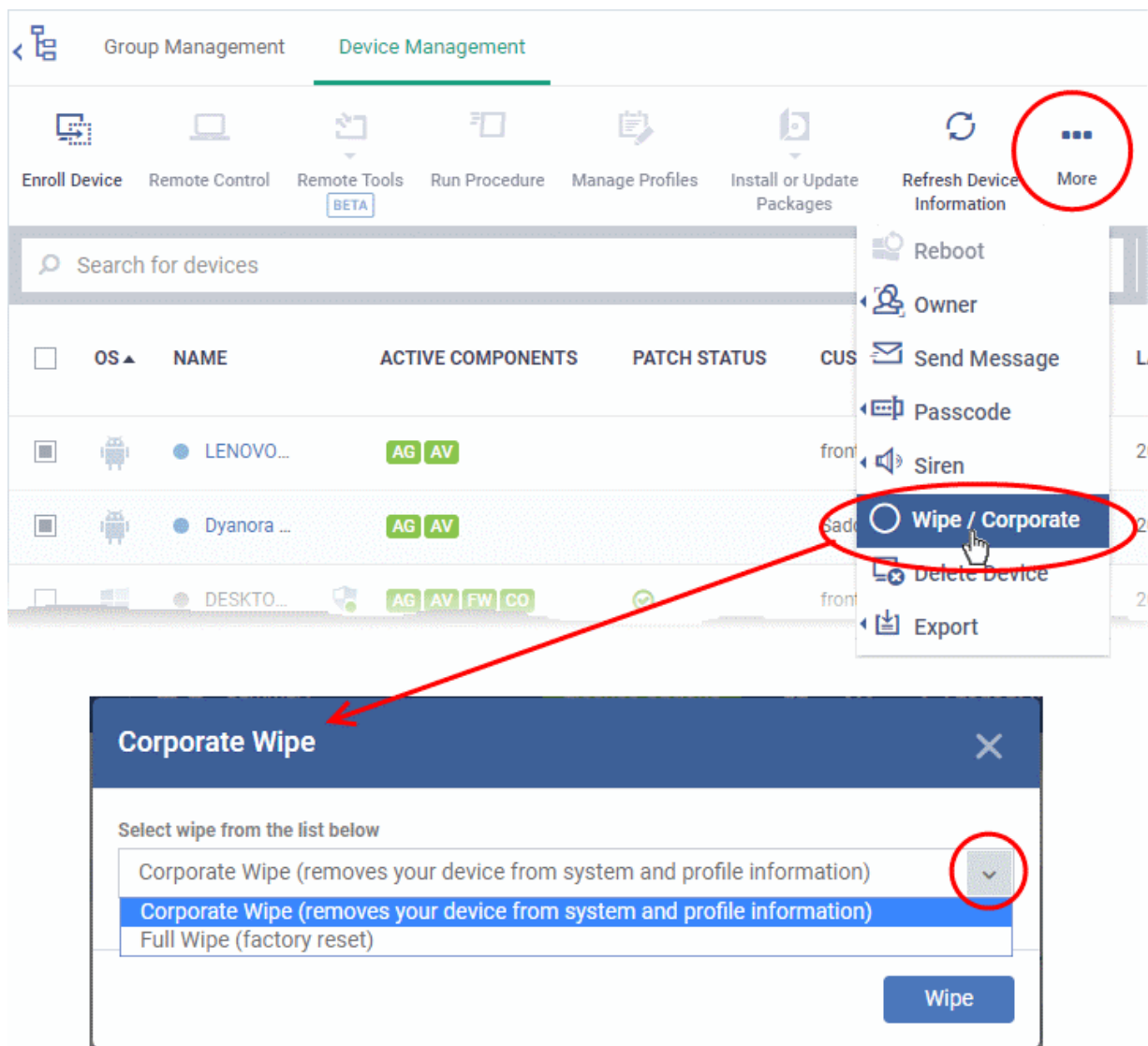
- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click on the name of the device you want to wipe. This will open the device details page.
- Click the 'Wipe / Corporate' button from the options at the top
  - or click 'More...' and choose 'Wipe / Corporate' from the options



- Choose the type of wipe:
  - **Corporate Wipe** - Removes only the Endpoint Manager communication client and configuration profiles
  - **Full Wipe** - Erases all data from the device and the SD card. The device will be returned to default factory settings.
- Click the 'Wipe' button to send the command.

## Wipe several devices

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Select the target devices to be wiped
- Click 'Wipe / Corporate' from the options at the top or click 'More...' and choose 'Wipe / Corporate' from the options.



- Choose the type of wipe:
  - **Corporate Wipe** - Removes only the Endpoint Manager communication client and configuration profiles
  - **Full Wipe** - Erases all data from the device and the SD card. The device will be returned to default factory settings.
- Click the 'Wipe' button to send the command.

## 5.2.19. Assign Configuration Profiles to Selected Devices

- The 'Device Management' interface lets you view the configuration profiles in effect on selected devices. You can also apply new configuration profiles or remove profiles.
- Profiles applied from this interface will be added to any existing profiles on the device (such as profiles from a device group or user group).
- If the settings in a profile clash with those in another profile, Endpoint Manager follows the 'Most Restrictive' policy. For example, if a profile allows the use of the camera and another restricts its use, the device will not be able to use the camera.

See [Create Configuration Profiles](#), for more details on profiles.

### To manage profiles applied to a device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Select the device you want to manage and click 'Manage Profiles' from the options at the top

The screenshot shows the Endpoint Manager interface. On the left, there is a sidebar with a search bar and a list of groups: 'Default Company', 'frontfork', and 'Saddle and Pedals'. The main area is titled 'Device Management' and contains several action buttons: 'Enroll Device', 'Remote Control', 'Remote tools BETA', 'Run Procedure', 'Manage Profiles', and 'Install or Update Packages'. The 'Manage Profiles' button is circled in red. Below these buttons is a search bar for devices and a table of devices. The table has columns for 'OS', 'NAME', 'ACTIVE COMPONENTS', and 'PATCH STATUS'. One device, 'DESKTOP-D80SVJJ', is selected, and its 'Manage Profiles' button is also circled in red. A red arrow points from this button to the 'Manage Profiles of DESKTOP-D80SVJJ' section below. This section has a title bar with a plus icon and 'Add Profiles'. Below that is a 'Remove Profiles' button with a trash icon. At the bottom is a table of profiles with columns for 'OS TYPE', 'PROFILE NAME', and 'OWNER'.

OS	NAME	ACTIVE COMPONENTS	PATCH STATUS
Windows	DESKTO...	AG AV FW CO	1
Windows	Herald M...	AG AV	
Windows	DESKTO...	AG AV FW CO	1
Linux	Joe Linux	AG AV	

OS TYPE	PROFILE NAME	OWNER
Windows	Finance Department Windows Computers	herculespopular22@gmail...
Windows	First Profile	herculespopular22@gmail...

- Alternatively, click the name of the device to be managed to open its 'Device Details' interface and choose 'Manage Profiles' from the options at the top

The list of profiles currently active on the device will be displayed.

Manage Profiles - Column Descriptions	
Column Heading	Description
OS Type	Indicates the operating system of the device.
Profile Name	The profile label. <ul style="list-style-type: none"><li>• Click the name of a profile to open the 'Edit Profile' interface.</li><li>• See <b>Edit Configuration Profiles</b> for more details.</li></ul>
Owner	The admin who created the profile. <ul style="list-style-type: none"><li>• Click the name to open the user information interface of the admin.</li><li>• See <b>View User Details</b> for more details.</li></ul>

**Note:** Device group and user group profiles applied to the device will not be shown here. Profiles applied to a device through different channels can be viewed from the respective 'Device Details' interface. See **View and Manage Profiles Associated with a Device** for more details.

- To add a profile to the device, click 'Add Profiles' from the top left.



**Manage Profiles of DESKTOP-D80SVJJ**

**Add Profiles**

Remove Profiles

<input type="checkbox"/>	OS TYPE	PROFILE NAME	OWNER
<input type="checkbox"/>	Windows	Finance Department Windows Computers	herculespopular22@gmail...

**Add Profiles to DESKTOP-D80SVJJ**

Save

<input type="checkbox"/>	OS TYPE	PROFILE NAME	OWNER
<input type="checkbox"/>	Windows	Default Profile for Windows Devices	herculespopular...
<input type="checkbox"/>	Windows	Default Profile for Windows	herculespopular...
<input checked="" type="checkbox"/>	Windows	Suspicious Files Folder for John	herculespopular...
<input checked="" type="checkbox"/>	Windows	Monitoring Important Data	herculespopular...
<input type="checkbox"/>	Windows	Patch Procedure	herculespopular...

A list of all profiles applicable to the chosen device, excluding those that are already applied to the device is shown.

- Select the profile(s) to be applied to the device

**Tip:** You can use the search and filter options that appear on clicking the funnel icon at the top right to search for the profile(s) to be applied.

- Click 'Save' at the top left to add the selected profile(s) to the device.
- To remove existing profile(s), select the profiles to be removed from the 'Manage Profiles' interface and click on 'Remove Profiles' from the options that appear on top.

Manage Profiles of DESKTOP-TTP09PR

 Add Profiles

 Remove Profiles 

<input type="checkbox"/>	OS TYPE	PROFILE NAME	OWNE
<input type="checkbox"/>		PC with 1TB hard drive	coyoteewile@yahoo.com
<input type="checkbox"/>		Purchase Dept Computers	coyoteewile@yahoo.com
<input checked="" type="checkbox"/>		Test Device Control	coyoteewile@yahoo.com

Results per page: 20  Displaying 1-3 of 3 results.

The selected profile(s) will be removed from the device immediately.

### 5.2.20. Set / Reset Screen Lock Password for Selected Devices

- Endpoint Manager lets you remotely set a new screen lock passcode (or reset the existing code) for enrolled Android devices from the 'Device Management' interface.

**Note:** This feature is available only for Android devices.

The following sections explain more about:

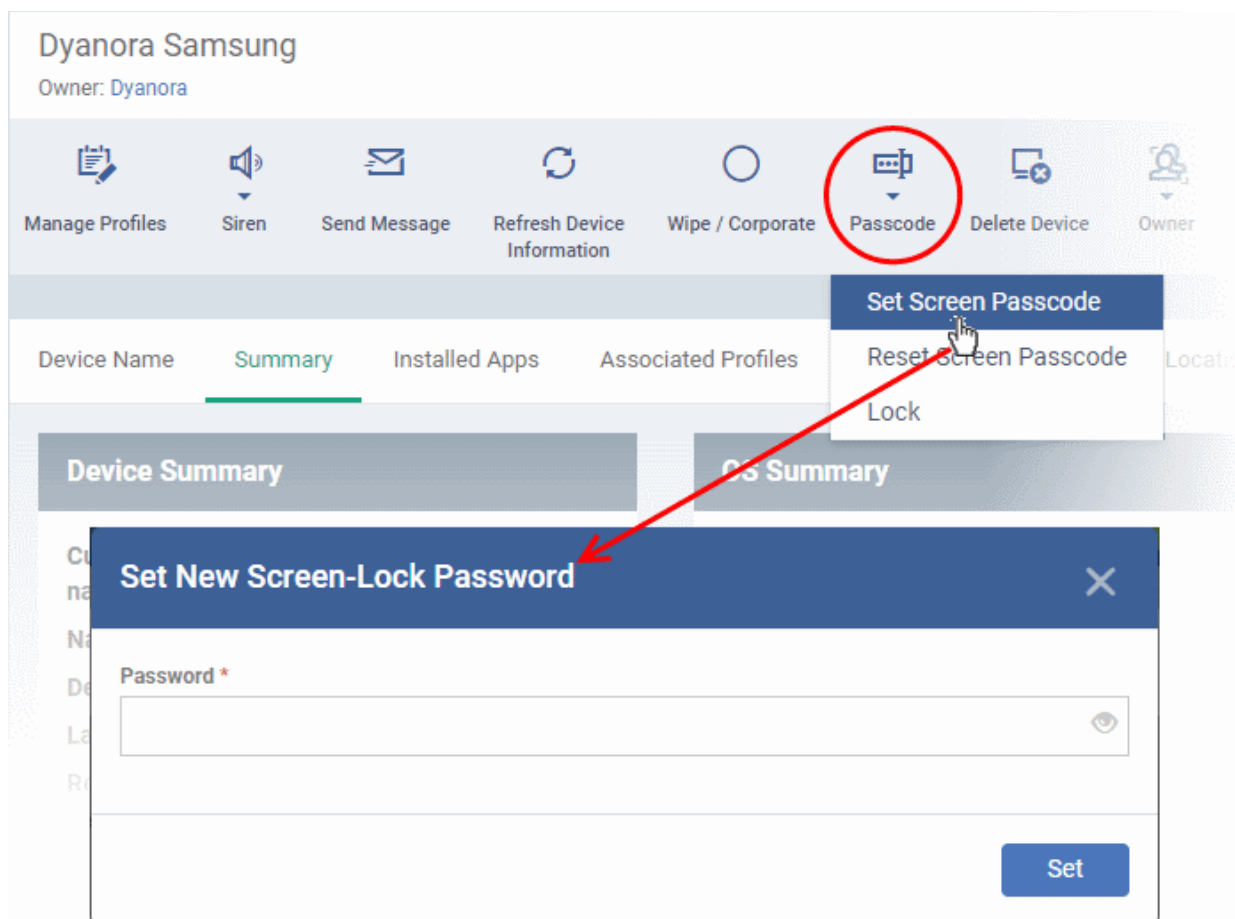
- Setting and resetting password for a single device**
- Setting and resetting password for several devices at-once**

#### To set a new screen lock password or remove password for a single device


- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
 Or
  - Select 'Show all' to view every device added to EM
- Click the name of the device for which a new passcode is to be created or existing passcode is to be reset

This opens the 'Device Details' interface for the device.

- To set a new password:
  - Click the 'Passcode' button at the top and choose 'Set Screen Passcode'.
  - If 'Passcode' is not displayed, click 'More...' , select 'Passcode' and choose 'Set Screen Passcode' from the options



- Enter the new password in the 'password' text field.

**Tip:** You can use the eye icon  at the right end of the text field to display or hide the typed password.

- Click 'Set'.

The command is sent to the device. This new password should be entered on the device to unlock it.

**Note:** If a passcode profile has been configured for the selected device, make sure to enter the new password that complies with the profile.

- To clear the existing password on the device:
  - Click the 'Passcode' button at the top and choose 'Reset Screen Passcode'.
  - If 'Passcode' is not displayed, click 'More...' , select 'Passcode' and choose 'Reset Screen Passcode' from the options

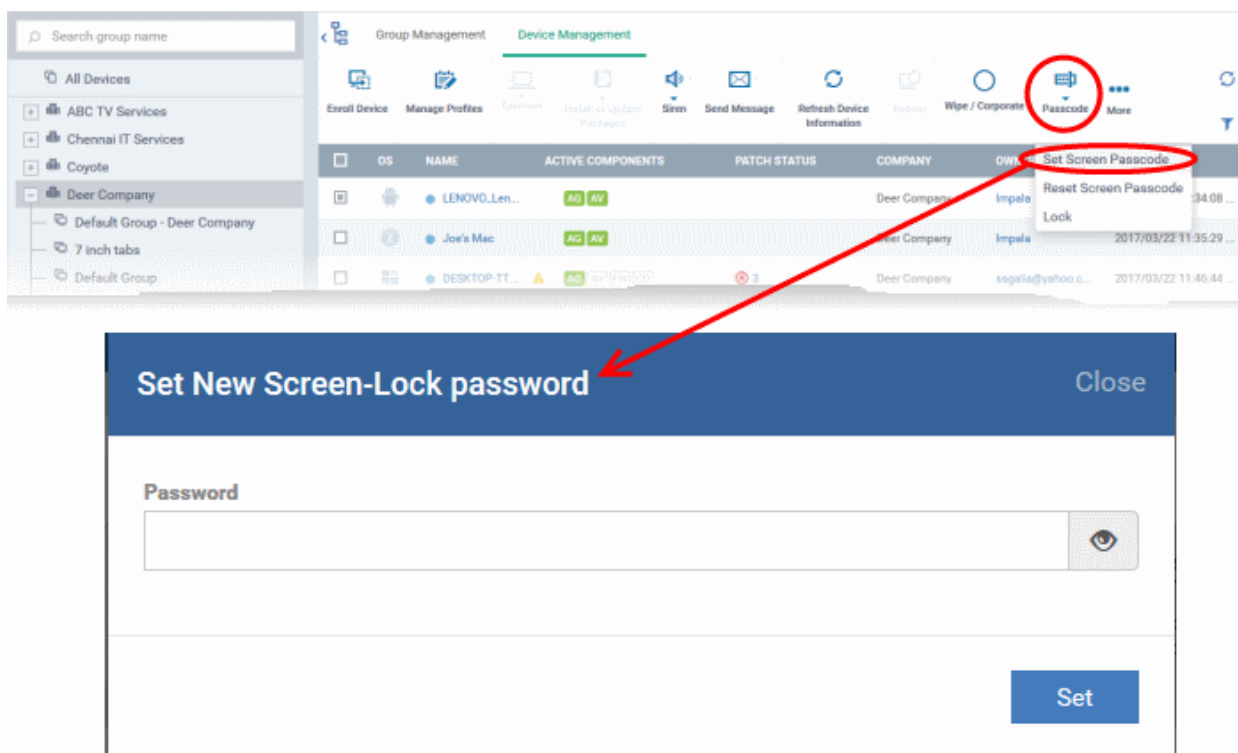
The command is sent to the device and the current screen lock password will be cleared. A message will also be sent to the device regarding the password change. If a password profile is applied the device, the user will be required to enter a new password that complies with the profile.

### To set a new screen lock password or remove password for several devices


- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices

Or

- Select 'Show all' to view every device added to EM
- Select the devices to set/reset their password.
- To set a new password:
  - Click the 'Passcode' button at the top and choose 'Set Screen Passcode'.
  - If 'Passcode' is not displayed, click 'More...', select 'Passcode' and choose 'Set Screen Passcode' from the options



- Enter the new password in the 'password' text field.

**Tip:** You can use the eye icon  at the right end of the text field to display or hide the typed password.

- Click 'Set'.

The command will be sent to all the devices at-once. From the next unlock operation, the users should enter the new password to unlock the device.

**Note:** If a Passcode profile has been configured for the selected devices, make sure to enter the new password that complies with the profile.

- To clear the existing passwords:
  - Click the 'Passcode' button at the top and choose 'Reset Screen Passcode'.
  - If 'Passcode' is not displayed, click 'More...', select 'Passcode' and choose 'Reset Screen Passcode' from the options

The command will be sent to all the devices and the current screen lock password will be cleared. A message also will be sent to the device regarding the screen lock password change. If a password profile is configured in the device, the user will be required to enter a new password that complies with the profile.

## 5.2.21. Update Device Information

- The communication client on an enrolled device sends information about the device to Endpoint Manager.
- This includes OS version, memory status, network details, IMEI number, location, MAC address of Bluetooth, MAC address of WiFi and so on.
- The interval at which the device sends this information can be configured in the 'Settings' interface.
- Device information can also be fetched in real time by opening device details then clicking 'Refresh Device Information'.

The following sections explain more about:

- **Getting updated information from a single device**
- **Getting updated information from several devices at once**

### To get updated information from a single device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devicesOr
  - Select 'Show all' to view every device added to EM
- Click the name of the device to refresh the information from

The 'Device Details' interface will open with information on the device fetched from last polling time of the agent installed on the device.

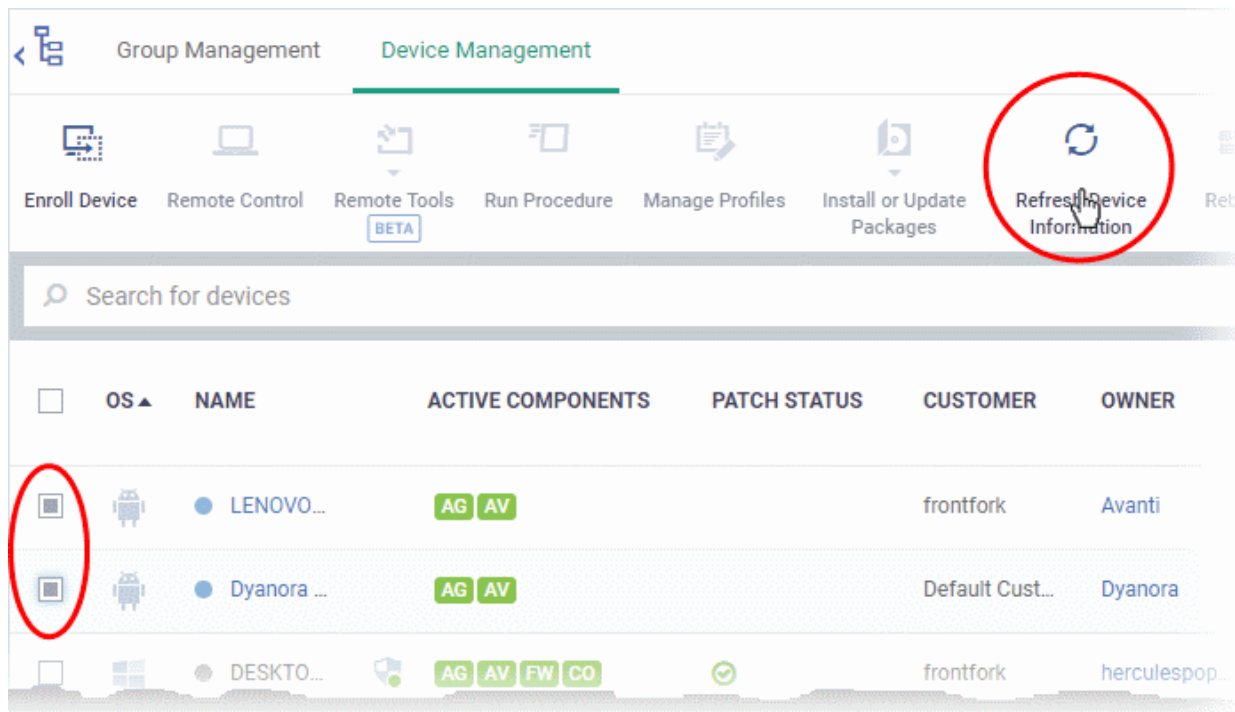
- Click 'Refresh Information' from the options at the top

The screenshot shows the 'Device Details' interface for a device named 'Dyanora Samsung'. At the top, there are several control buttons: 'Manage Profiles', 'Siren', 'Send Message', 'Refresh Device Information' (circled in red), 'Wipe / Corporate', 'Passcode', 'Delete Device', and 'Owner'. Below the buttons, there are tabs for 'Device Name', 'Summary' (selected), 'Installed Apps', 'Associated Profiles', 'Sneak Peek', and 'Last Known Location'. The 'Summary' tab is active, showing a 'Device Summary' table with fields like 'Custom device name' (Dyanora Samsung), 'Name' (samsung\_SM-G600FY), and 'Device type' (Smartphone). To the right, there is an 'OS Summary' table with fields like 'OS' (Android), 'OS version' (6.0.1), and 'Build version' (G600FYDDU1BRD2).

### To get updated information from several devices

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devicesOr

- Select 'Show all' to view every device added to EM
- Select the devices to refresh information from.
- Click 'Refresh Device Information' from the options at the top
  - If 'Refresh Device Information' is not displayed, click 'More...' , and choose 'Refresh Device Information' from the options



## 5.2.22. Send Text Message to Devices

Endpoint Manager lets you send text messages to enrolled Android and iOS devices. This comes in handy if you need to send important notifications to all users.

**Note:** For iOS devices, the EM communication client should be installed for this feature to be supported.

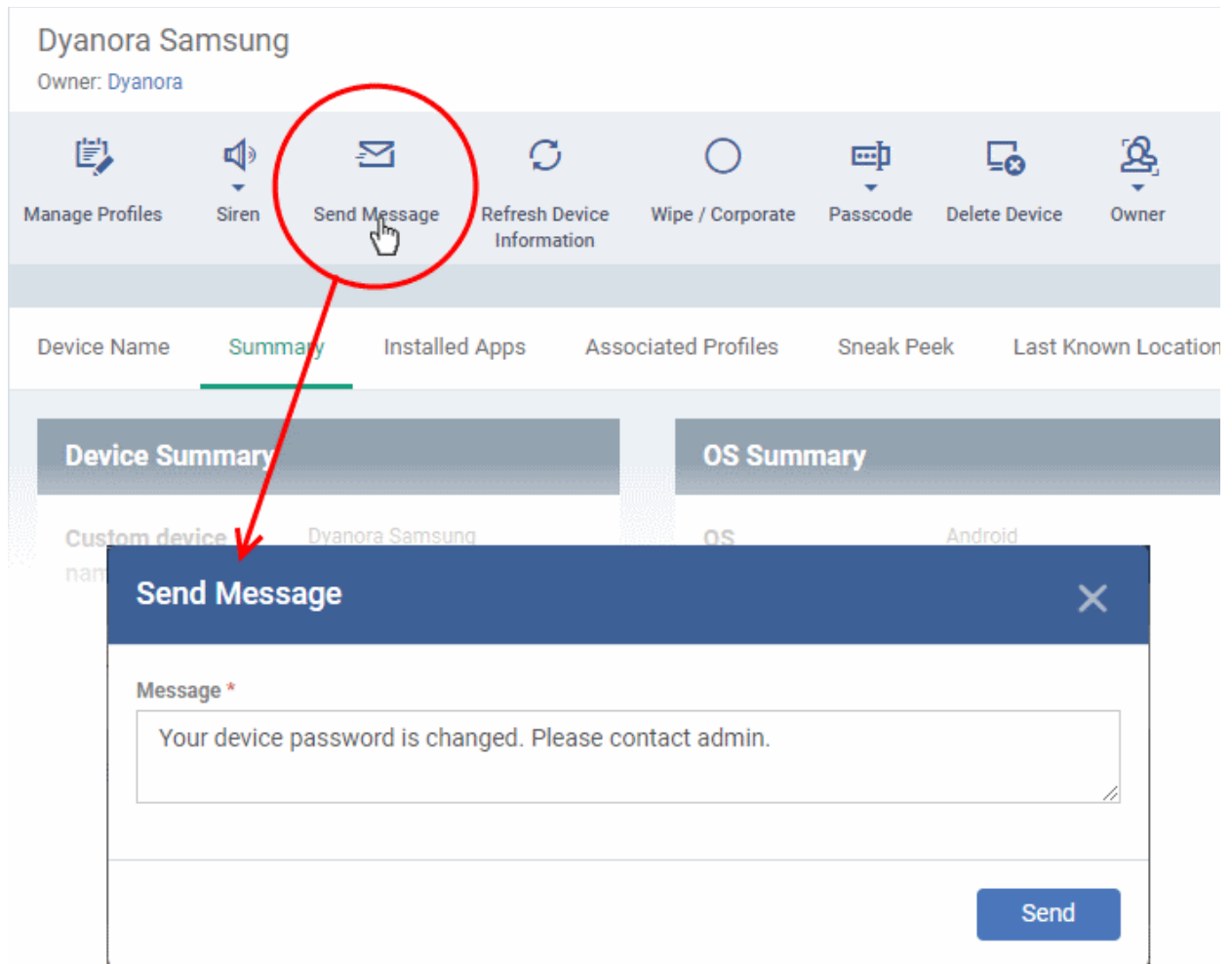
- **Send message to a single device**
- **Send message to several devices at-once**

### To send a text message to a single device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
- Or
  - Select 'Show all' to view every device added to EM
- Click the name of the target device to which the message should be sent

The 'Device Details' interface opens.

- Click 'Send Message' from the options at the top.



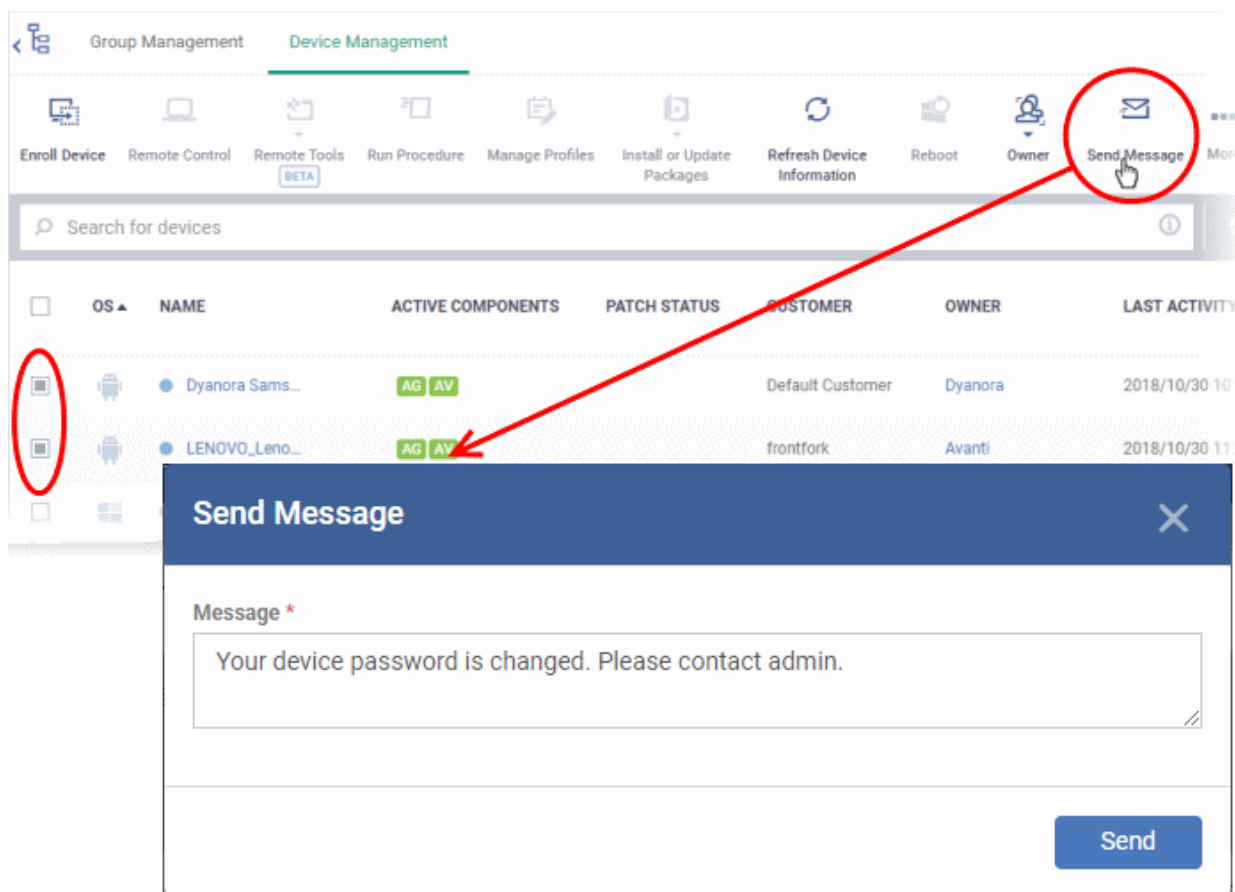
- Enter the text message in the 'Message' field.
- Click the 'Send' button.

The message will be sent to the device for the user's attention.

### To send a text message to several devices at-once

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Select the target devices to which you wish to send messages
- Click 'Send Message' from the options at the top or click 'More...' and choose 'Send Message' from the drop-down





- Enter the text message in the 'Message' field.
- Click the 'Send' button.

The message will be sent to the selected devices for the users' attention.

## 5.2.23. Restart Selected Windows Devices

Endpoint Manager allows you to remotely restart Windows machines as required. You can also specify how long to delay the restart, add a warning message to be displayed to users and allow them to postpone the restart.

**Note:** The reboot option is only available for Windows devices.

The following sections explain more about:

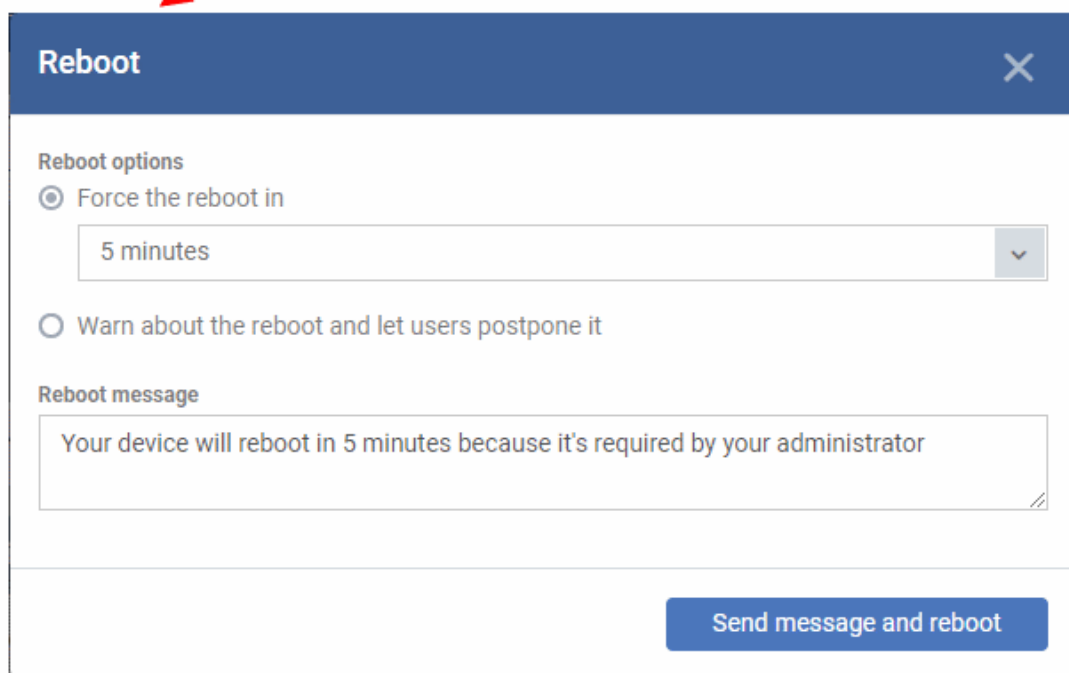
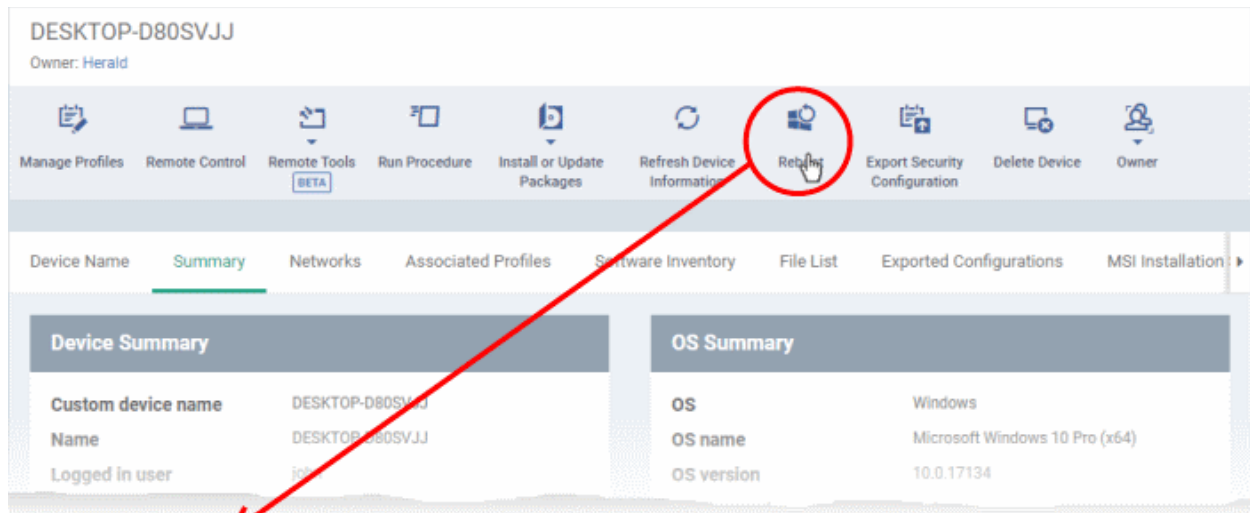
- **Restart a single device**
- **Restart several devices at-once**

### To restart a single device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
  - Or
  - Select 'Show all' to view every device added to EM
- Click the name of the Windows device to be restarted

The device details interface opens.

- Click the 'Reboot' option at the top.

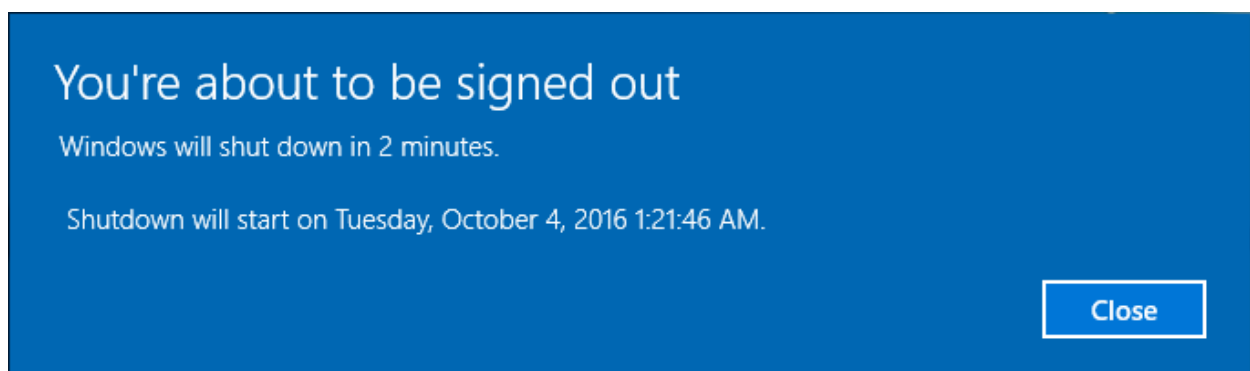


- Configure your reboot options in the 'Reboot' dialog

### To restart the end-point after a certain period of time

- Choose 'Force the reboot in' and select the delay period.
- Click 'Send message and reboot'

The message will be displayed at the device as shown below:

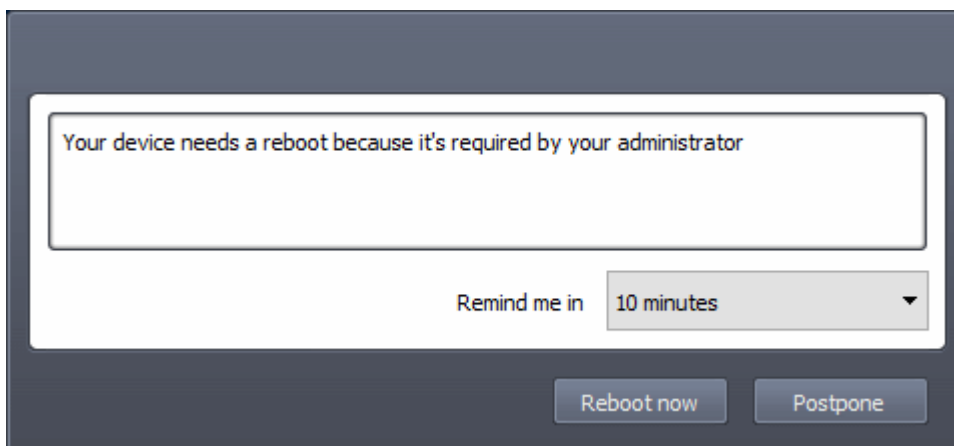


The device will be restarted automatically when the time period elapses.

### To restart the end-point at user's convenience

- Choose 'Warn about the reboot and let users postpone it.'
- Enter the message to be displayed to the user in the 'Reboot message' field.
- Click 'Send message and reboot'

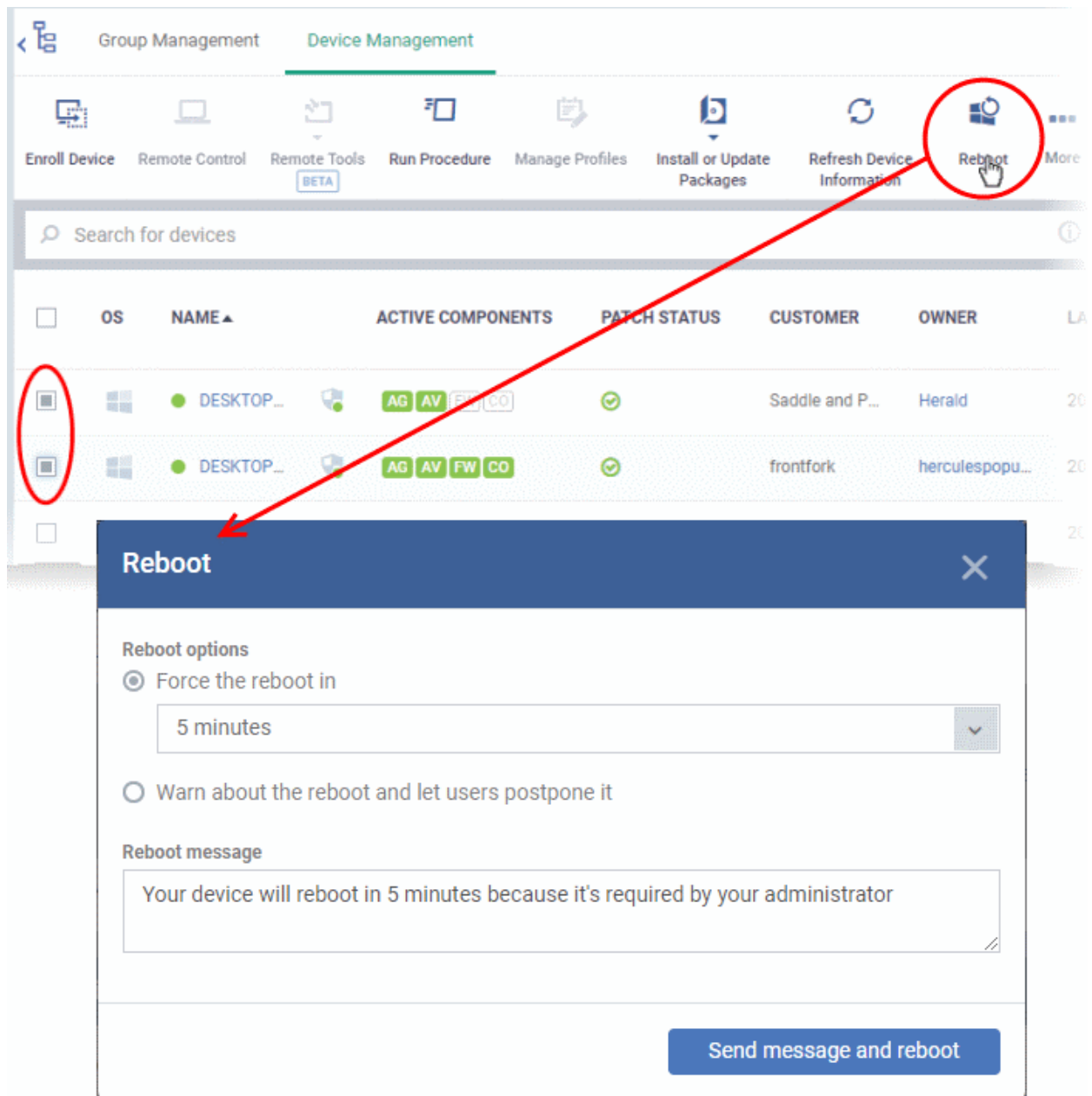
The message will be displayed at the device as shown below:



- The user can choose to restart the endpoint immediately by clicking 'Reboot now' or postpone the restart operation by selecting the period from the 'Remind me in' drop-down and clicking 'Postpone'.

### To restart several devices at once

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devicesOr
  - Select 'Show all' to view every device added to EM
- Select the target Windows devices to be restarted
- Click 'Reboot' from the options at the top or click 'More' and choose 'Reboot' from the options

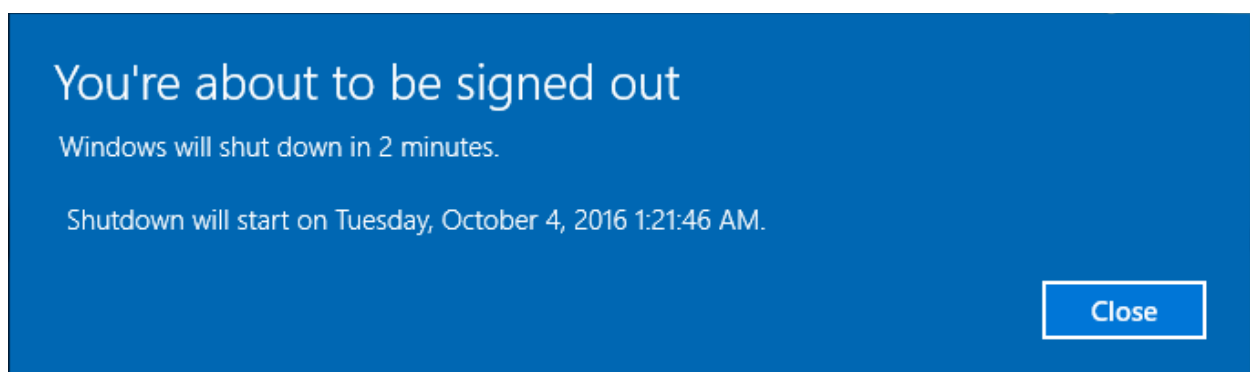


- Configure your reboot options in the 'Reboot' dialog

### To restart the end-points after a certain period of time

- Choose 'Force the reboot in' and select the delay period.
- Click 'Send message and reboot'

The message will be displayed at the device as shown below:

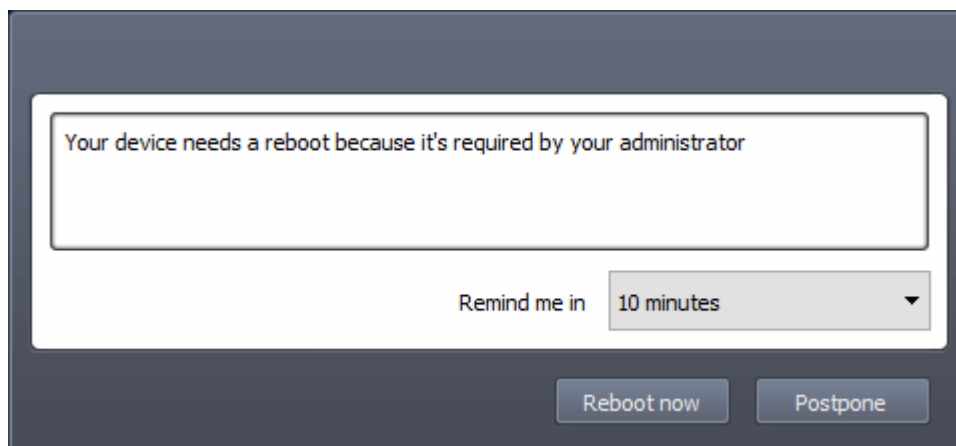


The device will be restarted automatically when the time period elapses.

### To restart the end-point at user's convenience

- Choose 'Warn about the reboot and let users postpone it'.
- Enter the message to be displayed to the users in the 'Reboot message' field.
- Click 'Send message and reboot'

The message will be displayed at the devices as shown below:



- Users can choose to restart their endpoints immediately by clicking 'Reboot now'. They can delay the restart by selecting a time-period from the 'Remind me in...' drop-down and clicking 'Postpone'.

## 5.2.24. Change a Device's Owner

Endpoint Manager allows you to assign device ownership from one user to another user.

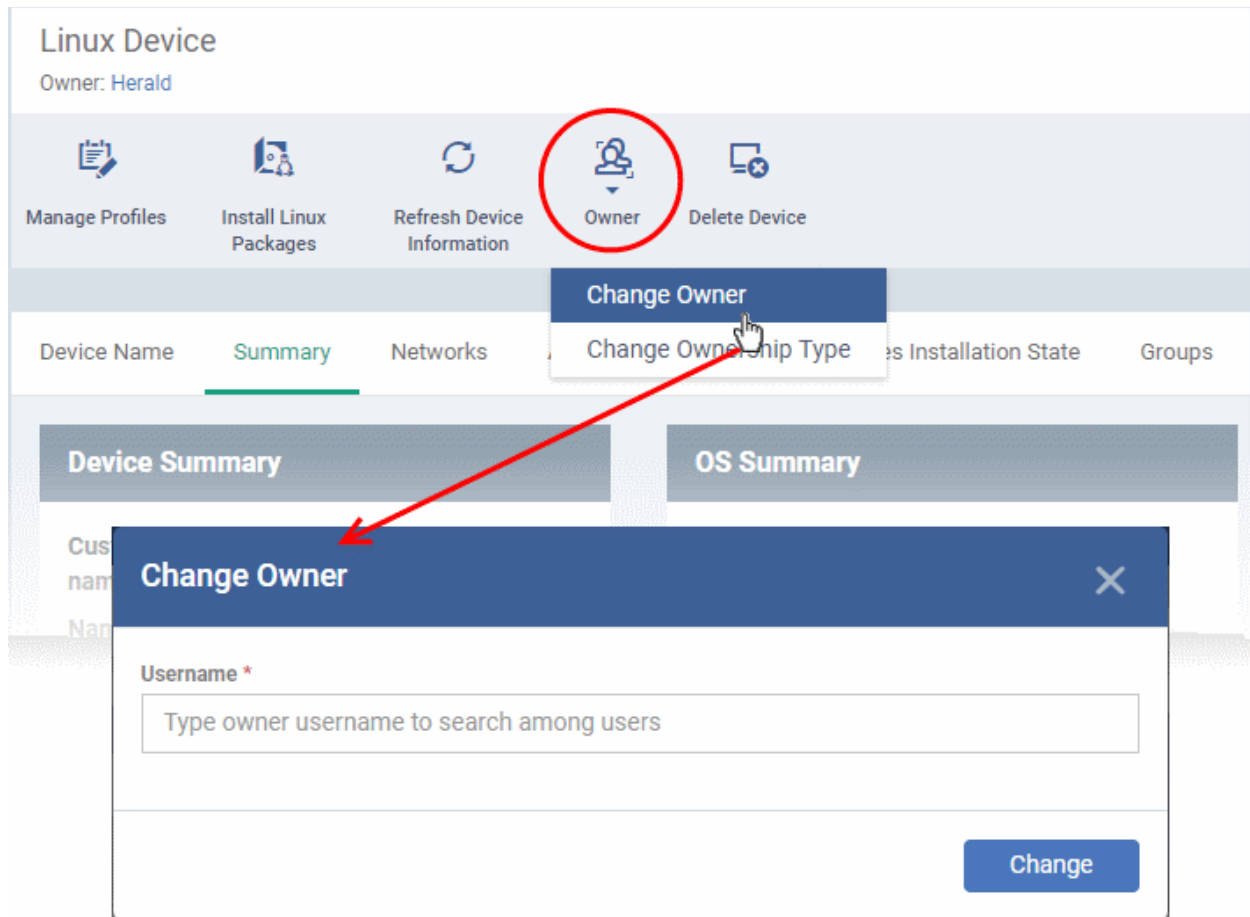
- **Change ownership of a single device**
- **Assign multiple devices to single owner at-once**

### To change the device ownership of a single device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devicesOr
  - Select 'Show all' to view every device added to EM
- Click the name of the device whose ownership is to be changed

The 'Device Details' interface opens.

- Click 'Owner' from the options at the top or click 'More' and choose 'Owner' from the drop-down
- Select 'Change Owner' from the options
- Start typing the first few characters of the name of the new user to whom the device is to be assigned and choose the user from the options
- Click 'Change'



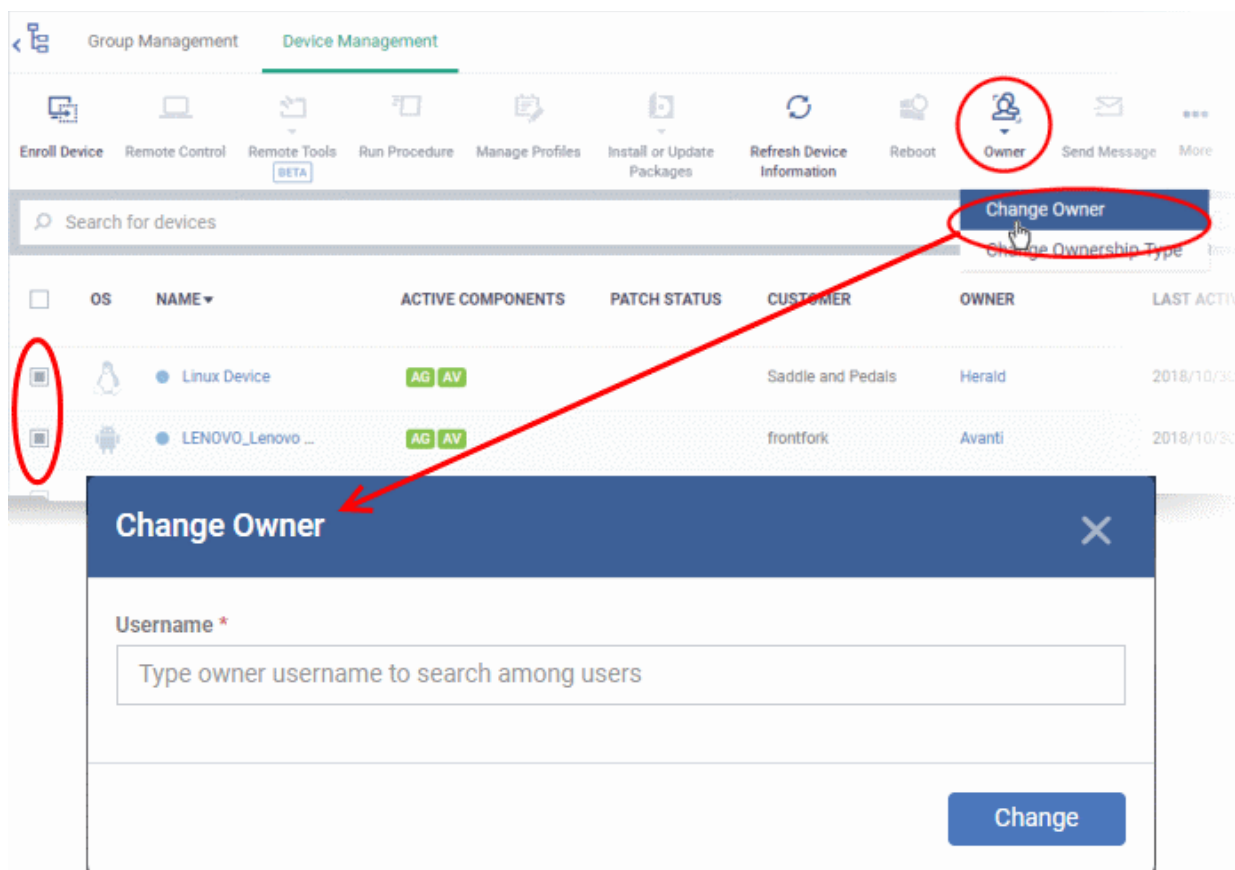
The ownership of the device will be changed to the new user. The configuration profiles in effect on the device, associated with the previous user and the user group to which the previous user is a member, will be removed and the profiles, pertaining to the new user and the user group to which the new user is a member, will be applied to the device.

### To assign several devices to a user at-once

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devicesOr
  - Select 'Show all' to view every device added to EM
- Select the target devices to be associated with a new user

**Tip:** You can change devices pertaining to different users to be assigned to a single new user.

- Click 'Owner' from the options at the top or click 'More' and choose 'Owner' from the drop-down
- Select 'Change Owner' from the options



- Start typing the first few characters of the name of the new user to whom the device is to be assigned and choose the user from the options
- Click 'Change'

All selected devices will be assigned to the new user. The configuration profiles in effect on the device, associated with the previous users and the user groups to which the previous users are members, will be removed and the profiles, pertaining to the new user and the user group to which the new user is a member, will be applied to the device.

## 5.2.25. Change the Ownership Status of a Device

- Admins can set the ownership status of a device depending on whether it belongs to a user or to the company.
- There are three ownership types - 'Personal', 'Corporate' and 'Not Specified'. The ownership type is listed in the 'Summary' tab of the device configuration area.
- By default, any new device enrolled to Endpoint Manager will have an ownership status of 'Not Specified'.
- Ownership types do not have any impact on device security policy or how the device is treated by EM. It is just a descriptive label which allows admins to more easily identify and group devices.

The following sections explain more about:

- **Changing ownership status of a single device**
- **Changing ownership status of several devices at-once**

### To set the ownership status of a single device

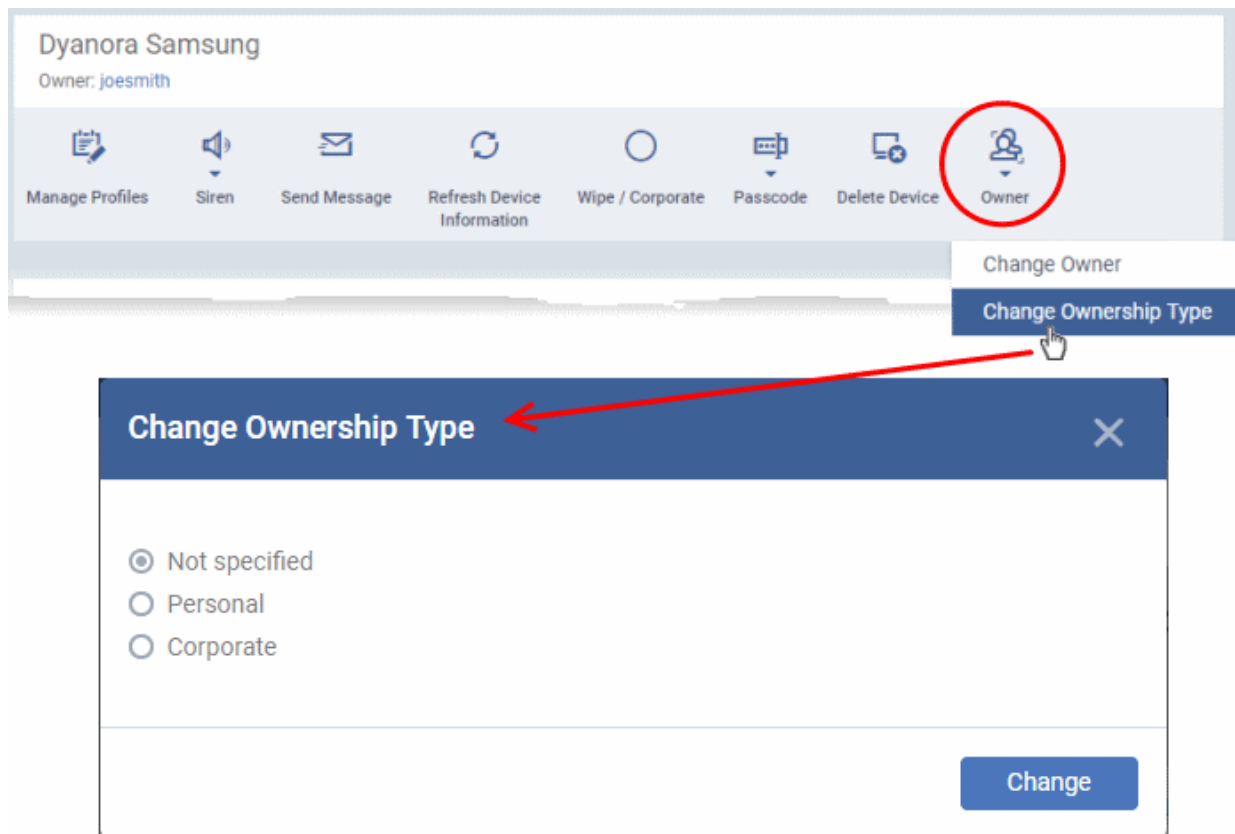
- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices



Or

- Select 'Show all' to view every device added to EM
- Click the name of the target device whose ownership status you wish to change.

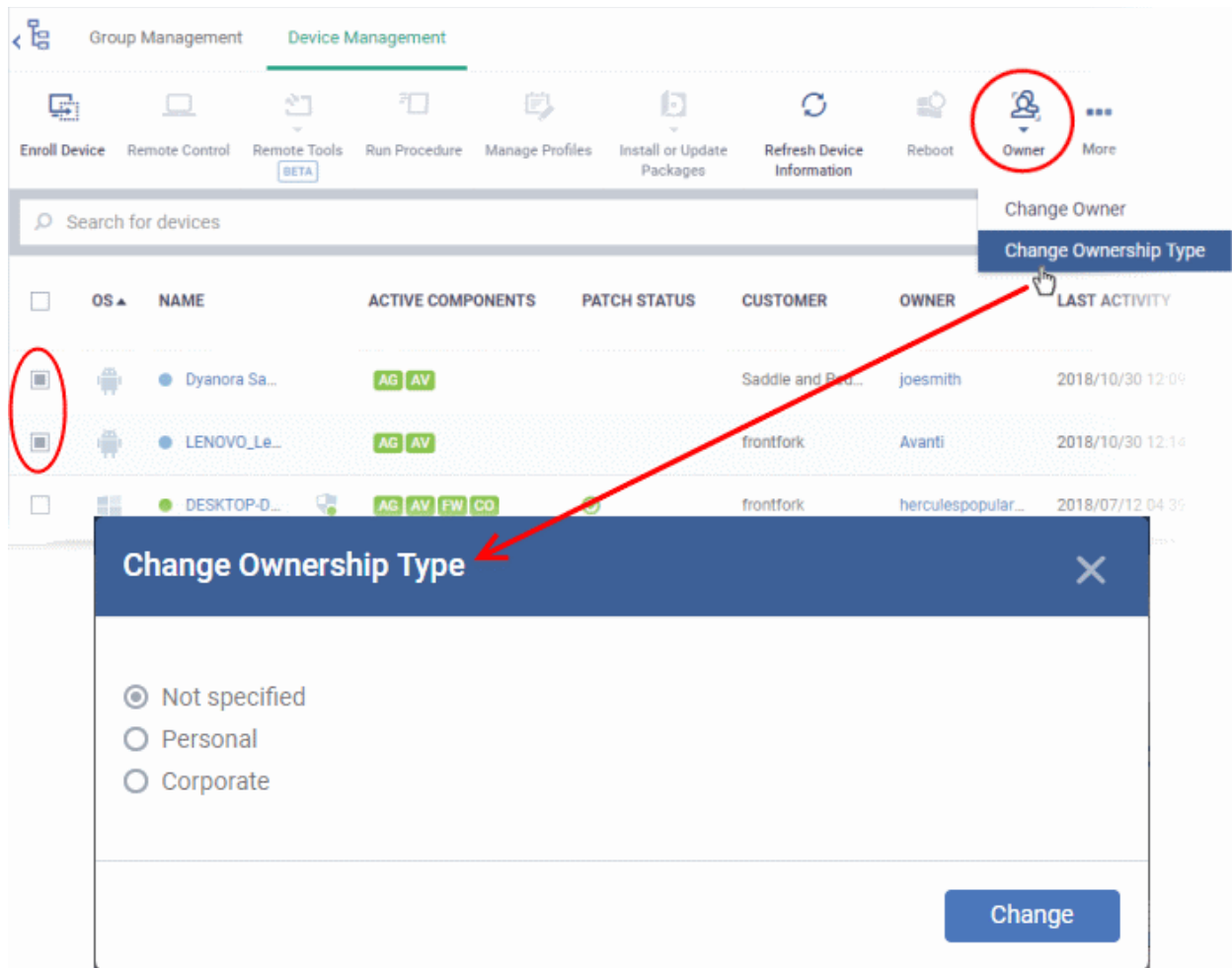
The device details interface opens.



- Click 'Owner' from the options at the top or click 'More' and choose 'Owner' from the drop-down
- Select 'Change Ownership Type' from the options
- Choose the ownership type from the following options:
  - Personal
  - Corporate
  - Not Specified
- Click 'Change'.

#### To set the ownership status of several devices at-once

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab above the control buttons
  - Select a company or group on the left to view only their devices
- Or
  - Select 'Show all' to view every device added to EM
- Select the devices whose ownership status you wish to change.
- Click 'Owner' from the options at the top or click 'More...' and choose 'Owner' from the drop-down
- Select 'Change Ownership Type' from the options



- Choose the ownership type to be assigned to the selected devices and click 'Change'. The available options are:
  - Personal
  - Corporate
  - Not Specified

## 5.2.26. Generate Device List Report

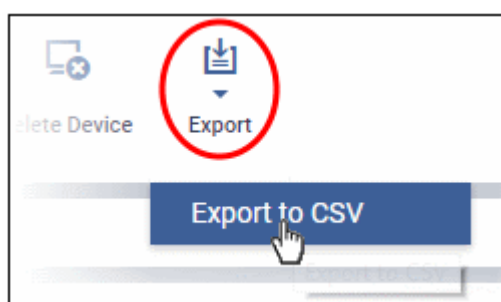
- You can generate a report of devices listed in the 'Device Management' table.
- You can apply filters to the device list then generate a report which contains only filtered items.

### To generate device list report

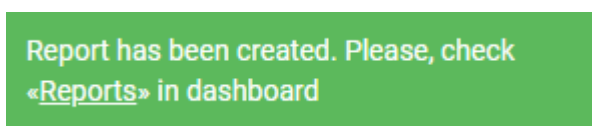
- Click 'Devices' > 'Device List' > 'Device Management'

OS	NAME	ACTIVE COMPONENTS	PATCH STATUS	COMPANY	OWNER	LAST ACTIVITY
Windows	c19a61-200	AG AV FW CG	2	kamal	kamal@yopmail.com	2018/04/19 10:31:15 AM
Windows	DESKTOP-FRCJSGJ	AG AV FW CG	1	kamal	kamal@yopmail.com	2018/04/20 02:57:08 PM
Windows	DESKTOP-81RS00	AG AV FW CG	12	kamal	kamal@yopmail.com	2018/04/17 01:52:14 PM
Mac OS	C1 Mac's Mac mini	AG AV		kamal	kamal@yopmail.com	2018/04/16 04:26:54 PM

- Apply any filters that you require.
- Click 'Export' > 'Export to CSV' or click 'More' > 'Export' > 'Export to CSV':



A confirmation message is shown:



See **'Reports'** in **'Dashboard'** for more information on how to view and download reports.

## 5.3. Bulk Enrollment of Devices

- The 'Bulk Enrollment Package' interface allows you to:
  - Download the communication client package which lets you bulk-enroll Windows and Mac devices from Active Directory. You can also manually install the agent on devices if you wish to enroll them offline.
  - Download the Remote Control (RC) tool for remote desktop management of Windows and Mac OS devices For help to download and install the RC tool, see **Download Remote Control Tool**.
- Click 'Devices' on the left then choose 'Bulk Enrollment Package'

Endpoint Manager allows bulk enrollment of Android, iOS, Windows and Mac OS devices in the following ways:

### Windows and Mas OS devices:

- Admins can download the EM communication client installer package and create a group policy object (GPO) on an AD server to install the package on endpoints which have been added to the AD domain.
- Alternatively, devices can be enrolled by using Auto Discovery and Deployment Tool (ADDT), or by manual installing the client on endpoints.

Once the agent is installed, it communicates with your EM portal and enrolls the device automatically. See the

following sections for more details:

- **Enroll Windows and Mac OS Devices by Installing the EM Communication Client Package**
  - **Enroll Windows Devices Via AD Group Policy**
  - **Enroll Windows and Mac OS Devices by Offline Installation of Agent**
  - **Enroll Windows Devices using Auto Discovery and Deployment Tool**

## Android and iOS Devices:

- Bulk enrollment of iOS and Android devices is possible for devices belonging to users that were imported to EM via Active Directory integration. Help to import users from AD is available in **Import User Groups from LDAP**.
- After importing the users, Android devices can be enrolled by installing the agent. iOS devices can be enrolled by deploying a configuration profile.

For help to bulk enroll iOS and Android devices, see **Enroll Android and iOS Devices of AD Users**.

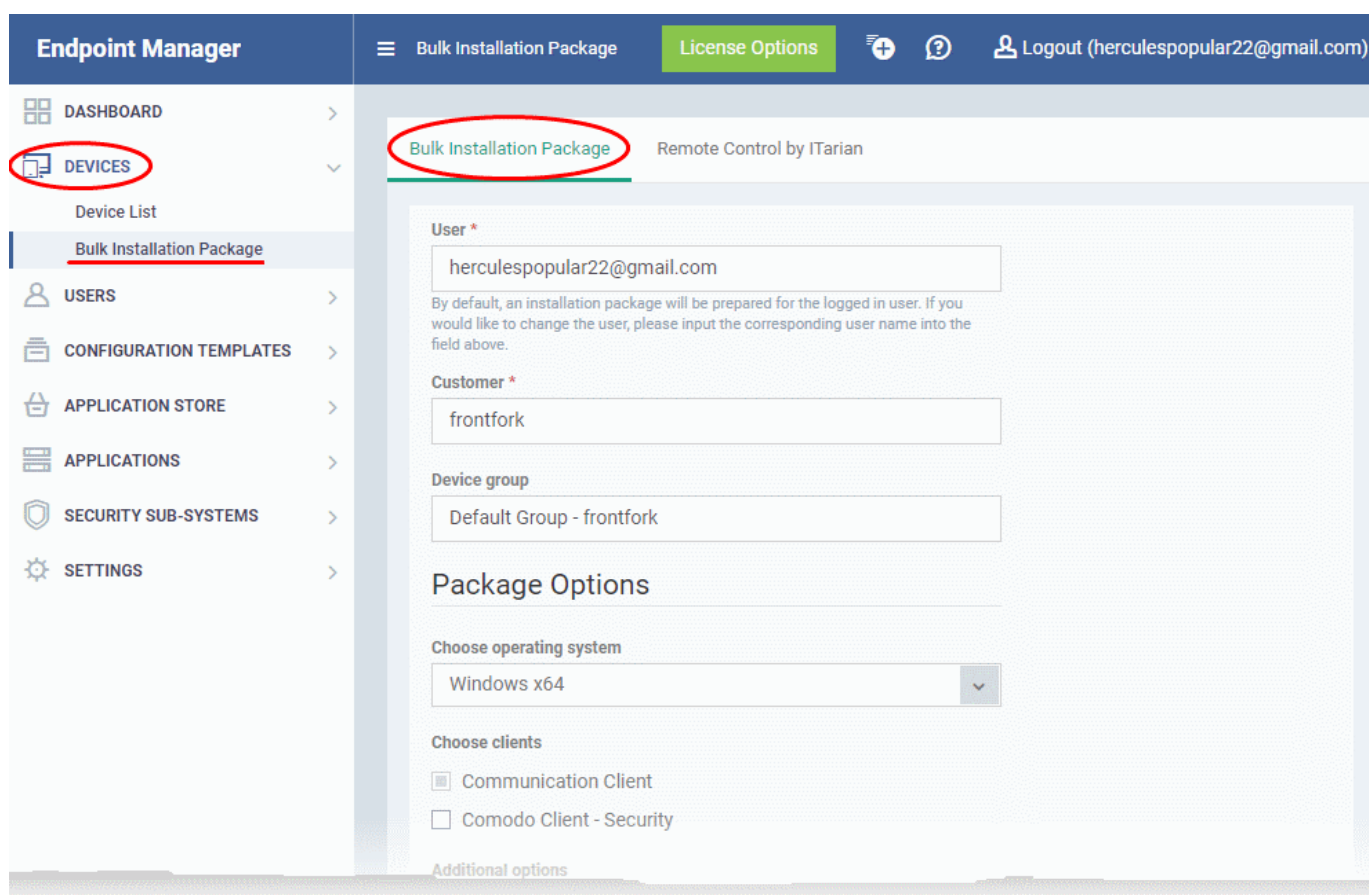
## 5.3.1. Enroll Windows and Mac OS Devices by Installing the EM Communication Client Package

Endpoint Manager requires a communication client (a.k.a 'agent') to be installed on each managed Windows and Mac OS device to enable communication with the EM Central Service Server. The following options are available:

- For individual devices, the agent will be automatically installed during enrollment and will establish a connection to the server. See **Enroll Windows Endpoints** and **Enroll Mac OS Endpoints** for more details.
- Administrators can manually enroll devices by downloading the installation package from EM and installing it on a target device.
- Administrators can bulk enroll devices by downloading the agent package from EM and creating a software installation group policy for their Active Directory (AD) server.
- **Comodo One and ITarian customers** - Admins can bulk enroll devices using the 'Auto Discovery and Deployment Tool'.
  - Login to your Comodo One or ITarian account
  - Click 'Tools'
  - Click 'Download' in the 'Auto Discovery and Deployment Tool' tile to download the tool
  - See **Enroll Windows Devices using Auto Discovery and Deployment Tool** for help to configure the tool.

The 'Bulk Installation Package' interface allows you to download the agent and communication client packages for offline installation and for installation via Active Directory rules. The package can be configured to include Comodo One Client Security (CCS) and to apply selected configuration profiles to target devices.

- Click 'Devices' > 'Bulk Installation Package'.
- Select the 'Bulk Installation Package' tab.



You can download MSI/MST packages for deployment via AD server and a .EXE package for offline installation to individual endpoints. See the following sections for more details:

- [Enrollment of Windows Devices Via AD Group Policy.](#)
- [Enrollment of Windows and Mac OS Devices by Offline Installation of Agent](#)
- [Enrollment of Windows Devices using Auto Discovery and Deployment Tool](#)

#### 5.3.1.1. Enroll Windows Devices Via AD Group Policy

- Enrollment via Active Directory (AD) group policy lets you add devices in bulk
- You need to download and install the EM communication client package and, if required, the transformed MST installation file. You then need to add these items to the GPO.
- The MST file includes details of the proxy that the communication client (CC) and CCS should use to connect to EM and Comodo servers.
- All devices enrolled by bulk installation through AD rules will be assigned to the currently logged-in administrator by default. If required, administrators can specify a different user to whom the devices should be assigned during the package download process.
- You can re-assign the devices to the correct owners from the 'Devices' interface at a later time. See [Change a Device's Owner](#) for more details.

**Note:** The AD method only allows you to install communication client (CC) on target endpoints. You can remotely install the endpoint security software, Comodo Client - Security (CCS), at a later time from the EM interface. See [Remotely Install and Update Packages on Windows Devices](#) for more details.

#### To download the installation package

- Click 'Devices' > 'Bulk Installation Package'
- Select the 'Bulk Installation Package' tab

**Bulk Installation Package**    Remote Control by ITarian

**User \***

herculespopular22@gmail.com

By default, an installation package will be prepared for the logged in user. If you would like to change the user, please input the corresponding user name into the field above.

**Customer \***

frontfork

**Device group**

Default Group - frontfork

**Package Options**

**Choose operating system**

Windows x64

**Choose clients**

Communication Client

Comodo Client - Security

**Additional options**

---

**The installation**

**Confirmation message**

[Download Installer](#)

By downloading these files you automatically agree with «End User License Agreement.»

**Proxy settings**

**Proxy host \***

Proxy host

**Proxy port \***

Proxy port

Proxy login

Proxy password

[Download MST File](#)

Bulk Installation Package - Form Parameters	
Parameter	Description
User	<p>Devices that are enrolled by installing the agent through AD Group Policy are assigned to the currently logged-in administrator by default. If you want the devices to be assigned to a different user, specify the user.</p> <ul style="list-style-type: none"> <li>Start typing the name of a user and choose from the suggestions that appear.</li> </ul>
Company	<p>Choose the customer organization to which the endpoints should be assigned.</p> <ul style="list-style-type: none"> <li>This field only applies to C1 MSP and ITarian MSP customers. It does not apply to C1 Enterprise, ITarian Enterprise or EM stand-alone customers.</li> </ul>
Device Group	<p>The device group to which the enrolled devices should be added (optional). Any group profiles will also be applied to the devices you add.</p> <p>See <b>Assign Configuration Profiles to a Device Group</b> if you want more help with this.</p>
Package Options	<p><b>Operating system</b> - Choose the OS of the target endpoints.</p> <p><b>Clients:</b></p> <ul style="list-style-type: none"> <li><b>Communication Client (CC)</b> - Mandatory. This client enrolls the endpoint.</li> <li><b>Comodo Client Security (CCS)</b> - Optional. This client installs security software such as antivirus, firewall and auto-containment.</li> </ul> <p>To create an installation package in MSI/MST file format for bulk enrollment through AD Group Policy, leave only the 'Communication Client' selected and 'Comodo Client Security' unselected. You can remotely install CCS at a later time on required endpoints from the EM. See <b>Remotely Install and Update Packages on Windows Devices</b> for more details.</p> <p>The rest of the configuration options related to CCS will not be enabled, if 'Security' is not selected under 'Comodo Client'.</p>
Proxy Settings	<p>Proxy settings allows you to specify a proxy server through which Comodo Client Security (CCS) and the communication client (CC) on the endpoints should connect to EM management portal and Comodo servers. If you choose not to set these, then CCS and CC will connect directly as per the network settings.</p> <ul style="list-style-type: none"> <li>Enter the IP address/hostname of the proxy server and port in the respective fields.</li> <li>Enter the user-name and password of an administrative account on the proxy server in the Proxy Login and Proxy Password fields</li> </ul> <p>Note: If proxy is used then it is mandatory to configure the same proxy settings in client proxy settings in the profile(s) applied to the enrolled devices.</p>

- Click 'Download Default MSI' to download the agent setup file for installation via Group Policy Object (GPO),

The agent package will be downloaded in .msi format. You can transfer the file to the required network location and create a software installation policy for deployment to network endpoints. Once the agent is installed, it establishes communication with the EM server to begin importing the device.

- To download the installation file to include a proxy server for CC and CCS communication to EM and Comodo servers, click 'Download MST File'

EM will create a .mst transform file containing the proxy server installation commands. As above, you can save the file on the AD server from where you want to enroll the endpoints, and add to the GPO created for .msi file. After the agent is installed, it will establish communications with EM via the configured proxy servers to begin importing the device.



For more details about how to create a GPO for bulk enrollment see <https://help.comodo.com/topic-399-1-856-11229-EM---Bulk-Enrollment-via-Active-Directory.html>.

Upon successful enrollment, any configuration profiles assigned to the user and groups to which the user belongs will be automatically applied to the devices.

**Tip:** For more details on creating Group Policy Object for remote installation of software, please refer to <https://support.microsoft.com/en-us/kb/816102>.

### 5.3.1.2. Enroll Windows and Mac OS Devices by Offline Installation of Agent

Admins can download an installation package containing the communication client and the Comodo Client - Security (CCS) software for offline installation. This is useful for endpoints which could not be reached by EM for auto-installation of the agent during enrollment.

EM allows administrators to specify the user to whom the enrolled device should be assigned and the initial configuration profile to be applied to the device. This will provide you with a package which is pre-configured for the user and the device.

**Prerequisite** - The end-user of the device should have been already added to EM. Admins can download installation packages only for existing users.

#### To download the installation package

- Click 'Devices' > 'Bulk Installation Package'
- Select the 'Bulk Installation Package' tab

**Bulk Installation Package**    Remote Control by ITarian

---

**User \***

By default, an installation package will be prepared for the logged in user. If you would like to change the user, please input the corresponding user name into the field above.

**Customer \***

**Device group**

### Package Options

**Choose operating system**

**Choose clients**

Communication Client

Comodo Client - Security

**Additional options**

---

**Confirmation message**

[Download Installer](#)

By downloading these files you automatically agree with «End User License Agreement.»

### Proxy settings

**Proxy host \***

**Proxy port \***

[Download MST File](#)

Bulk Installation Package - Form Parameters	
Parameter	Description
User	Specify the user to whom the target endpoints are assigned. <ul style="list-style-type: none"> <li>Start typing the name of a user and choose from the suggestions that appear.</li> </ul>
Company	Choose the customer organization to which the endpoints should be assigned. <ul style="list-style-type: none"> <li>This field only applies to C1 MSP and ITarian MSP customers. It does not apply to C1 Enterprise, ITarian Enterprise or EM stand-alone customers.</li> </ul>
Device Group	The device group to which the enrolled devices should be added (optional). Any group profiles will also be applied to the devices you add.  See <b>Assign Configuration Profiles to a Device Group</b> if you want more help with this.
Package Options	<p><b>Operating system</b> - Choose the OS of the target endpoints.</p> <p><b>Clients:</b></p> <ul style="list-style-type: none"> <li><b>Communication Client (CC)</b> - Mandatory. This client enrolls the endpoint.</li> <li><b>Comodo Client Security (CCS)</b> - Optional. This client installs security software such as antivirus, firewall and auto-containmentment.</li> </ul> <p><b>Additional Options:</b></p> <ul style="list-style-type: none"> <li><b>Enrollment Link</b> - This field is available if you select Mac OS as the operating system. This is pre-populated with the URL to download the configuration profile pertaining to the selected company and group.</li> <li><b>Database</b> - Choose whether to include the latest virus database with the installation package. This increases file size. If disabled, the client will download the latest database anyway when you run the first scan.</li> <li><b>Profile</b> - Choose a configuration profile for the endpoints (optional). <ul style="list-style-type: none"> <li>Type the first few characters of a profile and choose from the suggestions that appear.</li> </ul> </li> </ul> <p>If you do not choose a profile then the default profiles for the operating system will be applied.</p> <p><b>Tip:</b> You can add or remove profiles later. See <b>View and Manage Profiles Associated with a Device</b> for more details.</p>
Restart Control Options	<p>CCS only. Endpoints need to be restarted to complete CCS installation. You have the following restart options:</p> <ul style="list-style-type: none"> <li><b>Force the reboot in...</b> - Restart the endpoint a certain length of time after installation. Select the delay period from the drop-down. A warning message will be shown to the user prior to the restart.</li> <li><b>Suppress reboot</b> - Endpoint is not auto-restarted. The installation will be finalized when the user next restarts the endpoint.</li> <li><b>Warn about reboot and let users postpone it</b> - Shows a message to the user which tells them that the endpoint needs to be restarted. The user can choose when the restart happens.</li> </ul> <p>Optional. Type a custom message in the 'Reboot Message' field.</p>
UI Options	<p>Configure which messages are shown to the user regarding the installation.</p> <ul style="list-style-type: none"> <li><b>Show error messages if installation failed</b> - Notifies the user if the</li> </ul>

	<p>installation is not successful.</p> <ul style="list-style-type: none"> <li>• <b>Show a confirmation message upon completion of installation</b> - Notifies the user if the installation is successful. Type your message in the box provided.</li> </ul>
Proxy Settings	Leave these blank as these settings are not required for the offline installation package.

- Click 'Download Installer'.

### For Windows Devices

Endpoint Manager will create a custom installation file in .msi (if only agent is selected) or .exe format (if both agent and CCS are selected) for installation on to the user's device. Administrators should transfer the file to the target device for manual installation. Upon successful installation, CCS will be applied with the chosen profile irrespective of the online status of the endpoint(s). Once connected the agent will establish communication with the EM server and the device will be automatically enrolled.

### For Mac OS Devices

Endpoint Manager will create a custom installation file in .pkg format for installation on to the user's Mac OS devices. Admins should transfer the file to the target device for manual installation. After successful installation of agent and CCS, administrators should forward the **enrollment link** to the end user for installing the configuration file. The link should be clicked from the user's device for installing the configuration profile. Mac OS devices will be enrolled to EM only after both the agent and the configuration profile are installed on the devices.

### 5.3.1.3. Enroll Windows Devices using Auto Discovery and Deployment Tool

- You can use the auto-deployment tool to install the Endpoint Manager communication and security clients on target endpoints.
- By installing the clients you will enroll the endpoints to Endpoint Manager.
- You first need to create client installation files using the 'Bulk Installation Package' interface in 'Devices'

Note - The user of the device should already have been added to EM. You can download installation packages only for existing users.

### To download ADDT and installation packages

- Click 'Devices' > 'Bulk Installation Package'
- Each installation package is custom-created for a specific user, customer, group, operating system etc.
- You will complete the fields in the form to generate your custom package:

Bulk Installation Package    Remote Control by ITarian

---

**User \***

By default, an installation package will be prepared for the logged in user. If you would like to change the user, please input the corresponding user name into the field above.

**Customer \***

**Device group**

**Package Options**

**Choose operating system**

 ▾

**Choose clients**

Communication Client

Comodo Client - Security

**Additional options**

---

**Confirmation message**

[Download Installer](#)

By downloading these files you automatically agree with «End User License Agreement.»

**Proxy settings**

**Proxy host \***

**Proxy port \***

Proxy login


[Download MST File](#)

Bulk Installation Package - Form Parameters	
Parameter	Description
User	<p>Specify the user to whom the target endpoints are assigned.</p> <ul style="list-style-type: none"> <li>Start typing the name of a user and choose from the suggestions that appear.</li> </ul>
Company	<p>Choose the customer organization to which the endpoints should be assigned.</p> <ul style="list-style-type: none"> <li>This field only applies to C1 MSP and ITarian MSP customers. It does not apply to C1 Enterprise, ITarian Enterprise or EM stand-alone customers.</li> </ul>
Device Group	<p>The device group to which the enrolled devices should be added (optional). Any group profiles will also be applied to the devices you add.</p> <p>See <a href="#">Assign Configuration Profiles to a Device Group</a> if you want more help with this.</p>
Package Options	<p><b>Operating system</b> - Choose the OS of the target endpoints.</p> <p><b>Clients:</b></p> <ul style="list-style-type: none"> <li><b>Communication Client (CC)</b> - Mandatory. This client enrolls the endpoint.</li> <li><b>Comodo Client Security (CCS)</b> - Optional. This client installs security software such as antivirus, firewall and auto-containment.</li> </ul> <p><b>Additional Options:</b></p> <ul style="list-style-type: none"> <li><b>Enrollment Link</b> - This field is available if you select Mac OS as the operating system. This is pre-populated with the URL to download the configuration profile pertaining to the selected company and group.</li> <li><b>Database</b> - Choose whether to include the latest virus database with the installation package. This increases file size. If disabled, the client will download the latest database anyway when you run the first scan.</li> <li><b>Profile</b> - Choose a configuration profile for the endpoints (optional). <ul style="list-style-type: none"> <li>Type the first few characters of a profile and choose from the suggestions that appear.</li> </ul> </li> </ul> <p>If you do not choose a profile then the default profiles for the operating system will be applied.</p> <p><b>Tip:</b> You can add or remove profiles later. See <a href="#">View and Manage Profiles Associated with a Device</a> for more details.</p>
Restart Control Options	<p>CCS only. Endpoints need to be restarted to complete CCS installation. You have the following restart options:</p> <ul style="list-style-type: none"> <li><b>Force the reboot in...</b> - Restart the endpoint a certain length of time after installation. Select the delay period from the drop-down. A warning message will be shown to the user prior to the restart.</li> <li><b>Suppress reboot</b> - Endpoint is not auto-restarted. The installation will be finalized when the user next restarts the endpoint.</li> <li><b>Warn about reboot and let users postpone it</b> - Shows a message to the user which tells them that the endpoint needs to be restarted. The user can choose when the restart happens.</li> </ul> <p>Optional. Type a custom message in the 'Reboot Message' field.</p>

UI Options	<p>Configure which messages are shown to the user regarding the installation.</p> <ul style="list-style-type: none"> <li>• <b>Show error messages if installation failed</b> - Notifies the user if the installation is not successful.</li> <li>• <b>Show a confirmation message upon completion of installation</b> - Notifies the user if the installation is successful. Type your message in the box provided.</li> </ul>
Proxy Settings	<p>Leave these blank as these settings are not required for offline installation packages.</p>

- Click 'Download Installer' when you have completed the form.
- You will now download TWO items:
  1. The installation package. This will have a name like 'installer\_2dr846534e83.exe'
  2. The Auto-Deployment tool (ADDT). This tool helps you deploy the installation package to your network:

**Auto Discovery and Deployment Tool** ✕



Download
Deploy Remotely
Manage Devices on EM

**Auto Discovery and Deployment Tool (ADDT)** allows network administrators to remotely deploy any application including Communication Client via Active Directory, Workgroup, IP address, IP range or host name.

Download

ADDT is a portable app which does not require installation. ADDT lets you deploy the clients via Active Directory, Workgroup or network address.

- Comodo One customers - For more details about how to deploy applications via ADDT, visit <https://help.comodo.com/topic-289-1-851-11043-Introduction-to-Comodo-Auto-Discovery-and-Deployment-Tool.html>.
- ITarian customers - For more details about how to deploy applications via ADDT, visit <https://help.comodo.com/topic-452-1-955-13345-Introduction-to-Auto-Discovery-and-Deployment-Tool.html>

## 5.3.2. Enroll the Android and iOS Devices of AD Users

- This section explains how to enroll the devices of users who were imported from Active Directory. See **Import User Groups from LDAP** if you need help to import users first.
- Setup involves installing the communication client on the user's device. After installation, the user should



login to the client using their domain username and password.

- Please follow the steps below to import the devices:


**Get the enrollment links**

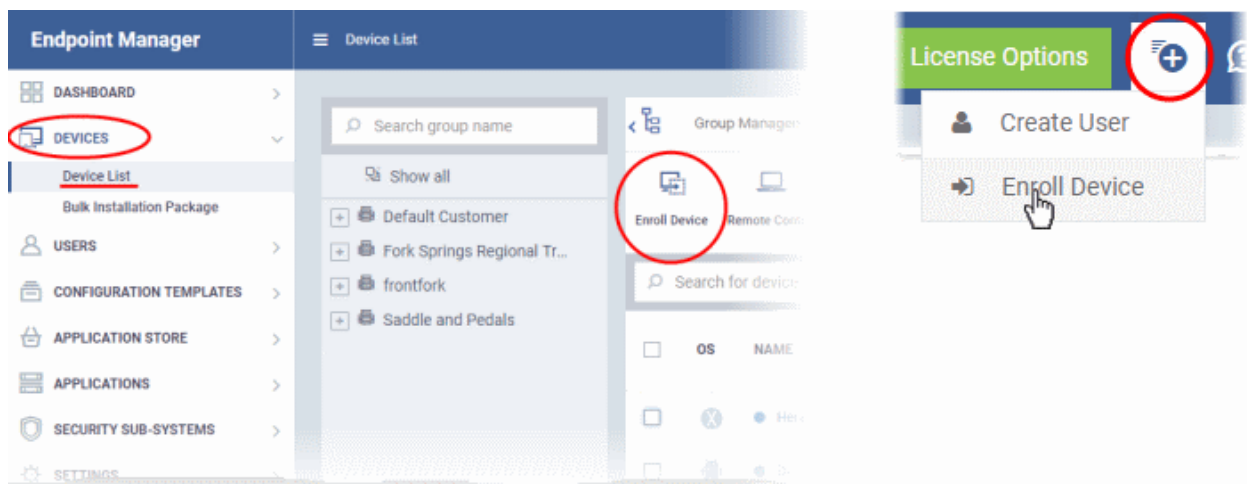
**Import Android devices**

**Import iOS devices**

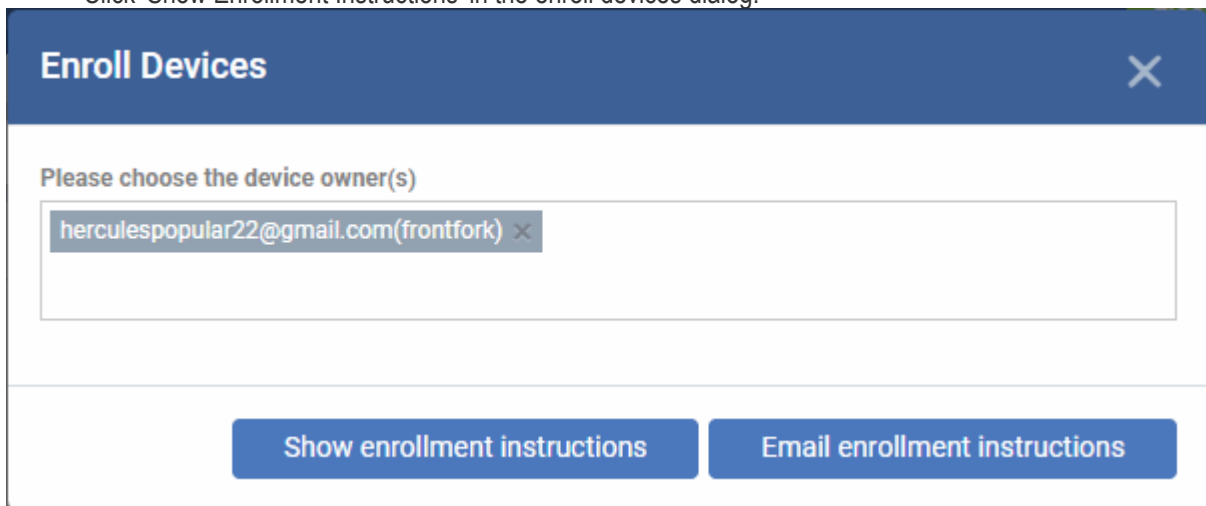
**Get the enrollment links**

- Click 'Devices' > 'Device List' on the left
  - Click the 'Enroll Device' button above the table
- Or

- Click the 'Add' button  on the menu bar and choose 'Enroll Device'.



- Click 'Show Enrollment Instructions' in the enroll devices dialog:



- Scroll down the section 'Or enroll Active Directory Services':

## Enroll Device

Make sure that you selected the operating system of the device that you want to enroll.

### For Windows devices

Enroll using this link: <https://frontfork-frontfork-msp.dmdemo.comodo.com:443/enroll/windows/msi/token/c0d79905564935390076bff051546b41>

### For macOS devices

- 1) Open the following link on the browser of the device you want to enroll <https://frontfork-frontfork-msp.dmdemo.comodo.com:443/enroll/apple/index/token/c0d79905564935390076bff051546b41>
- 2) When you have installed *itsm.mobileconfig* file, use this link to download and install Communication Client application: <https://static.dmdemo.comodo.com/download/itsmagent-installer.pkg>

### For iOS devices

- 1) Open the following link on the browser of the device you want to enroll <https://frontfork-frontfork->

Use the following settings:

Host: <https://frontfork-frontfork->  
Port: 443  
Token: c0d79905564935390076bff051546b41

### Or enroll active directory devices

#### For Windows devices

<https://help.comodo.com/topic-399-1-856-11229-ITSM-%E2%80%93Bulk-Enrollment-via-Active-Directory.html>

#### For Apple devices

Enroll using this link: <https://frontfork-msp.dmdemo.comodo.com:443/enroll/apple/login>

Use the login and password of your domain.

#### For Android devices

Download and install Communication Client tapping the following link: <https://play.google.com/store/apps/details?id=com.comodo.mdm>

Upon completion of the installation, enroll using this link: <https://frontfork-msp.dmdemo.comodo.com:443/enroll/android/login>

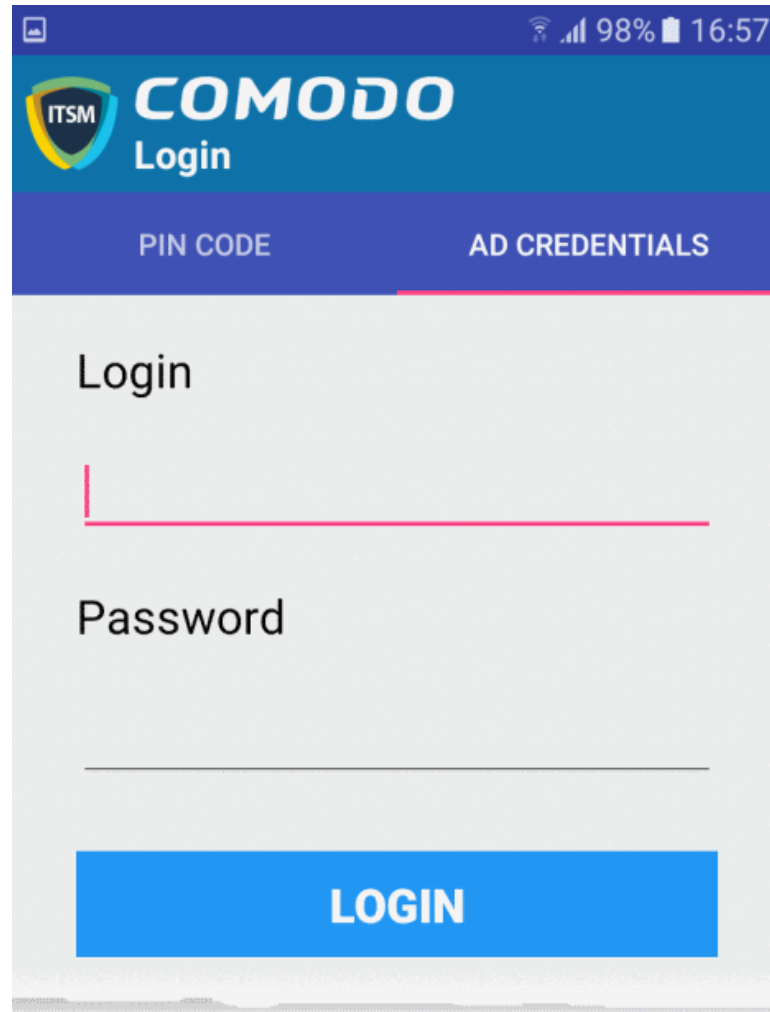
Use the login and password of your domain.

- You next need to send your target users the appropriate setup links for their device operating system.
- They should open the links on the target device itself

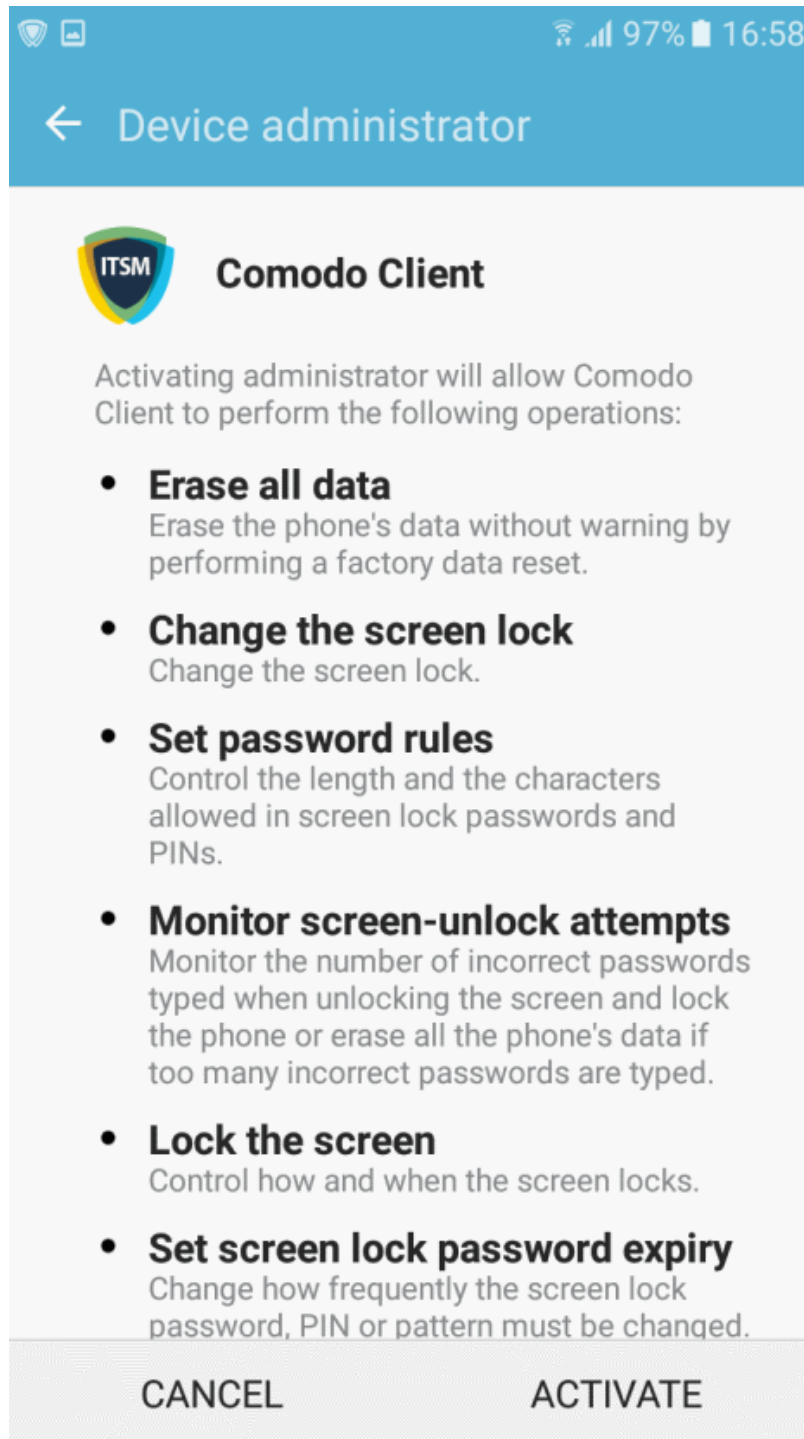
- See either **Import Android devices** or **Import iOS devices** for help with each OS

## Android Devices:

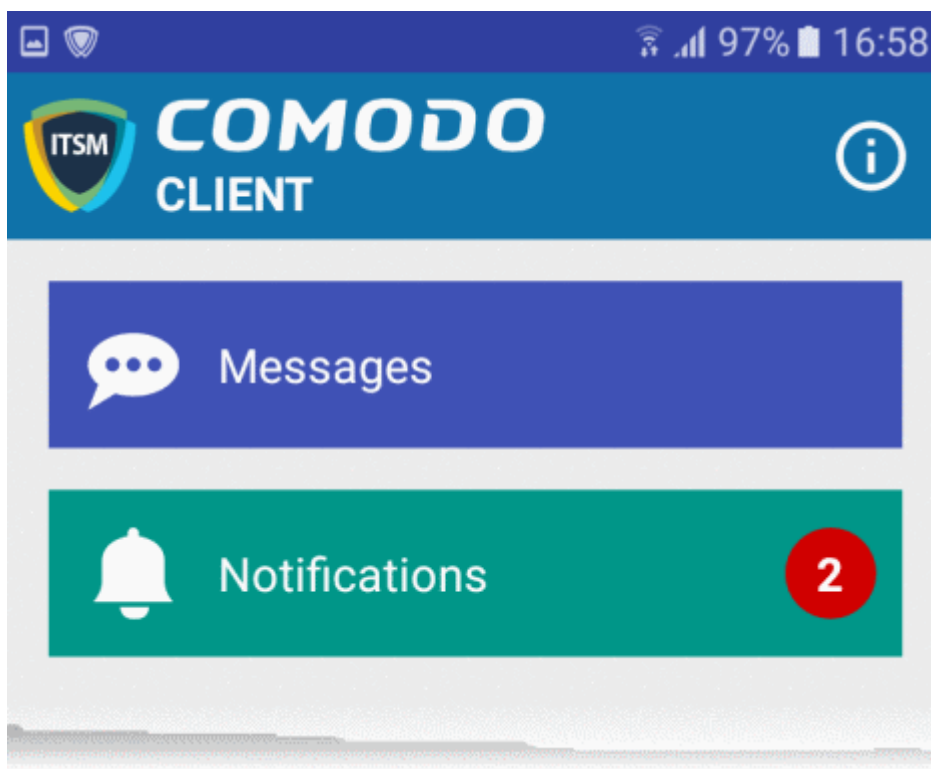
- Email the Android client download and enrollment links to target users
- Target users should open the mail on the device you want to enroll
- First click the agent download link then install the client on the device.
- After installation is complete, the user should next open the enrollment link.
- This will open the Endpoint Manager login page. Users can login with their domain username and password:



- After agreeing to the EULA, the user should hit 'Activate' to grant admin privileges to the communication client:



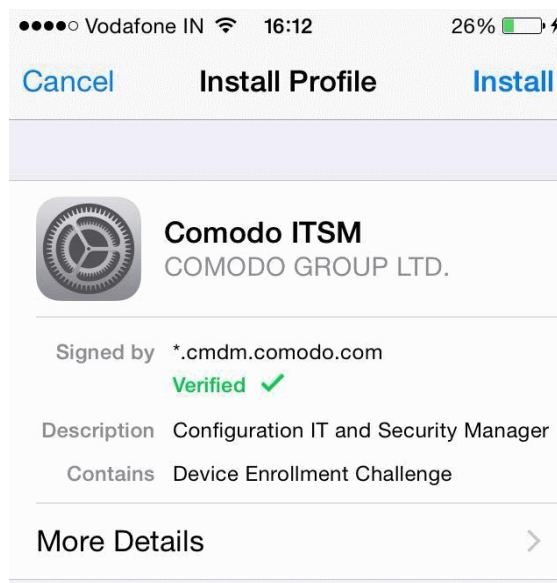
- After activation, the client will open at the home screen :



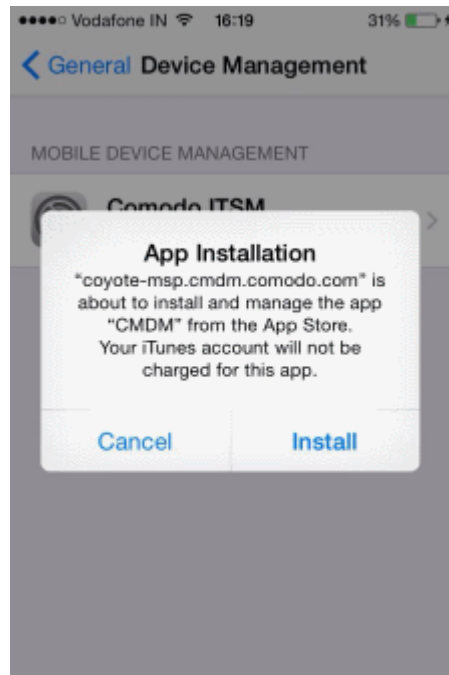
- The device is now enrolled and can be remotely managed from the Endpoint Manager console.

## iOS Devices:

- iOS users first need to install a device profile, then install the Endpoint Manager app.
- Email the Apple enrollment link to all target users. Users should open the mail on the device you want to enroll.
- Users should open the link to download and install the enrollment profile:



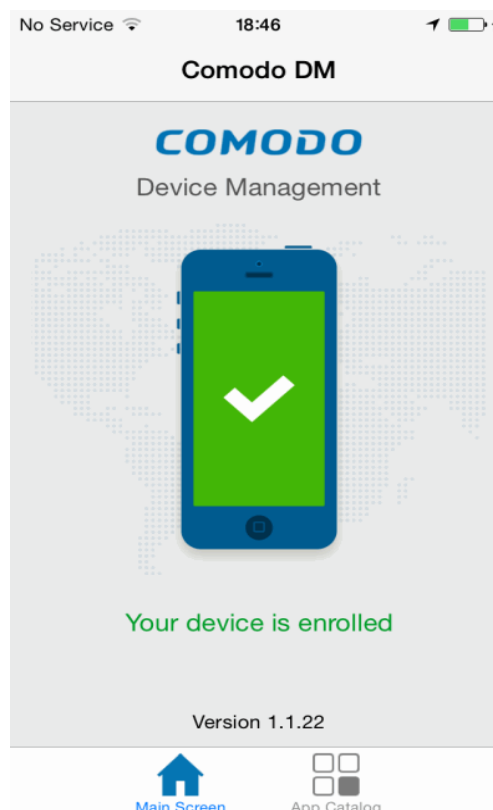
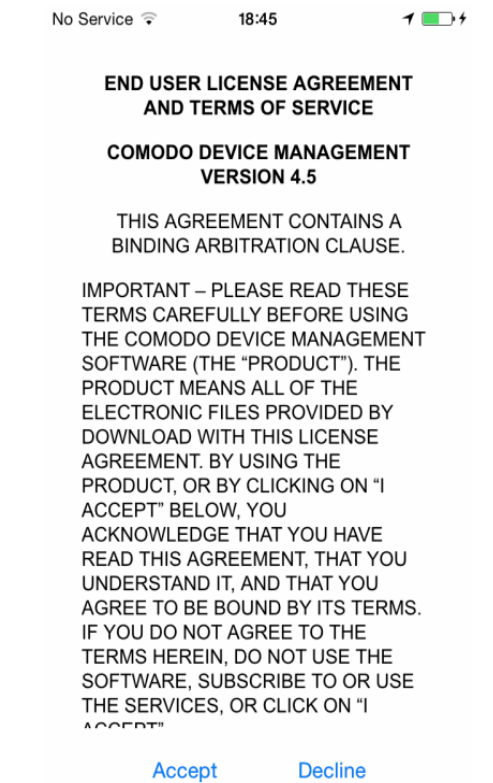
- Users should follow the wizard to complete profile installation.
- The Endpoint Manager login page will appear when installation is complete. Users should login with their domain username / password.
- The device will connect to Endpoint Manager and commence the app installation process:



- User should select 'Install'. The app is downloaded from the iTunes store account. Users may need to login with their Apple ID for the download to commence.
- After installation, users should open the green 'Run After Install' icon:

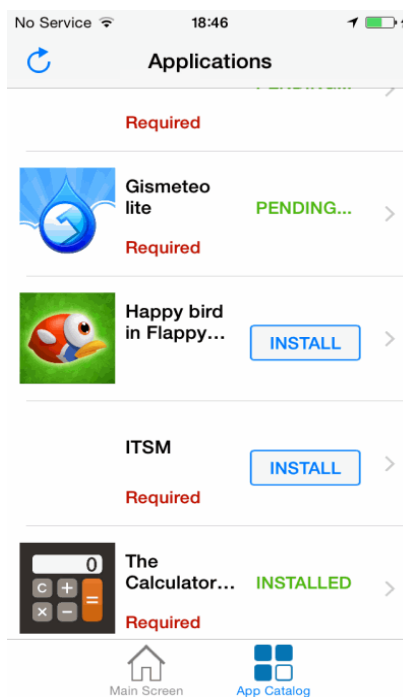


- User should next accept the EULA to complete device enrollment:



**App Catalog** - Shows Endpoint Manager apps that are ready to be installed:





### 5.3.3. Download and Install the Remote Control Tool

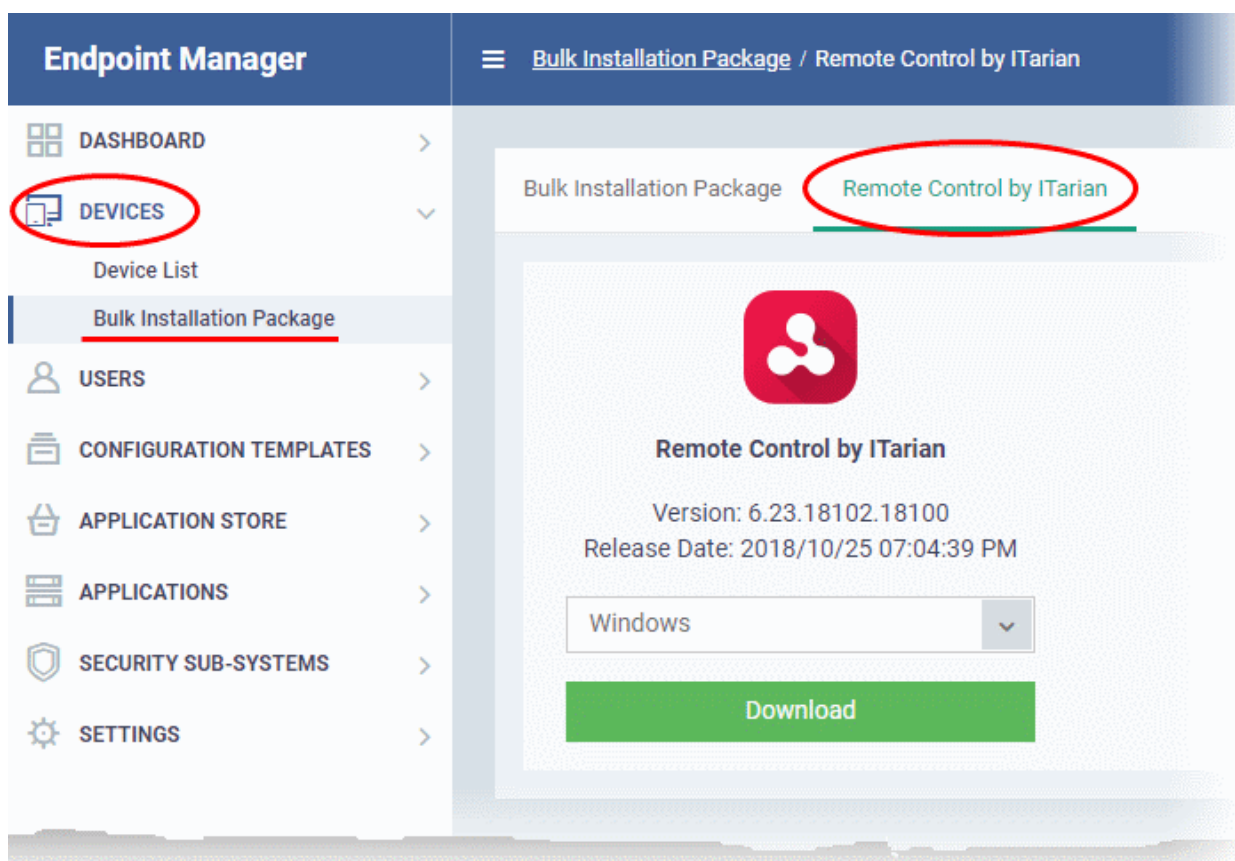
- The Remote Control (RC) tool allows admins and staff to remotely take control of managed Windows and Mac OS endpoints.
- This is useful in a number of circumstances, including troubleshooting, running system maintenance and providing training to users.
- You can download the tool from Endpoint Manager or the Comodo One / ITarian consoles:
  - **EM interface** - Click 'Devices' > 'Bulk Enrollment Package' > 'Remote Control by ITarian'.
  - **C1 or ITarian Console** - Click 'Tools' > Click 'Download' in the 'Remote Control by ITarian' tile.
- The tool should be installed on your admin computer (the computer from which you want to control the remote endpoints).
- Once installed, the tool can be started from the desktop application or from the EM admin console.
- See **Remote Management of Windows and Mac OS Devices** for more help to takeover Windows and Mac OS devices

**Limitations:**

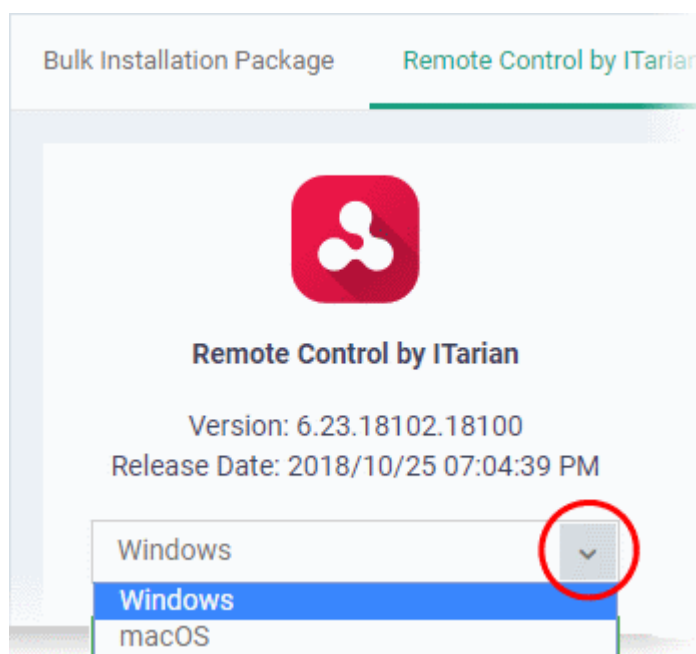
- The remote control tool uses WebRTC and Chromoting protocols to connect to Windows devices. It uses the Chromoting protocol alone to connect to Mac OS devices.
- Chromoting is supported by MAC OS and by Windows 7, 8/8.1, 10. It is not support by Windows XP.
- WebRTC is not supported by Mac OS

#### Download RC from EM interface

- Click 'Devices' > 'Bulk Installation Package'.
- Select the 'Remote Control by ITarian' tab



- Select the OS of the computer on which you want to install the tool.

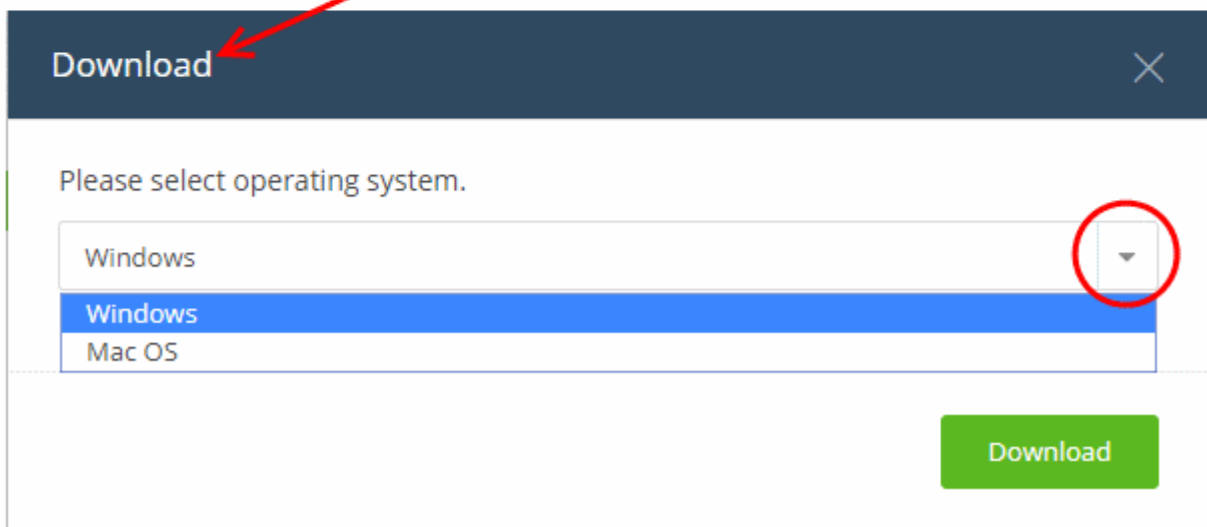
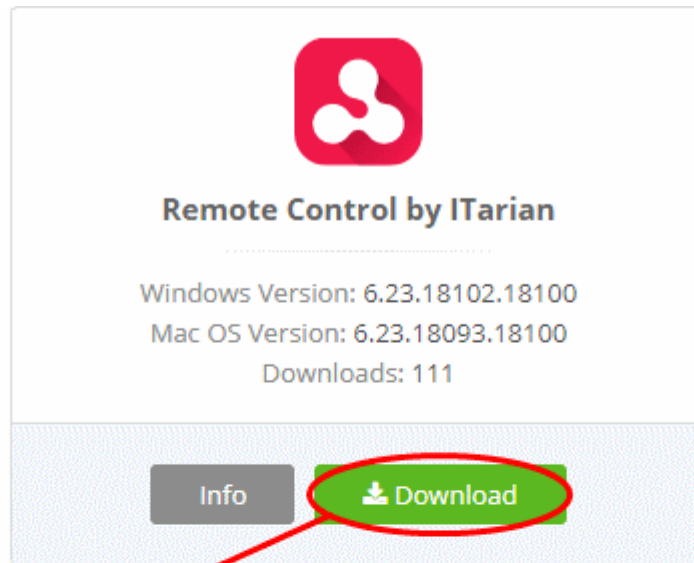


- Click 'Download' and save the setup file.

### Download RC from Comodo One or ITarian Console

- **Comodo One customers** - Login to your Comodo One account
- **ITarian customers** - Login to your Comodo One account
- Click 'Tools' from the top

- The 'Tools' area is a repository of enterprise productivity and security tools
- Click the 'Download' button in the 'Remote Control for ITarian' tile

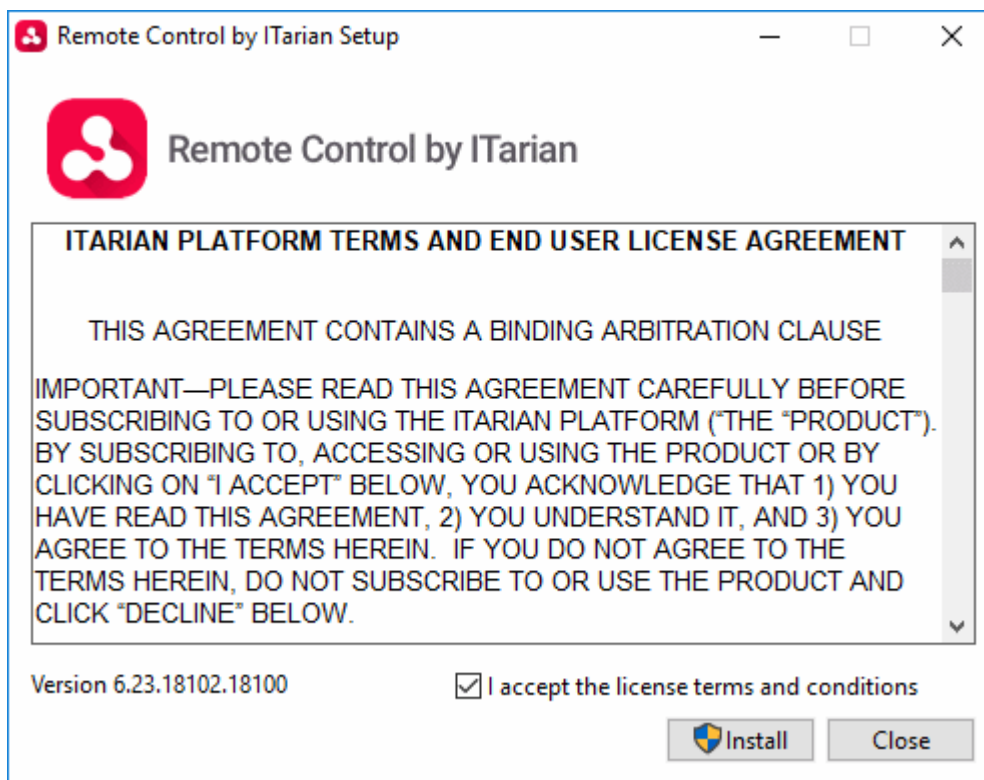


The 'Download' dialog will appear.

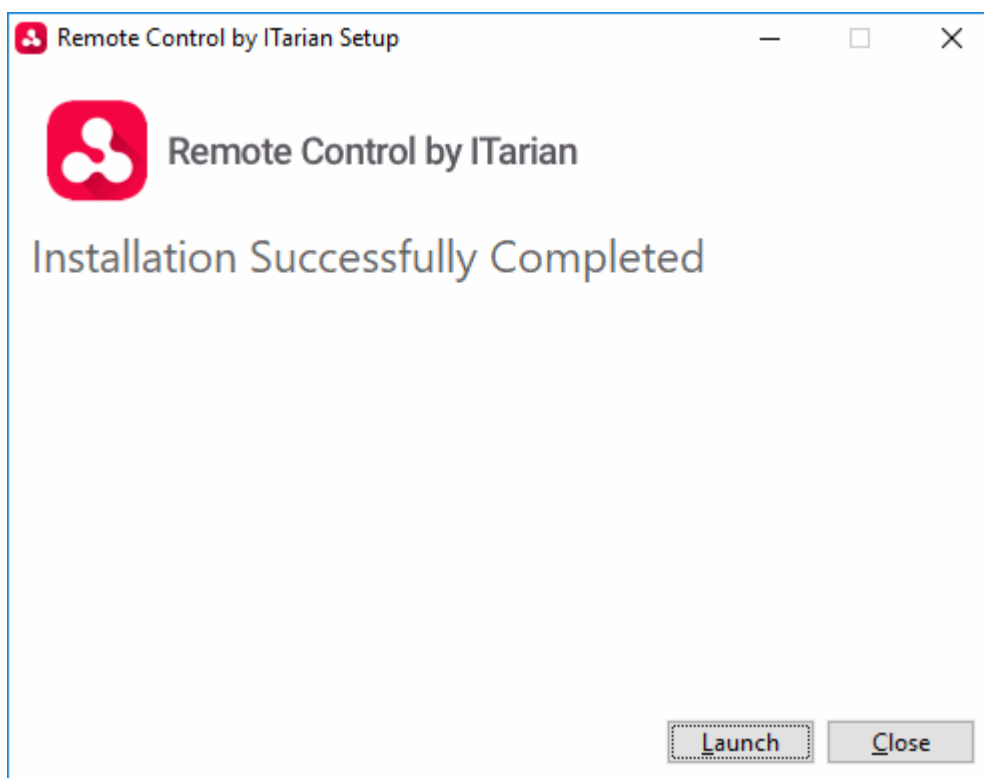
- Select the operating system of your admin machine. Click 'Download' and save the setup file.

### To install the tool

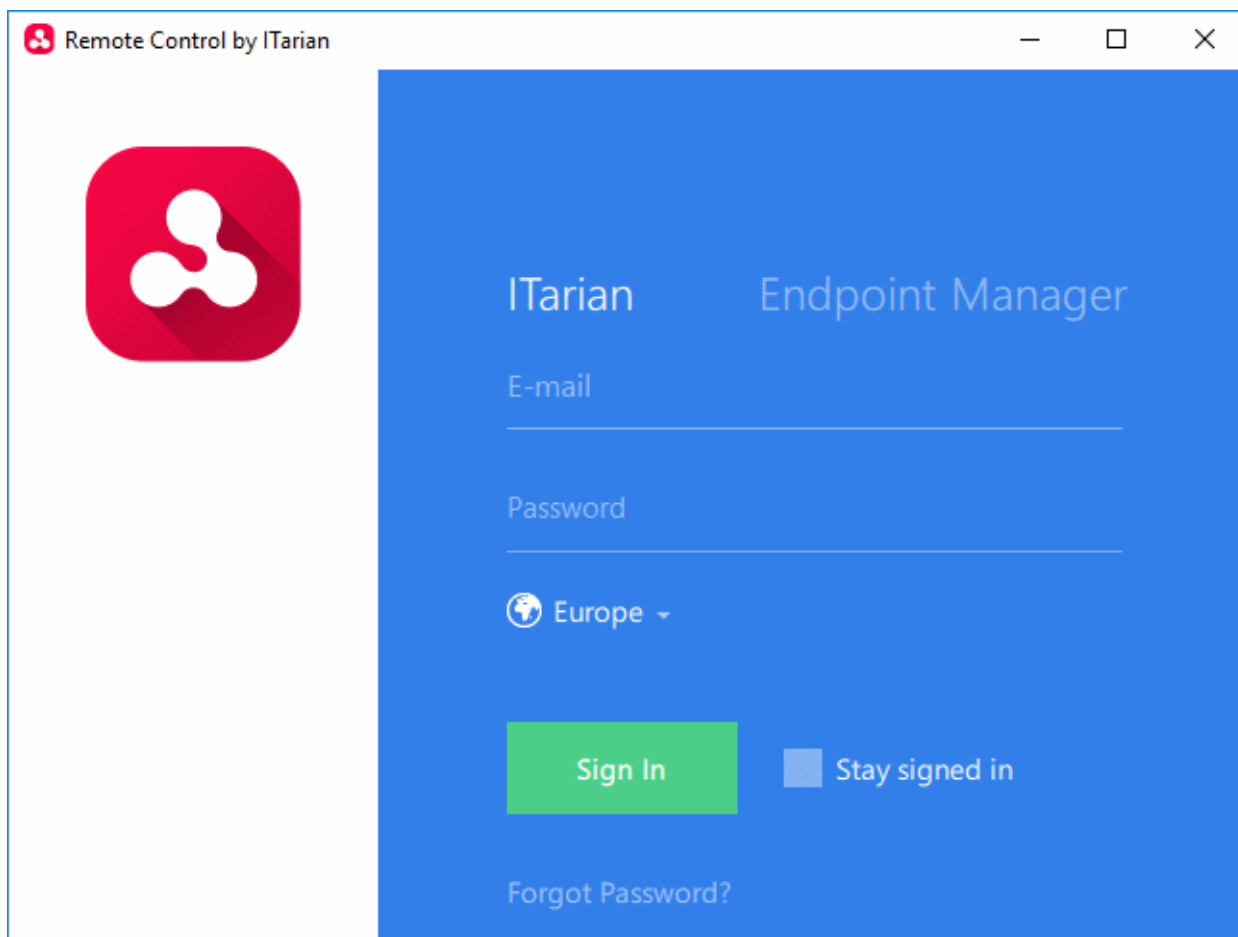
- Launch the set up file to start the installation wizard:



- You must read and accept the End User License Agreement before continuing. After doing so, click 'Install' to start the installation.



- After installation is complete, click 'Launch' to start the application.

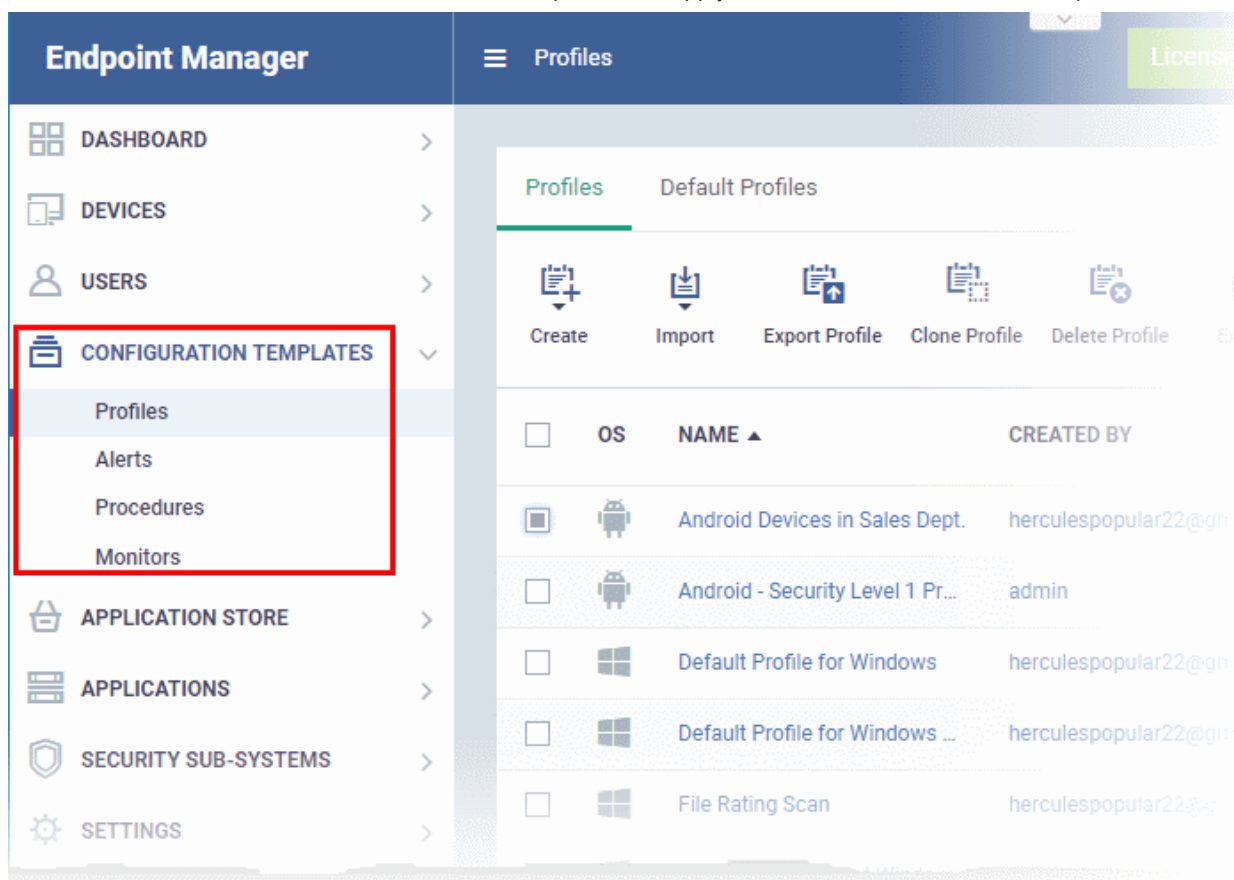


- Login to the application to start managing Windows or Mac OS endpoints.
  - **Comodo One and ITarian customers** - Click the 'ITarian' tab then login with your Comodo One / ITarian portal username and password
  - **Stand-alone Endpoint Manager customers** - Click the 'Endpoint Manager' tab then enter your Endpoint Manager URL and your login credentials. Your EM URL will use the format `https://<your company name>.cmdm.comodo.com`, where <your company name> is your EM company name.
- See [Remote Management of Windows and Mac OS Devices](#) for more details on using the desktop application.

## 6. Configuration Templates

The 'Configuration Templates' section lets you create and manage profiles for Android, iOS, Mac, Windows and Linux devices.

- Each profile lets you to specify a device's network access rights, overall security policy, antivirus scan schedule and other settings.
- Once created, profiles can be applied to devices/device groups and users/user groups.
- You can also add procedures and monitors to a profile (Windows devices only).
  - **Procedures** let you automate a range of tasks on your protected endpoints. Example procedures include patch installation, disk de-fragmentation and so on. Procedures can also be deployed as stand-alone instructions.
  - **Monitors** are scripts which track events on your endpoints and take specific actions if their conditions are met. For example, 'Alert me when a USB removable disk is connected to the system', or 'Create a log entry if CPU usage goes above 75% for a certain length of time'.
- **Alerts** - You can configure monitors to generate alerts if their conditions are met.
  - The 'Alerts' area contains templates which specify general settings for those alerts.
  - For example, 'Create a ticket on service desk', 'Create a notification in the portal', 'Send a notification to the following users'.
  - You can create different alert templates and apply them to different monitors as required.



The 'Configuration Templates' tab contains four sub sections:

- **Profiles** - A list of every profile added to Endpoint Manager.
  - A profile lets you define a device's security policy, network access rights, antivirus scan schedule

and other settings.

- 'Default Profiles' are applied to newly added devices if no user or user group profile exists. Default profiles are available for iOS, Android, Mac OS, Windows and Linux devices
- You can mark custom profiles as 'default' if you wish.
- Profiles can be applied to individual devices/users, device groups and user groups. You can add new profiles, export profiles, and import profiles.

- **Alerts** - Alert templates govern what happens when you receive an alert from a procedure/monitor. For example, an alert template can tell EM to send you a notification if the conditions of a monitor are met.

Unless you change it, the 'Default Alert' settings are applied to new monitors/procedures. Click 'Configuration Templates' > 'Alerts' then click on 'Default Alert' to view these settings. You can also create custom alert templates as required.

See '**Manage Alerts**' for more details.

- **Procedures** - Contains a list of predefined and custom procedures that can be executed on enrolled devices. Procedures can be run ad-hoc on selected devices or scheduled in a profile to run at set intervals. See '**Manage Procedures**' for more details.

- **Monitors** - A monitor is a script which tracks events on your network and takes specific actions if its conditions are met. For example, 'Alert me when a USB removable disk is connected to the system', or 'Create a log entry if CPU usage goes above 75% for a certain length of time'.

You can add a monitor to a Windows profile by adding a 'Monitoring' section. See **Manage Monitors** for more details.

The interface allows the administrator to:

- **Create/Import Configuration Profiles**
- **View the Profiles**
- **Edit Configuration Profiles**
- **Manage Default Profiles**
- **Manage Procedures**
- **Manage Alerts**
- **Manage Monitors**

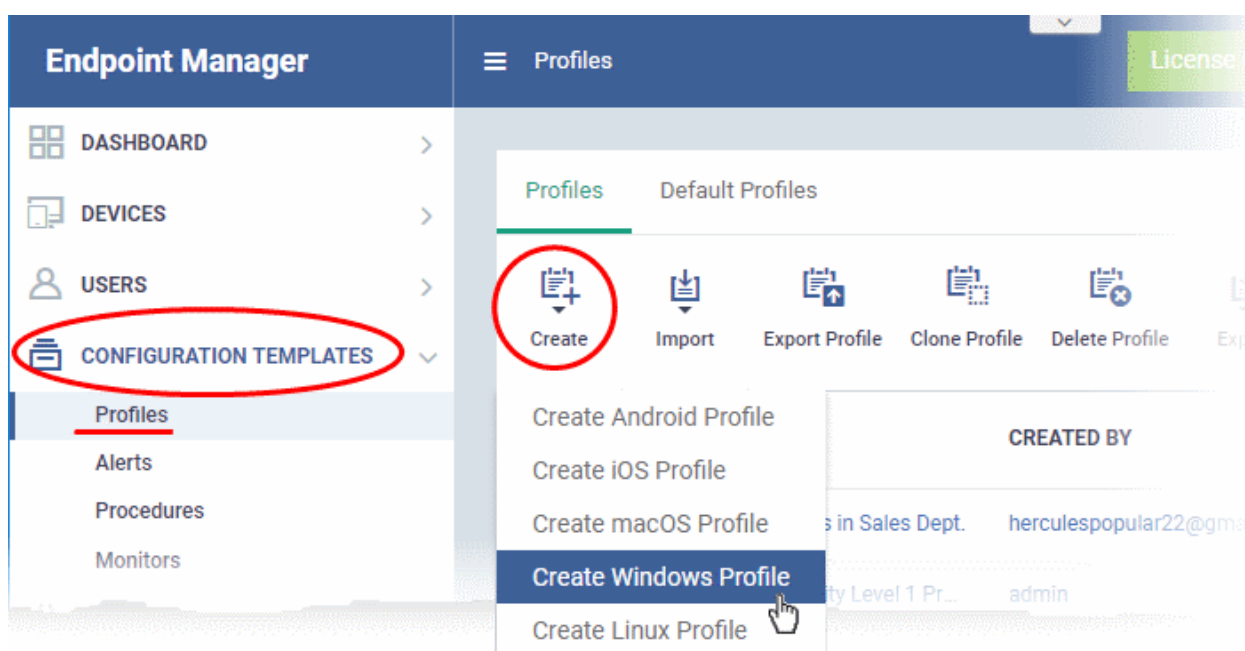
## 6.1. Create Configuration Profiles

- Click 'Configuration Templates' > 'Profiles'
- A configuration profile is a collection of settings which can be applied to devices managed by Endpoint Manager.
- Each profile lets you specify a device's network access rights, overall security policy, antivirus scan schedule and other settings.
- Profiles can be created and managed separately for iOS, Android, Mac OS, Windows and Linux devices.
- Once created, a profile can be applied to an individual device, to a group of devices, to a user, to a user group, or designated as a 'default' profile.
- The 'Profiles' interface lets you create new profiles as well as to edit or delete existing profiles. You can also create new profiles by cloning or importing a profile.

### To create a configuration profile

- Click the 'Configuration Templates' > 'Profiles'
- Click 'Create' from the options at the top





The 'Create' drop-down lets you add new profiles for Android, iOS Mac OS, Windows and Linux devices.

- You can create as many profiles as you want for different use-cases.
- You can apply multiple profiles to a single device. The most restrictive policy will prevail if there is a conflict in settings.
  - For example, if one profile allows the use of camera and another restricts its use, the device will not be able to use the camera.
- You can create a new Windows profile by defining security settings for each component of Comodo Client Security (CCS). In addition, you can import the current CCS configuration from an endpoint to use as a profile for other endpoints.
- The interface also allows you to export an existing Windows profile in .cfg format. You can import the profile at a later time for re-use or modification.

See the following sections for help with OS-specific profiles:

- [Profiles for Android Devices](#)
- [Profiles for iOS Devices](#)
- [Profiles for Mac OS Devices](#)
- [Profiles for Linux Devices](#)
- [Profiles for Windows Devices](#)
- [Import Windows Profiles](#)

### 6.1.1. Profiles for Android Devices

Android profiles let you configure a device's network access rights, security restrictions, scan schedule and other settings.

#### Process in brief:

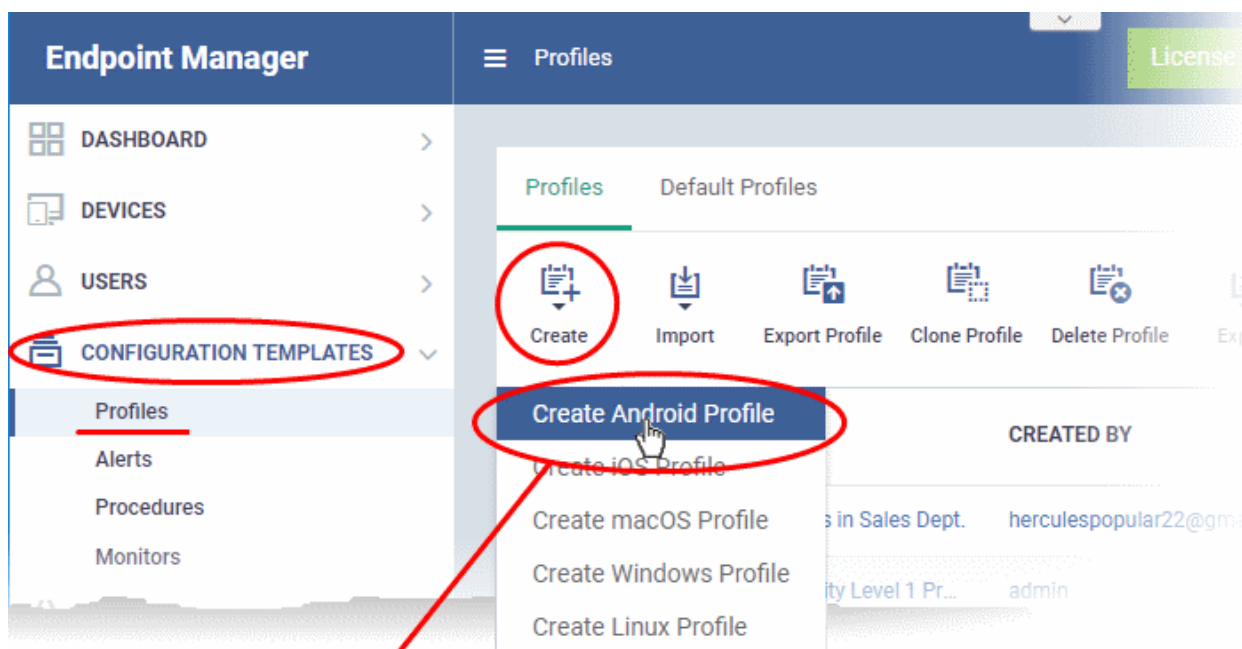
- Click 'Configuration Templates' > 'Profiles'
- Click 'Create' > 'Create Android Profile'
- Type a name and description for your profile then click the 'Create' button. The profile will now appear in 'Configuration Templates' > 'Profiles'.

- New profiles have only one section - 'General'. Click 'Add Profile Section' to add settings for various security and management features. Each section you add will appear as a new tab.
- Once you have fully configured your profile you can apply it to devices, device groups, users and user groups.
- You can make any profile a 'Default' profile by selecting the 'General' tab then clicking the 'Edit' button.

This part of the guide explains the processes above in more detail, and includes in-depth descriptions of the settings available for each profile section.

### To create an Android profile

- Click 'Configuration Templates' > 'Profiles'
- Click the 'Create' button > 'Create Android Profile':



### Create Android Profile

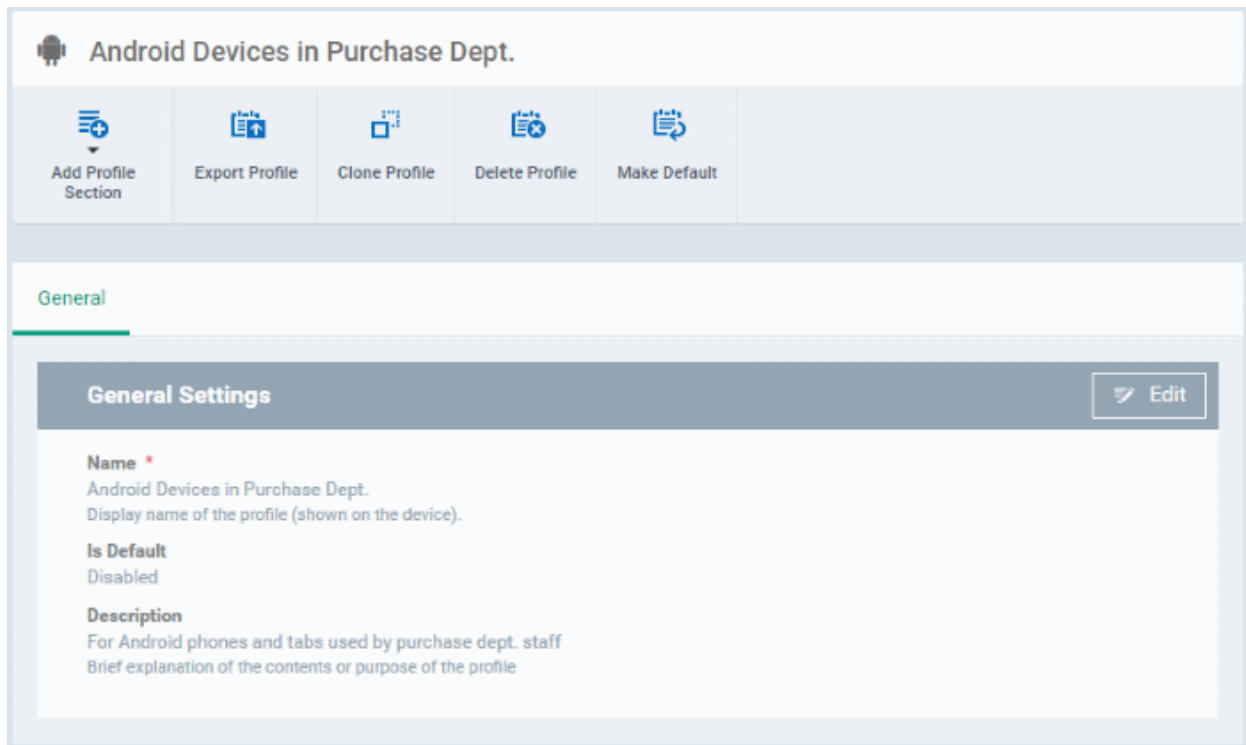
Name \*

Description

Create

- Enter a name and description for the profile
- Click the 'Create' button

The Android profile will be created and the 'General Settings' section will be displayed. The new profile is not a 'Default Profile' by default.

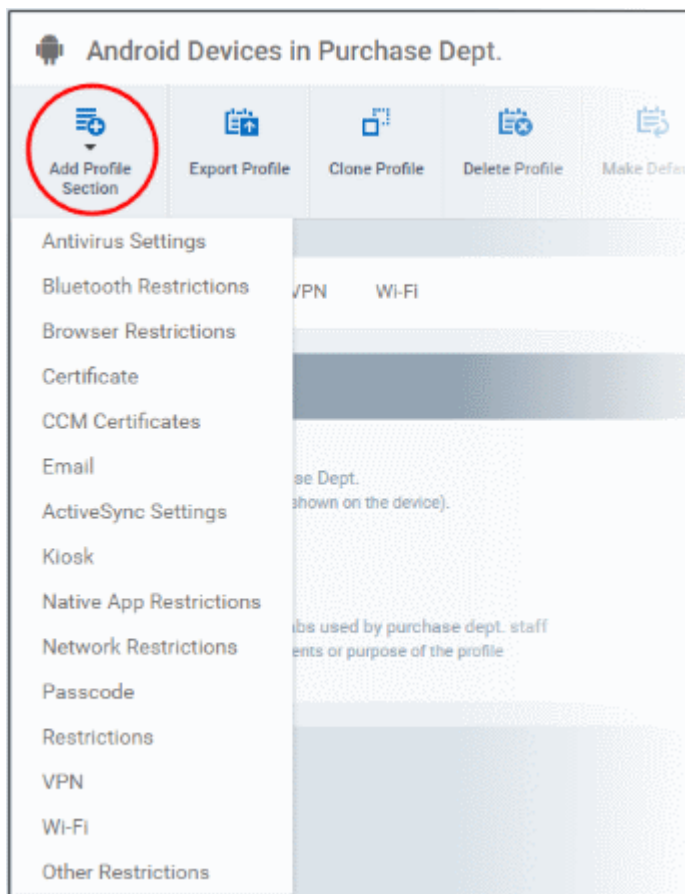


- A 'default' profile is one that is applied automatically to any device which matches its operating system. You can have multiple 'default' profiles per operating system.
- Click the 'Make Default' button if you want this profile to be a default.
  - Alternatively, click the 'Edit' button on the right of the 'General' settings screen and enable 'Is Default'.
- Click 'Save'.

**Tip:** You can set any profile as a default in the 'Profiles' screen. See [Edit Configuration Profiles](#) for more details.

The next step is to add profile sections.

- Each profile section contains a range of settings for a specific security or management feature.
- For example, there are profile sections for 'Browser Restrictions', 'Antivirus Settings', 'Network Restrictions', 'VPN' and so on.
- You can add as many different sections as you want when building your device profile.
- To get started:
  - Click 'Add Profile Section'
  - Select the security component that you want to include in the profile:

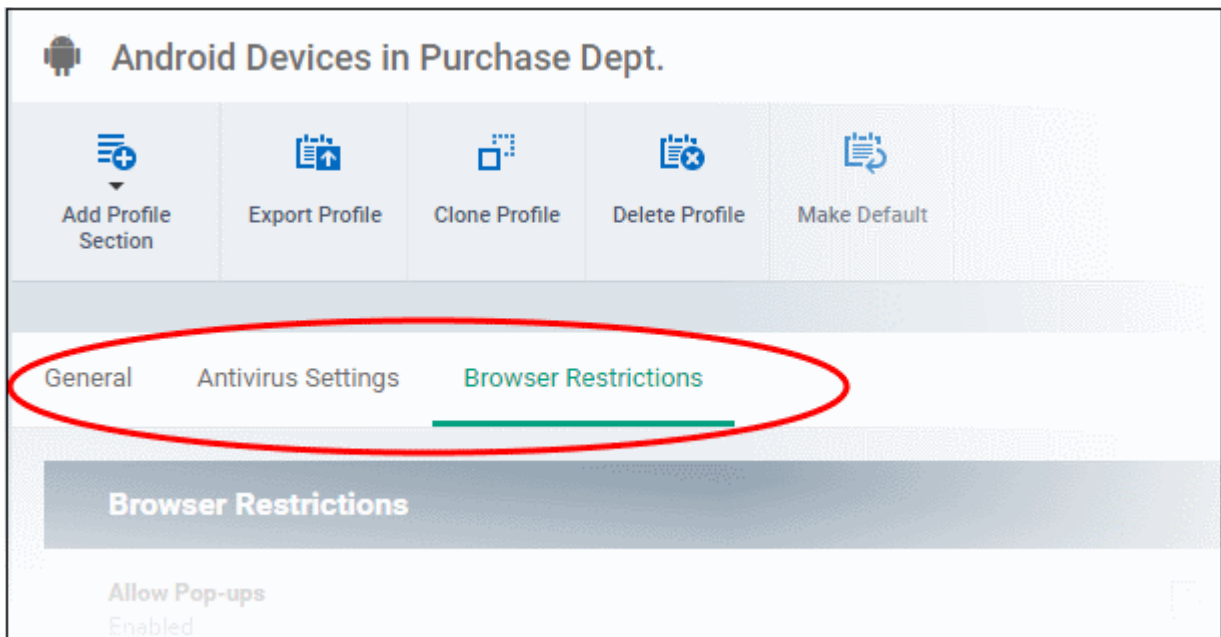


**Note:** Many Android profile settings have small information boxes next to them which indicate the OS and/or device required for the setting to work correctly.

For example, the following box indicates that the setting supports Android 4+ devices and SAFE 1.0+ (Samsung For Enterprises) devices:

Android 4.0+/SAFE 1.0+

The settings screen for the selected component will be displayed. After saving it will become available as a link at the top.



The following sections explain more about each of the sections:

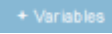



- **Antivirus**
- **Bluetooth Restrictions**
- **Browser Restrictions**
- **Certificate**
- **CCM Certificates**
- **Email**
- **Active Sync**
- **Kiosk**
- **Native App Restrictions**
- **Network Restrictions**
- **Passcode**
- **Restrictions**
- **VPN**
- **Wi-Fi**
- **Other Restrictions**

### To configure Antivirus settings

- Click 'Antivirus Settings' from the 'Add Profile Section' drop-down

The 'Antivirus Settings' screen will be displayed.

**Antivirus Settings - Table of Parameters**

Form Element	Type	Description
AV scanning exclusion list	Text Field	<p>Allows administrators to add trusted Apps. Trusted apps will be excluded from real-time, on-demand and scheduled Antivirus scans run on the devices. You can add apps installed from the Google Play Store and apps installed through the EM App store.</p> <ul style="list-style-type: none"> <li>Enter the bundle identifier of the app that you want to exclude from antivirus scanning.</li> </ul> <p>For more details on getting the bundle identifier for an app, see the <b>explanation</b> given below this table.</p> <p>You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b>.</p> <p>Click  to add more 'AV scanning exclusions list' fields.</p> <p>To remove an item from the 'AV scanning exclusion list' field, click the  button beside it.</p>
Automatically terminate malware process	Checkbox	If enabled, any malware process detected during scanning will be terminated immediately on the devices.
Schedule scan	Checkbox	Select if you want to automate the process of antivirus scanning. Select the checkbox beside the day(s) that you want the scheduled scan to run.

- Click the 'Save' button.

The settings will be saved and displayed under the 'Antivirus Settings' tab. You can edit settings or remove the 'Antivirus Settings' section from the profile at anytime. See **Edit Configuration Profiles** for more details.

## Obtaining Bundle/Package Identifier

The bundle identifier is a string that identifies the .apk package used to install the app.

### For Google Play Apps:

The bundle identifier can be found at the end of the app's Google Play download URL.

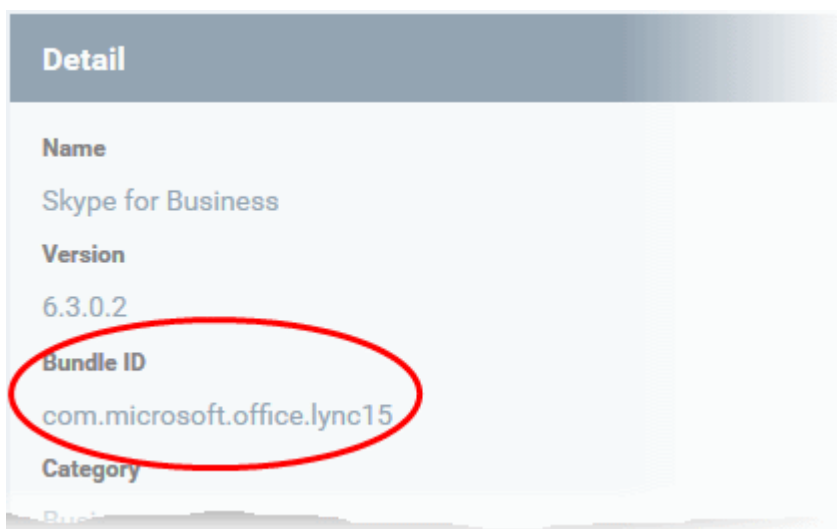
For example, 'com.comodo.batterysaver' is the Comodo Battery Saver app id in the URL

<https://play.google.com/store/apps/details?id=com.comodo.batterysaver>

### For Enterprise Apps installed through EM App Store:

The bundle identifier can be viewed from the App Details screen of the App.

- Click 'App Store' from the left and choose Android
- Click on the app from the list displayed at the right



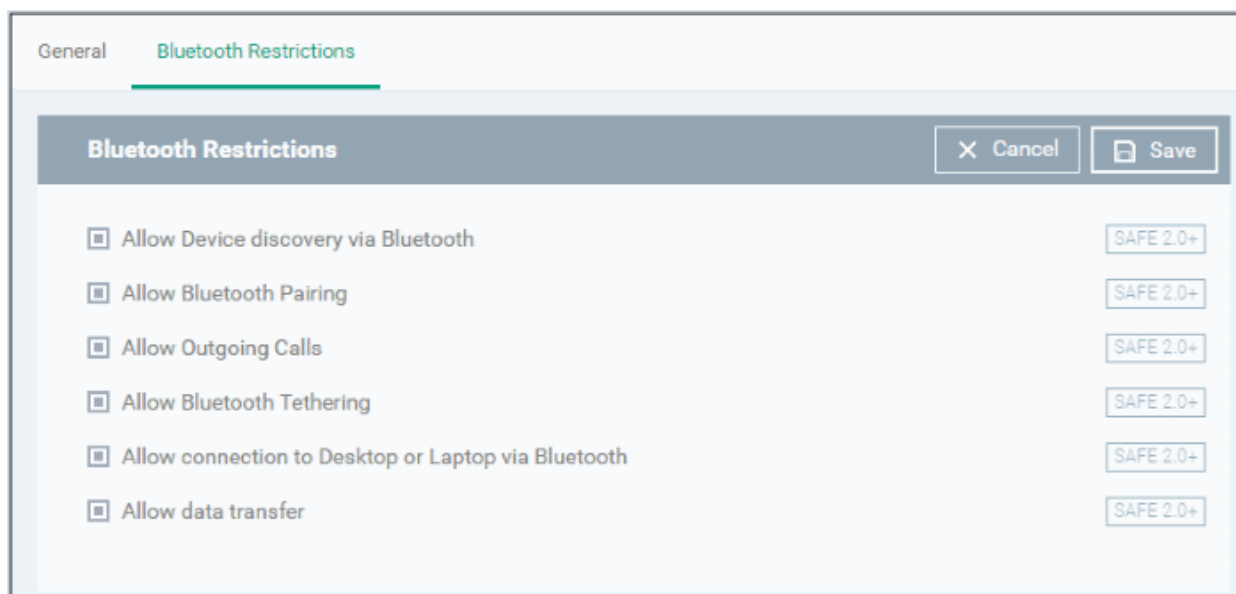
The bundle identifier is displayed in the 'Bundle ID' field.

## To configure Bluetooth Restrictions settings

The feature is supported for Samsung for Enterprise (SAFE) devices only.

- Click 'Bluetooth Restrictions' from the 'Add Profile Section' drop-down

The 'Bluetooth Restrictions' settings screen will be displayed.





Bluetooth Restrictions Settings - Table of Parameters		
Form Element	Type	Description
Allow Device discovery via Bluetooth	Checkbox	Allows discovery of other devices via Bluetooth.
Allow Bluetooth Pairing	Checkbox	Allows users' devices to pair with other their devices via Bluetooth.
Allow Outgoing Calls	Checkbox	Allows users to make calls using Bluetooth enabled devices (eg. hands-free devices)
Allow Bluetooth Tethering	Checkbox	Allows users to enable/disable Bluetooth tethering option.
Allow connection to Desktop or Laptop via Bluetooth	Checkbox	Allow users to enable/disable Bluetooth connection with Desktop or Laptop.
Allow data transfer	Checkbox	Allows data transfer between devices via Bluetooth.

- Click the 'Save' button.

The settings will be saved and displayed under the 'Bluetooth Restrictions' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

## To configure Browser Restrictions settings

The feature is supported for Samsung for Enterprise (SAFE) devices only.

- Click 'Browser Restrictions' from the 'Add Profile Section' drop-down

The 'Browser Restrictions' settings screen will be displayed.

Browser Restrictions Settings - Table of Parameters		
Form Element	Type	Description
Allow Pop-ups	Checkbox	Pop-ups in browsers will be allowed on user devices.
Allow Javascript	Checkbox	Java scripts will be allowed on user devices
Accept Cookies	Checkbox	Users will be allowed to modify Cookies settings on their devices.

Browser Restrictions Settings - Table of Parameters		
Remember Form Data for later use	Checkbox	Users will be allowed to use Auto Fill settings on their devices.
Show Fraud Warning Settings	Checkbox	Users will be allowed to view Fraud Warning Settings on their devices.

- Click the 'Save' button.



The settings will be saved and displayed under the 'Browser Restrictions' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

## To configure Certificate settings

The 'Certificate' settings section is used to upload certificates and will act as a repository from which certificates can be selected for use in other areas like 'Wi-Fi', 'Exchange Active Sync' and 'VPN'. You can also enroll user or device certificates from Sectigo Certificate Manager (SCM) after activating your SCM account under Settings > Portal Set-Up > Certificates Activation. See [Integrate with Sectigo Certificate Manager](#) for more details.

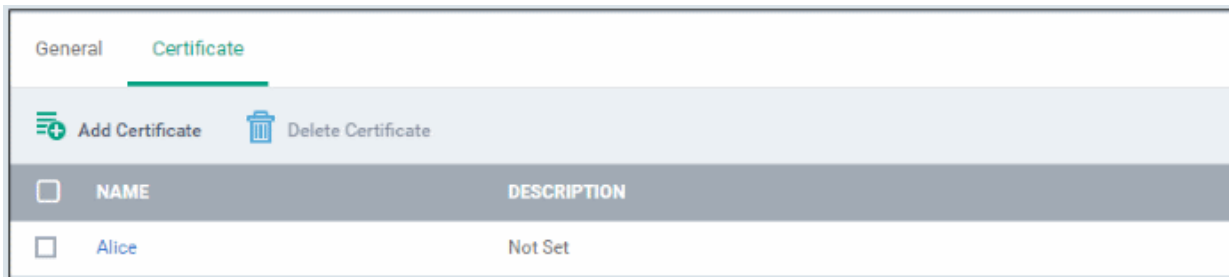
- Click 'Certificate' from the 'Add Profile Section' drop-down



The 'Certificate' settings screen will be displayed.

Certificate Settings - Table of Parameters		
Form Element	Type	Description
Name	Text Field	Enter the name of the certificate. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Description	Text Field	Enter an appropriate description for the certificate.
Data	Browse button	Browse to the location of the stored certificate and select the certificate. <b>Note:</b> Only certificate files with extensions 'pub', 'crt' or 'key' can be uploaded.

- Click the 'Save' button.

The certificate will be added to the certificate store.



General		Certificate	
	Add Certificate		Delete Certificate
<input type="checkbox"/>	NAME	DESCRIPTION	
<input type="checkbox"/>	Alice	Not Set	

- To add more certificates, click 'Add Certificate' and repeat the process.
- To view the certificate key and edit the name, click on the name of the certificate
- To remove an unwanted certificate, select it and click 'Delete Certificate'

You can add any number of certificates to the profile and remove certificates at anytime. See [Edit Configuration Profiles](#) for more details.

### To add 'CCM Certificates' section

The 'CCM Certificates' profile section lets you add requests for client and device authentication certificates from Sectigo Certificate Manager (SCM).

**Note** - Sectigo Certificate Manager is the new name for Comodo Certificate Manager. We are in the process of updating the Endpoint Manager UI to reflect this name change. [Click here](#) if you want to read more about the Comodo CA/Sectigo rebrand.

- The certificate request is forwarded to SCM after you apply the profile to a device,
- After issuance, the certificate is sent to EM which in turn pushes it to the device for installation.
- You can add any number of certificates to a single profile. Appropriate certificate requests are generated on each device to which the profile is applied.

In addition to user authentication, client certificates can be used for email signing and encryption.

**Prerequisite:** Your SCM account should have been integrated to your EM server in order for EM to forward requests to SCM. For more details, see [Integrate with Sectigo Certificate Manager](#).

### Configure 'SCM Certificates' settings

- Click 'Configuration Templates' > 'Profiles'
- Click the name of the profile you want to configure
- Click 'Add Profile Section' > 'CCM Certificates'

The screenshot shows the 'Android Devices in Purchase Dept.' interface. At the top, there is a header with an Android icon and the title. Below the header is a toolbar with five icons: 'Add Profile Section', 'Export Profile', 'Clone Profile', 'Delete Profile', and 'Make Default'. Below the toolbar is a tabbed interface with 'General' and 'CCM Certificates' tabs. The 'CCM Certificates' tab is active and shows two buttons: 'Add Certificate' and 'Delete Certificate'. Below the buttons is a table with the following columns: NAME, COUNTRY NAME, TYPE, STATE OR PROVINCE NAME, LOCALITY NAME (EG. CITY), ORGANIZATION NAME, and ORGANIZATIONAL UNIT. The table is currently empty.

- Click 'Add Certificate' to add a certificate request to the profile:

**Add Certificate**
✕

**Name \***

**Type**

S/MIME certificate
▼

**Identifier \***

%u.username%
+ Variables

**Country name \***

Albania
▼

**State or province name**



**Locality name (eg. city)**

**Organization name**

**Organizational unit**

Add

Add Certificate - Table of Parameters		
Form Element	Type	Description
Name	Text Field	Create a label for the certificate
Type	Drop-down	Select the kind of certificate you want to add. The options are: <ul style="list-style-type: none"> <li>S/MIME Certificate (Client Certificate)</li> <li>Device Certificate</li> </ul>
Identifier	Text Field	The 'Identifier' field will be auto-populated with mandatory variables depending on the chosen certificate type. <ul style="list-style-type: none"> <li>For client certificate, %username% will be added for fetching</li> </ul>

Add Certificate - Table of Parameters		
		<p>the username to be included as subject in the certificate request.</p> <ul style="list-style-type: none"> <li>For device certificate, %d.uuid% will be added for fetching the device name to be included as subject in the certificate request.</li> </ul> <p>You can add more variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a>.</p>
Country Name	Text Field	Address details of the user/organization.
State or Province Name		
Locality Name (eg. City)		
Organization Name	Text Field	<p>The customer company to whom the user/device belongs.</p> <p><b>Prerequisite:</b> The organization should have been added to your SCM account.</p>
Organizational Unit	Text Field	<p>The department to company to whom the user/device belongs.</p> <p><b>Prerequisite:</b> The department should have been defined under the organization in your SCM account.</p>

- Click 'Add' once you have completed the form.
- Repeat the process to add more certificate requests.

The certificate requests will be generated from the devices once the profile is applied to them.

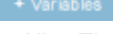
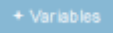

## To configure Email settings

**Note:** The feature is supported for Samsung for Enterprise (SAFE) devices only. This area allows administrators to configure email settings on devices.

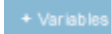



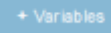

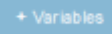



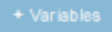

- Click 'Email' from the 'Add Profile Section' drop-down







The settings screen for Email configuration will be displayed.

**Email Settings - Table of Parameters**

Form Element	Type	Description
Configure for Type*	Drop-down	Choose the protocol for incoming mail server from IMAP and POP.
Email address*	Text Field	If the profile is for a single user, enter the email address of the user at the incoming mail server. If the profile is for several users, click the 'Variables' button  , and click <b>+</b> beside '%u.mail%' from the 'User Variables' list. The email address of the users to whom the profile is associated will be automatically added to the profile while rolling out the same to the devices. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Account Display Name	Text Field	If the profile is for a single user, enter the name to identify the user's email account at the incoming mail server. If the profile is for several users, click the 'Variables' button  , and click <b>+</b> beside '%u.login%' from the 'User Variables list'. The email address of the users to whom the profile is associated will be automatically added to the profile while rolling out the same to the devices. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Set as Default Account	Checkbox	If enabled, the email account will be set as default for the users.
Mail Server Host Name (for Incoming Mail) *	Text Field	For a single user, enter the host name or IP address of the incoming mail server.  For several users, add the variable to fetch the incoming mail server hostname/IP address by clicking the 'Variables' button  and clicking <b>+</b> beside the variable. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Mail Server Port Number (for Incoming Mail) *	Text Field	For a single user, enter the server port number used for incoming mail service. For POP3, it is usually 110 and if SSL is enabled it is



Email Settings - Table of Parameters		
		995. For IMAP, it is usually 143 and if SSL is enabled it is 993. For several users, add a variable to fetch the incoming mail server port number by clicking the 'Variables' button  and clicking  beside the variable. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Login (for Incoming Mail)*	Text Field	If the profile is for a single user, enter the username for the email account of the user at the incoming mail server. If the profile is for several users, click the 'Variables' button  , select '%u.mail%' from the 'User Variables' list and click  . The email usernames of the users to whom the profile is associated will be automatically added to the profile while rolling out to the devices. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Password (for Incoming Mail)*	Text Field	If the profile is for a single user, enter the password for the email account of the user at the incoming mail server. If the profile is for several users, click the 'Variables' button  and click  beside the variable from the list. The email passwords of the users to whom the profile is associated will be automatically added to the profile while rolling out to the devices. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Use SSL Incoming	Checkbox	If enabled, communication between incoming mail server and devices is encrypted using SSL (Secure Socket Layer Protocol).
Accept All Certificates (for Incoming Mail)	Checkbox	If enabled, the device automatically accepts all SSL certificates.
Accept TLS Certificates (for Incoming Mail)	Checkbox	If enabled, the device automatically accepts all secure certificates for TLS (Transport Secure Layer Protocol).
Mail Server Host Name (for Outgoing mail)*	Text box	For a single user, enter the host name or IP address of the outgoing (SMTP) mail server. For several users, include the variable to fetch the outgoing mail server hostname/IP address by clicking the 'Variables' button  and click  beside the variable from the list. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Mail Server Port Number (for Outgoing Mail) *	Text box	For a single user, enter the server port number used for outgoing (SMTP) mail service. If no port number is specified then ports 25, 587 and 465 are used in the given order. For several users, include the variable to fetch the outgoing mail server port number by clicking the 'Variables' button  and clicking  beside the variable from the list. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Login (for outgoing Mail)*	Text Field	If the profile is for a single user, enter the username for the email account of the user at the outgoing (SMTP) mail server. If the profile is for several users, click the 'Variables' button  , and click  beside '%u.login%' from the 'User Variables' list. The email usernames of the users to whom the profile is associated will be automatically added to the profile while rolling out to the devices. For

Email Settings - Table of Parameters		
		more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Password (for outgoing Mail)*	Text Field	If the profile is for a single user, enter the password for the email account of the user at the outgoing (SMTP) mail server. If the profile is for several users, click the 'Variables' button  and click  beside the variable created to fetch the email password of the user from the 'User Variables' list. The email passwords of the users to whom the profile is associated will be automatically added to the profile while rolling out to the devices. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Use SSL (for Outgoing Mail)	Checkbox	If enabled, communication between outgoing mail server and devices is encrypted using SSL.
Accept All Certificates (for Outgoing Mail)	Checkbox	If enabled, the device automatically accepts all SSL certificates.
Accept TLS Certificates (for Outgoing Mail)	Checkbox	If enabled, automatically accepts all secure certificates for TLS (Transport Secure Layer Protocol).
Sender Name	Text Field	For a single user, enter the name that should appear in the 'From' field of the sent emails from the device.  For several users, add the variable to fetch the sender name by clicking the 'Variables' button  and clicking  beside the variable. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Set Signature	Text Field	Enter the signature and other details that will appear at the end of the mails sent from the device. You can add variables to the text by clicking the 'Variables' button  and clicking  beside the variable.  For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Prevent Moving Mail to other Accounts	Checkbox	If enabled, the user cannot move sent or received mails to another account.
Always Vibrate on New Email Notification	Checkbox	If enabled, the device will vibrate in addition to sound alert when a new email is received.
Vibrate on New Email Notification if device is silent	Checkbox	If enabled, the device will vibrate when a new email is received, when the device is in silent mode.

- Click the 'Save' button.

The settings will be saved and displayed under the 'Email' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

## To configure ActiveSync settings

ActiveSync settings allows you to configure user access to Exchange Server mail accounts.







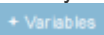

**Note:** Please make sure users are not blocked from using the email client on their devices in [Native App](#)







## Restrictions

- Click 'ActiveSync Settings' from the 'Add Profile Section' drop-down

The 'ActiveSync Settings' screen will be displayed.

**ActiveSync Settings - Table of Parameters**

Form Element	Type	Description
Email Address *	Text Field	Click the 'Variables' button  and click  beside '%u.mail' from the User Variables' list. The email address of the users to whom the profile is associated will be automatically filled. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
User Name *	Text Field	Click the 'Variables' button  and click  beside '%u.login' from the User Variables' list. The username of the users to whom the profile is associated will be automatically filled. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Domain *	Text Field	Enter the domain name in the field. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Server Address *	Text Field	Enter the server address of the ActiveSync. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Password	Text Field	Leave the field blank. The user will be prompted to enter the password while configuring the email account for the first time. After it is validated,

ActiveSync Settings - Table of Parameters		
		the users can access the email account without entering the password.
Account Display Name	Text Field	If the profile is for a single user, enter the name to identify the user's email account at the exchange server. If the profile is for several users, click the 'Variables' button  and click  beside '%u.login%' from the 'User Variables list'. The email address of the users to whom the profile is associated will be automatically added to the profile while rolling out the same to the devices. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Email Signature	Text Field	Enter the signature and other details that will appear at the end of the mails sent from the device. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Maximum Email Size	Comobo Box	The maximum size of email that the user can download from the server. Use the controls or enter the value in the field. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Sync Emails	Drop-down	Choose the period for which the emails are to be kept synchronized between the device and the exchange server from the recent past, from the drop-down.
Sync Calendar	Drop-down	Select the period for which the calendar events are to be synchronized between the device and the exchange server, from the drop-down.
Use SSL	Checkbox	If enabled, communication between the device and the exchange server is encrypted using SSL (Secure Socket Layer Protocol).
As Default Account	Checkbox	If enabled, the email address will be used as default for sending out emails.
Accept All Certificates	Checkbox	If enabled, the device automatically accepts all SSL certificates.
Can Sync Contacts	Checkbox	Select this option if you wish to allow synchronization of user contacts between device and exchange server.
Can Sync Calendar	Checkbox	Select this option if you wish to allow the synchronization of the calendar events set by the user at the device and the exchange server.
Can Sync Tasks	Checkbox	Select this option if you wish to allow the synchronization of Tasks scheduled by the user at the device and the email server.
Manual Roaming Sync	Checkbox	If enabled, the user can use the sync feature manually while away from the home network.
Always Vibro on New Email	Checkbox	If enabled, the device will vibrate when a new email is received.

Fields with \* are mandatory.

- Click the 'Save' button.

The settings will be saved and displayed under the 'ActiveSync Settings' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

## To configure Kiosk settings

**Note:** This feature is only supported by Samsung for Enterprise (SAFE) devices.

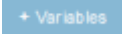







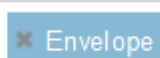

**Background:** Kiosk mode is a feature intended to help administrators lock-down mobile devices by limiting the applications that are able to run on a device. 'Locking' a device to particular applications can prevent users from opening other applications or straying into important device configuration areas. You can also block aspects of the OS should you wish. An example is a retail or school environment where only certain apps should be used on the device.

- Click 'Kiosk' from the 'Add Profile Section' drop-down

The 'Kiosk' settings screen will be displayed.

**Kiosk Settings - Table of Parameters**

Form Element	Type	Description
Kiosk Mode Type	Drop-down	<p>The two Kiosk modes are:</p> <ul style="list-style-type: none"> <li>• Default mode - Run multiple apps in Kiosk mode. Users will not be able to run non-kiosk applications. Kiosk mode can only be exited by entering the admin bypass password.</li> <li>• Single App mode - Users can only run the single application that you specify. Users will not be able to run non-kiosk applications. Kiosk mode can only be exited if the admin disables it in the EM console.</li> </ul> <p>Restrictions on access to other device functions, such as task manager and the status bar, can also be configured for either mode.</p>
If 'Single App' is selected as Kiosk Mode Type:		

Kiosk Settings - Table of Parameters		
Enter ID of Kiosk Apps	Text Field	Enter the Package ID of the app that will run in Kiosk mode. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> . For more details on Package ID, see <a href="#">Obtaining Bundle/Package Identifier</a> .
If 'Default mode' is selected as Kiosk Mode Type:		
Enter ID of Kiosk Apps	Text Field	Enter the package IDs of the apps that will run in Kiosk mode. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> . For more details on Package ID, see <a href="#">Obtaining Bundle/Package Identifier</a> .  Click  to add more 'App IDs for allowed Apps on Kiosk Mode' fields.  To remove a field, click the  button beside it.
Block Multi-Window Mode	Checkbox	If selected, users cannot open multiple windows.
Block Task Manager	Checkbox	If selected, users cannot access task manager screen.
Hide Navigation Bar	Checkbox	If selected, the navigation bar will be hidden on the devices.
Hide System Bar	Checkbox	If selected, the system bar will not be displayed.
SMS/MMS blocking	Checkbox	If selected, the all the SMSs and MMSs to the device will be blocked.
Block Keys	Drop-down	This feature allows to selectively block touch keys and icons available on device screen. For example, if you do not want the device owners to use Caps Lock key and so on, then these can be blocked. To select the key to be blocked, click in the 'Block Keys' field: <div style="text-align: center; border: 1px solid #ccc; padding: 5px; width: fit-content; margin: 10px auto;">Select Keys</div> The keys will be displayed from the drop-down. Scroll down to view the full list and select the required key to be blocked. Add more keys to be blocked similarly. <div style="text-align: center; border: 1px solid #ccc; padding: 5px; width: fit-content; margin: 10px auto;">   </div>
The following features will be visible if 'Default mode' is selected as Kiosk Mode Type:		
Show messenger App	Checkbox	If selected, the messenger app will be available.



Kiosk Settings - Table of Parameters		
Show email App	Checkbox	If selected, email app will be available.
Show dialer App	Checkbox	If selected, dialer app will be available.
Show admin bypass button	Checkbox	If selected, the 'Admin bypass button' will be available, which an admin can tap, enter the password to exit from the Kiosk mode.
Admin bypass password	Text Field	Enter the password required to exit the Kiosk mode. You can also add variables by clicking the 'Variables' button <span style="border: 1px solid blue; padding: 2px;">+ Variables</span> and clicking <span style="color: blue;">+</span> beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .

- Click the 'Save' button.

The settings will be saved and displayed under the 'Kiosk' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

## To configure Native App Restriction settings

Native applications are those applications that come with the device operating system. Examples include the email and gallery apps. Admins can restrict users from accessing these native applications if required.

**Note:** Native app restrictions are only available on Samsung which support KNOX 1.0 +

- Click 'Add Profile Section' > 'Native App Restrictions'

Native Application Restrictions Settings - Table of Parameters		
Form Element	Type	Description
Allow Gmail	Checkbox	Select this to allow users to access Gmail app.
Allow Email	Checkbox	Select this to allow users to access the default Email app.



Native Application Restrictions Settings - Table of Parameters		
Allow Browser	Checkbox	If enabled, users can access the default Android browser on their devices.
Allow Gallery	Checkbox	If enabled, users can access Gallery on their devices.
Allow Settings	Checkbox	Select this to enable users to change their device settings.
Allow Google Play	Checkbox	If enabled, users can access Google Play on their mobile devices.
Allow YouTube App	Checkbox	If enabled, users can access the YouTube app.
Allow Google Maps & Navigation	Checkbox	If enabled, users can access Google Maps and Navigation app on their devices.
Allow Google and Voice Search	Checkbox	If enabled, users can use Google and Voice Search services.

- Click the 'Save' button.

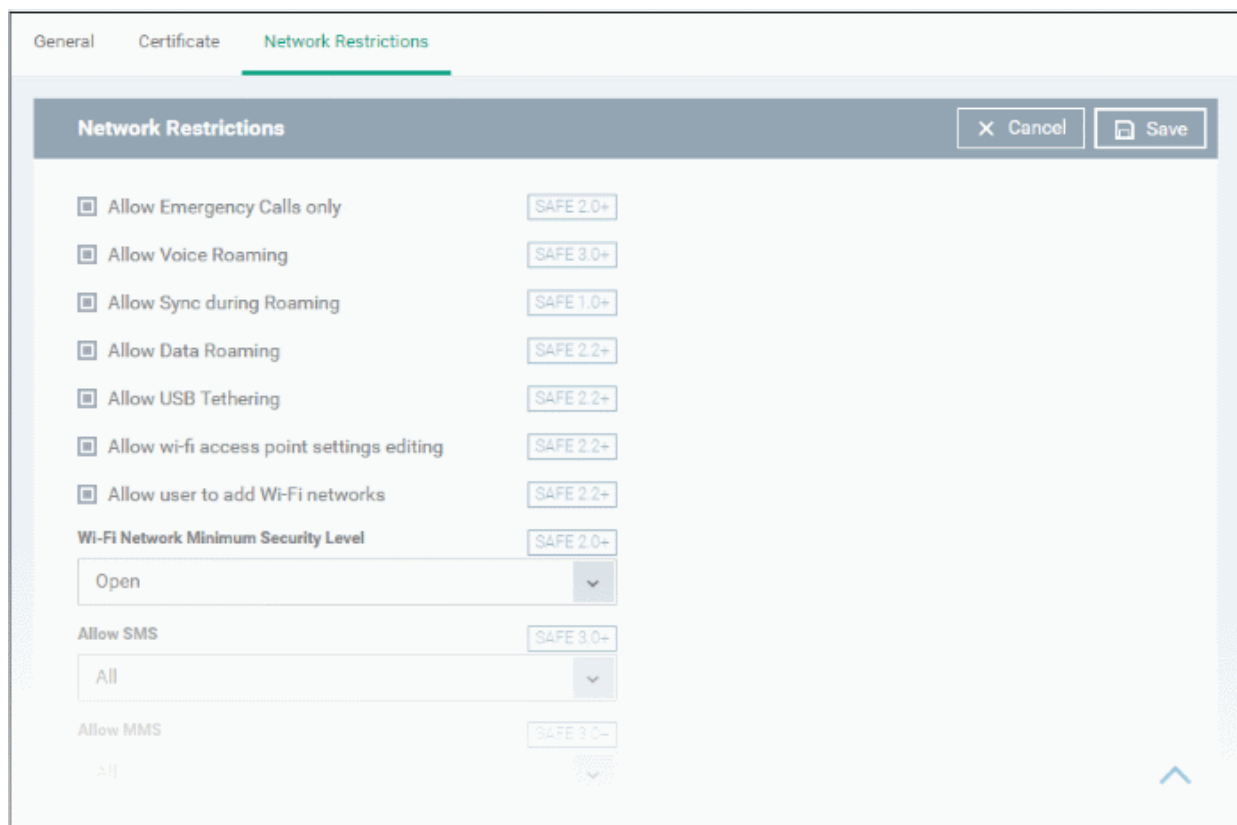
The settings will be saved and displayed under the 'Native App Restriction' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

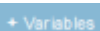



## To configure Network Restriction settings

The feature is supported for Samsung for Enterprise (SAFE) devices only.

- Click 'Network Restrictions' from the 'Add Profile Section' drop-down

The 'Network Restrictions' settings screen will be displayed.



Network Restrictions Settings - Table of Parameters		
Form Element	Type	Description
Allow Emergency Calls only	Checkbox	Allows users to make only emergency calls.
Allow Voice Roaming	Checkbox	Allows users to make/receive voice call during roaming.
Allow Sync during Roaming	Checkbox	Allows the use of Sync feature while roaming.
Allow Data Roaming	Checkbox	Allows users to enable 'Data Roaming' option on their devices to access data services during roaming.
Allow USB Tethering	Checkbox	Allows users to enable 'USB Tethering' option for sharing their data connection through USB tethering.
Allow Wi-Fi access point settings editing	Checkbox	Allows users to edit the Wi-Fi access point settings to create a Wi-Fi hotspot for sharing their data connection.
Allow user to add Wi-Fi networks	Checkbox	Allows users to add additional Wi-Fi networks.
Wi-Fi Network Minimum Security Level	Drop-down	Select the minimum security level required for the user to access the Wi-Fi network. The options available are: <ul style="list-style-type: none"> <li>• Open</li> <li>• WEP</li> <li>• WPA</li> <li>• 802.1x EAP (LEAP)</li> <li>• 802.1x EAP (FAST)</li> <li>• 802.1x EAP (PEAP)</li> <li>• 802.1x EAP (TTLS)</li> <li>• 802.1x EAP (TLS)</li> </ul>
Allow SMS	Drop-down	Allows text messages as per the option selected: <ul style="list-style-type: none"> <li>• All - Allows both incoming and outgoing text messages.</li> <li>• Incoming Only - Allows incoming text messages only.</li> <li>• Outgoing Only - Allows outgoing text messages only.</li> <li>• None - Both incoming and outgoing text messages are blocked.</li> </ul>
Allow MMS	Drop-down	Allows multimedia messages as per the option selected: <ul style="list-style-type: none"> <li>• All - Allows both incoming and outgoing multimedia messages.</li> <li>• Incoming Only - Allows incoming multimedia messages only.</li> <li>• Outgoing Only - Allows outgoing multimedia messages only.</li> <li>• None - Both incoming and outgoing multimedia messages are blocked.</li> </ul>
Blacklisted SSIDs	Text Field	Specify the name (SSID) of the wireless network that should be blacklisted. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .  Click the  button to add more 'Blacklisted SSID' fields. To remove a Blacklisted SSID field from the screen, click the minus  button

Network Restrictions Settings - Table of Parameters		
		beside it.

- Click the 'Save' button.

The settings will be saved and displayed under the 'Network Restrictions' tab. You can edit the settings or remove the section from the profile at anytime See [Edit Configuration Profiles](#) for more details.

### To configure Passcode settings

- Click 'Passcode' from the 'Add Profile Section' drop-down

The Passcode settings screens will be displayed.

The screenshot shows the 'Passcode' configuration screen within the Endpoint Manager interface. At the top, there are three tabs: 'General', 'Certificate', and 'Passcode', with 'Passcode' being the active tab. Below the tabs is a header bar with the title 'Passcode' and two buttons: 'Cancel' and 'Save'. The main content area contains several settings:

- Passcode Type:** A dropdown menu set to 'No passcode enforcement'.
- Minimum passcode length:** A dropdown menu set to 'Default'.
- Maximum Idle Time:** A dropdown menu set to 'Never timeout'.
- Maximum Failed Attempts for Wipe:** A dropdown menu set to '0'. Below it, a note reads: 'Device will be wiped if this limit exceeds'.
- Maximum Failed Attempts for Sneak Peek:** A dropdown menu set to '0'. Below it, a note reads: 'Device will be SneakPeak if this limit exceeds'.
- Maximum passcode age (days):** An empty text input field.
- Passcode History Requirements:** A dropdown menu set to 'Android 3.0+'. Below it, a note reads: 'Number of previous passcodes from which new passwords must be unique.'

Passcode Settings - Table of Parameters		
Form Element	Type	Description
Passcode Type	Drop-down	Select the type of passcode from the drop-down that the user should configure for unlocking screen lock. The options available are: No passcode enforcement Only letters Letters and numbers Only numbers Letters, numbers and a special symbol Requires some kind of password
Minimum Passcode Length	Drop-down	Select the minimum number of passcode characters that can be configured by the user. (4-16 characters).
Maximum Idle Time	Drop-down	Select the maximum time period that can be set as idle time out period for device screen lock, from the drop-down.
Maximum Failed Attempts for Wipe	Drop-down	Select the maximum number of allowed unsuccessful login attempts for device wipe (4-16). Set the value as '0' for unlimited.  If the number of failed attempts crosses this value, the data in the device will be automatically wiped off. This is useful to prevent the data from the device being stolen, if somebody, other than the user, tries to login to the device by entering guessed passcodes.
Maximum Failed Attempts for Sneak Peek	Drop-down	Select the maximum number of allowed unsuccessful login attempts for 'Sneak Peek' feature (4-16). Set the value as '0' for unlimited.  The 'Sneak Peek' feature makes the device take a photograph with the front-facing camera if the wrong passcode is entered a certain number of times - hopefully getting a picture of the person holding a lost/stolen device. Photographs are forwarded to the EM server.  The photograph(s) sent by the device can be viewed from the 'Device Details' interface that can be accessed by clicking 'Devices' > 'Device List' > the device name > 'Sneak Peek' tab. See <a href="#">View Sneak Peek Pictures to Locate Lost Devices</a> for more details.  <b>Note:</b> If the device does not have a front camera, the rear camera will capture a photograph and forward to the EM server.
Maximum Passcode Age (days)	Text Field	Enter the maximum period in days for which a passcode can be valid. After the number of days specified in this field, the passcode will expire. The user needs to change the passcode before the current one expires.
Passcode History Requirements	Text Field	Set how many unique, new passcodes must be created before the user can re-use an old password.  This feature is available for Android 3.0 and later versions only.

- Click the 'Save' button.

The settings will be saved and displayed under the 'Passcode' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

## To configure Restriction settings

- Click 'Restrictions' from the 'Add Profile Section' drop-down

The 'Restrictions' settings screen will be displayed.

**Restrictions Settings - Table of Parameters**

Form Element	Type	Description
Allow Turn-off background Sync	Checkbox	Select this to allow users to disable background synchronization setting on their devices.
Allow Bluetooth	Checkbox	Select this to allow users to enable/disable Bluetooth on their devices.
Allow Camera	Checkbox	Select this to allow users to use the camera
Allow Un-encrypted devices	Checkbox	Select this to enable users to use device without turning on the storage encryption feature. This feature is available for Android 3.0 and later versions only.
Allow to run Apps installed from unknown sources	Checkbox	Select this to allow users to run installed applications that were download from unknown sources
Cellular Connection Control	Radio Buttons	Choose whether or not to allow the device to connect to the internet through a cellular network (2G/3G/4G): <ul style="list-style-type: none"> <li>• Cellular Connection on - Maintains the data connection through cellular network enabled, irrespective of user settings under 'Settings' &gt; 'Wireless and Network settings' in the device.</li> </ul>

Restrictions Settings - Table of Parameters		
		<ul style="list-style-type: none"> <li>Cellular Connection off - Maintains the data connection through cellular network disabled, irrespective of user settings under 'Settings' &gt; 'Wireless and Network settings' in the device.</li> <li>User Choice - The connection is enabled or disabled as per the user's setting under 'Settings' &gt; 'Wireless and Network settings' in the device.</li> </ul>
WiFi Connection Control	Radio Buttons	<p>Choose whether or not to allow the device to connect to WiFi networks and hotspots from the options.</p> <ul style="list-style-type: none"> <li>WiFi Connection on - Always maintains the WiFi connection enabled, irrespective of user's setting under 'Settings' &gt; 'Wireless and Network settings' in the device.</li> <li>WiFi Connection off - Always maintains the WiFi connection disabled, irrespective of user's setting under 'Settings' &gt; 'Wireless and Network settings' in the device.</li> <li>User Choice - The connection is enabled or disabled as per the user's setting under 'Settings' &gt; 'Wireless and Network settings' in the device.</li> </ul>
Location Service Control	Radio Buttons	<p>Choose whether or not to allow the location services on the device from the options:</p> <ul style="list-style-type: none"> <li>Location Service Always On - Always maintains the location services enabled, irrespective of the user's setting on the device.</li> <li>Location Service Always Off - Always maintains the location services disabled, irrespective of the user's setting on the device.</li> <li>User Choice - The location service is enabled or disabled as per the user's setting on the device.</li> </ul>

- Click the 'Save' button.

The settings will be saved and displayed under the 'Restrictions' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.



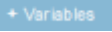



## To configure VPN settings

**Note:** The feature is supported for only Samsung for Enterprise (SAFE) devices.

- Click 'VPN' from the 'Add Profile Section' drop-down







The settings screen for VPN will be displayed.

**VPN Settings - Table of Parameters**

Form Element	Type	Description
Configure for type	Drop-down	Choose the VPN connection type from drop-down. The options available are: L2TP, PPTP, L2TP/IPSec PSK, IPSec, XAuth PSK and IPSec XAuth RSA.
VPN Connection Name	Text Field	Enter the name of the connection, which will be displayed on the device. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Host name of the VPN Server	Text Field	Enter the IP address or host name of the VPN server. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Username	Text Field	For a single user account for VPN connection, enter the username for connection to the network. For several users, click the 'Variables' button,  select the variable for fetching the VPN username from the 'Variables list' and click '  '. The usernames of the users to whom the profile is associated will be automatically included in the profile while rolling out the profile to respective devices. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Password	Text Field	If the profile is for a single user account for VPN connection, enter the password for the account. If the profile is for several users, click the

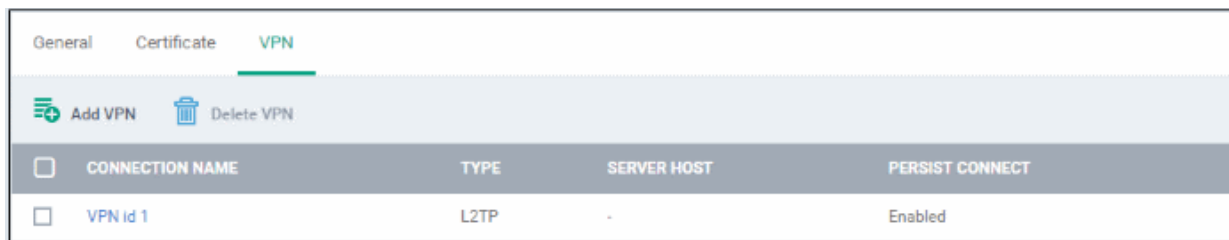


## VPN Settings - Table of Parameters

		'Variables' button  , select the variable created to fetch the password of the user from the 'User Variables' list and click  . The VPN connection passwords for the accounts of the users to whom the profile is associated will be automatically added to the profile while rolling out to respective devices. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
DNS Search Domains	Text Field	Enter the IP address or hostname of the DNS server that devices will use for searching domain names. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
If L2TP is selected:		
<ul style="list-style-type: none"> <li>• Enable L2TP Secret</li> </ul>	Checkbox	If enabled, the pre-shared L2TP should be entered in the next field L2TP Secret
<ul style="list-style-type: none"> <li>• L2TP Secret</li> </ul>	Text Field	If L2TP Secret is enabled, then the pre-shared key should be entered here by the user or selected from 'Variables'
If PPTP is selected:		
<ul style="list-style-type: none"> <li>• Enable Encryption</li> </ul>	Checkbox	If selected, the connection is encrypted between the devices and the VPN server.
If L2TP/IPSec PSK is selected:		
<ul style="list-style-type: none"> <li>• Enable L2TP Secret</li> </ul>	Checkbox	If enabled, the pre-shared L2TP should be entered in the next field L2TP Secret
<ul style="list-style-type: none"> <li>• L2TP Secret</li> </ul>	Text Field	If L2TP Secret is enabled, then the pre-shared key should be entered here by the user or selected from 'Variables'
<ul style="list-style-type: none"> <li>• IPSec Pre-Shared Key</li> </ul>	Text Field	If IP Sec Identifier is enabled, then the pre-shared key should be entered here by the user or selected from 'Variables'
If IPSec Xauth PSK is selected:		
<ul style="list-style-type: none"> <li>• IP Sec Identifier</li> </ul>	Text Field	Enter the IPSec identifier in the field. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
<ul style="list-style-type: none"> <li>• IPSec Pre-Shared Key</li> </ul>	Text Field	If IP Sec Identifier is enabled, then the pre-shared key should be entered here by the user or selected from 'Variables'.
Use for persistent connect	Checkbox	Forcibly maintains the VPN connection always at the enabled state, irrespective of user's settings through 'Settings' > 'Wireless and Networks' in the device. In order to enable this feature, the following conditions are to be satisfied: <ul style="list-style-type: none"> <li>• The profile should have been created already and rolled out to the devices. Hence the administrator will be able to enable this feature after rolling out the profile and then by editing the profile. See <a href="#">Edit Configuration Profiles</a> for more details.</li> <li>• Suits to all VPN connections types, except PPTP</li> <li>• The VPN server and the DNS server should have been specified by their IP addresses in IPv4.</li> </ul>

- Click the 'Save' button after entering or selecting the parameters.

The VPN settings will be added to the profile.



You can add multiple VPN connection settings for the profile.

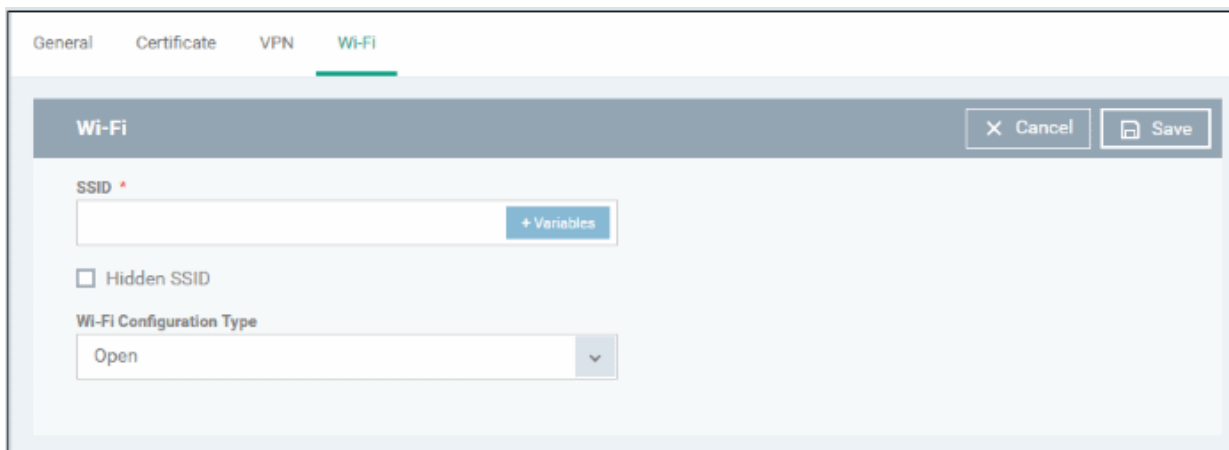
- To add another VPN connection, click 'Add VPN' and repeat the process
- To view and edit the VPN settings of a connection, click the name of the connection
- To remove a VPN connection, select VPN then click 'Delete VPN'

You can add any number of VPN connection settings to the profile at anytime. See [Edit Configuration Profiles](#) for more details.

## To configure Wi-Fi settings

- Click 'Wi-Fi' from the 'Add Profile Section' drop-down

The settings screen for Wi-Fi will be displayed.

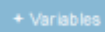





**Wi-Fi Settings - Table of Parameters**

Form Element	Type	Description
SSID	Text Field	Enter the Service Set Identifier (SSID), the name of the wireless network that a device should connect to. You can also add variables by clicking the 'Variables' button <span style="background-color: #4a86e8; color: white; padding: 2px;">+ Variables</span> and clicking <span style="font-size: 1.2em;">+</span> beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Hidden SSID	Checkbox	If enabled, users will be able to access the hidden wireless network too. Users must know the hidden SSID details and the required credentials.
Wi-Fi Configuration Type	Drop-down	Select the type of encryption used by the wireless network from the drop-down. The options available are: <ul style="list-style-type: none"> <li>• Open</li> </ul>

Wi-Fi Settings - Table of Parameters	
	<ul style="list-style-type: none"> <li>• WEP</li> <li>• WPA / WPA2 - PSK</li> <li>• 802.1x EAP</li> </ul> <p>The settings for each type is explained in the next table <b>Wi-Fi configuration type settings</b>.</p>



## Wi-Fi Configuration Type settings

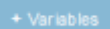

Wi-Fi Configuration Type Settings - Table of Parameters	
Security Configuration Type	Description
Open	No password is required for accessing the Wi-Fi network by the user.
WEP	Authentication Password - Enter the password to access the Wi-Fi network. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b> .
WPA / WPA2 - PSK	Authentication Password - Enter the password to access the Wi-Fi network. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b> .
802.1x EAP	<p><b>1. EAP Authentication Protocol</b> - Select the EAP authentication protocol from the drop-down. Applicable for Samsung for Enterprise devices SAFE 1.0 + version.</p> <ul style="list-style-type: none"> <li>• PEAP</li> <li>• TLS</li> <li>• TTLS</li> </ul> <p><b>2. Phase 2 Authentication Protocol</b> - Select the Phase 2 authentication protocol from the drop-down. Applicable for Samsung for Enterprise devices SAFE 1.0 + version.</p> <ul style="list-style-type: none"> <li>• None</li> <li>• PAP</li> <li>• MSCHAP</li> <li>• MSCHAPV2</li> <li>• GTC</li> </ul> <p><b>3. Certificate</b> - Select the user certificate from the drop-down or upload it using the 'Add New' button.</p> <p><b>4. CA Certificate</b> - Select the CA certificate from the drop-down or upload it using the 'Add New' button.</p> <p><b>5. Authentication Username</b> - Enter the username for Wi-Fi authentication. Applicable for Samsung for Enterprise devices SAFE 1.0 + version.</p> <p><b>6. Authentication Password</b> - Enter the password for Wi-Fi authentication. Applicable for Samsung for Enterprise devices SAFE 1.0 + version.</p>

## Wi-Fi Configuration Type Settings - Table of Parameters

7. **Authentication Domain** - Enter the details for RADIUS Server authentication. Applicable for Samsung for Enterprise devices SAFE 1.0 + version.

8. **Anonymous Identity** - Enter the username that can be used for anonymous access. Applicable for Samsung for Enterprise devices SAFE 1.0 + version.

9. **Encryption Key** - Enter the encryption key to access the Wi-Fi network. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see [Create and Manage Custom Variables](#).

For items in the list from 5 to 8, you can also include a variable to the field by clicking the 'Variables' button  and clicking  beside the variable from the list. For more details on variables, see [Create and Manage Custom Variables](#).

- Click the 'Save' button after entering or selecting the parameters.

The 'Wi-Fi' network settings' will be saved for the profile.



You can add multiple Wi-Fi networks for a profile.

- To add another Wi-Fi SSID, click 'Add Wi-Fi' and repeat the process
- To view and edit the Wi-Fi network settings, click the SSID of the network
- To remove a Wi-Fi network, select it from the list and click 'Delete Wi-Fi'

You can add or remove Wi-Fi networks at any time. See [Edit Configuration Profiles](#) for more details.

### To configure 'Other Restrictions' settings

The feature is supported for Samsung for Enterprise (SAFE) devices only.

- Click 'Other Restrictions' from the 'Add Profile Section' drop-down

The 'Other Restrictions' settings screen will be displayed.

**Other Restrictions Settings - Table of Parameters**

Form Element	Type	Description
Allow USB	Checkbox	Allows users to establish connections via USB ports.
Use Network Time	Checkbox	Allows users to enable/disable network provided values in Date & Time settings.
Allow Microphone	Checkbox	Allows users to use microphone. If this is disabled, users can use microphone for receiving and making calls only.
Allow Near Field Communication (NFC)	Checkbox	Allows devices to establish connection via NFC
Allow Mock Locations	Checkbox	Allows users to enable/disable 'Mock Location' in developer mode settings.
Allow SD Card	Checkbox	Users can use SD card on their devices.
Allow SD Card Write	Checkbox	Users can store data on the SD card.
Allow Screen Capture	Checkbox	Users can take screenshot of the device screen.
Allow Clipboard	Checkbox	Users will be allowed to use clipboard memory.
Backup my data	Checkbox	Users will be allowed to take a backup of data in their devices.

Other Restrictions Settings - Table of Parameters		
Visible Passwords	Checkbox	Allows users to enable/disable show password feature.
Allow USB Debugging	Checkbox	Allows users to enable/disable 'USB Debugging' option in developer mode settings.
Allow Factory Reset	Checkbox	Allows users to reset the device to factory settings.
Allow OTA Upgrade	Checkbox	Allows devices to receive Over-the-air (OTA) upgrade for software updates.

- Click the 'Save' button.

The settings will be saved and displayed under 'Other Restrictions' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

## 6.1.2. Profiles for iOS Devices

iOS Profiles allow you to specify a device's network access rights, restrictions and other general settings.

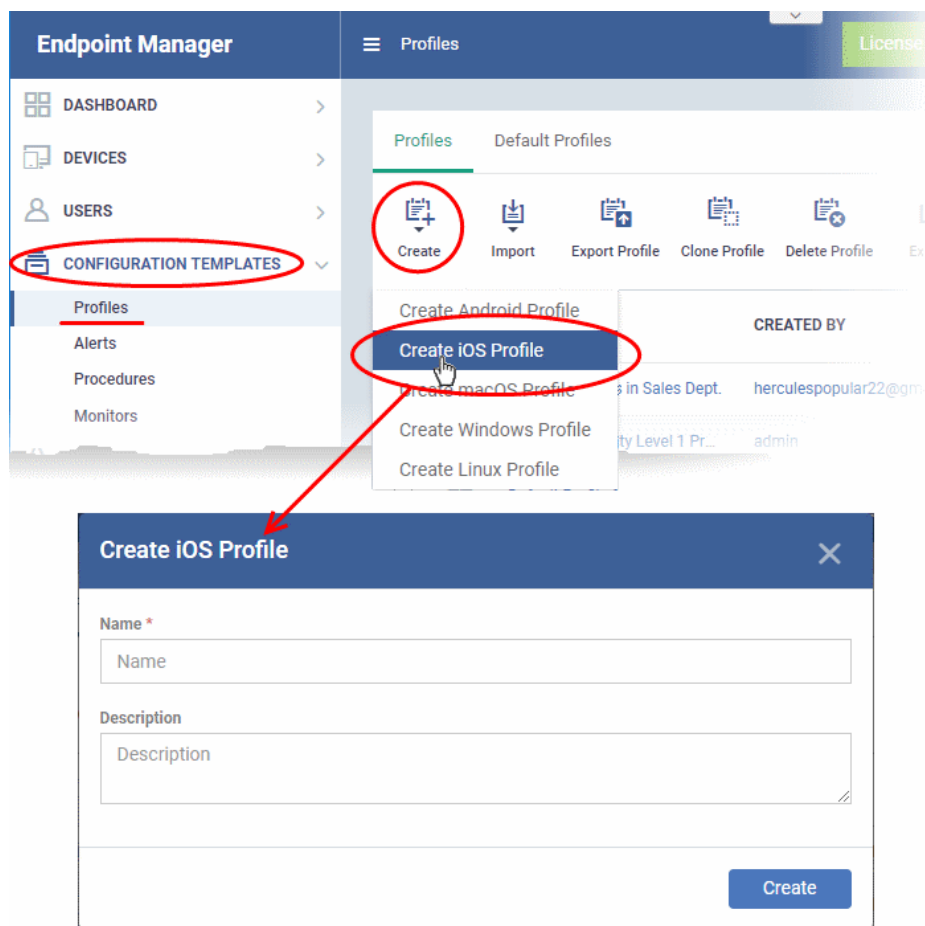
### Process in Brief:

- Click 'Configuration Templates' > 'Profiles'
- Click 'Create' > 'Create iOS Profile'
- Type a name and description for your profile then click the 'Create' button. The profile will now appear in 'Configuration Templates' > 'Profiles'.
- New profiles have only one section - 'General'. Click 'Add Profile Section' to add settings for various security and management features. Each section you add will appear as a new tab.
- Once you have fully configured your profile you can apply it to devices, device groups, users and user groups.
- You can make any profile a 'Default' profile by selecting the 'General' tab then clicking the 'Edit' button.

This part of the guide explains the processes above in more detail, and includes in-depth descriptions of the settings available for each profile section.

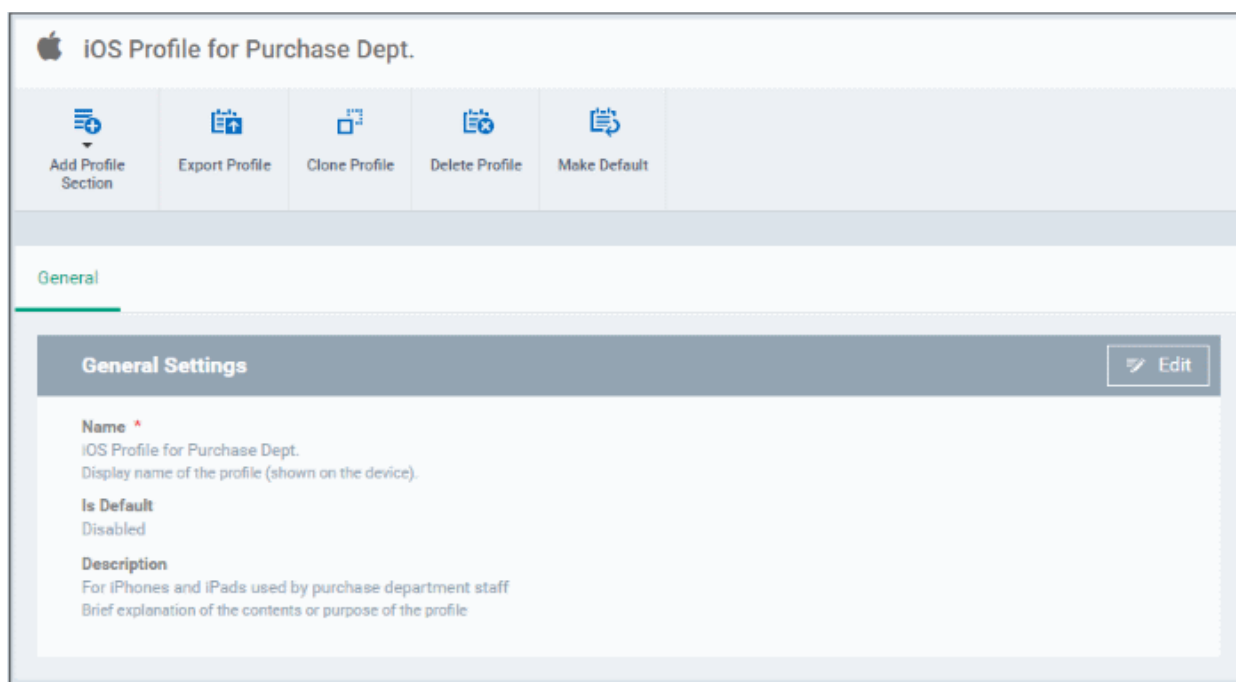
### To create an iOS profile

- Click 'Configuration Templates' > 'Profiles'
- Click the 'Create' button > 'Create iOS Profile':



- Enter a name and description for the profile
- Click the 'Create' button

The new profile will open at the 'General Settings' section:



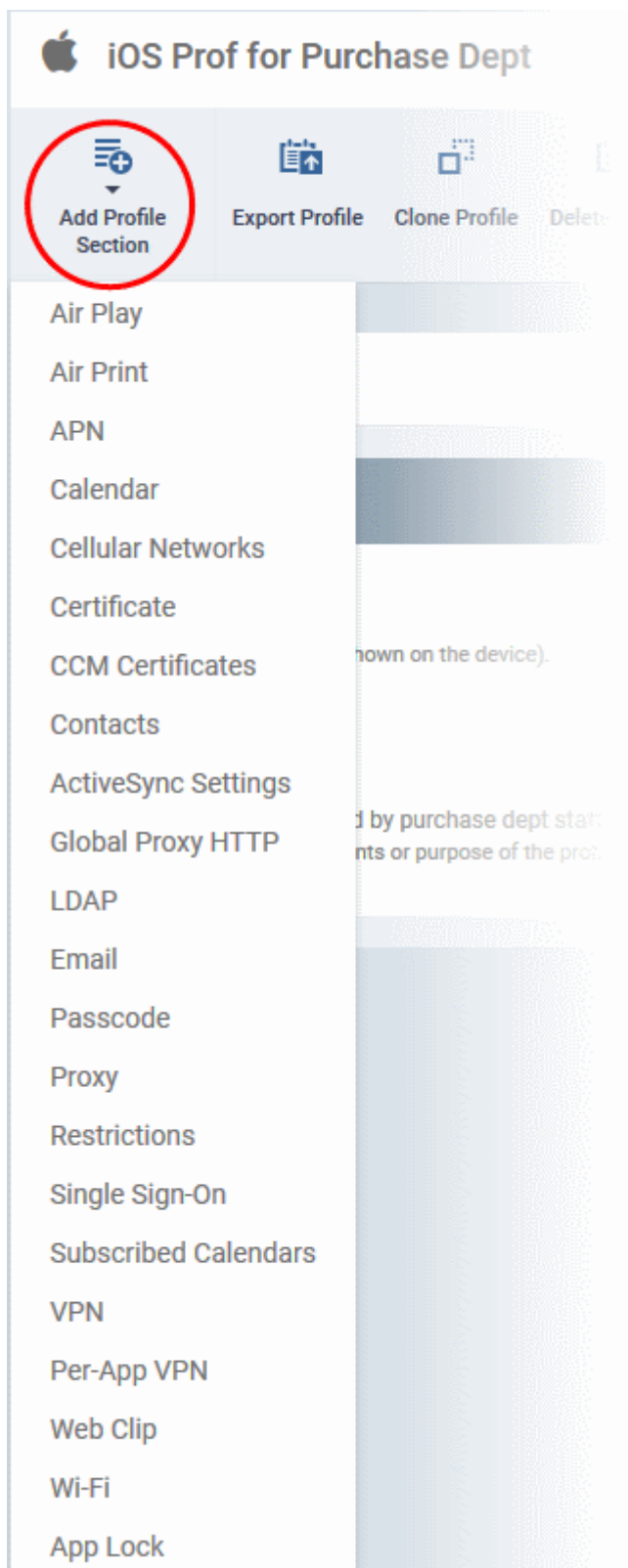
- The profile is not a 'default' profile at this stage. A 'default' profile is one that is applied automatically to any device which matches its operating system. You can have multiple 'default' profiles per operating system.



- Click the 'Make Default' button if you want this profile to be a default.
  - Alternatively, click the 'Edit' button on the right of the 'General' settings screen and enable 'Is Default'.
- Click 'Save'.

The next step is to add profile sections.

- Each profile section contains a range of settings for a specific management feature.
- For example, there are profile sections for 'Email', 'Single Sign-On', 'LDAP', 'Cellular Networks' and so on.
- You can add as many different sections as you want when building your device profile.
- To get started:
  - Click 'Add Profile Section'
  - Select the component that you want to include in the profile:

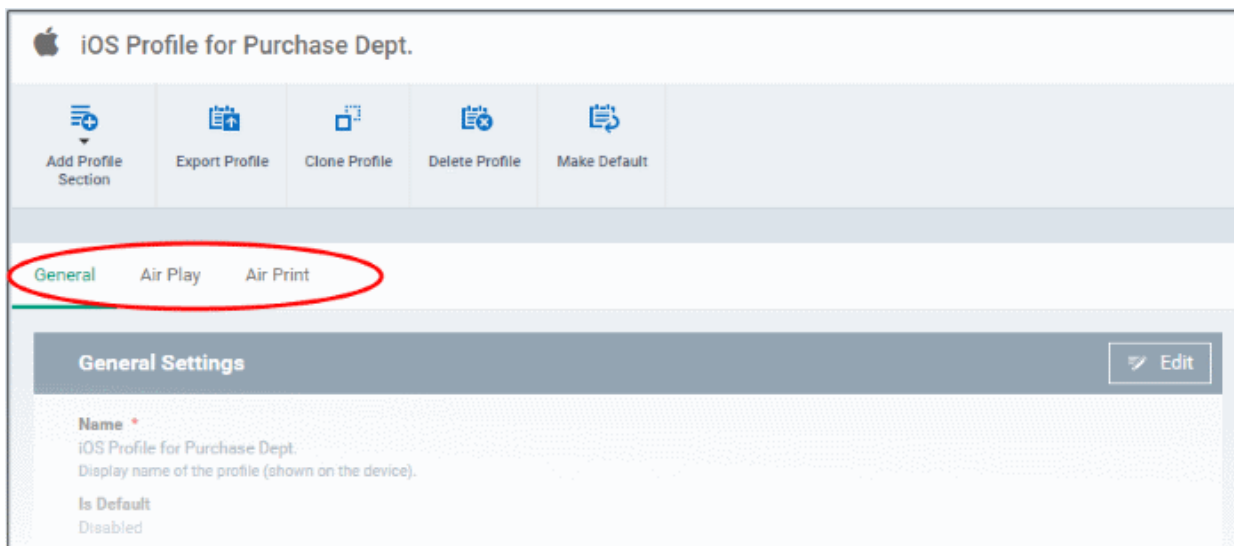


**Note:** Many iOS profile settings have small information boxes next to them which indicate the iOS version required for the setting to work correctly.

For example, the following box indicates that the setting supports Apple devices with iOS version 7 and above only:

iOS 7+

The settings screen for the selected component will be displayed. After configuring the component and saving the settings, it will be available as a tab at the top.



Following sections explain more about each of the settings:

- **Air Play**
- **Air Print**
- **APN**
- **Calendar**
- **Cellular Networks**
- **Certificate**
- **SCM Certificates**
- **Contacts**
- **Active Sync**
- **Global Proxy HTTP**
- **LDAP**
- **E-Mail**
- **Passcode**
- **Proxy**
- **Restrictions**
- **Single Sign-On**
- **Subscribed Calendars**
- **VPN**
- **Per -App VPN**
- **Web Clip**
- **Wi-Fi**
- **App Lock**






## To configure AirPlay settings

These settings allow you to whitelist devices (televisions, stereo systems etc) which can be used to play content from managed iOS devices via Apple's Airplay system.

**Note:** If you do not create a whitelist then managed mobile devices will be able to broadcast to any Airplay capable device.

- Click 'Air Play' from the 'Add Profile Section' drop-down  
The 'Air Play' settings screen will be displayed.

**AirPlay Settings Configuration - Table of Parameters**

Form Element	Type	Description
White List Devices ID	Text Field	Enter the ID of the output device that you want to whitelist for Airplay. The ID numbers of the devices should be entered in the format as given below: XX:XX:XX:XX:XX:XX Note: The whitelist is applicable for supervised iOS 7+ devices and will not apply for all other devices. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Device Name	Text Field	Enter the name of the AirPlay output device that you entered above. You can also add a variable to the field by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> . Click the 'Add' button to add more 'Device name' and 'Password' fields. To remove an AirPlay device, click the  button beside it.
Password	Text Field	Enter the password for the AirPlay destination that you entered above.
Add	Button	Click this button to add another 'Devices' section.

- Click the 'Save' button.

The 'Air Play' device will be added to the list.



You can add multiple Air Play devices for the profile.

- To add more devices, click 'Add Air Play' at the top and repeat the process.
- To view and edit the settings for a device, click on its name
- To remove an Air Play device, select it and click 'Delete Air Play'

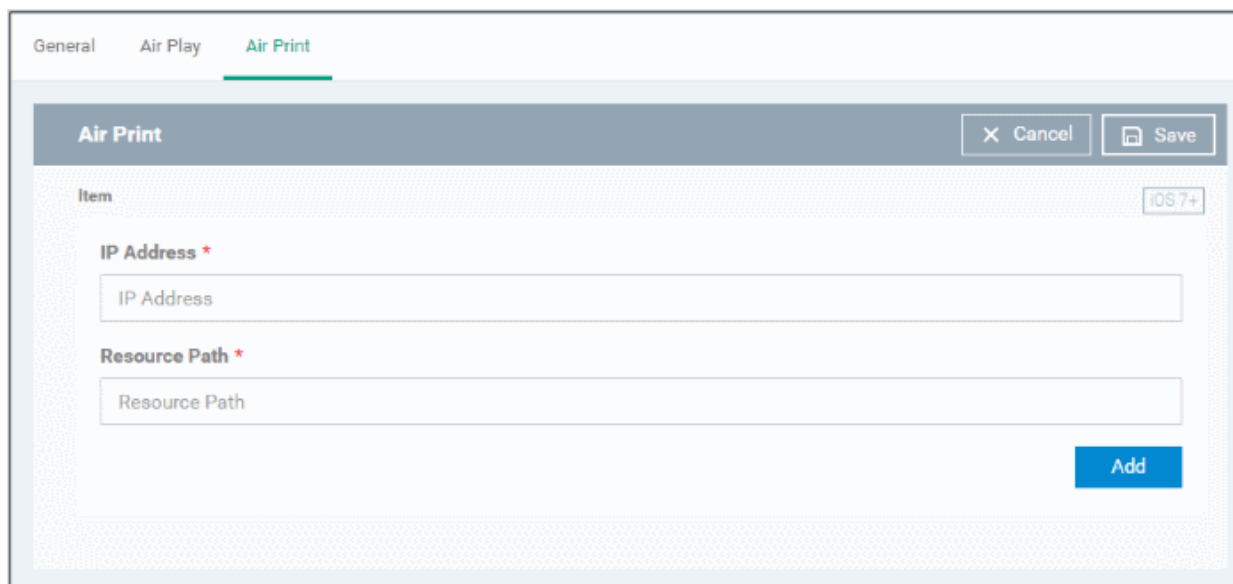
The settings will be saved and displayed under 'Air Play' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

## To configure AirPrint settings

These settings allow you to specify the default AirPrint printer to be used by devices on this profile.

- Click 'Air Print' from the 'Add Profile Section' drop-down

The 'Air Print' settings screen will be displayed.



**AirPrint Settings - Table of Parameters**

Form Element	Type	Description
IP Address	Text Field	Enter the IP Address of the AirPrint printer you wish to use.
Resource Path	Text Field	Enter the resource path of the printer, for example, printers/ HP_LaserJetPro_M1136_series.
Add	Button	Click this button to add another AirPrint section.

You can add more printers by repeating the process. To remove a printer, click the 'X' button beside the printer.

- Click the 'Save' button.

The printer will be added to the list.



General   Air Play <b>Air Print</b>	
+ Add Air Print   Delete Air Print	
<input type="checkbox"/>	AIR PRINT COUNT
<input type="checkbox"/>	Air Print 1   1

- To add another printer, click 'Add Air Print' and repeat the process
- To view and edit the settings of a printer, click the name of the printer
- To remove a printer, select it and click 'Delete Air Print'

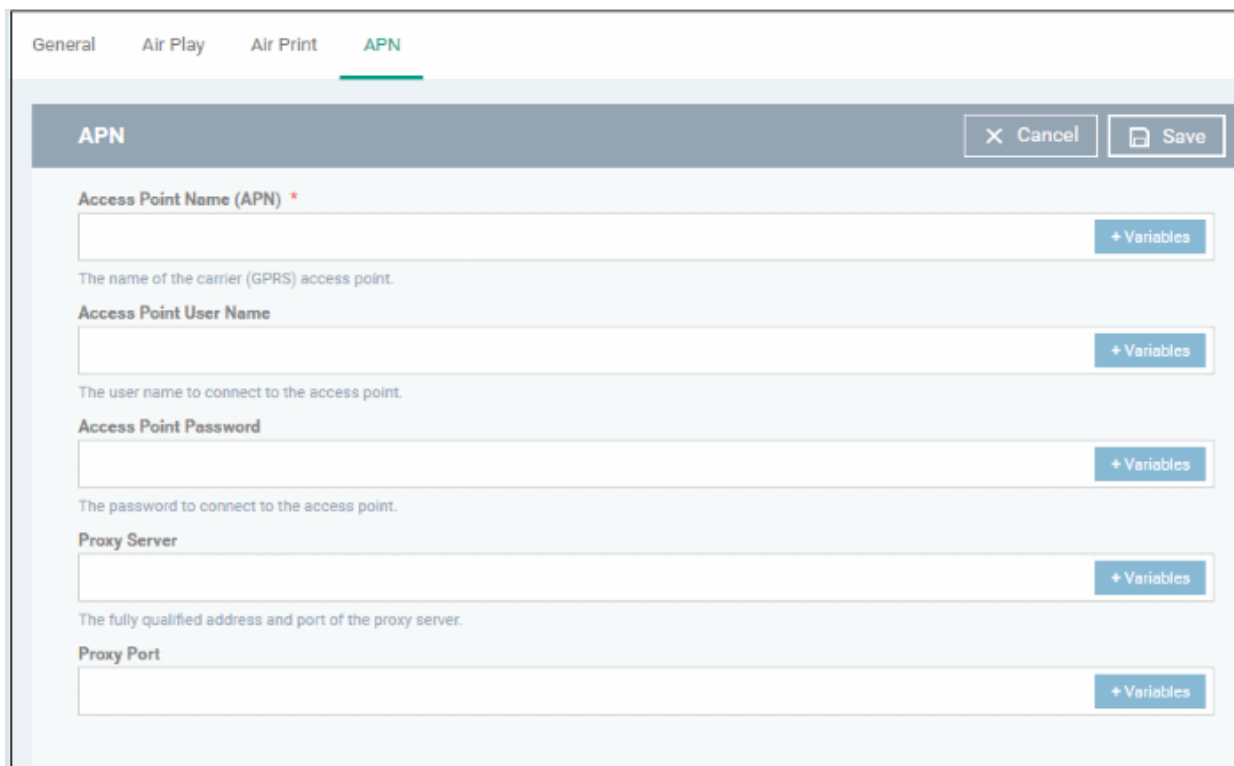
The settings will be saved and displayed under the 'Air Print' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

### To configure APN settings

**Note:** APN settings have been deprecated in favor of Cellular settings in iOS 7 and above.

- Click 'APN' from the 'Add Profile Section' drop-down

The 'APN' settings screen will be displayed.



General   Air Play   Air Print   **APN**

APN [Cancel] [Save]

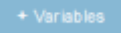

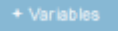

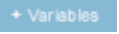

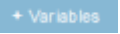



**Access Point Name (APN) \***  
[Input Field] + Variables  
The name of the carrier (GPRS) access point.

**Access Point User Name**  
[Input Field] + Variables  
The user name to connect to the access point.

**Access Point Password**  
[Input Field] + Variables  
The password to connect to the access point.

**Proxy Server**  
[Input Field] + Variables  
The fully qualified address and port of the proxy server.

**Proxy Port**  
[Input Field] + Variables

APN Settings - Table of Parameters		
Form Element	Type	Description
Access Point Name (APN)*	Text Field	Enter the name of the GPRS access point provided by the carrier. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Access Point User Name	Text Field	Enter the username to connect to the access point. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Access Point Password	Text Field	The password to connect to the access point. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Proxy Server	Text Field	Enter the proxy host settings provided by the carrier. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Proxy Port	Text Field	Enter the port number of the proxy host provided by the carrier. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .

Fields marked \* are mandatory.

- Click the 'Save' button.

The settings will be saved and displayed under the 'APN' tab. You can edit these settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

### To configure Calendar settings

- Click 'Calendar' from the 'Add Profile Section' drop-down









The 'Calendar' settings screen will be displayed.





The screenshot shows the 'Calendar' configuration window. At the top, there are tabs for 'General', 'Air Play', 'Air Print', and 'Calendar'. Below the tabs is a header bar with 'Calendar' and buttons for 'Cancel' and 'Save'. The main area contains several form fields:

- Account Description:** A text input field with a '+ Variables' button. Below it, a note says 'The display name of the account (e.g. "Company CalDAV Account")'.
- Account Hostname \*:** A text input field with a '+ Variables' button. Below it, a note says 'The CalDAV hostname or IP address and port number'.
- Account Port:** A text input field with a '+ Variables' button.
- CalDAV Account:** A text input field with a '+ Variables' button. Below it, a note says 'The CalDAV username'.
- Account Password:** A text input field with a '+ Variables' button. Below it, a note says 'The CalDAV password'.
- Use SSL:** A checkbox with the label 'Use SSL'. Below it, a note says 'Enable Secure Socket Layer communication with CalDAV server'.
- Principal URL:** A text input field with a '+ Variables' button. Below it, a note says 'The Principal URL for the CalDAV account'.

**Calendar Settings - Table of Parameters**

Form Element	Type	Description
Account Description	Text Field	Enter the display name of the CalDav account. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Account Host Name*	Text Field	Enter the CalDav host name or IP address. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Account Port	Text Field	Enter the port number on which to connect to the server. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
CalDav Account	Text Field	The user name of the CalDav user. Click the 'Variables' button  and click  beside '%u.login%' from the 'User Variables' list. The Usernames of the users to whom the profile is associated will be automatically filled. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Account Password	Text Field	The password for the CalDav account. Leave the field blank. The user will be prompted to enter the password while configuring the account for the first time. After it is validated, the users can access the account

Calendar Settings - Table of Parameters		
		without entering the credentials.
Use SSL	Checkbox	If enabled, SSL connection will be established with the CalDav server.
Principal URL	Text Field	Enter the Principal URL of the CalDav account. You can also add variables by clicking the 'Variables' button  Variables and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .

Fields marked \* are mandatory.

- Click the 'Save' button after entering or selecting the parameters.

The calendar account host will be added to the list.



- To add another Calendar server, click 'Add Calendar' and repeat the process
- To view and edit the calendar server settings, click on the hostname in the list
- To remove Calendar server, select it and click 'Delete Calendar'







The settings will be saved and displayed under 'Calendar' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.




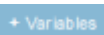

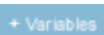

## To configure Cellular Network settings

**Note:** A cellular network setting cannot be applied if an APN setting is already installed. This feature is available for iOS 7 and later versions only.

- Click 'Cellular Networks' from the 'Add Profile Section' drop-down

The 'Cellular Networks' settings screen will be displayed.

Cellular Settings - Table of Parameters		
Form Element	Type	Description
Name	Text Field	Enter the name for this configuration, specifying the cellular service provider.  You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b> .
Authentication Type	Drop-down	Select the authentication type from the drop-down. The options are CHAP or PAP.
Username	Text Field	Enter the user name used for authentication. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b> .
Password	Text Field	Enter the password used for authentication. You can also add variables by clicking the 'Variables' button  and clicking  beside the

Cellular Settings - Table of Parameters		
		variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
APNs		
<p><b>Note:</b> You can add more APN accounts for a single service provider by clicking the  button at the bottom left.</p>		
Name	Text Field	Enter a name for specifying the APN configuration. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Authentication Type	Drop-down	Select the authentication type from the drop-down. The options are CHAP or PAP.
User Name	Text Field	Enter the user name used for authentication. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Password	Text Field	Enter the password used for authentication. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .

- Click the 'Save' button.

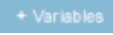

The settings will be saved and displayed under the 'Cellular Networks' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

### To configure Certificate settings

The 'Certificate' settings section is used to upload certificates and will act as a repository from which certificates can be selected for use in other areas like 'Wi-Fi', 'Exchange Active Sync' and 'VPN'. You can also enroll user or device certificates from Sectigo Certificate Manager (SCM) after activating your SCM account under Settings > Portal Set-Up > Certificates Activation. See [Integrate with Sectigo Certificate Manager](#) for more details.

- Click 'Certificate' from the 'Add Profile Section' drop-down

The 'Certificate' settings screen will be displayed.

Certificate Settings - Table of Parameters		
Form Element	Type	Description
Name	Text Field	Enter the name of the certificate. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Description	Text Field	Enter an appropriate description for the certificate.
Data	Browse button	Browse and upload the required certificate. Only certificate files with extensions 'pub', 'crt' or 'key' can be uploaded.

- Click the 'Save' button.

The certificate will be added to the certificate store.

NAME	DESCRIPTION
<input type="checkbox"/> Acme Certificate	Not Set

- To add more certificates, click 'Add Certificate' and repeat the process.
- To view the certificate key and edit the name, click on the name of the certificate
- To remove an unwanted certificate, select it and click 'Delete Certificate'

You can add any number of certificates to the profile and remove certificates at anytime. See [Edit Configuration Profiles](#) for more details.

### To add SCM Certificates section

The 'CCM Certificates' profile section lets you request client and device authentication certificates from Sectigo Certificate Manager (SCM).

**Note** - Sectigo Certificate Manager is the new name for Comodo Certificate Manager. We are in the process of

updating the Endpoint Manager UI to reflect this name change. [Click here](#) if you want to read more about the Comodo CA/Sectigo rebrand.

- The certificate request is forwarded to SCM after you apply the profile to a device,
- After issuance, the certificate is sent to EM which in turn pushes it to the device for installation.
- You can add any number of certificates to a single profile. Appropriate certificate requests are generated on each device to which the profile is applied.

In addition to user authentication, client certificates can be used for email signing and encryption.

**Prerequisite:** Your SCM account should have been integrated to your EM server in order for EM to forward requests to SCM. For more details, see [Integrate with Sectigo Certificate Manager](#).

## Configure 'SCM Certificates' settings

- Click 'Configuration Templates' > 'Profiles'
- Click the name of the Mac OS profile you want to configure

**iOS Prof for Purchase Dept**

Add Profile Section | Export Profile | Clone Profile | Delete Profile | Make Default

General | **CCM Certificates**

Add Certificate | Delete Certificate

<input type="checkbox"/>	NAME	COUNTRY NAME	TYPE	STATE OR PROVINCE NAME	LOCALITY NAME (EG. CITY)	ORGANIZATION NAME	ORGANIZATIONAL UNIT
--------------------------	------	--------------	------	------------------------	--------------------------	-------------------	---------------------

- Click 'Add Certificate' to add a certificate request to the profile:

**Add Certificate**
✕

**Name \***

**Type**

S/MIME certificate
▼

**Identifier \***

%u.username%
+ Variables

**Country name \***

Albania
▼

**State or province name**

**Locality name (eg. city)**



**Organization name**

**Organizational unit**

Add

Add Certificate - Table of Parameters		
Form Element	Type	Description
Name	Text Field	Create a label for the certificate
Type	Drop-down	Select the kind of certificate you want to add. The options are: <ul style="list-style-type: none"> <li>S/MIME Certificate (Client Certificate)</li> <li>Device Certificate</li> </ul>
Identifier	Text Field	The 'Identifier' field will be auto-populated with mandatory variables depending on the chosen certificate type. <ul style="list-style-type: none"> <li>For client certificate, %username% will be added for fetching</li> </ul>



Add Certificate - Table of Parameters		
		<p>the username to be included as subject in the certificate request.</p> <ul style="list-style-type: none"> <li>For device certificate, %d.uuid% will be added for fetching the device name to be included as subject in the certificate request.</li> </ul> <p>You can add more variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a>.</p>
Country Name	Text Field	Address details of the user/organization.
State or Province Name		
Locality Name (eg. City)		
Organization Name	Text Field	<p>The customer company to whom the user/device belongs.</p> <p><b>Prerequisite:</b> The organization should have been added to your SCM account.</p>
Organizational Unit	Text Field	<p>The department to company to whom the user/device belongs.</p> <p><b>Prerequisite:</b> The department should have been defined under the organization in your SCM account.</p>

- Click 'Add' once you have completed the form.
- Repeat the process to add more certificate requests.

The certificate requests will be generated from the devices once the profile is applied to them.

### To configure Contacts settings









- Click 'Contacts' from the 'Add Profile Section' drop-down

The 'Contacts' settings screen will be displayed.

The screenshot shows the 'Contacts' configuration page. At the top, there are navigation tabs: General, Air Play, Air Print, Calendar, Certificate, and Contacts. Below the tabs is a header bar with 'Contacts' on the left and 'Cancel' and 'Save' buttons on the right. The main form area contains several fields:

- Account Description:** A text input field with a '+ Variables' button. Below it is the text: 'The display name of the account (e.g. "Company CardDAV Account")'.
- Account Hostname \*:** A text input field with a '+ Variables' button. Below it is the text: 'The CardDAV hostname or IP address and port number'.
- Account Port \*:** A text input field with a '+ Variables' button.
- Account Username:** A text input field with a '+ Variables' button. Below it is the text: 'The CardDAV username'.
- Account Password:** A text input field with a '+ Variables' button. Below it is the text: 'The CardDAV password'.
- Use SSL:** A checkbox with the text: 'Enable Secure Socket Layer communication with CardDAV server'.
- Principal URL:** A text input field with a '+ Variables' button. Below it is the text: 'The Principal URL for the CardDAV account'.

**Contacts Settings - Table of Parameters**

Form Element	Type	Description
Account Description	Text Field	Enter the display name of the CardDav account. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Account Host Name*	Text Field	Enter the CardDav host name or IP address. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Account Port*	Text Field	Enter the port number on which to connect to the server. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Account Username	Text Field	The user name of the CardDav user. Click the 'Variables' button  and click  beside '%u.login%' from the 'User Variables' list. The Usernames of the users to whom the profile is associated will be automatically filled. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .

Contacts Settings - Table of Parameters		
Account Password	Text Field	The password for the CardDav account. Leave the field blank. The user will be prompted to enter the password while configuring the account for the first time. After it is validated, users will be able to access the account without entering a password.
Use SSL	Checkbox	If enabled, a secure SSL connection will be used for communications with the CardDav server.
Principal URL	Text Field	Enter the Principal URL of the CardDav account.

Fields marked \* are mandatory.

- Click the 'Save' button after entering or selecting the parameters. The CardDav account will be added to the list.

General   Air Play   Air Print   Calendar   Certificate <u>Contacts</u>		
Add Contacts    Delete Contacts		
<input type="checkbox"/>	HOST NAME	PORT
<input type="checkbox"/>	Purchase CardDav	486

You can add multiple CardDav accounts to the profile.






- To add another account, click 'Add Contacts' and repeat the process
- To view or edit a contact account, click on the Hostname of the contact account
- To remove a contact account, select it and click 'Delete Contacts'

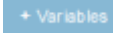
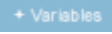
The settings will be saved and displayed under 'Contacts' tab. You can edit the contacts or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

## To configure ActiveSync settings

- Click 'ActiveSync Settings' from the 'Add Profile Section' drop-down  
The 'ActiveSync Settings' settings screen will be displayed:

**ActiveSync Settings - Table of Parameters**

Form Element	Type	Description
Account Name	Text Field	Enter the Exchange ActiveSync account name. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Exchange ActiveSync host*	Text Field	Enter the Exchange host name (Microsoft Exchange Server). You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Allow Move	Checkbox	If enabled, the user can move sent or received mails to another account.
Disable Mail Recent Syncing	Checkbox	If enabled, recently used emailed addresses are not synced with other devices via iCloud.
Prevent App Sheet	Checkbox	If enabled, mails cannot be sent using third-party applications.
Use SSL	Checkbox	If enabled, communication between Exchange server and devices will be encrypted using SSL.
S/MIME Enabled	Checkbox	If enabled, users can sign and encrypt email messages from their devices. Please note that certificates have to be installed in users' devices before this feature can be used.
Domain	Text Field	Address of the account. Click the 'Variables' button  and click

ActiveSync Settings - Table of Parameters		
		the users to whom the profile is associated will be automatically filled. For more details on variables, see <b>Create and Manage Custom Variables</b> .
User Name	Text Field	User name for the account. Click the 'Variables' button  and click <b>+</b> beside '%u.login%' from the 'User Variables' list. The Usernames of the users to whom the profile is associated will be automatically filled. For more details on variables, see <b>Create and Manage Custom Variables</b> .
Email Address	Text Field	Address of the account. Click the 'Variables' button  and click <b>+</b> beside '%u.mail' from the 'User Variables' list. The email address of the users to whom the profile is associated will be automatically filled. For more details on variables, see <b>Create and Manage Custom Variables</b> .
Password	Text Field	Leave the field blank. The user will be prompted to enter the password while configuring the email account for the first time. After it is validated, the users can access the email account without entering the password.
Past days of mail to sync	Drop-down	Choose the period for which the emails are to be kept synchronized between the device and the exchange server from the recent past, from the drop-down.
User Certificate	Drop-down	Select the user client authentication certificate from the drop-down or upload it using the 'Add New' button.



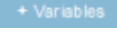



- Click the 'Save' button.

The settings will be saved and displayed under 'ActiveSync Settings' tab. You can edit the settings or remove the section from the profile at anytime. See **Edit Configuration Profiles** for more details.

### To configure Global HTTP proxy settings

- Click 'Global Proxy HTTP' from the 'Add Profile Profile Section' drop-down

The 'Global Proxy HTTP' settings screen will be displayed.

Global HTTP Proxy Settings - Table of Parameters		
Form Element	Type	Description
Name	Text Field	<p>Enter the name of the HTTP proxy to be displayed on devices to which the profile is applied.</p> <p>You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a>.</p>
Proxy	Drop-down	<p>Select the proxy type from the drop-down. The options available are:</p> <ul style="list-style-type: none"> <li>• None</li> <li>• Manual</li> <li>• Auto</li> </ul> <p>If you select 'Manual', enter the IP address of the proxy server, proxy server port, proxy username and proxy password in the respective fields. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add.</p> <p>If you select 'Auto', enter the URL of the Proxy Pac, select whether or not the device can directly connect to the destination if Pac server is not reachable and whether or not the device can bypass the proxy server to display the login page for captive networks from the respective check box options.</p> <p>You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a>.</p>

- Click the 'Save' button.

The settings will be saved and displayed under 'Global Proxy HTTP' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

## To configure LDAP settings

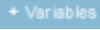



- Click 'LDAP' from the 'Add Profile Section' drop-down

The 'LDAP' settings screen will be displayed.





The screenshot shows the LDAP configuration screen with the following elements:

- Navigation Tabs:** General, Air Play, Air Print, Calendar, Certificate, Contacts, LDAP (selected).
- Form Header:** LDAP, Cancel, Save.
- Account Description:** Text field with a '+ Variables' button. Description: "The display name of the account (e.g. 'Company LDAP Account')".
- Account Hostname:** Text field with a '+ Variables' button. Description: "The LDAP hostname or IP address".
- Account Username:** Text field with a '+ Variables' button. Description: "The username for this LDAP account".
- Account Password:** Text field with a '+ Variables' button. Description: "The password for this LDAP account".
- Use SSL:**  Use SSL. Description: "Enable Secure Socket Layer for this connection."
- Search Settings:**
  - Description:** Text field with value "Description".
  - Scope:** Dropdown menu with value "Base".
  - Search Base:** Text field with value "Search Base".
- Buttons:** + Variables (multiple), Add (bottom right).
- Footer:** Search settings for this LDAP server.

**LDAP Settings - Table of Parameters**

Form Element	Type	Description
Account Description	Text Field	Enter the display name of the LDAP account. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Account Hostname	Text Field	Enter the LDAP hostname or IP address. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Account Username	Text Field	The username for the LDAP account. You can also add variables by



LDAP Settings - Table of Parameters		
		clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Account Password	Text Field	The password for the LDAP account. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Use SSL	Checkbox	If enabled, the communication will be encrypted.
Search Settings		Configure the settings for searching email contacts from the LDAP server. See ' <a href="#">Search the LDAP directory</a> ' below for more details.

## Search the LDAP directory

Admins can search for email contacts in the domain using the search feature.



Use SSL

Enable Secure Socket Layer for this connection.

**Search Settings**

**Description**

Description

**Scope**

Base

**Search Base**

Search Base

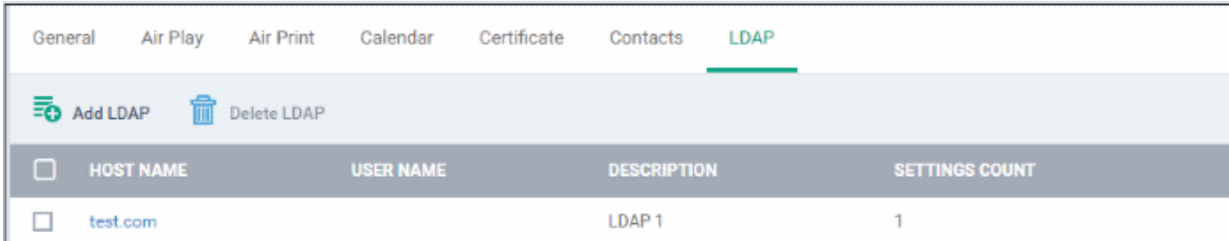
Add

Search settings for this LDAP server.

LDAP Search Settings - Table of Parameters		
Form Element	Type	Description
Description	Text Field	Enter the name of the search
Scope	Drop-down	Select from the drop-down to what level in the LDAP tree structure the search should run. <ul style="list-style-type: none"> <li>Base - Searches only the defined search base.</li> <li>One level - Searches the base and the first level below it.</li> <li>Subtree - Searches the base and all the levels below it.</li> </ul>
Search base	Text Field	Enter the search base for which the search will be restricted. For example, you might want to allow users to search only for other email users via LDAP.

- You can add more 'Search Settings' by clicking the **Add** button below.
- To remove an item, click the **X** button.
- Click the 'Save' button.

The LDAP account will be added to the list.



The screenshot shows a web interface with tabs for General, Air Play, Air Print, Calendar, Certificate, Contacts, and LDAP. The LDAP tab is active. Below the tabs are buttons for 'Add LDAP' and 'Delete LDAP'. A table below contains the following data:

<input type="checkbox"/>	HOST NAME	USER NAME	DESCRIPTION	SETTINGS COUNT
<input type="checkbox"/>	test.com		LDAP 1	1

You can add multiple LDAP accounts.

- To add another LDAP server, click 'Add LDAP' and repeat the process
- To view and edit the settings of an LDAP account, click the hostname of it
- To remove an LDAP account, select it and click 'Delete LDAP'

The settings will be saved and displayed under 'LDAP' tab. You can edit the settings or remove the section from the profile at anytime. See **Edit Configuration Profiles** for more details.

### To configure E-Mail settings



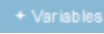



- Click 'E-mail' from the 'Add Profile Section' drop-down






The 'E-mail' settings screen will be displayed.

The screenshot shows the 'E-mail' configuration page. At the top, there are navigation tabs: General, Air Play, Air Print, Calendar, and E-mail. Below the tabs is a header bar with 'E-mail' and 'Cancel' and 'Save' buttons. The main form area contains several sections:

- Email Account Description:** A text input field with a '+ Variables' button. Below it, a note says 'The display name of the account (e.g. 'Company Mail Account')'.
- Allowed values are email type POP and email type IMAP \*:** A dropdown menu currently showing 'IMAP'. Below it, a note says 'The protocol for accessing the email account'.
- Path Prefix:** A text input field with a '+ Variables' button.
- Email Account Name:** A text input field with a '+ Variables' button. Below it, a note says 'The name of the user (e.g. John Appeseed)'.
- Email Address:** A text input field with a '+ Variables' button.
- Allow Move:** A checkbox. Below it, a note says 'Allow user to move messages from this account'.
- Designates the incoming mail server host name (or IP address) \*:** A text input field with a '+ Variables' button. Below it, a note says 'Hostname or IP address, and port number for incoming mail'.

**Mail Account Settings - Table of Parameters**

Form Element	Type	Description
Email Account Description	Text Field	Enter a description for the email account. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b> .
Allowed values are email type POP and email type IMAP *	Drop-down	Select IMAP or POP from the email type for the profile.
Path Prefix	Text Field	This will be visible if IMAP is chosen as Email Type in the previous step. Enter the path of the inbox in the field. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b> .
Email Account Name	Text Field	If the profile is for a single user, enter the name to identify the user's email account. If the profile is for several users, click the 'Variables' button  , and click  beside '%u.login%' from the 'User Variables list'. The email address of the users to whom the profile is associated will be automatically added to the profile while rolling out the same to the devices. For more details on variables, see <b>Create and Manage Custom Variables</b> .
Email Address	Text Field	If the profile is for a single user, enter the email address of the user. If the

Mail Account Settings - Table of Parameters		
		profile is for several users, click the 'Variables' button  , and click <b>+</b> beside '%u.mail%' from the 'User Variables' list. The email address of the users to whom the profile is associated will be automatically added to the profile while rolling out the same to the devices. For more details on variables, see <b>Create and Manage Custom Variables</b> .
Allow Move	Checkbox	If enabled, the user can move sent or received mails to another account.
Designates the incoming mail server host name (or IP address)*	Text Field	Enter the host name of the incoming mail server or its IP address. You can also add variables by clicking the 'Variables' button  and clicking <b>+</b> beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b> .
Designates the incoming mail server port number*	Text Field	Enter the server port number used for incoming mail service. For POP3, it is usually 110 and if SSL is enabled it is 995. For IMAP, it is usually 143 and if SSL is enabled it is 993. You can also add variables by clicking the 'Variables' button  and clicking <b>+</b> beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b> .
Incoming Mail Server Username	Text Field	If the profile is for a single user, enter their username for the incoming mail server. If the profile is for several users, click the 'Variables' button  and click <b>+</b> beside '%u.login%' from the 'User Variables' list. The Usernames of the users to whom the profile is associated will be automatically filled. For more details on variables, see <b>Create and Manage Custom Variables</b> .
Allowed values are email auth password and email auth none *	Drop-down	Select the type of authentication method for the mail account from the drop-down. The options available are: <ul style="list-style-type: none"> <li>• None</li> <li>• Password</li> <li>• CRAM MD5</li> <li>• NTLM</li> <li>• HTTP MD5</li> </ul>
Incoming Password	Text Field	Leave the field blank. If authentication is chosen in the previous step, then user will be prompted to enter the password while configuring the email account for the first time. After it is validated, the users can access the email account without entering the password.
Incoming Mail Server use SSL	Checkbox	If enabled, communication between incoming mail server and devices is encrypted using SSL.
Outgoing Mails Server Host Name*	Text Field	Enter the host name or IP address for the outgoing mail server. You can also add variables by clicking the 'Variables' button  and clicking <b>+</b> beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b> .
Designates the outgoing mail server port number*	Text Field	Enter the server port number used for outgoing mail service. If no port number is specified then ports 25, 587 and 465 are used in the given order. You can also add variables by clicking the 'Variables' button

Mail Account Settings - Table of Parameters		
		+ Variables and clicking + beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Outgoing Mail Server Username	Text Field	If the profile is for a single user, enter the username of the user to login to outgoing mail server. If the profile is for several users, click the 'Variables' button + Variables and click + beside '%u.login%' from the 'User Variables' list. The Usernames of the users to whom the profile is associated will be automatically filled. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Outgoing Mail Server Authentication*	Drop-down	Select the type of authentication method for outgoing mail server from the drop-down. The options available are: <ul style="list-style-type: none"> <li>• None</li> <li>• Password</li> <li>• CRAM MD5</li> <li>• NTLM</li> <li>• HTTP MD5</li> </ul>
Outgoing Password	Text Field	Leave the field blank. If authentication is chosen in the previous step, then user will be prompted to enter the password while configuring the email account for the first time. After it is validated, the users can access the email account without entering the password.
Outgoing Password Same as Incoming Password	Checkbox	If enabled, the password for incoming mail server will be used for outgoing mail server too.
Disable Mail Recents Syncing	Checkbox	If enabled, recently used emailed addresses are not synced with other devices via iCloud.
Signing and encryption per-message	Checkbox	If enabled, the device digitally signs and encrypts your mail per-message.
Prevent App Sheet	Checkbox	If enabled, outgoing mails can be sent from this account only via mail app.
Outgoing Mail Server Use SSL	Checkbox	If enabled, communication between outgoing mail server and devices is encrypted using SSL.
SMIME enabled	Checkbox	If enabled, users can sign and encrypt email messages from their devices. Please note that certificates have to be installed in users' devices before this feature can be used.

- Click the 'Save' button.

The e-mail account will be added to the profile.

General   Air Play   Air Print   Calendar <b>E-mail</b>		
Add Mail    Delete Mail		
<input type="checkbox"/>	NAME	ACCOUNT NAME
<input type="checkbox"/>	Mail 1	IMAP

You can add several email accounts to the same profile.

- To add another email account, click 'Add Mail' and repeat the process
- To view and edit the settings for an email account, click on its name
- To remove an email account, select it and click 'Delete Mail'

The settings will be saved and displayed under the 'Email' tab. You can edit the settings or remove the section from the profile at anytime. See **Edit Configuration Profiles** for more details.





## To configure Passcode settings

- Click 'Passcode' from the 'Add Profile Section' drop-down

The 'Passcode Settings' screen will be displayed.

**Passcode Settings - Table of Parameters**

Form Element	Type	Description
Allow Simple Value	Checkbox	Selecting this will allow the users to configure repeated or sequential characters in their passwords. For example, '9999' or ABCD.
Require Alphanumeric Value	Checkbox	Selecting this will compel the user to configure at least one number or letter in their passwords.
Minimum Passcode Length	Drop-down	The minimum number of characters that a password should contain. The option is available to set from 1 to 16.
Minimum Number of Complex Characters	Drop-down	The minimum number of symbols (non alphanumeric characters such as *, %, @) that a password should contain. The option is available to set from 1 to 4.
Maximum Passcode Age	Text Field	Enter the maximum number of days that a password can be valid. The option is available from 1 day to 730 days. You can also add variables by

Passcode Settings - Table of Parameters		
		clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Maximum Idle Time	Drop-down	Select the period of time in minutes that a device can be idle before it's screen is automatically locked.
Passcode History	Text Field	New passwords should not match previously used passwords. Specify the number of last used passwords that should be stored for comparison. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Maximum Grace Period for Device Lock	Drop-down	Select the period from the drop-down how soon the device can be unlocked since last used without prompting the user to enter the password. The option is available from 'Immediately' to '4 Hours' If 'Immediately' is selected, the user has to enter the password each time the device is unlocked.
Maximum Number of Failed Attempts	Drop-down	Select the number of unsuccessful login attempts that can be tried by a user before the device is wiped clean of all its data and settings. The option is available to set from 4 to 10. After 6 unsuccessful login attempts, there will be a time delay before a password can be entered again and the time delay period increases with each failed login attempt. This time delay begins only after the sixth attempt, so if you select the period as 6 or lower, there will be no time delay and data will be erased after the final attempt.
Allows the user to modify Touch ID	Check box	If enabled, allows user you to modify the biometric authentication to unlock your device, make purchases and so on.

- Click the 'Save' button.



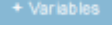

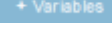

The settings will be saved and displayed under the 'Passcode' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

### To configure Proxy settings

- Click 'Proxy' from the 'Add Profile Section' drop-down

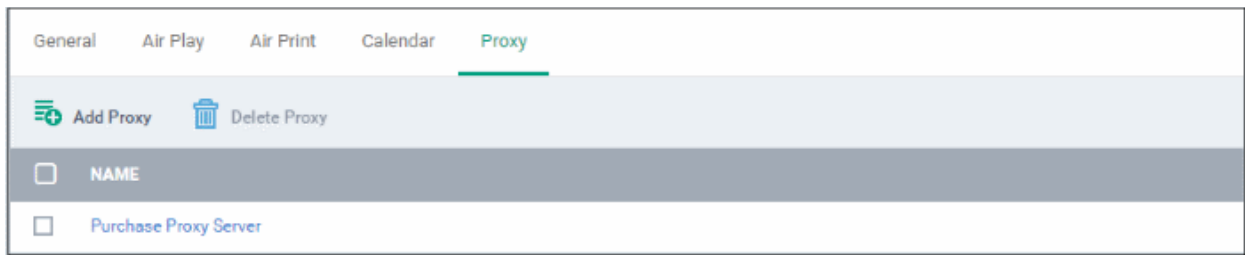
The 'Proxy' settings screen will be displayed.



Proxy Settings - Table of Parameters		
Form Element	Type	Description
Name	Text Field	Enter the name of the that will be displayed to the users for the policy. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Proxy	Drop-down	Select the proxy type from the drop-down. The options available are: <ul style="list-style-type: none"> <li>• None</li> <li>• Manual</li> <li>• Auto</li> </ul> If you select 'Manual', enter the details for IP address of the proxy server, proxy server port, proxy username and proxy password in the respective fields. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. If you select 'Auto', enter the URL of the Proxy Pac. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .

- Click the 'Save' button.

The proxy server configuration will be added to the profile.



You can add more proxy server accounts to the profile.

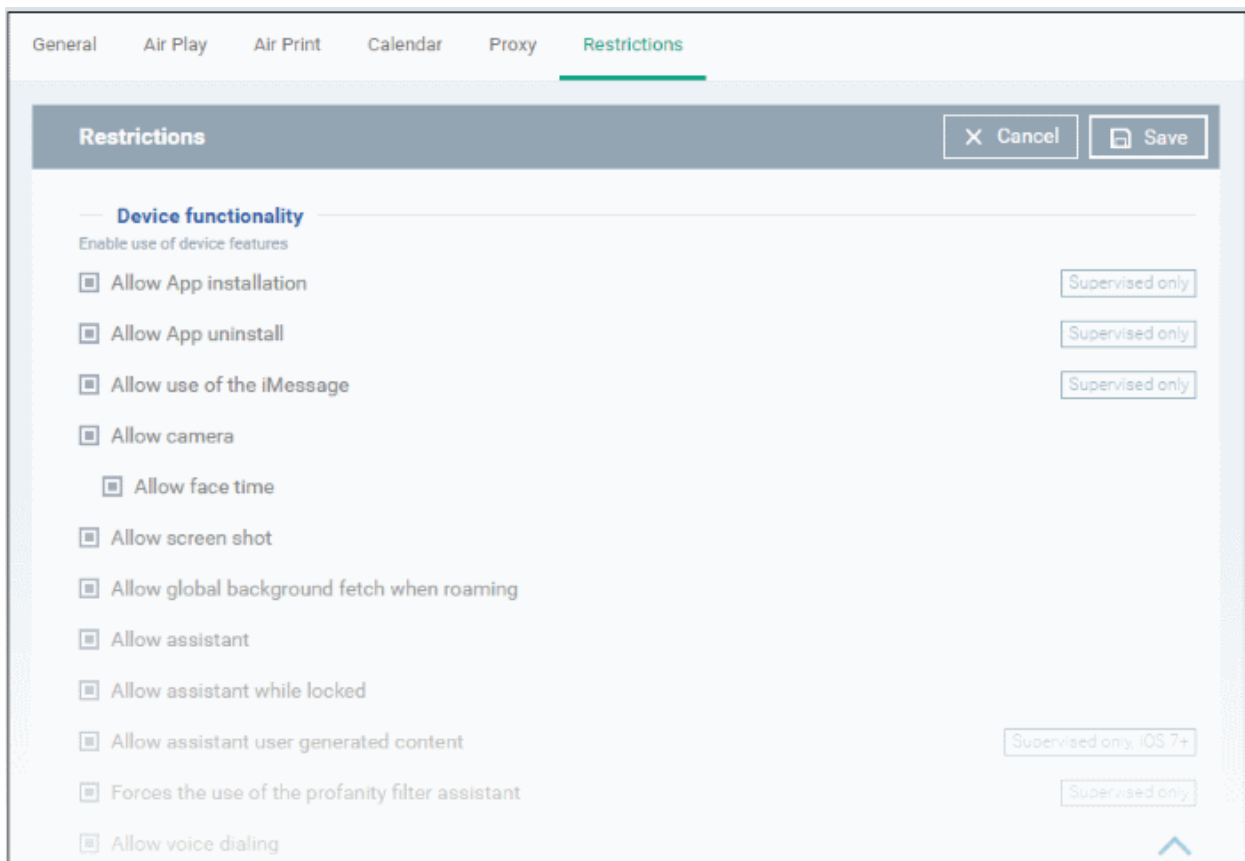
- To add another proxy server account, click 'Add Proxy' and repeat the process
- To view or edit a proxy server account, click on its name
- To remove a proxy server account, select it then click 'Delete Proxy'

The settings will be saved and displayed under the 'Proxy' tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

## To configure Restrictions settings

- Click 'Restrictions' from the 'Add Profile Section' drop-down

The 'Restrictions' settings screen will be displayed.









Restrictions Settings - Table of Parameters		
Device Functionality		
Form Element	Type	Description
Allow App Installation	Checkbox	Allows the user to install or update apps from the Apple App Store. If left unchecked, the App Store icon is removed from the device's home screen.
Allow App uninstall	Checkbox	Allows the user to uninstall applications.
Allow use of iMessage	Checkbox	Allows the user to quickly and easily chat over iMessage or SMS/MMS.
Allow camera	Checkbox	Allows the user to take photos, videos or use FaceTime (if enabled). If left unchecked, the camera icon is removed from the device and camera is disabled.
Allow face time	Checkbox	Allows the user to use FaceTime. Please note the 'Allow face time' can be enabled only if 'Allow Camera' is enabled.
Allow screen shot	Checkbox	Select this to allow the user to take screenshots.
Allow global background fetch when roaming	Checkbox	Select this to allow the device to sync data when in roaming mode abroad.
Allow assistant	Checkbox	If enabled, users can use Siri voice commands and dictation.
Allow assistant while Locked	Checkbox	If enabled, users can use Siri even when the device is locked. The checkbox will be active only when 'Allow Assistant' is enabled.
Allow assistant user generated content	Checkbox	If enabled, users can use Siri to query user-generated content from the Internet or device. (Supervised mode only.)
Forces the use of the profanity filter assistant	Checkbox	If enabled, enforces profanity filter for Siri.
Allow voice dialing	Checkbox	Select this to allow the user to dial their phone using voice commands.
Allow passbook while locked	Checkbox	If enabled, Passbook notifications will be displayed even when the device is locked.
Allow in app purchases	Checkbox	Select this to allow the user to make in-app purchases from the device.
Force iTunes store password entry	Checkbox	If enabled, users have to enter their Apple ID to enter the iTunes store.
Allow multiplayer gaming	Checkbox	Select this to allow the user to play multiplayer games in Game Center.
Allow adding game center friends	Checkbox	If enabled, users can add friends in Game Center.
Allow account modification	Checkbox	Select this to allow user account modifications on devices. Note: This feature is available for iOS 7+ and supervised devices only.
Allow air drop	Checkbox	Select this to allow Air Drop on devices. Note: This feature is available for iOS 7+ and supervised devices only.
Allow find my friends modification	Checkbox	Select this to enable Find My Friends feature on devices. Note: This feature is available for iOS 7+ and supervised devices only.

Restrictions Settings - Table of Parameters		
Allow fingerprint for unlock	Checkbox	Select this to enable Touch ID to unlock devices. Note: This feature is available for iOS 7+ and supervised devices only.
Allow game center	Checkbox	If enable, users can access Game Center, an online multiplayer social gaming network. Note: This option is available for supervised devices only.
Allow host pairing	Checkbox	Select this to allow host pairing on devices. Note: This feature is available for iOS 7+ and supervised devices only.
Allow lock screen control center	Checkbox	Select this option to allow Control Center to be displayed in the lock screen. Note: This feature is available for iOS 7 and later versions.
Allow lock screen notifications view	Checkbox	Select this option to allow Notification Center to be displayed on the lock screen. Note: This feature is available for iOS 7 and later versions.
Allow lock screen today view	Checkbox	Select this option to allow the Today View from Notification Center to be displayed in the lock screen. Note: This feature is available for iOS 7 and later versions.
Allow OTAPKI updates	Checkbox	Select this option to allow over-the-air public key infrastructure (OTAPKI) updates on the device. Note: This feature is available for iOS 7 and later versions.
Allow UI configuration profile installation	Checkbox	Select this option to allow users to install UI configuration profiles. Note: This option is available for supervised devices only.
Force limit ad tracking	Checkbox	Select this to limit ad tracking on devices. Note: This feature is available for iOS 7 and later versions.
Forces all devices receiving AirPlay requests from this device to use a pairing password	Checkbox	If enabled, forces the use of pairing password for all other devices sending AirPlay requests to the device.
Allow managed applications from using cloud sync	Checkbox	If enabled, users can restrict managed apps backing up any data to iCloud, while still allowing it for user downloaded apps.
Allow the "Erase All Content And Settings" option in the Reset UI	Checkbox	If enabled, users can remove his/her personal information: credit or debit card, photos, contacts, music, or apps. Note: This feature is available for supervised devices only.
Spotlight will return Internet search results	Checkbox	If enabled, the spotlight features will provide suggestions from the Internet, iTunes, and the App Store for the user to quickly find any file, documents, emails, apps contacts and more on the device. (For supervised devices only.)
Allow the "Enable Restrictions" option in the Restrictions UI in Settings	Checkbox	If enabled, users can enable or disable 'Enable Restrictions' option in the 'Restrictions' user interface on the device. (For supervised devices only.)
Allow Activity Continuation	Checkbox	If enabled, user can control data flow through iCloud.





Restrictions Settings - Table of Parameters		
Allow backed up Enterprise books	Checkbox	If enabled, users can backup iBooks and restrict synchronization to iCloud.
Enterprise books notes and highlights will be synced	Checkbox	If enabled, allows the user to sync Enterprise books, notes and highlights to iCloud.
Allow podcasts	Checkbox	If enabled users can receive their favorite podcasts. Note: This feature is available only for supervised devices with iOS 8 and later versions.
Allow definition lookup	Checkbox	If enabled, allows the user to enable or disable spell check and definition features on the device. Note: This feature is available only for supervised devices with iOS 8.1.3 and later versions.
Allow predictive keyboard	Checkbox	If enabled, users can enable or disable the predictive keyboard feature. Note: This feature is available only for supervised devices only with iOS 8.1.3 and later versions.
Allow keyboard auto-correction	Checkbox	If enabled, allows user to enable/disable keyboard auto-correct feature. Note: This feature is available only for supervised devices with iOS 8.1.3 and later versions.
Allow keyboard spell-check	Checkbox	If enabled, allows user to enable/disable keyboard spell check feature. Note: This feature is available only for supervised devices with iOS 8.1.3 and later versions.
Paired Apple Watch will be forced to use Wrist Detection	Checkbox	If an Apple Watch is paired with the device, the device forces the Apple Watch to enable Wrist Detection. Note: This feature is available for iOS 8.2 and later versions.
Allow Music service and Music	Checkbox	If enabled, it allows third-party apps to add music to user's iCloud music library. Note: This feature is available for iOS 9.0 and later versions.
Allow iCloud Photo Library	Checkbox	If enabled, allows the user to upload photos and videos to iCloud photo library.
Allow News	Checkbox	If enabled, users can subscribe to news services. Note: This feature is available only for supervised devices with iOS 9.0 and later versions.
Causes AirDrop to be considered an unmanaged drop target	Checkbox	If enabled, all targets specified for the AirDrop feature will be considered as unmanaged drop targets. Note: This feature is available for iOS 9.0 and later versions.
Enable the App Store on the Home screen	Checkbox	If enabled, displays the AppStore icon on the home screen of the device.
Allow keyboard shortcuts	Checkbox	If enabled, allows the user to create and use keyboard shortcuts for typing snippets. Note: This feature is available only for Supervised devices with iOS 9.0 and later versions.
Allow pairing with an Apple	Checkbox	If enabled, allows the user to pair the device with an Apple Watch.

Restrictions Settings - Table of Parameters		
Watch		Note: This feature is available only for Supervised devices with iOS 9.0 and later versions.
Allow device passcode from being added, changed, or removed	Checkbox	If enabled, users can create and modify screenlock passcodes for the device. Note: This feature is available only for supervised devices with iOS 9.0 and later versions.
Allow device name modification	Checkbox	If enabled, allows users to change the device name. Note: This feature is available for only Supervised devices with iOS 9.0 and later versions.
Allow wallpaper modification	Checkbox	If enabled, allows user to change wallpaper displayed on the device. Note: This feature is available only for supervised devices with iOS 9.0 and later versions.
Allow automatic download applications	Checkbox	If enabled, allows applications in the device to automatically download and install apps and updates. Note: This feature is available only for supervised devices with iOS 9.0 and later versions.
Allow enterprise application trust	Checkbox	If enabled, 'Trusted' status is automatically applied to enterprise applications. Note: This feature is available for iOS 9.0 and later versions.
Allow enterprise application trust modification	Checkbox	If enabled, users can manually change the Trust status of enterprise applications. Note: This feature is available only for Supervised devices with iOS 9.0 and later versions.
Allow radio service	Checkbox	If enabled, users can use Radio services on their device. Note: This feature is available only for Supervised devices with iOS 9.3 and later versions.
Allow notifications modification	Checkbox	If enabled, user can modify 'Apple Push Notifications' settings on the device. Note: This feature is available only for Supervised devices with iOS 9.3 and later versions.
Whitelisted application bundles	Text box	<p>Allows you to add applications to the app whitelist. The applications in the whitelist will be skipped from security checks during installation and usage.</p> <ul style="list-style-type: none"> <li>Enter the App bundle ID of the application to be added to the whitelist.</li> </ul> <p>For more details on obtaining the App bundle ID, see the <b>explanation</b> at the end of this section.</p> <p>You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b>.</p>

Restrictions Settings - Table of Parameters		
		<ul style="list-style-type: none"> <li>To add more Whitelisted application bundles, click  button.</li> <li>To remove an app, click the  beside it.</li> </ul> <p>Note: This feature is available only for supervised devices with iOS 9.3 and later versions.</p>
Blacklisted application bundles	Text box	<p>Allows you to add applications to the app blacklist. The applications in the blacklist will not be allowed to be installed or used.</p> <ul style="list-style-type: none"> <li>Enter the App bundle ID of the application to be added to the blacklist.</li> </ul> <p>For more details on obtaining the App bundle ID, see the <b>explanation</b> at the end of this section.</p> <p>You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b>.</p> <ul style="list-style-type: none"> <li>To add more Blacklisted application bundles, click  button.</li> <li>To remove an app, click the  beside it.</li> </ul> <p>Note: This feature is available only for Supervised devices with iOS 9.3 and later versions.</p>
Security and privacy		
Allow diagnostic submission	Checkbox	If enabled, the device will be enabled to submit its iOS diagnostic information to Apple.
Allow untrusted TLS prompt	Checkbox	If enabled, users will be prompted if they want to trust unverified certificates. This setting applies to Calendar accounts, Contacts, Safari and to Mail.
Force encrypted backup	Checkbox	If left unchecked, users can select whether or not to encrypt backups from the device to iTunes in a local computer. If this option is enabled, the backup data from the device to iTunes in local computer will be automatically encrypted.
Content ratings		
Allow explicit content	Checkbox	Content providers of iTunes flag their explicit content for easy identification. If enabled, explicit content including music and video will be displayed in iTunes store instead being hidden, in the device.
Allow iBookstore	Checkbox	If enabled, users can access iBookstore, an online bookstore from Apple. Note: This option is available only for supervised devices.
Allow iBookstore erotica	Checkbox	If enabled, users can download media tagged as erotica from iBooks. Note: This feature is available only for Supervised devices with versions prior to iOS 6.1.
Rating region	Drop-down	Select the region whose content ratings are to be followed, from the



Restrictions Settings - Table of Parameters		
		drop-down.
Rating movies	Drop-down	Choose the content rating to be allowed for watching movies.
Rating TV Shows	Drop-down	Choose the content rating to be allowed for watching the TV shows.
Rating apps	Drop-down	Choose the rating to be allowed for using apps.
Applications		
Allow i Tunes	Checkbox	If enabled, users can access iTunes store. If left unchecked, iTune store is disabled and its icon will be removed from the home screen.
Allow Safari	Checkbox	If enabled, users can use Safari for browsing internet. If left unchecked, the Safari browser app will be disabled and its icon will be removed from the home screen.
Safari allow auto fill	Checkbox	If enabled, the 'auto-fill' feature will be enabled for Safari, to automatically fill details such as user name, password, credit card details and so on in web forms.
Safari allow java script	Checkbox	If enabled, java script features will be supported by Safari.
Safari allow popups	Checkbox	If enabled, popups will be allowed in Safari.
Safari force fraud warning	Checkbox	If enabled, Safari displays alerts to users when visiting websites that are identified as compromised or fraudulent.
Safari accept cookies	Drop-down	Select the option on when Safari can accept cookies, from the drop-down. The available options: <ul style="list-style-type: none"> <li>• Always</li> <li>• Never</li> <li>• From visited site</li> </ul>
Allow app cellular data modification	Checkbox	If enabled, user can modify cellular data usage settings for individual apps on the device. Note: This feature is available only for Supervised devices with iOS 7 or later versions.
Allow open from Managed to Unmanaged	Checkbox	If enabled, users can send data from managed apps to unmanaged apps. Note: This feature is available for iOS 7 and later versions.
Allow open from Unmanaged to Managed	Checkbox	If enabled, users can send data from unmanaged apps to managed apps. Note: This feature is available for iOS 7 and later versions.
Autonomous single app mode permitted app bundle IDs	Text Field	iOS apps built with the functionality of single App Lock, can provoke App Lock for them under certain scenarios in Autonomous single app mode. Administrators can specify the apps for which the mode can be enabled, by entering their App bundle IDs. <ul style="list-style-type: none"> <li>• Enter the App bundle ID of the application to be permitted for autonomous single app mode.</li> </ul> For more details on obtaining the App bundle ID, see the <b>explanation</b> at the end of this section.

Restrictions Settings - Table of Parameters		
		<p>You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a>.</p> <ul style="list-style-type: none"> <li>To add more apps, click  button.</li> <li>To remove an app, click the  beside it.</li> </ul> <p>Note: This feature is applicable only for Supervised devices with iOS 7 or later versions.</p>
iCloud		
Allow cloud keychain sync	Checkbox	<p>If enabled, the Apple Keychain data on the device will be synced to iCloud.</p> <p>Note: This feature is applicable only for iOS 7 and later versions.</p>
Allow cloud backup	Checkbox	<p>If enabled, users can backup their device data to iCloud.</p> <p>Note: This feature is applicable only for iOS 7 and later versions.</p>
Allow cloud document sync	Checkbox	<p>If enabled, users can synchronize documents on their device with iCloud.</p> <p>Note: This feature is applicable only for iOS 7 and later versions.</p>
Allow photo stream	Checkbox	<p>Allows users to use Photo Stream.</p> <p>Note: This feature is applicable only for iOS 7 and later versions.</p>
Allow shared stream	Checkbox	<p>If enabled, users can share and view photos in Photo Stream.</p> <p>Note: This feature is applicable only for iOS 7 and later versions.</p>

- Click the 'Save' button.

The saved 'Restrictions Settings' screen will be displayed with options to edit the settings or delete the section. See [Edit Configuration Profiles](#) for more details.

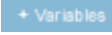

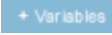

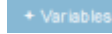

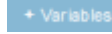



## To configure Single Sign-On settings





These settings are used to configure Kerberos authentication and are applicable for iOS 7 or later versions only. You can add several Single Sign On accounts to a profile.

- Click 'Single Sign-On' from the 'Add Profile Section' drop-down

The 'Single Sign On' settings screen will be displayed.

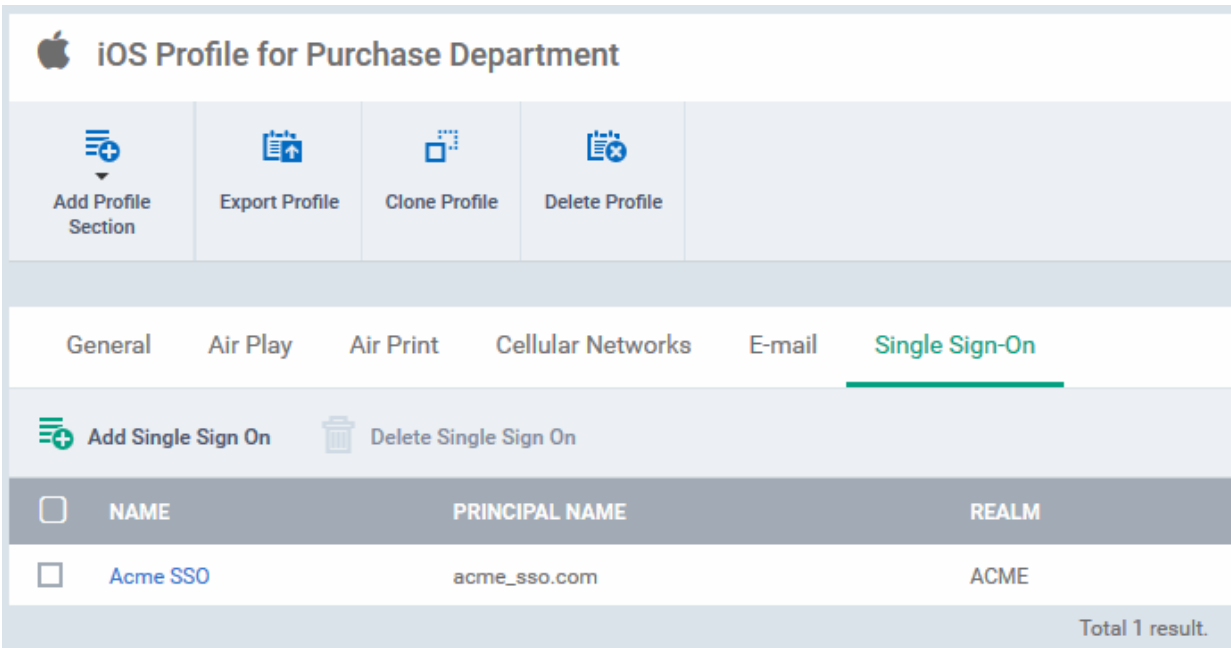
**Single Sign-On Settings - Table of Parameters**

Form Element	Type	Description
Name*	Text Field	Enter the name for the account. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Principal Name*	Text Field	Enter the Kerberos principal name. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Realm*	Text Field	Enter the Kerberos realm name with upper-case characters. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
URL prefix matches*	Text Field	Enter the URL prefix, which must be matched in order to use this account for Kerberos authentication over HTTP. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .  Click  button to add more 'URL prefix matches' fields. To remove a URL prefix, click the minus  button beside it.
App identifier	Text Field	Enter the bundle IDs of apps that are allowed to use this Single Sign-On

Single Sign-On Settings - Table of Parameters		
matches		<p>account for logging-in to respective account. If this field is left blank, this login matches all app bundle IDs.</p> <p>You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a>.</p> <p>Click  button to add more 'App identifier matches' fields. To remove an App identifier match, click the minus  button beside it.</p>

- Click the 'Save' button.

The account will be added to the Single Sign-On section of the profile.



**iOS Profile for Purchase Department**

[Add Profile Section](#)
[Export Profile](#)
[Clone Profile](#)
[Delete Profile](#)

[General](#)
[Air Play](#)
[Air Print](#)
[Cellular Networks](#)
[E-mail](#)
[Single Sign-On](#)

[Add Single Sign On](#)
[Delete Single Sign On](#)

<input type="checkbox"/>	NAME	PRINCIPAL NAME	REALM
<input type="checkbox"/>	Acme SSO	acme_sso.com	ACME

Total 1 result.

You can add several SSO accounts to the profile.

- To add another SSO account, click 'Add Single Sign-On' and repeat the process
- To view and edit an SSO account, click the name of it
- To remove an SSO account, select it then click 'Delete Single Sign-On'

The settings will be saved and displayed under the Single Sign-On tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

### To configure Subscribed Calendar settings



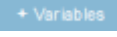



- Click 'Subscribed Calendars' from the 'Add Profile Section' drop-down

The 'Subscribed Calendar' settings screen will be displayed.

The screenshot shows the 'Subscribed Calendar' configuration window. It includes the following elements:

- Navigation Tabs:** General, Air Play, Air Print, Calendar, Proxy, Single Sign-On, Subscribed Calendar.
- Title Bar:** Subscribed Calendar, with 'Cancel' and 'Save' buttons.
- Description:** A text input field with a '+ Variables' button. Below it, the text reads: 'The description of the calendar subscription.'
- URL:** A text input field with a '+ Variables' button. Below it, the text reads: 'The URL of the calendar file.'
- Username:** A text input field with a '+ Variables' button. Below it, the text reads: 'The username for this subscription.'
- Password:** A text input field with a '+ Variables' button. Below it, the text reads: 'The password for this subscription.'
- Use SSL:** A checkbox with the label 'Use SSL' and the text 'Enable Secure Socket Layer for this connection.'

**Subscribed Calendars Settings - Table of Parameters**

Form Element	Type	Description
Description	Text Field	Enter a description of the calendar subscription. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
URL*	Text Field	Enter the URL of the calendar account to be subscribed. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Username	Text Field	The user name for the subscription. If the profile is for several users, you can add variables for setting up subscription to respective user's calendar account. Click the 'Variables' button  and click  beside '%u.login%' from the 'User Variables' list. The Usernames of the users to whom the profile is associated will be automatically filled. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Password	Text Field	The password for the subscription. Leave the field blank. The user will be prompted to enter the password while configuring the account for the first time. After it is validated, the users can access the account without entering the credentials.
Use SSL	Checkbox	If enabled, SSL connection will be established with the calendar server, if available.

- Click the 'Save' button.

The calendar account will be added.

HOST NAME	USER NAME	DESCRIPTION
<input type="checkbox"/> 192.168.1.1		Purchase_sub_calendar

You can add several calendar accounts for a profile.

- To add another Subscribed Calendar account, click 'Add Subscribed Calendar' and repeat the process
- To view and edit a calendar account, click the Hostname of it
- To remove a calendar account, select it and click 'Delete Subscribed Calendar'

The settings will be saved and displayed under the Subscribed Calendars tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

### To configure VPN settings

- Click 'VPN' from the 'Add Profile Section' drop-down

The settings screen for VPN will be displayed.

**VPN** [Cancel] [Save]

**User name**  
[Text Field] + Variables  
Display name of the connection (displayed on the device).

**Connection type \***  
L2TP [Dropdown]  
The type of connection enabled by this policy.



Override primary

**Comm Remote Address \***  
[Text Field] + Variables





**Auth Name**  
[Text Field] + Variables  
User account for authenticating the connection.

**Auth Protocol \***  
 Password  
 RSA SecurID  
Authentication type for connection.

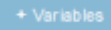

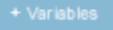







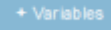

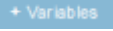

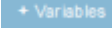

**Proxy**  
Choose Proxy [Dropdown] [Add New]

VPN Settings - Table of Parameters		
Form Element	Type	Description
User name	Text Field	<p>Enter the name of the connection, to be displayed on the device.</p> <p>You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a>.</p>
Connection type*	Drop-down	<p>Choose the VPN connection type from the drop-down. The options available are:</p> <ul style="list-style-type: none"> <li>• L2TP</li> <li>• PPTP</li> <li>• IPSec</li> <li>• Cisco Any Connection</li> <li>• Juniper SSL</li> <li>• F5 SSL</li> <li>• Open VPN</li> </ul> <p>The connection parameters differ for each type. The parameters to be configured for each connection type are explained in the <a href="#">table below</a>.</p>
Proxy	Drop-down	<p>Select the proxy settings for the VPN from the drop-down. You can create a new proxy by clicking the 'Add New' button beside it. The options available are:</p> <ul style="list-style-type: none"> <li>• None</li> <li>• Manual</li> <li>• Auto</li> </ul> <p>If you select 'Manual', enter the IP address of the proxy server, proxy server port, proxy username and proxy password in the respective fields.</p> <p>If you select 'Auto', enter the URL of the Proxy Pac.</p>



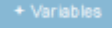



## VPN Connection Type settings

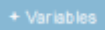



VPN Connection Type Settings - Table of Parameters	
Connection Type	Description
L2TP	<ul style="list-style-type: none"> <li>• Override Primary - Make this connection override the primary server.</li> <li>• Comm Remote Address - Enter IP address or host name of the VPN server. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>• Auth Name - Enter the VPN account user name. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>• Auth Protocol - Select the authentication method. The available options are 'Password' and 'RSA SecurID'.</li> </ul>







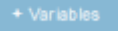



VPN Connection Type Settings - Table of Parameters	
	<ul style="list-style-type: none"> <li>Auth Password - If 'Password' is selected in 'Auth Protocol', enter the VPN account password. Also, you can add a variable by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>Token Card - Select this if you have chosen 'RSA SecurID' in 'Auth Protocol'.</li> <li>Auth EAP Plugins - Applicable only if RSA SecurID is being used. Enter the 'EAP-RSA' value or add a variable by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>Shared secret - Applicable only if RSA SecurID is being used. Enter the shared secret or add a variable by clicking the 'Variables' button  and clicking  beside the variable.</li> </ul> <p>For more details on variables, see <a href="#">Create and Manage Custom Variables</a>.</p>
PPTP	<ul style="list-style-type: none"> <li>Override Primary - Make this connection override the primary server.</li> <li>Comm Remote Address - Enter the IP address or host name of the VPN server. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>Auth Name - Enter the VPN account user name. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>Auth Protocol - Select the authentication method. The available options are 'Password' and 'RSA SecurID' <ul style="list-style-type: none"> <li>Auth Password - If 'Password' is selected in 'Auth Protocol', enter the VPN account password. Also, you can add a variable by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>Token Card - Select this if you have chosen 'RSA SecurID' in 'Auth Protocol'.</li> <li>Auth EAP Plugins - Applicable only if RSA SecurID is being used. Enter the 'EAP-RSA' value. You can add a variable by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>Encryption Level - Choose the encryption level to be used for the VPN connection. The available options are: <ul style="list-style-type: none"> <li>None</li> <li>Automatic</li> <li>Maximum 128 bit encryption</li> </ul> </li> <li>Shared secret - Applicable only if RSA SecurID is being used. Enter the shared secret string. You can add a variable by clicking the 'Variables' button  and clicking  beside the variable.</li> </ul> </li> </ul> <p>For more details on variables, see <a href="#">Create and Manage Custom Variables</a>.</p>
IP SEC	<ul style="list-style-type: none"> <li>Override Primary - Make this connection override the primary server.</li> <li>Server - Enter the IP address or host name of the VPN server. You can add</li> </ul>

## VPN Connection Type Settings - Table of Parameters

	<p>variables by clicking the 'Variables' button  and clicking  beside the variable you want to add.</p> <ul style="list-style-type: none"> <li>• Account - Enter the VPN account name. You can add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>• Password - Enter the password for the account . You can add a variable by clicking the 'Variables' button  and clicking  beside the variable.</li> <li>• Authentication Method - Select the authentication method from the drop-down. The available options are:             <ul style="list-style-type: none"> <li>• Shared secret / Group name - If selected, enter the shared secret string and group name in the 'Shared secret' and 'Local identifier' fields.</li> <li>• Hybrid Authentication - If you want use server side certificate for authentication in combination with the Shared secret/Group name authentication for a more secure connection, then select the 'Hybrid authentication' option.</li> <li>• Certificate - If you want client certificate type authentication, choose this option and configure the parameters as given below:                 <ul style="list-style-type: none"> <li>• Password encryption - select this option if you want communications to be encrypted using the password as the key.</li> <li>• Prompt for VPN PIN - If selected, the user will be prompted to enter the VPN Pin while connecting.</li> <li>• On demand enabled - If selected, you can create rules for automatic establishment of the VPN connection based on the domains accessed. You can create a list of domains and specify the VPN connection establishment type for each domain.</li> <li>• Choose Certificate - The drop-down displays the certificates uploaded for the profile. Select the client certificate to be used for authentication. See the <b>explanation of adding certificates to the profile</b> for more details. If a new certificate is to be added, click 'Add New' and upload the certificate.</li> <li>• Domain and Type fields - Allows you to add a list of domains and specify VPN connection type for each domain, if 'On demand enabled' is selected.</li> <li>• Enter a domain name in the domain field and choose the establishment type from the 'Type' drop-down.                     <ul style="list-style-type: none"> <li>• Always establish - Initiates a VPN connection for the domain.</li> <li>• Never establish - No VPN connection will be established while accessing the domain.</li> <li>• Establish if needed - The specified domains should trigger a VPN connection attempt if domain name resolution fails.</li> </ul> </li> </ul> </li> </ul> </li> </ul>
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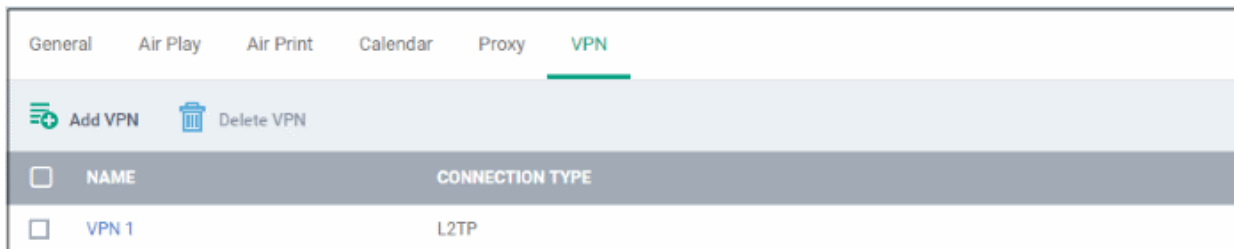
VPN Connection Type Settings - Table of Parameters	
	<ul style="list-style-type: none"> <li>Click 'Add' to add the domain to the list</li> <li>Repeat the process to add more domains for On Demand VPN connection establishment rules.</li> <li>To remove a domain, click 'X' beside it.</li> </ul> <p>For more details on variables, see <a href="#">Create and Manage Custom Variables</a>.</p>
Cisco AnyConnection, F5 SSL and Open VPN	<ul style="list-style-type: none"> <li>Override Primary - Make this connection override the primary server.</li> <li>Remote Address - Enter the IP address or host name of the VPN server. You can add variables too, by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>Auth Name - Enter the VPN account user name. You can add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>Authentication Method - Select the authentication method from the drop-down. The available options are: <ul style="list-style-type: none"> <li>Shared secret / Group name - If selected, enter the shared secret string and group name in the 'Shared secret' and 'Local identifier' fields.</li> <li>Certificate - If you want client certificate type authentication, choose this option and specify the certificate to be used: <ul style="list-style-type: none"> <li>Id Certificate - The drop-down displays the certificates uploaded for the profile. Select the client certificate to be used for authentication. See the <a href="#">explanation of adding certificates to the profile</a> for more details. If a new certificate is to be added, click 'Add New' and upload the certificate.</li> </ul> </li> </ul> </li> <li>On demand enabled - If selected, you can create rules for automatic establishment of the VPN connection based on the domains accessed. You can create a list of domains and specify the VPN connection establishment type for each domain. <ul style="list-style-type: none"> <li>Domain and Type fields - Allow you to add list of domains and specify VPN connection establishment type for each domain, if 'On demand enabled' option is selected.</li> <li>Enter a domain name in the domain field and choose the establishment type from the 'Type' drop-down. <ul style="list-style-type: none"> <li>Always establish - Initiates a VPN connection for the domain.</li> <li>Never establish - No VPN connection will be established while accessing the domain.</li> <li>Establish if needed - The specified domains should trigger a VPN connection attempt if domain name resolution fails.</li> </ul> </li> <li>Click 'Add' to add the domain to the list</li> <li>Repeat the process to add more domains for On Demand VPN connection establishment rules.</li> <li>To remove a domain, click 'X' beside it.</li> </ul> </li> </ul>

VPN Connection Type Settings - Table of Parameters	
	For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Juniper SSL	<ul style="list-style-type: none"> <li>• Override Primary - Make this connection override the primary server.</li> <li>• Remote Address - Enter the IP address or host name of the VPN server. You can add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>• Auth Name - Enter the VPN account user name. You can add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>• Realm - Enter the name of the authentication server. You can add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>• Role - Enter the role of the user. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add.</li> <li>• Authentication Method - Select the authentication method from the drop-down. The available options are:             <ul style="list-style-type: none"> <li>• Shared secret / Group name - If selected, enter the shared secret string and group name in the 'Shared secret' and 'Local identifier' fields.</li> <li>• Certificate - If you want client certificate type authentication, choose this option and specify the certificate to be used:</li> </ul> </li> <li>• Id Certificate - The drop-down displays the certificates uploaded for the profile. Select the client certificate to be used for authentication. See the <a href="#">explanation of adding certificates to the profile</a> for more details. If a new certificate is to be added, click 'Add New' and upload the certificate.</li> <li>• On demand enabled - If selected, you can create rules for automatic establishment of the VPN connection based on the domains accessed. You can create a list of domains and specify the VPN connection establishment type for each domain.             <ul style="list-style-type: none"> <li>• Domain and Type fields - Allow you to add list of domains and specify VPN connection establishment type for each domain, if 'On demand enabled' option is selected.</li> <li>• Enter a domain name in the domain field and choose the establishment type from the 'Type' drop-down.                 <ul style="list-style-type: none"> <li>• Always establish - Initiates a VPN connection for the domain.</li> <li>• Never establish - No VPN connection will be established while accessing the domain.</li> <li>• Establish if needed - The specified domains should trigger a VPN connection attempt if domain name resolution fails.</li> </ul> </li> <li>• Click 'Add' to add the domain to the list</li> <li>• Repeat the process to add more domains for On Demand VPN connection establishment rules.</li> </ul> </li> </ul>

VPN Connection Type Settings - Table of Parameters	
	<ul style="list-style-type: none"> <li>To remove a domain, click 'X' beside it.</li> </ul> <p>For more details on variables, see <a href="#">Create and Manage Custom Variables</a>.</p>

- Click the 'Save' button.

The VPN connection will be added to the profile.



You can add several VPN connection accounts to the profile.

- To add another VPN connection, click 'Add VPN' and repeat the process
- To view and edit the settings of a VPN connection, click its name
- To remove VPN connection, select it and click 'Delete VPN'

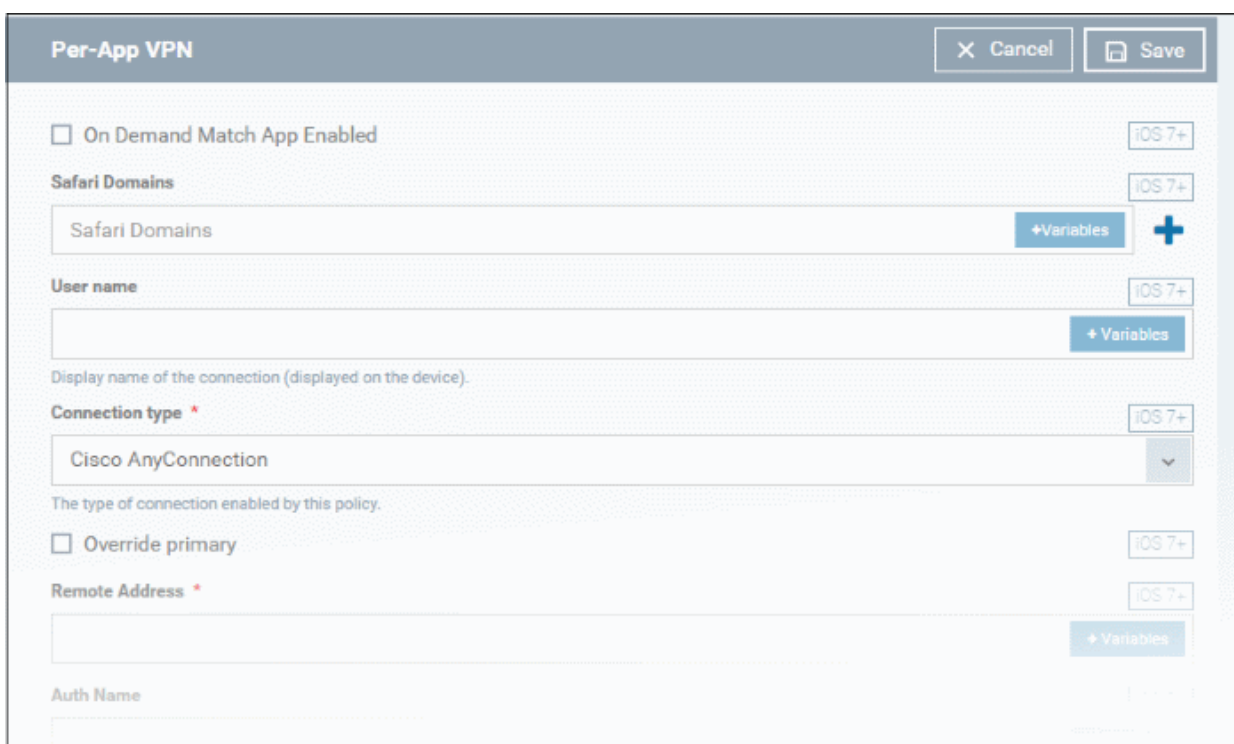
The settings will be saved and displayed under the VPN tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

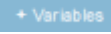



### To configure Per-App VPN settings

**Note:** If you would like to connect only certain apps to VPN, then this feature allows you to configure the settings. This feature is available for iOS 7 and later versions.

- Click 'VPN Per App' from the 'Add Profile Section' drop-down

The settings screen for VPN will appear.

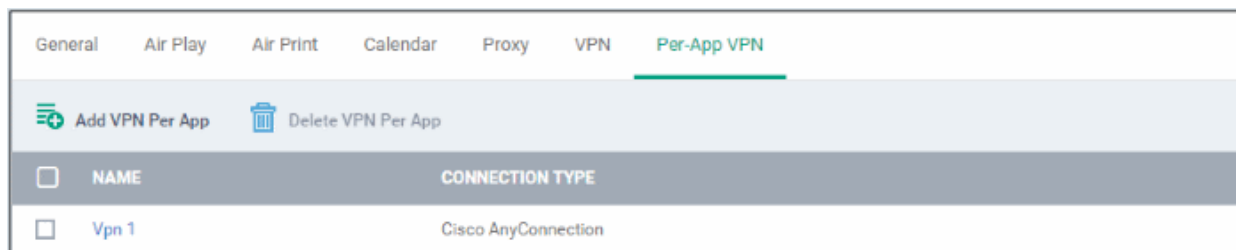


- **On Demand Match App Enabled** - Select this checkbox to enable per-app VPN connection.
- **Safari domains** - Allows you to add domains for which VPN connection has to be established, when visited through Safari browser. You can add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see [Create and Manage Custom Variables](#). Click the  button to add more domains in the field. If you want to remove a domain from the list, click the  button beside it.

For details on other settings please see '[To configure VPN settings](#)'.

- Click the 'Save' button.

The VPN per App settings for the specified VPN server will be saved and added to the list.



You can add multiple VPN servers for the profile.

- To add another VPN server per App, click 'Add VPN Per App' and repeat the process
- To view and edit the settings of a VPN connection, click its name
- To remove VPN connection, select it and click 'Delete VPN Per App'



The settings will be saved and displayed under the VPN tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

## To configure Web Clip settings

- Click 'Web Clip' from the 'Add Profile Section' drop-down

The 'Web Clip' settings screen will be displayed.

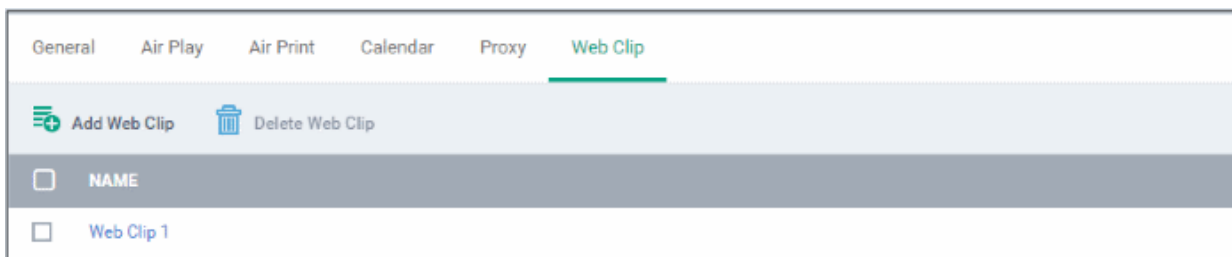
**Web Clip Settings - Table of Parameters**

Form Element	Type	Description
Label*	Text Field	Enter the display name of the Web Clip. You can add variables by clicking the 'Variables' button  and clicking <b>+</b> beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b> .
URL*	Text Field	Enter the URL to be displayed when Web Clip is opened. You can add variables by clicking the 'Variables' button  and clicking <b>+</b> beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b> .
Is Removable	Checkbox	If enabled, users can remove the Web Clip from their devices.
Pre Composed	Checkbox	If enabled, the Web Clip icon will be displayed with no added visual effects.
Full Screen	Checkbox	If enabled, the user can choose to view the Web Clip full screen mode.
Icon	Button	Upload the image to be used as icon for the Web Clip.

- Click the 'Save' button.

The WebClip will be added to the list.





You can add multiple web clips for a profile.

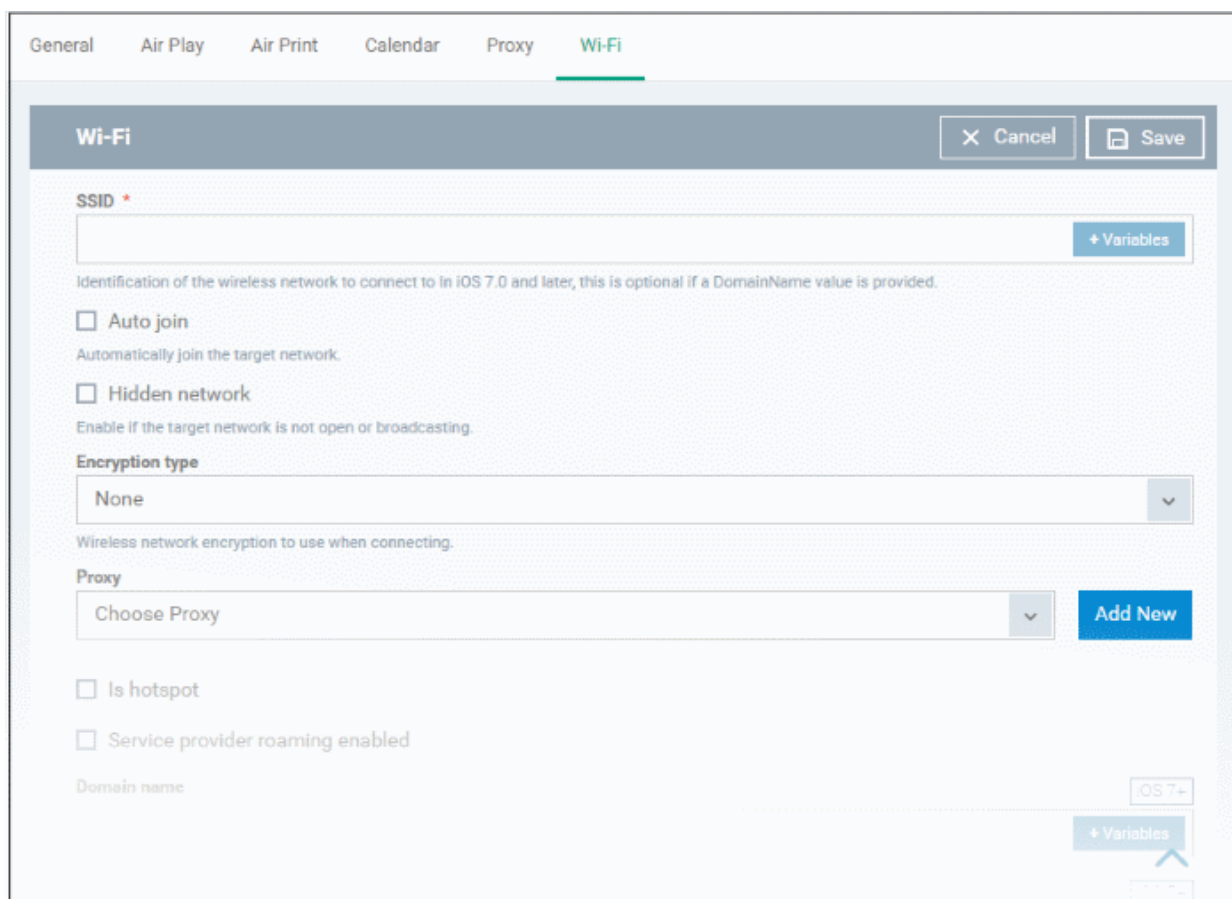
- To add another Web Clip, click 'Add Web Clip' and repeat the process
- To view and edit the settings for a web clip, click the name of it
- To remove a web clip, select it and click 'Delete Web Clip'

The settings will be saved and displayed under the 'Web Clip' tab. You can add more web clips and edit the settings or remove the section from the profile at anytime. See **Edit Configuration Profiles** for more details.

### To configure Wi-Fi settings



- Click 'Wi-Fi' from the 'Add Profile Section' drop-down



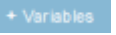



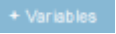



The 'Wi-Fi' settings screen will be displayed.



**Wi-Fi Settings - Table of Parameters**

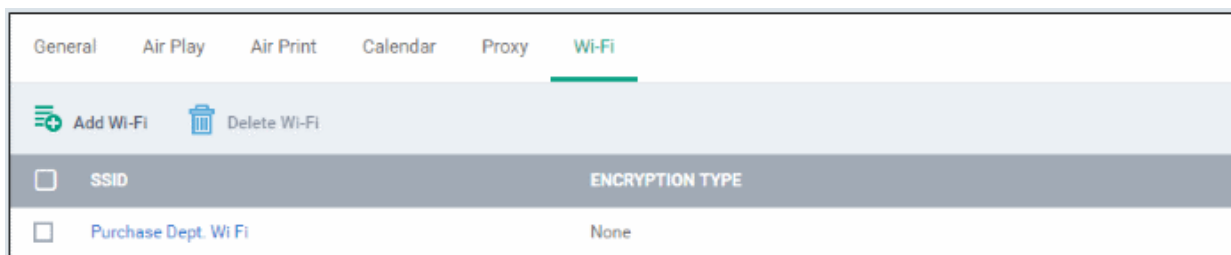
Form Element	Type	Description
SSID*	Text Field	Enter a unique identifier (Service Set Identifier) of a wireless network that the device should connect to.

		Note: In iOS 7 and later versions, this is optional if Domain Name value is provided.
Auto Join	Checkbox	If enabled, devices will automatically connect to the configured wireless network.
Hidden Network	Checkbox	Select this option if the specified wireless network is hidden and not visible to Wi-Fi scans.
Encryption Type	Drop-down	<p>Select the type of encryption used by the wireless network from the drop-down. The options available are:</p> <ul style="list-style-type: none"> <li>• None</li> <li>• WEP</li> <li>• WPA / WPA2</li> <li>• Any</li> <li>• WEP Enterprise</li> <li>• WPA / WPA2 Enterprise</li> <li>• Any (Enterprise)</li> </ul> <p>The Password field will appear if any of the options, WEP, WPA / WPA2 and Any (Personal) are chosen.</p> <p>If any of the Enterprise encryption type is chosen, then select the supported protocols and configure authentication. The options available are: TLS, LEAP, TTLS, PEAP, EAP-FAST, Use Pac, Provision pac and Provision Pac Anonymously, PAP, CHAP, MS CHAP ans MS CHAP V2</p>
Password	Text Field	Enter the password to connect to the Wi-Fi network. If left blank, the user will be prompted to enter the password when the device attempts to connect to the network.
Proxy	Drop-down	<p>Select the proxy settings for the wireless network from the drop-down. To include more proxies, click the 'Add New' beside the field. The 'Create New Proxy' dialog will be displayed. Enter the proxy name in the 'Name' field.</p> <p>The options available for proxy type are:</p> <ul style="list-style-type: none"> <li>• None</li> <li>• Manual</li> <li>• Auto</li> </ul> <p>If you select 'Manual', enter the IP address of the proxy server, proxy server port, proxy username and proxy password in the respective fields and click the 'Create' button.</p> <p>If you select 'Auto', enter the URL of the Proxy Pac and click the 'Create' button.</p>
Is Hotspot	Checkbox	If enabled, the network is treated as a hotspot.
Service Provider Roaming Enabled	Checkbox	If enabled, devices can connect to roaming service providers.
Domain Name	Text Field	<p>Enter the domain name used for Wi-Fi hotspot to which the devices have to connect. This is optional and can be provided instead of Service Set Identifier. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more</p>

		<p>details on variables, see <b>Create and Manage Custom Variables</b>.</p> <p><b>Note:</b> This feature is available for iOS 7 and later versions.</p>
Displayed Operator Name	Text Field	<p>Enter the network operator name that will be displayed in the devices. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b>.</p> <p><b>Note:</b> This feature is available for iOS 7 and later versions.</p>
Roaming Consortium Ols	Text Field	<p>Enter the Roaming Consortium Organization Identifier of the service provider to which the devices will connect to. You can add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b>.</p> <p>To removed the field, click the  button beside it.</p> <p>Click the  button to add Roaming Consortium Ols fields.</p> <p><b>Note:</b> This feature is available for iOS 7 and later versions.</p>
NAI Realm Names	Text Field	<p>Enter the Network Access Identifier (NAI) realm names used for Wi-Fi hotspot 2.0. You can add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b>.</p> <p>To remove the field, click the  beside it.</p> <p>Click the  button to add more NAI Realm Names.</p> <p><b>Note:</b> This feature is available for iOS 7 and later versions.</p>

- Click the 'Save' button.

The Wi-Fi network will be added to the list.



You can add multiple Wi-Fi networks to the profile.

- To add another Wi-Fi network, click 'Add Wi-Fi' and repeat the process
- To view and edit the settings of a Wi-Fi network, click on the SSID of it
- To remove a Wi-Fi network, select it and click 'Delete Wi-Fi'

The settings will be saved and displayed under the Wi-Fi tab. You can edit the settings, add or remove Wi-Fi networks or remove the Wi-Fi networks at anytime. See **Edit Configuration Profiles** for more details.

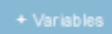

### To configure App Lock settings

**Tip:** The 'App Lock' section allows you to restrict the ability of specific applications to use device resources. You can add only one application with app restriction settings for a profile. To have impose restrictions on several applications, create a profile for each and apply those profiles to the managed devices, as required.

- Click 'App Lock' from the 'Add Profile Section' drop-down

The 'App Lock' settings screen will be displayed.

**App Lock Settings - Table of Parameters**

Form Element	Type	Description
Identifier	Text field	<p>Allows administrators to specify the app to be included in the App Lock section of the profile. You can specify an Apple iTunes Store App or Enterprise App.</p> <ul style="list-style-type: none"> <li>• Enter the App bundle ID of the application to be included in the profile, with the app restrictions.</li> </ul> <p>For more details on getting the App bundle ID of an application, see the <b>explanation</b> given below this table.</p> <p>You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <b>Create and Manage Custom Variables</b>.</p> <p><b>Note:</b> This feature is available for iOS 7 and later versions only.</p>
Disable Touch	Checkbox	Touch screen inputs will be disabled for the app.
Disable Device Rotation	Checkbox	The app will not be able to change display orientation.
Disable Volume Buttons	Checkbox	The app will not be able to modify device volume.

App Lock Settings - Table of Parameters		
Disable Ringer Switch	Checkbox	Inputs through the ringer switch will be disabled for the app.
Disable Sleep Wake Button	Checkbox	Inputs through the power/lock/wake button will be disabled for the app.
Disable Auto Lock	Checkbox	The device will not auto-lock when this app is running.
Enable Voice Over	Checkbox	Allows the user to use the voice over feature on the device for this app.
Enable Zoom	Checkbox	Allows the user to zoom-in/zoom-out the display for this app
Enable Invert Colors	Checkbox	Allows the user to invert the colors for the display screens of this app.
Enable Assistive Touch	Checkbox	Allows the user to use the 'Assistive Touch' feature on the device for this app.
Enable Speak Selection	Checkbox	Allows the user to use the 'Speak Selection' feature on the device for this app.
Enable Mono Audio	Checkbox	Allows the user to choose mono mode for audio output of this app.
Voice Over	Checkbox	Automatically switches ON the 'Voice Over' feature for the app.
Zoom	Checkbox	Automatically switches ON the 'zoom-in' feature for the app.
Invert Colors	Checkbox	Automatically switches ON the 'Invert Colors' feature when the app is used.
Assistive Touch	Checkbox	Automatically switches ON the 'Voice Over' feature when the app is used.

- Click Save after configuring the parameters and options

The settings will be saved and displayed under 'App Lock' tab. You can edit the settings or remove the 'App Lock' section from the profile at anytime See **Edit Configuration Profiles** for more details.

## Obtaining App Identifier

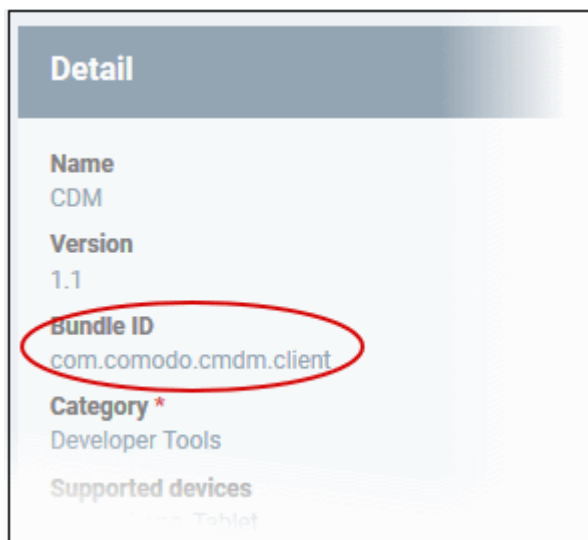
### For App Store Application:

1. Find the iTunes Store download URL of the app. Example:  
<https://itunes.apple.com/us/app/cmdm/id807480077?mt=8>.
2. Copy the number after the id in the URL. (Here it is: 807480077).
3. Open <https://itunes.apple.com/lookup?id=807480077> where you replace the ID with the one you looked up.
4. Search the output for "bundleID". In this example: "bundleID":"com.comodo.cmdm.client". So the Bundle ID is com.comodo.cmdm.client

### For Enterprise Application:

The App bundle ID can be viewed from the App Details screen of the App.

- Click 'Application Store' from the left and choose 'iOS Store'
- Click on the app from the list displayed at the right



### 6.1.3. Profiles for Windows Devices

Windows profiles let you specify settings for Comodo Client Security (CCS) installed on managed Windows devices.

There are two ways you can add a Windows profile:

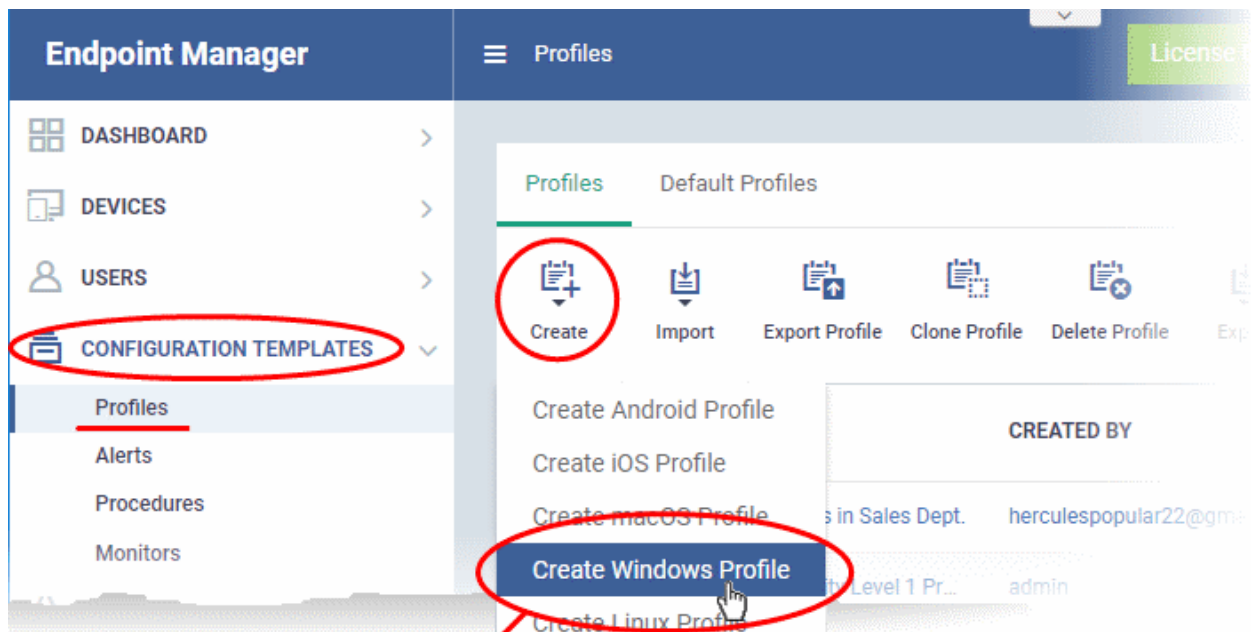
- Create a profile in the EM interface. See [Create Windows Profiles](#) for more details.
- Import a profile from an endpoint which is running CCS, or import from a stored configuration profile (.cfg file). See [Import Windows Profiles](#) for more details.

#### 6.1.3.1. Create Windows Profiles

- Click 'Configuration Templates' > 'Profiles'
- Click 'Create' then 'Create Windows Profile'
- Type a name and description for your profile then click 'Create'
- The new profile will appear in 'Configuration Templates' > 'Profiles'. Click the profile name to open its configuration screen.
- New profiles have only one section - 'General'. Click 'Add Profile Section' to configure permissions and settings other sections. Each section you add will appear as a new tab.
- After you have configured your profile you can apply it to devices, users and device groups/user groups.
- You can make any profile a 'Default' profile by selecting the 'General' tab then clicking the 'Edit' button.
  - A 'default' profile is one that is applied automatically to any device which matches its operating system. You can have multiple 'default' profiles per operating system.
- This part of the guide explains the processes above in more detail, and includes descriptions of each profile section.

#### To create a new profile

- Click 'Configuration Templates' > 'Profiles' > 'Create' > 'Create Windows Profile':



### Create Windows Profile

**Name \***

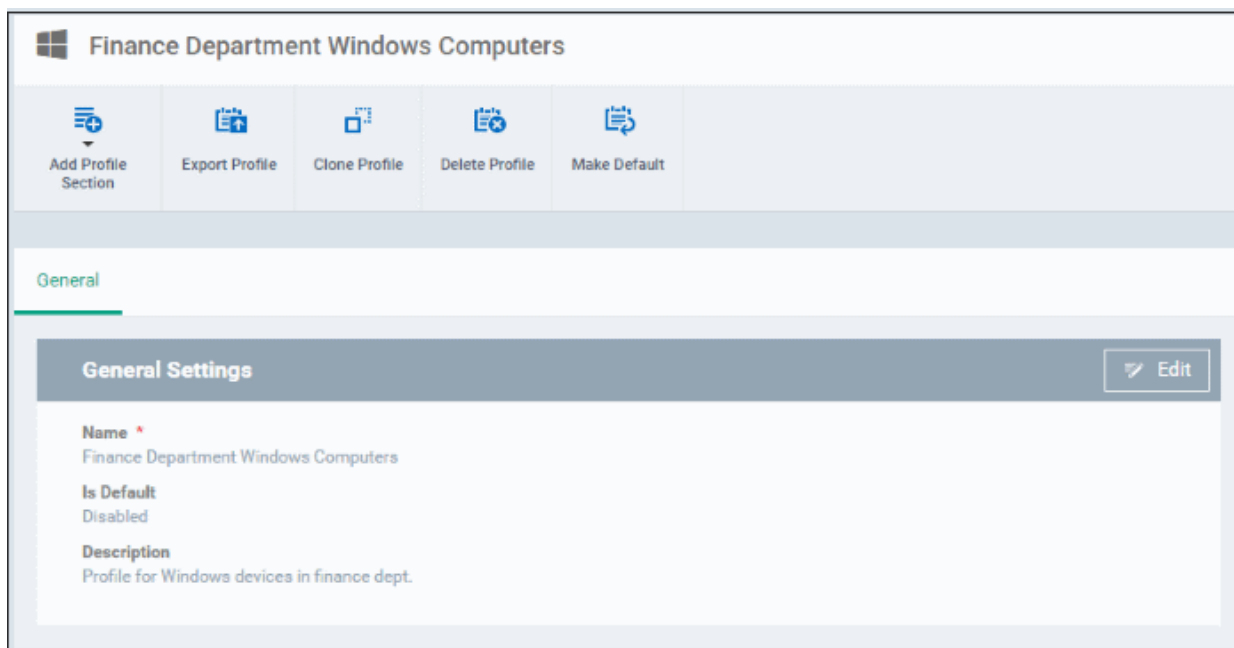
**Description**

**Create**

- Enter a name and description for the profile
- Click the 'Create' button

Your profile will open at its configuration page:

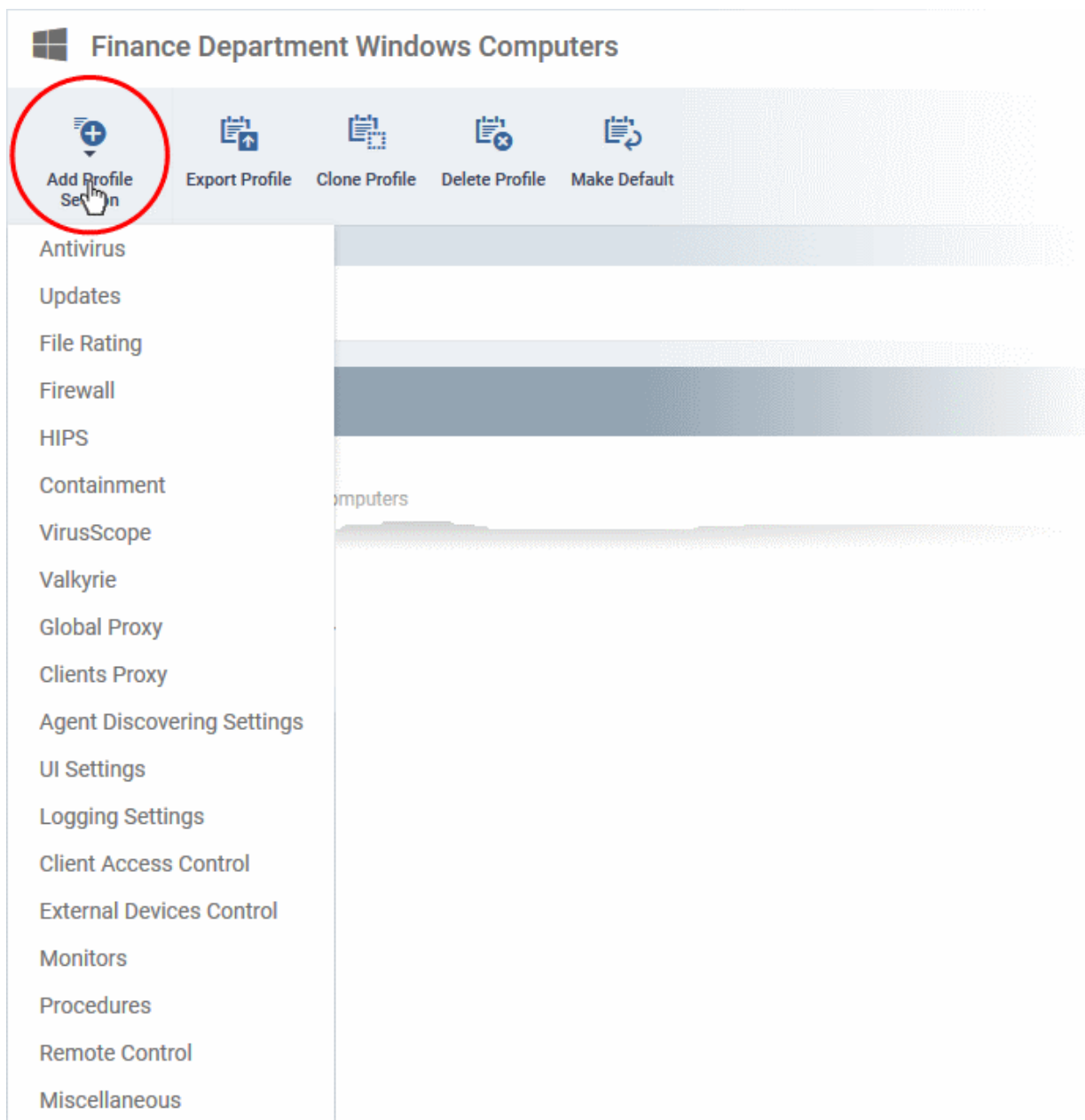




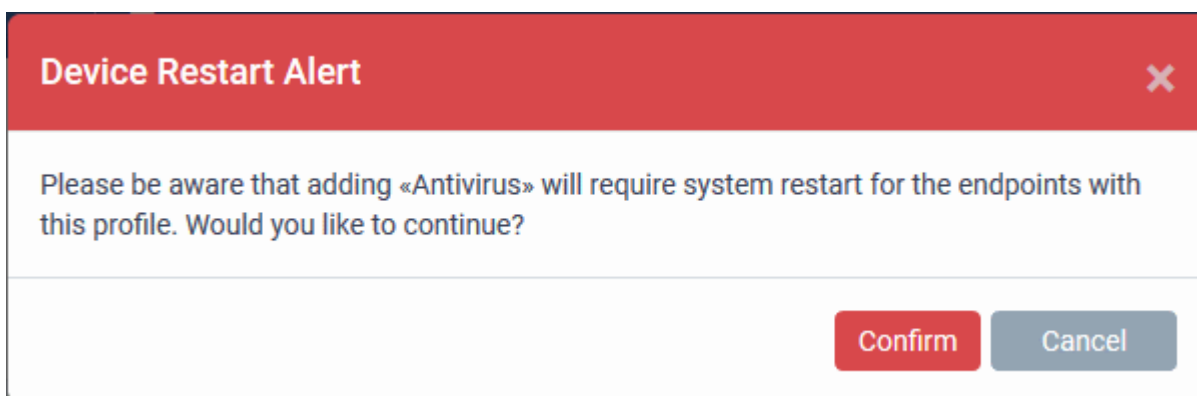
- Click 'Edit' if you wish to modify basic profile settings:
  - **'Is Default?'** - A 'default' profile is one that is applied automatically to any device which matches its operating system. You can have multiple 'default' profiles per operating system.
- Click 'Save'.

The next step is to add profile sections.

- Each profile section contains a range of settings for a specific security or management feature.
- For example, there are profile sections for 'Antivirus', 'External Device Control', 'Firewall', 'Procedures' and so on.
- You can add as many different sections as you want when building your profile.
- To get started:
  - Click 'Add Profile Section'
  - Select the component that you want to add to the profile:

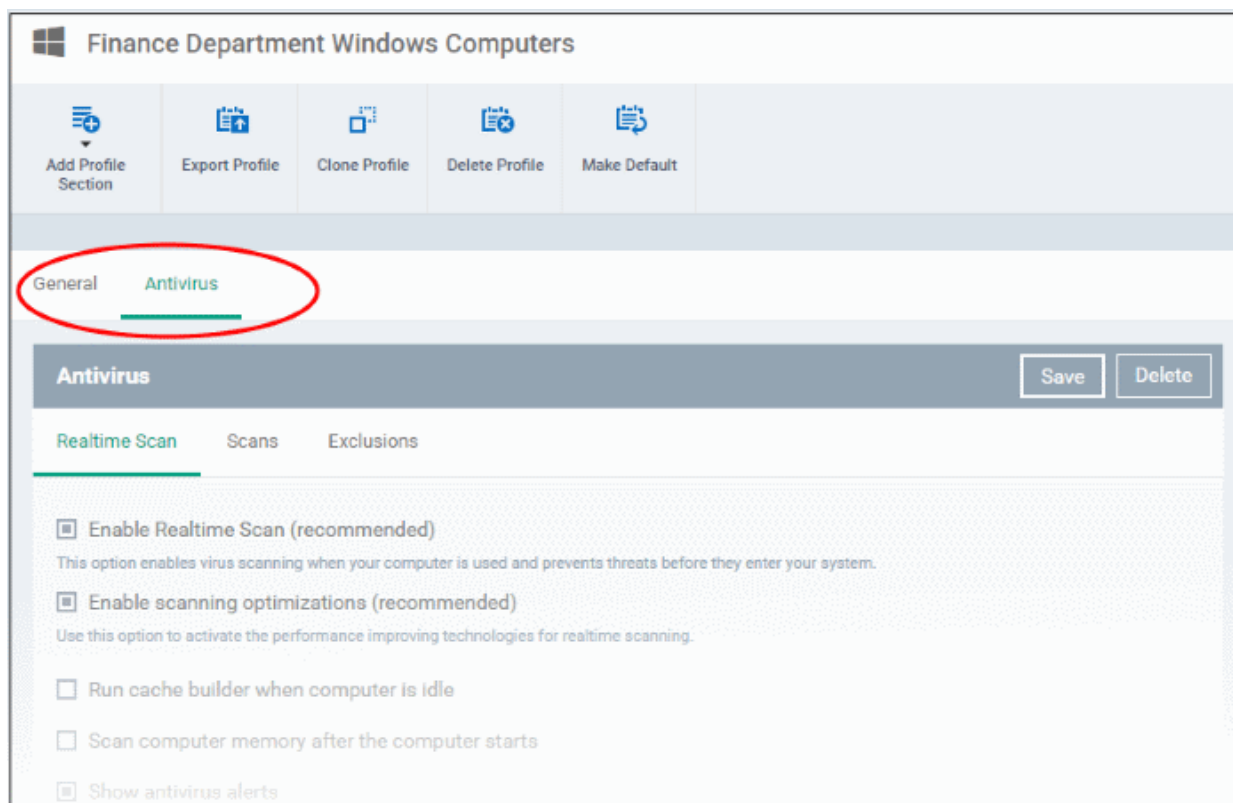


- Some sections require that target endpoints are restarted. You will see the following message if this is the case:



- Click 'Confirm' to continue.

The new section will be available as a tab in the profile configuration page:



Use the following links to learn more about each profile section:

- [Antivirus](#)
- [Update Settings](#)
- [File Rating](#)
- [Firewall](#)
- [HIPS](#)
- [Containment](#)
- [VirusScope](#)
- [Valkyrie](#)
- [Global Proxy](#)
- [Clients Proxy](#)
- [Agent Discovery Settings](#)
- [UI Settings](#)
- [Logging Settings](#)
- [Client Access Control](#)
- [External Devices Control](#)
- [Monitors](#)
- [CCM Certificates](#)
- [Procedures](#)
- [Remote Control](#)

- **Miscellaneous**

## 6.1.3.1.1. Antivirus Settings

The antivirus settings screen lets you configure real-time monitoring, custom scans and exclusions for a profile.

- Tip. Add a 'Miscellaneous' section to the profile if you want to setup registry monitoring. See **Miscellaneous Settings** for more details.

### To configure Antivirus settings

- Click 'Configuration Templates' > 'Profiles'
- Open the profile you wish to work on
- Click 'Add Profile Section' > 'Antivirus'

The AV settings screen will open:

- **Real Time Scan** - Configure the 'always-on' virus monitor. This is the core antivirus scanner that continuously protects your endpoints against malware.
- **Scans** - Create a custom scan profile. A custom profile lets you scan specific areas and configure other options. You can also create a schedule for the scan. Multiple scan profiles can be added to a device profile.
- **Exclusions** - Items that should be skipped on devices to which the profile is applied. Items you add here are excluded from real-time scans and any custom scan profiles.

### Realtime Scan settings

General **Antivirus**

**Antivirus** Cancel Save

**Realtime Scan** Scans Exclusions

**Enable Realtime Scan (recommended)**  
This option enables virus scanning when your computer is used and prevents threats before they enter your system.

**Enable scanning optimizations (recommended)**  
Use this option to activate the performance improving technologies for Realtime Scanning.

**Do not show auto-scan alerts** CCS 10.7+  
Use this option to scan removable media such as USB sticks, CDs, DVDs, external HDDs, etc.

Ignore ▼

**Run cache builder when computer is idle** up to CCS 8.3

**Scan computer memory after the computer starts**

**Show Antivirus alerts**

Quarantine threats ▼

**Decompress and scan archive files of extension(s):**  
Extensions: \*.exe \*.rar \*.zip

**Set new on-screen alert timeout to (sec.):**  
120

**Set new maximum file size limit to (MB):**  
40

**Set new maximum script size limit to (MB):**  
4

**Use heuristic scanning**  
Low ▼

Realtime Scan Settings - Table of Parameters	
Form Element	Description
Enable Realtime Scan	<p>The realtime scanner ensures your devices are constantly protected from malware. The scanner inspects files whenever they are created, opened or copied.</p> <ul style="list-style-type: none"> <li>Choose whether or not to enable real time scanning.</li> </ul> <p><b>(Default = Enabled)</b></p>
Enable Scanning Optimizations	<p>Various techniques to improve antivirus scan performance and reduce system resource use.</p> <ul style="list-style-type: none"> <li>Choose whether or not to enable scan optimization.</li> </ul> <p><b>(Default = Enabled)</b></p>
Do not show auto-scan alerts	<p>Choose whether or not to show a notification to end-users when an external device is connected to the endpoint.</p> <ul style="list-style-type: none"> <li>CCS can automatically scan external devices whenever they are connected. Example devices include external HDD's, USB sticks etc.</li> <li>Show alerts - End user can choose whether or not to scan the device from the alert</li> <li>Don't show alerts - You have a choice of default responses that CCS should take: <ul style="list-style-type: none"> <li>Ignore - The device will not be scanned</li> <li>Scan - The device will be scanned for viruses</li> </ul> </li> </ul> <p><b>(Default = Enabled with 'Ignore' option)</b></p>
Run cache builder when computer is idle	<p>The antivirus cache builder runs whenever the computer is idle to boost the speed of real-time scans.</p> <p><b>(Default = Disabled)</b></p> <ul style="list-style-type: none"> <li>Applies only to CCS versions 8.3 or lower.</li> </ul>
Scan computer memory after the computer starts	<p>If enabled, CCS will scan system memory for threats after a re-boot.</p> <p><b>(Default = Disabled)</b></p>
Show antivirus alerts	<p>Configure whether or not to show alerts on the endpoints when malware is discovered. Disabling will minimize disturbance to the end-user but at some loss of user awareness.</p> <p>If you choose not to show alerts then you have a choice of default responses that CCS should automatically take:</p> <ul style="list-style-type: none"> <li>Quarantine threats - Moves detected threat(s) to quarantine for assessment.</li> <li>Block threats - Deletes the threat.</li> </ul> <p><b>(Default = Enabled with 'Quarantine threats' option)</b></p>
Decompress and scan archive files of extensions	<p>The antivirus will open and scan archive files such as .jar, RAR, ZIP, ARJ, WinARJ and CAB.</p> <p>If enabled, you can choose which types of archive should be decompressed and scanned. Click the 'Extensions' link to view existing extensions and add new extensions.</p> <p><b>(Default = Disabled)</b></p>

Set new on-screen alert timeout to (secs)	Specify how long an alert should stay on the screen at an endpoint. <b>(Default = 120 seconds)</b>
Set new maximum file size to (MB)	Specify the maximum file size that the antivirus should attempt to scan. Files larger than the size specified here will not be scanned. <b>(Default = 40 MB)</b>
Set new maximum script size limit to (MB)	Specify the maximum size of a script that the antivirus should attempt to scan. Files larger than the size specified here are not scanned. <b>(Default = 4 MB)</b>
Use heuristic scanning	<p>Enable or disable heuristics scanning and define the scan level.</p> <p>The scan level determines how likely the scanner is to classify an unknown file as a threat.</p> <ul style="list-style-type: none"> <li>• Low - Lowest sensitivity to detecting unknown threats / generates fewest false positives. The 'low' setting combines an extremely high level of security and protection with a low rate of false positives. Comodo recommends this setting for most users. <b>(Default)</b></li> <li>• Medium - Detects unknown threats with greater sensitivity than the 'Low' setting but with a corresponding rise in the possibility of false positives.</li> <li>• High- Highest sensitivity to detecting unknown threats / increased possibility of false positives.</li> </ul> <p><b>(Default = Enabled with 'Low' option)</b></p> <p><b>Background Note:</b> Heuristic techniques identify previously unknown viruses and Trojans. 'Heuristics' describes the method of analyzing a file to ascertain whether it contains code typical of a virus. It is about detecting attributes which resemble a virus, rather than looking for a signature that matches a signature on the virus blacklist. This allows the engine to predict the existence of new viruses - even if they are not in the current virus database.</p>

- Click the 'Save' button at the bottom.


## Custom Scans

The 'Scans' pane allows you to view, edit, create and run custom scan profiles. Each scan profile is a collection of scanner settings that tell CCS:

- Where to scan (which files, folders or drives should be covered by the scan)
- When to scan (you have the option to specify a schedule)
- How to scan (options that let you specify the behavior of the scan engine when running this profile)
- You can add multiple scan-profiles to a device profile.

Endpoint Manager ships with three pre-configured scan profiles:

- Unrecognized Files Scanning - CCS scans only unrecognized files on the target device.
- Full Scan - CCS scans every drive, folder and file on the target device. External devices like USB drives and digital camera will also be scanned.
- Quick Scan - CCS scans critical areas which are most prone to attack from malware. Scanned areas include system memory, auto-run entries, hidden services, boot sectors and other significant areas.

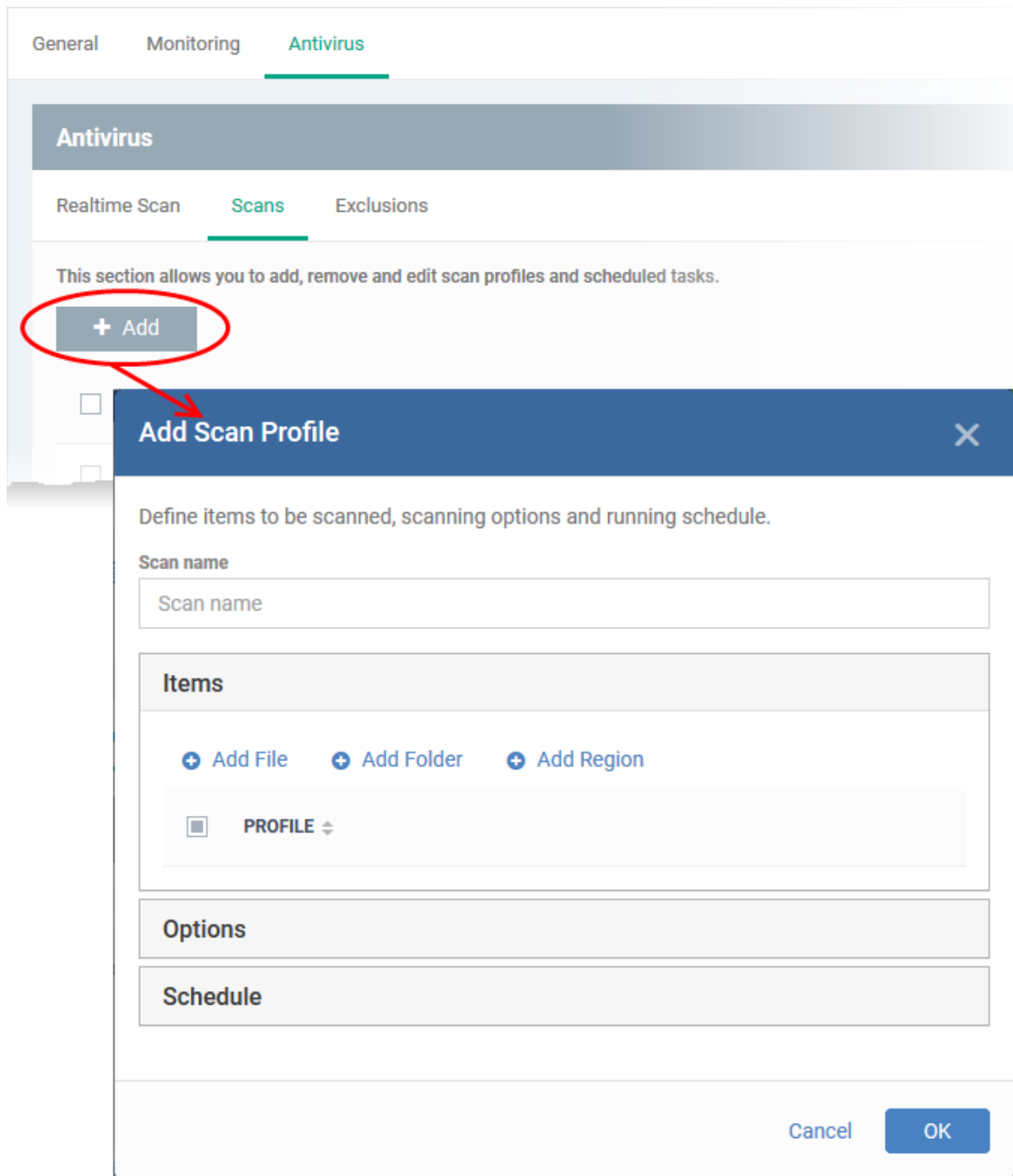
Click the 'Edit' icon  beside a profile name to modify which items are scanned, and to set up a scan schedule. For details on the parameters, see the **explanation** below.

## To create a custom scan profile

- Open the 'Antivirus' scan of a device profile ('Configuration Templates' > 'Profiles' > 'Antivirus' section)



- Click the 'Scans' tab.
- Click the 'Add' button in the 'Scans' tab



The 'Add Scan Profile' dialog will open:

- Enter the name of the custom scan in the 'Scan name' field

The 'Items' section lets you choose a specific file, folder or region to that should be scanned by the profile.

- Add File - A specific file that should be scanned. You can also add an entire extension by using the the wildcard character (e.g. \*.exe).
- Add Folder - Allows you to scan a particular directory.
- Add Region - Scan a predefined region. For example, 'Entire Computer', 'Commonly Infected Areas', 'Memory' and 'Unrecognized Files'.

The selected items will be displayed as follows:

**Add Scan Profile** [X]

Define items to be scanned, scanning options and running schedule.

Scan name  
Scan name

**Items**

+ Add File + Add Folder + Add Region

PROFILE ^

Commonly infected areas

Memory

**Options**

**Schedule**

Cancel OK

- To remove an item from the list, select it and click 'Remove'.

The next step is to define how the selected items should be scanned.

- Click 'Options'

### Add Scan Profile ✕

Define items to be scanned, scanning options and running schedule.

**Scan name**

---

**Items**

---

**Options**

- Enable scanning optimizations** up to CCS 8.3  
This option increases the scanning speed significantly.
- Decompress and scan compressed files**  
This option allows scanner to decompress archive files e.g. .zip, .rar, etc. during scanning.
- Use cloud while scanning**  
This option allows scanner to connect to cloud to query file ratings.
- Automatically clean threats**  
When the threats are identified, perform the selected action automatically.
- Show scan results window**  
Show results of scheduled scans and scans launched from a remote management portal.
- Use heuristics scanning**  
Use the selected level of sensitivity while scanning heuristically.
- Apply this action to suspicious autorun entries** CCS 10.7+  
The selected action will be automatically applied if unrecognized Windows services, autostart entries or scheduled tasks are detected.
- Limit maximum file size to (MB):**  
While scanning, if a file size is larger than specified, it is not scanned.
- Run this scan with**  
Priority of scanner determines how much of the computer resources are used among other tasks.
- Update virus database before running**  
This option makes sure the database is updated before running the scan.
- Detect potentially unwanted applications**  
Potentially unwanted applications are programs that are unwanted despite the possibility that users consented to download it.

---

**Schedule**

---

Scan Options - Table of Parameters	
Form Element	Description
Enable scanning optimizations	The antivirus will employ various optimization techniques like running the scan in the background in order to speed-up the scanning process ( <b>Default = Enabled</b> ). <ul style="list-style-type: none"> <li>Applies only to CCS versions 8.3 or lower.</li> </ul>
Decompress and scan compressed files	The antivirus will open and scan archive files. Supported formats include RAR, WinRAR, ZIP, WinZIP ARJ, WinARJ and CAB archives ( <b>Default = Enabled</b> ).
Use cloud while scanning	Augments the local scan with a real-time look-up of Comodo's online signature database. The cloud database is the most up-to-date version of our virus database, so antivirus scans are more accurate.  With 'Cloud Scanning' enabled, CCS is capable of detecting zero-day malware even if the local database is out-dated. ( <b>Default = Enabled</b> ).
Automatically clean threats	CCS will automatically take action against detected threats instead of showing the results screen with a list of threats. You can choose the action to be taken from the drop-down. The available options are: <ul style="list-style-type: none"> <li>Disinfect</li> <li>Quarantine</li> </ul> <b>(Default = Enabled with Disinfect option)</b>
Show scan results window	Displays a results window at the end of a virus scan. The results windows shows all threats identified by the scan. ( <b>Default = Disabled</b> )
Use heuristic scanning	Enable or disable heuristics scanning and define the scan level.  The scan level determines how likely the scanner is to classify an unknown file as a threat. <ul style="list-style-type: none"> <li>Low - Lowest sensitivity to detecting unknown threats / generates fewest false positives. The 'low' setting combines an extremely high level of security and protection with a low rate of false positives. Comodo recommends this setting for most users. (Default)</li> <li>Medium - Detects unknown threats with greater sensitivity than the 'Low' setting but with a corresponding rise in the possibility of false positives.</li> <li>High- Highest sensitivity to detecting unknown threats / increased possibility of false positives.</li> </ul> <b>(Default = Enabled with 'Low ' option)</b>  <b>Background Note:</b> Heuristic techniques identify previously unknown viruses and Trojans. 'Heuristics' describes the method of analyzing a file to ascertain whether it contains code typical of a virus. It is about detecting attributes which resemble a virus, rather than looking for a signature that matches a signature on the virus blacklist. This allows the engine to predict the existence of new viruses - even if they are not in the current virus database
Apply this action to suspicious autorun entries	CCS will inspect auto-run entries, Windows services, startup items and scheduled tasks during each scan. <ul style="list-style-type: none"> <li>You can apply one of the following actions to services started by unrecognized or malicious processes: <ul style="list-style-type: none"> <li><b>Quarantine and Disable:</b> The service will be stopped and permanently disabled. The file that started the service will be quarantined on the device.</li> </ul> </li> </ul>

Scan Options - Table of Parameters	
Form Element	Description
	<ul style="list-style-type: none"><li>• <b>Terminate and Disable</b> - The service will be stopped and permanently disabled. If required, the service can be enabled manually. (<b>Default</b>)</li><li>• <b>Terminate</b> - The service will be stopped for the current session.</li><li>• <b>Ignore</b> -The detection will be logged but the service allowed to run normally.</li></ul> <p>Applies only to CCS versions 10.7 or higher.</p>

Scan Options - Table of Parameters	
Form Element	Description
Limit maximum file size to	Specify the maximum file size that the antivirus should attempt to scan. <b>(Default = 40 MB)</b> .
Run this scan with	Set the Windows priority for the scan. Choices are high, medium, low and run in the background. <b>(Default = Enabled with Background option)</b>
Update virus database before running	Makes CCS to check for virus database updates before a scan. Available updates will be downloaded prior to the scan. <b>(Default = Enabled)</b> .
Detect potentially unwanted applications	CCS also scans for applications that (i) a user may or may not be aware is installed on their computer and (ii) may functionality and objectives that are not clear to the user. Example PUA's include adware and browser toolbars. PUA's are often installed as an additional extra when the user is installing an unrelated piece of software. Unlike malware, many PUA's are 'legitimate' pieces of software with their own EULA agreements. However, the 'true' functionality of the software might not have been made clear to the end-user at the time of installation. For example, a browser toolbar may also contain code that tracks a user's activity on the Internet <b>(Default = Enabled)</b> .

The next step is to schedule when the custom scan should be run.

- Click 'Schedule'

Options

Schedule

Frequency:

Do not schedule this task  
 Every hour(s) CCS 10.8+  
 Every day  
 Every week  
 Every month

02 : 00 AM

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

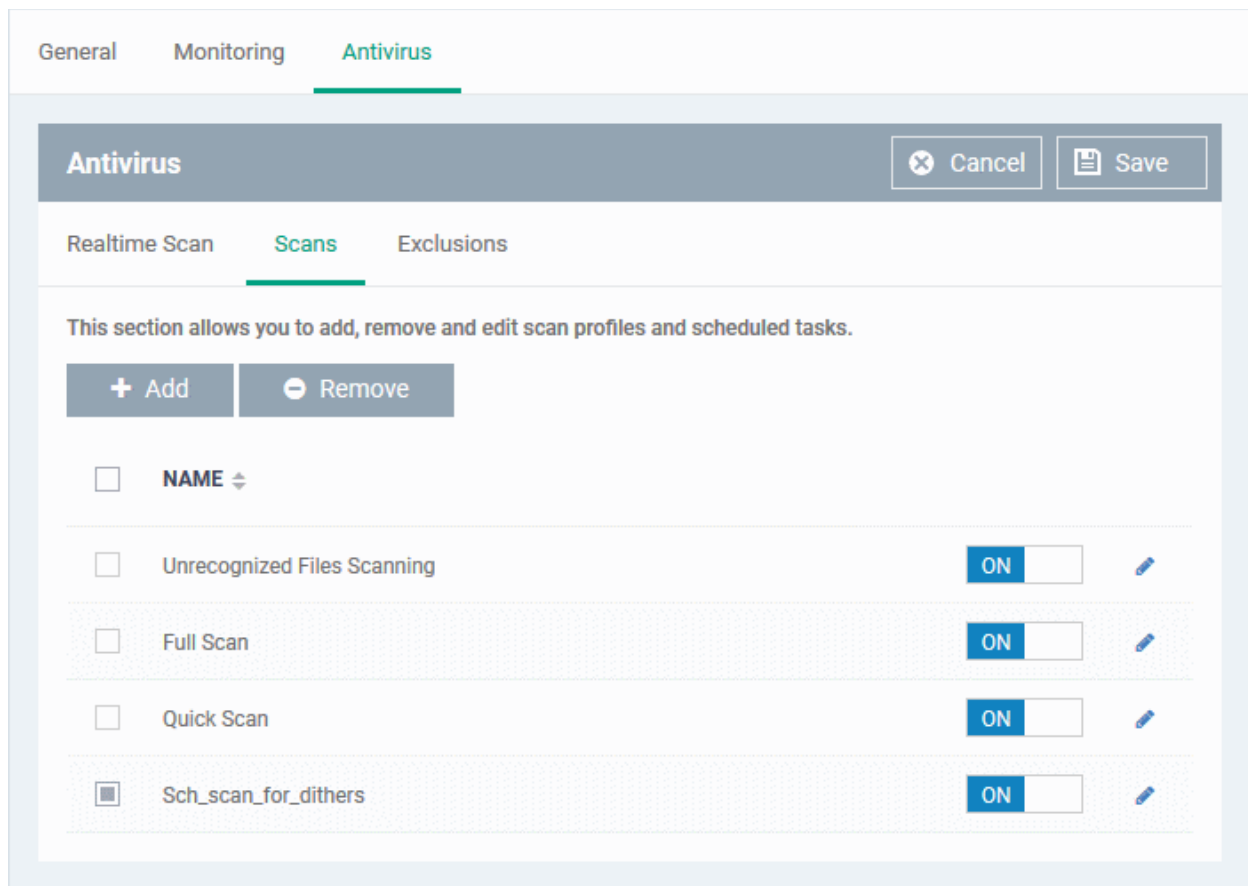
Run only when computer is not running on battery  
 Run only when computer is idle  
 Turn off computer if no threats are found at the end of the scan

Cancel OK


Schedule Settings - Table of Parameters	
Form Element	Description
Frequency	<ul style="list-style-type: none"> <li>• <b>Do not schedule this task</b> - The scan profile will be created but will not be run automatically. The profile will be available for manual on-demand scanning</li> <li>• <b>Every hour(s)</b> - Run the scan once every n hours. For example, once every 3 hours.                             <ul style="list-style-type: none"> <li>• Enter the number of hours between scans in the box provided.</li> </ul> </li> <li>• <b>Every Day</b> - Runs the scan every day at the time specified</li> <li>• <b>Every Week</b> - Scans the areas defined in the scan profile on the day(s) of the week specified in 'Days of the Week' field and the time specified in the 'Start Time' field. You can select the days of the week by directly clicking on them.</li> <li>• <b>Every Month</b> - Scans the areas defined in the scan profile on the day(s) of the month specified in 'Days of the month' field and the time specified in the 'Start Time' field. You can select the days of the month by directly clicking on them.</li> </ul>
Run only when computer is not running on battery	Runs the scan only if the computer is connected to the mains supply. This is useful if you are using a laptop or any other battery driven portable computer.
Run only when computer is idle	Scans will run only if the computer is in idle state. Select this if you do not want to be disturbed, or if you are running resource intensive programs and do not want the scan to take processing power.
Turn off computer if no threats are found at the end of the scan	Powers down your computer if no threats are found during the scan. For example, this is useful if you have scans which are scheduled to run at night.

- Click 'OK' to save the custom scan settings





The added scan profile will be listed in the screen.

- Use the switches to enable or disable a scan-profile.
- To change the settings for the custom scan, click the edit button , edit the parameters and click 'OK'
- To remove a custom scan from the list, select it and click 'Remove'

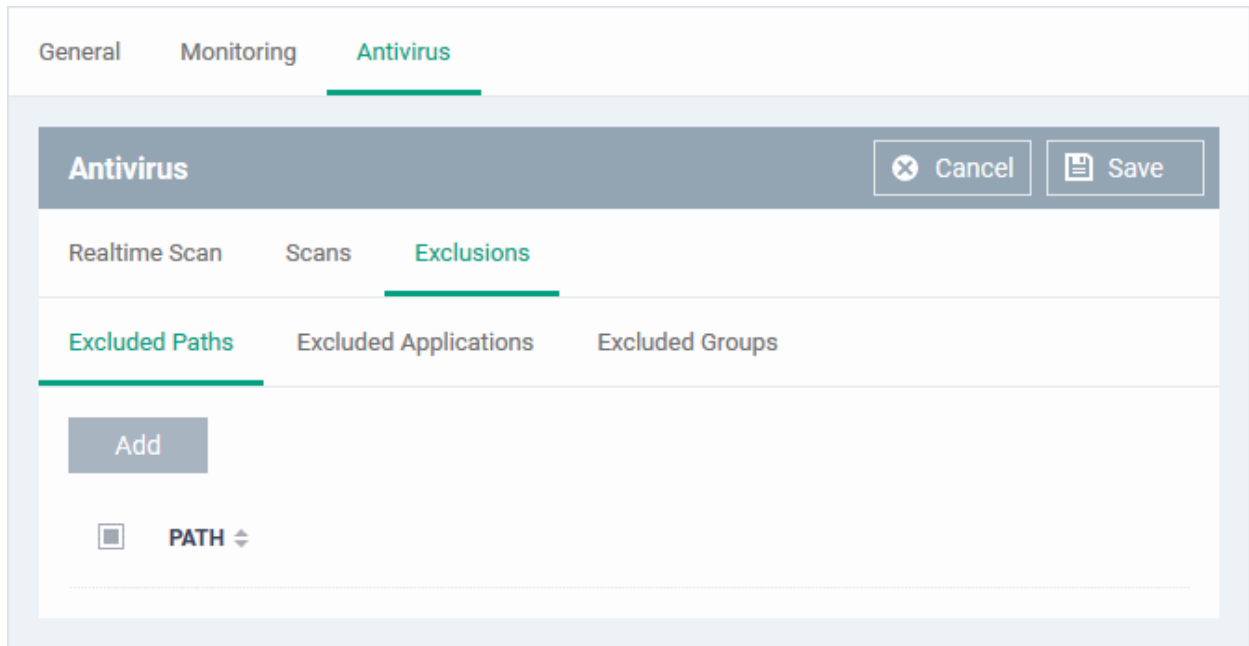
## Exclusions

The 'Exclusions' screen under the Antivirus setting has three sub sections that allow you to add a list of paths, list of applications/files and 'File Groups' which should be excluded from the antivirus scan.

- Click 'Exclusions'

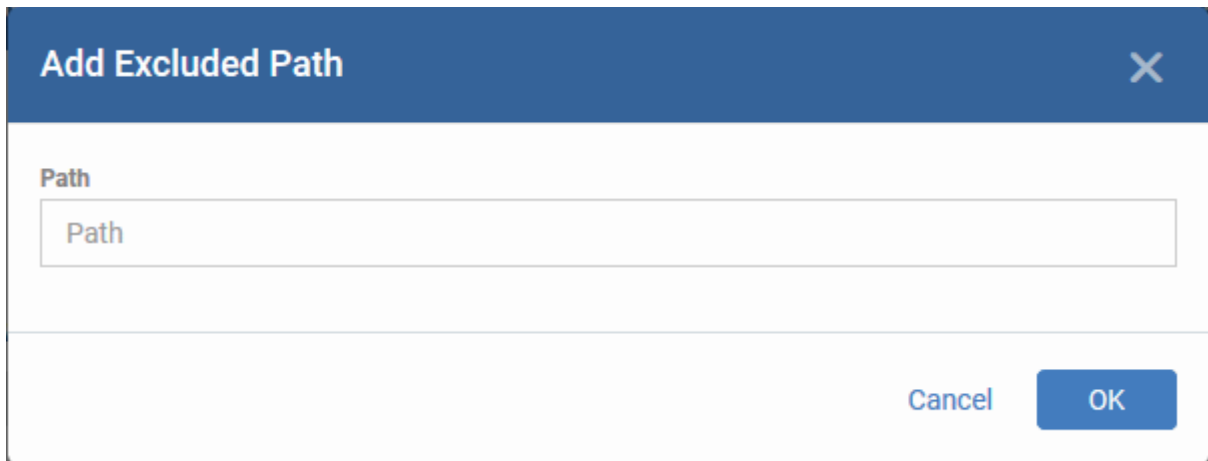
### To add excluded paths

By default the 'Excluded Paths' screen will be displayed:



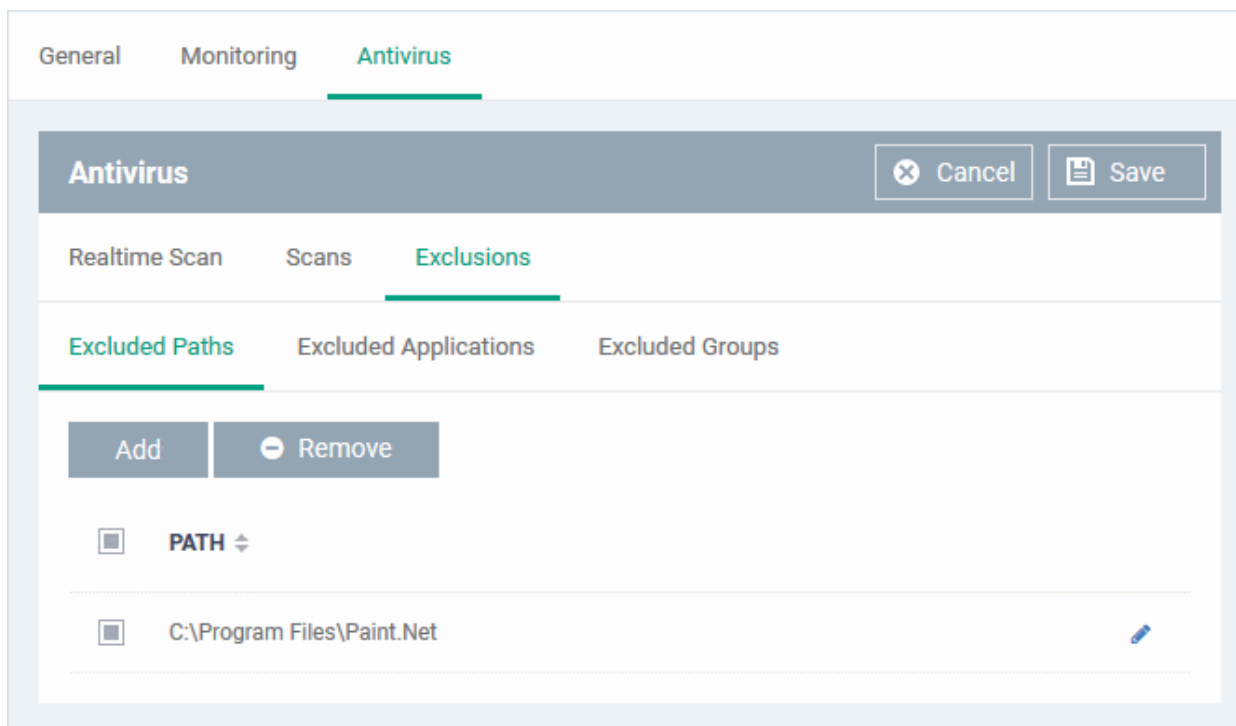
- Click 'Add'


The 'Add Excluded Path' dialog will appear:



- Enter the full path that should be excluded from scanning and click 'OK'.

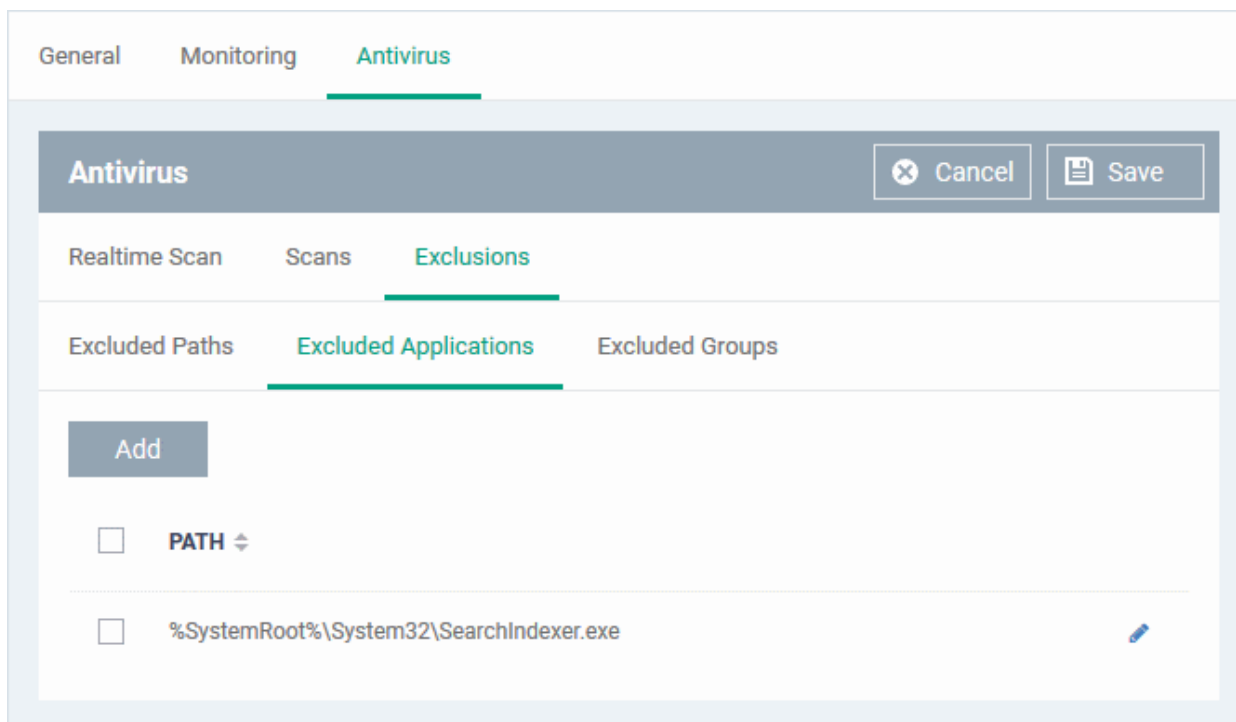
The added excluded path will be added to the list.



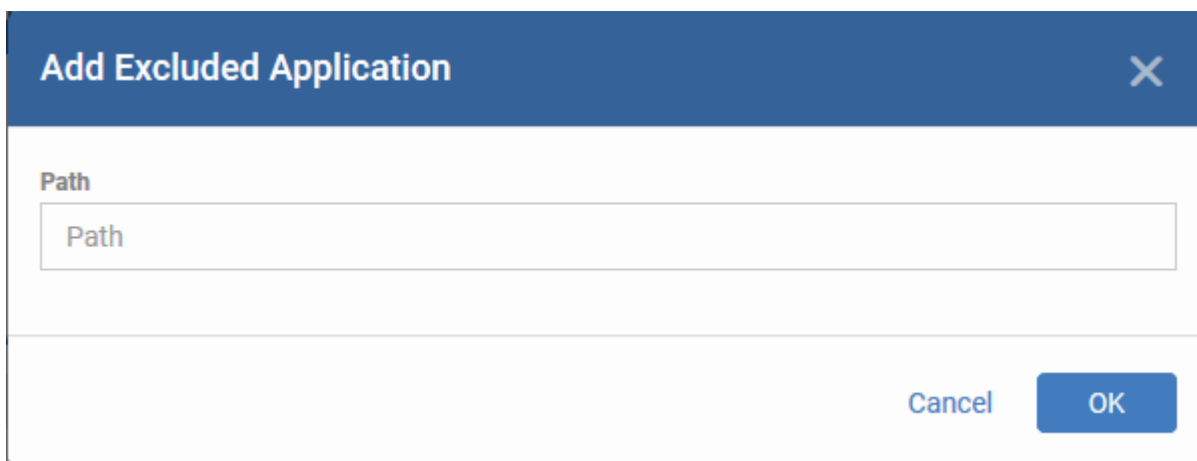
- Repeat the process to include more paths
- To change the path, click the edit button , edit the parameters and click 'OK'
- To remove a path from the list, select it and click 'Remove'

### To add excluded applications

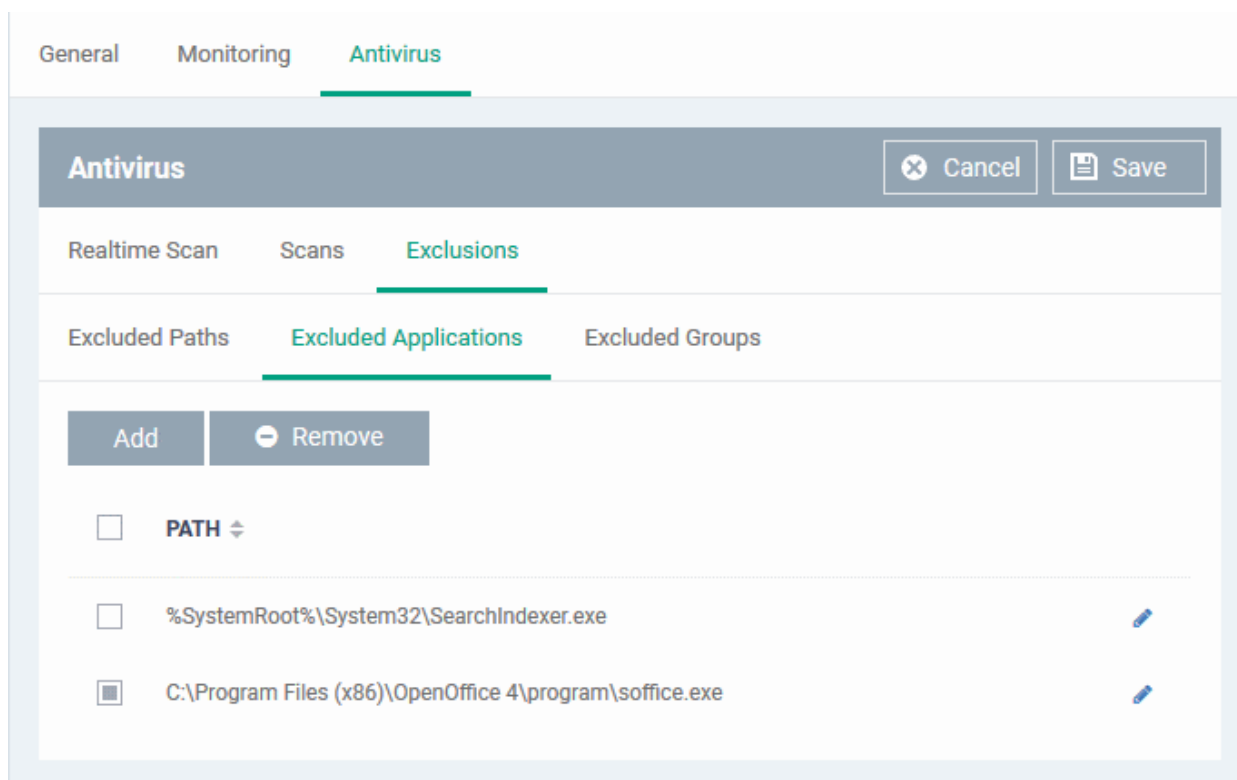
- Click 'Excluded Applications'




- Click 'Add'



- Enter the full path including the application that should be excluded from scanning and click 'OK'
- Repeat the process to include more applications

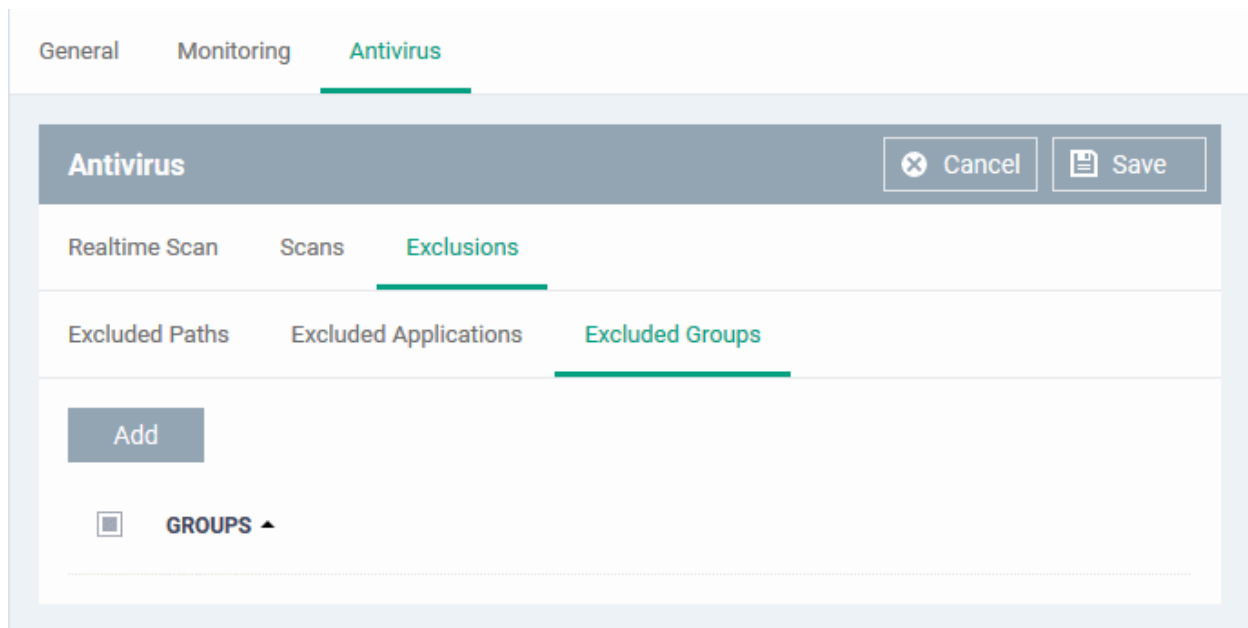


- To change the application path, click the edit button  , edit the parameters and click 'OK'
- To remove an application from the list, select it and click 'Remove'

## To add Excluded Groups

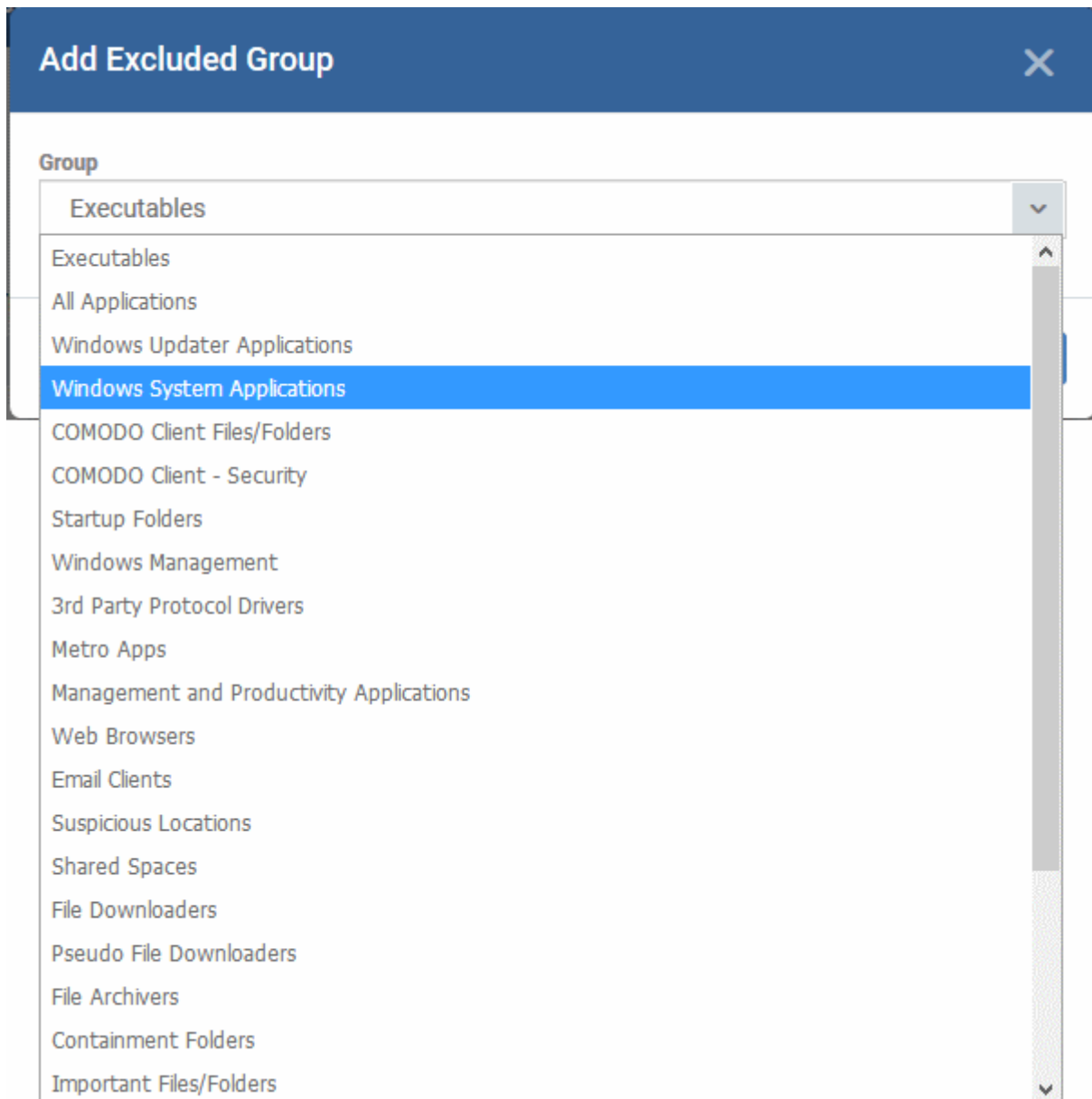
File groups are handy, predefined groupings of one or more file types. File groups make it easy to exclude an entire class of file types. EM ships with a set of predefined 'File Groups'. Users can add new groups and edit existing groups. See **'File Groups'** under 'Settings' > 'System Templates' > 'File Groups Variables'.

- Click 'Excluded Groups'



- Click 'Add'.

The 'Add Group' dialog will appear.



- Choose the group from the 'Group' drop-down and click 'OK'.

The group will be added to the exclusions.

- Repeat the process to add more file groups
- Click the 'Save' button at the bottom to save the antivirus settings.
- Click 'Delete' to remove the antivirus settings section. See [Edit Configuration Profiles](#) for more details about editing the parameters.

#### 6.1.3.1.2. Communication Client and Comodo Client - Security Application Update Settings

The 'Updates' component of a Windows profile lets you configure when managed computers should check for updates for communication client (CC) and Comodo Client - Security (CCS). You can also specify the location from where updates should be downloaded.

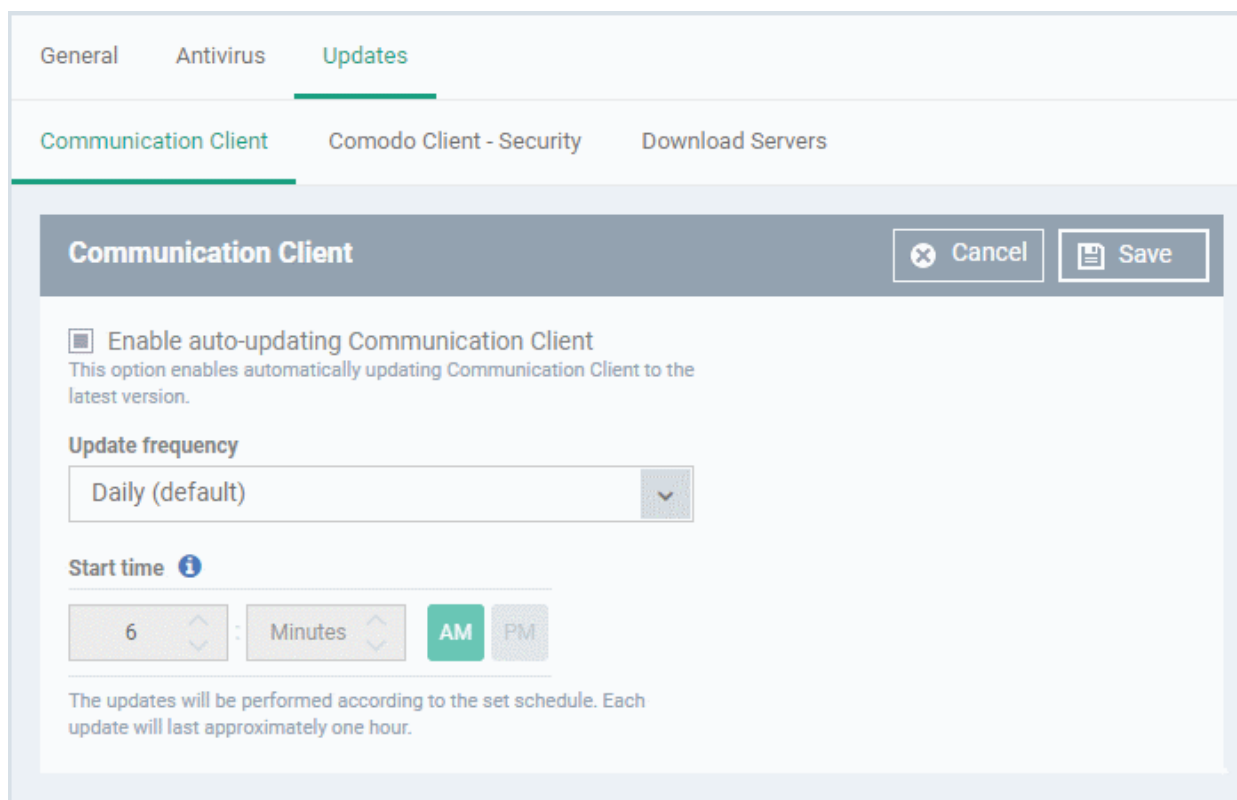
**Tip:** You can also manually update CC and CCS on selected endpoints from the 'Device List' interface. See [Remotely Install and Update Packages on Windows Devices](#) for more details.

#### To configure Update Settings

- Click 'Updates' from the 'Add Profile Section' drop-down in the Windows Profile interface

The 'Updates' settings screen will open:





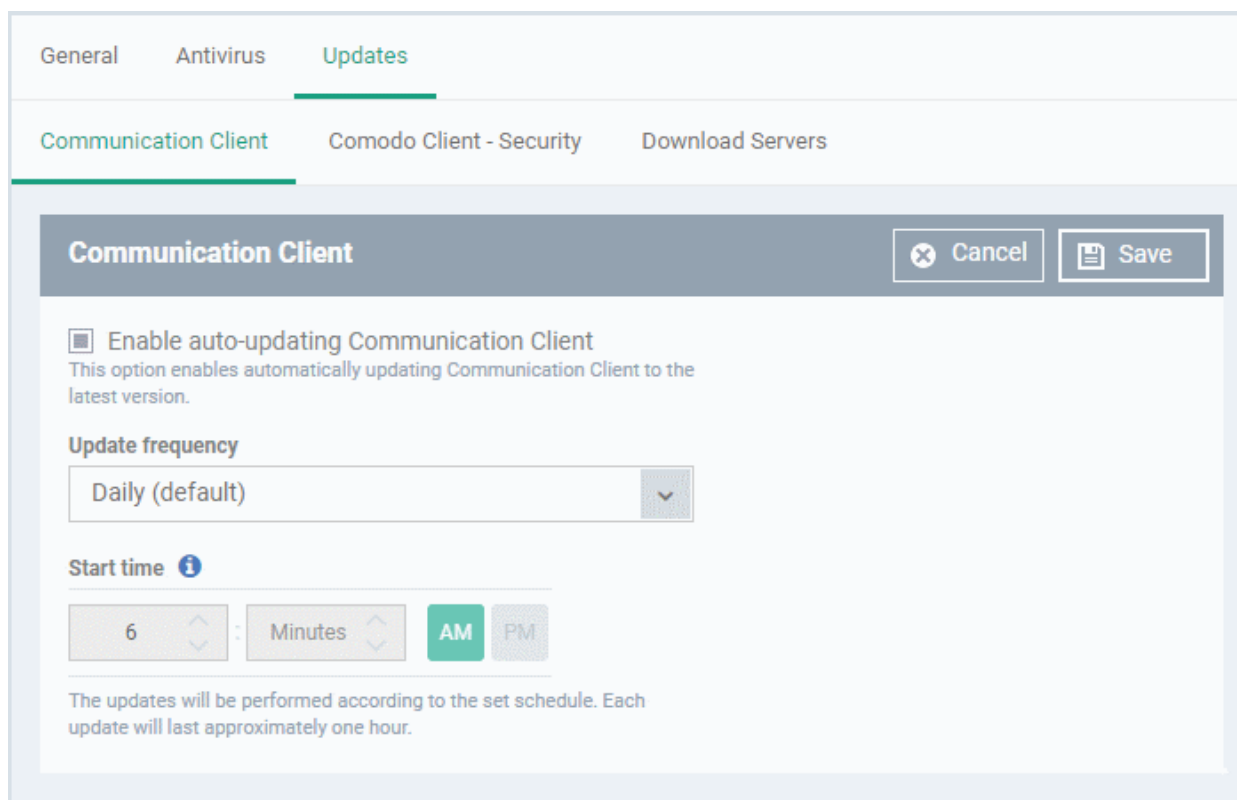
The settings screen for updates has three tabs:

- **Communication Client** - Enable automatic program updates for CC and configure a schedule.
- **Comodo Client - Security** - Enable automatic program updates for CCS and configure a schedule.
- **Download Servers** - Specify the server from which managed endpoints should collect updates.

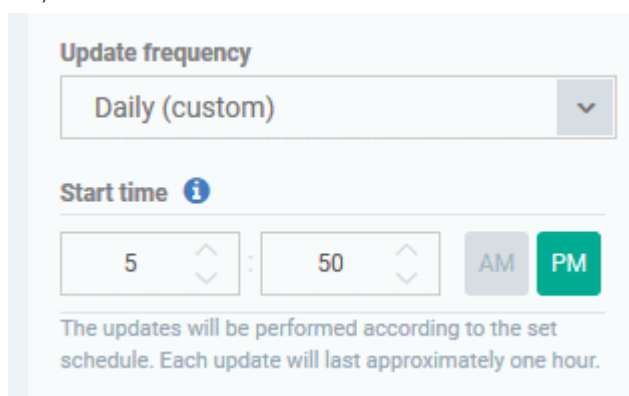
## Communication Client

- Click the 'Communication Client' tab

The 'Communication Client' tab allows you to enable or disable automatic program updates for the EM communication client and set a schedule for the endpoints to check for availability and download the updates.



- **Enable auto-updating Communication Client** - Forces the endpoint to check for and install CC program updates at the selected frequency. You can set the location of the download server in the **Download Servers** tab. Deselect if you want to disable auto updates.
- **Update Frequency** - Choose how often CC should check for updates. The available options are:
  - Daily (Default) - The application will check for updates everyday at 6:00 am everyday
  - Daily (custom) - Enter the time in hours and minutes and choose AM or PM for the auto-update.



- Weekly - Select the days and specify the time for the updates to be checked every week

General   Antivirus   **Updates**

Communication Client   Comodo Client - Security   Download Servers

---

**Communication Client** Cancel Save

**Enable auto-updating Communication Client**  
This option enables automatically updating Communication Client to the latest version.

**Update frequency**  
Weekly

**Start time** ⓘ  
6 : Minutes AM PM

The updates will be performed according to the set schedule. Each update will last approximately one hour.

**Days of the week** Select All | Reset

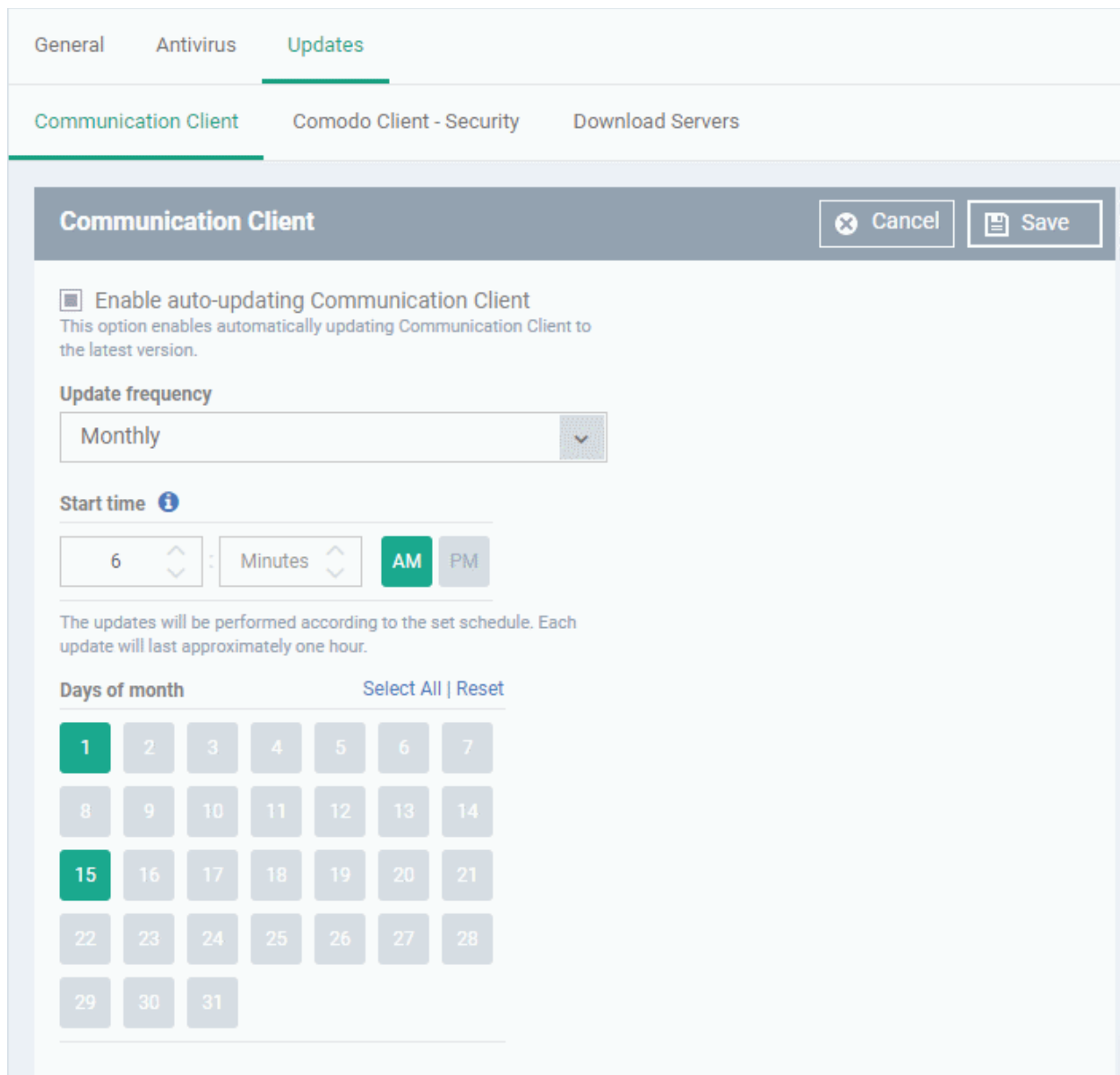
Sunday Monday Tuesday Wednesday Thursday Friday Saturday

- On selected days - You can select the custom day(s) in a month for auto update. For example you may wish the auto update to be scheduled on every first and third Wednesdays of every month.

The screenshot shows the 'Communication Client' configuration page. At the top, there are tabs for 'General', 'Antivirus', and 'Updates', with 'Updates' being the active tab. Below this, there are sub-tabs for 'Communication Client', 'Comodo Client - Security', and 'Download Servers', with 'Communication Client' being the active sub-tab. The main content area is titled 'Communication Client' and includes a 'Cancel' button and a 'Save' button. The configuration options are as follows:

- Enable auto-updating Communication Client**  
This option enables automatically updating Communication Client to the latest version.
- Update frequency**  
On selected days
- Start time** ⓘ  
6 : Minutes AM PM
- The updates will be performed according to the set schedule. Each update will last approximately one hour.
- Days of the week** [Select All | Reset](#)  
Sunday Monday Tuesday **Wednesday** Thursday Friday Saturday
- Ordinal number of the selected days of the week** [Select All | Reset](#)  
**First** Second **Third** Fourth Last

- Monthly - Select the date(s) and specify the time for the updates to be checked every month



- Click 'Save'.

## Comodo Client - Security

- Click the 'Comodo Client - Security' tab

The 'Comodo Client - Security' tab allows you to enable or disable automatic program updates and virus signature database updates for the CCS application on the at the endpoints and set a schedule for auto-updates.

General    Antivirus    **Updates**

Communication Client    **Comodo Client - Security**    Download Servers

**Comodo Client - Security**    [Cancel]    [Save]

### Application Updates

Enable auto-updating Comodo Client - Security  
This option enables automatically updating CCS to the latest version.

**Update frequency**

Daily (default) ▼

**Start time** ⓘ

7 : Minutes    **AM**    PM

Skip updates if the device is offline

**Reboot options**

Force the reboot in

5 minutes ▼

Suppress the reboot ⓘ

Warn about the reboot and let users postpone it

**Reboot message**

Enter a message that the device owner will get before the reboot

### Virus database updates

Check for database update every

1    Hours ▼

Do not check for updates if running on battery

Check for updates during Windows Automatic Maintenance  
Applies to Windows 8 and higher

- **Enable auto-updating Comodo Client - Security** - Forces the endpoint to check for and install CCS program updates at the selected frequency. You can set the location of the download server in the **'Download Servers'** tab. Deselect if you want to disable auto updates.
- **Update Frequency** - Choose how often CCS should check for updates. The available options are:
  - Daily (Default) - The application will check for updates everyday at 7:00 am everyday
  - Daily (custom) - Enter the time in hours and minutes and choose AM or PM for the auto-update.
  - Weekly - Select the days and specify the time for the updates to be checked every week
  - On Selected Days - You can select the custom day(s) in a month for auto update. For example you may wish the auto update to be scheduled on every first and third Wednesdays of every month.
  - Monthly - Select the date(s) and specify the time for the updates to be checked every month

- **Skip updates if the device is offline** - Select this option if you want the updates to be skipped if the endpoint is not connected to EM.
- **Reboot Options** - Configure how the endpoint should restart after installation of an update
  - **Force the reboot in** - If enabled, devices will be automatically rebooted per the time selected from the drop-down. You can also enter an appropriate message in the 'Reboot message' field that will be displayed on the endpoints to warn users about the upcoming forced reboot.
  - **Suppress the reboot** - If enabled, reboot command will not be applied. Please note some updates require device reboot to become fully functional.
  - **Warn about the reboot and let users postpone it** - If enabled, users will be alerted about the required device restart and allows them to choose the time when to reboot. You can also enter an appropriate message in the 'Reboot message' field that will be displayed on the endpoints to warn users about the required reboot.
- **Virus database Updates** - Configure when the endpoint should automatically check for virus signature database updates and apply them
  - **Check for database update every** - If you want to enable automatic and periodical virus signature database updates for the endpoint, select this option and choose the frequency from the drop-down,
  - **Do not check for updates if running on battery** - This option is useful for devices like a laptop or any other battery driven portable computer. Selecting this option checks for updates only if the computer runs with the adapter connected to mains supply and not on battery.
  - **Check for updates during Windows Automatic Maintenance** - Applicable only for Windows 8 and later. Select this option if you want CCS to check for virus database updates when Windows enters into automatic maintenance mode. The update will run at maintenance time in addition to the configured schedule.
- Click 'Save'.

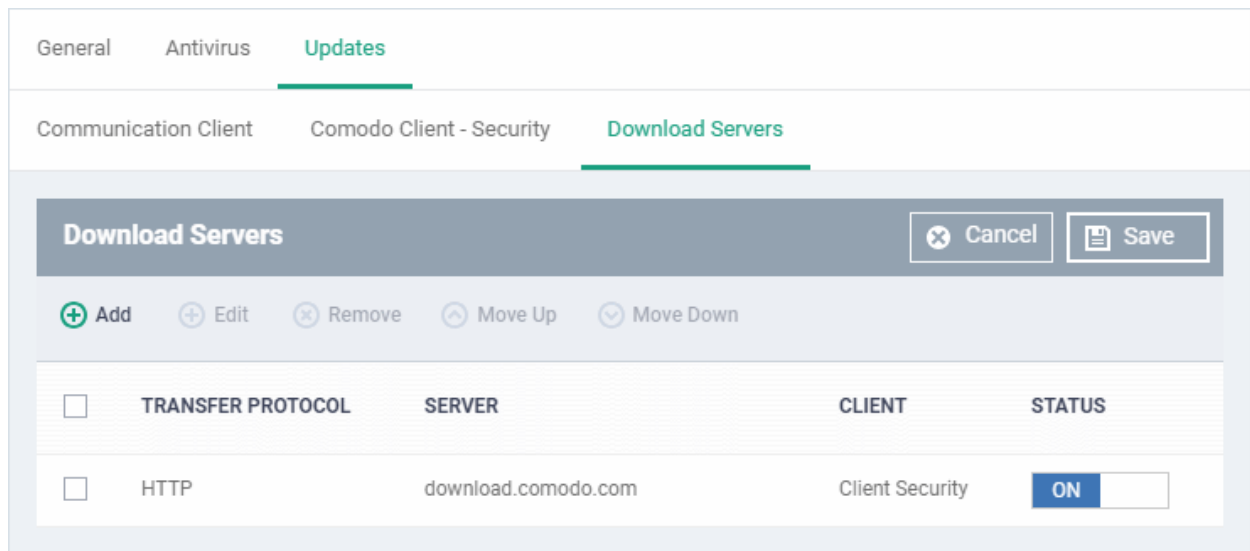
## Download Servers

- The 'Download Servers' tab lets you add and select the servers from which endpoints should collect updates.
- You may wish to first download updates to a proxy/staging server and have endpoints collect updates from there. This helps conserve overall bandwidth consumption and accelerates the update process when large number of endpoints are involved.
- You can configure different proxy servers for Comodo Client Security and Comodo Client Communication.

**Note:** You need to install an offline update utility on the local cache servers in order to get regular updates from Comodo. Contact your Comodo account manager or Comodo support for the same.

- Click the 'Download Servers' tab





By default, EM is set to download updates from the Comodo servers. You can add your local servers here, edit, reorder the list of servers and remove servers if required.

- To add a server, click 'Add'

The 'Add Server' dialog will be displayed.

**Add Server** ✕

**Transfer Protocol**

HTTP
▼

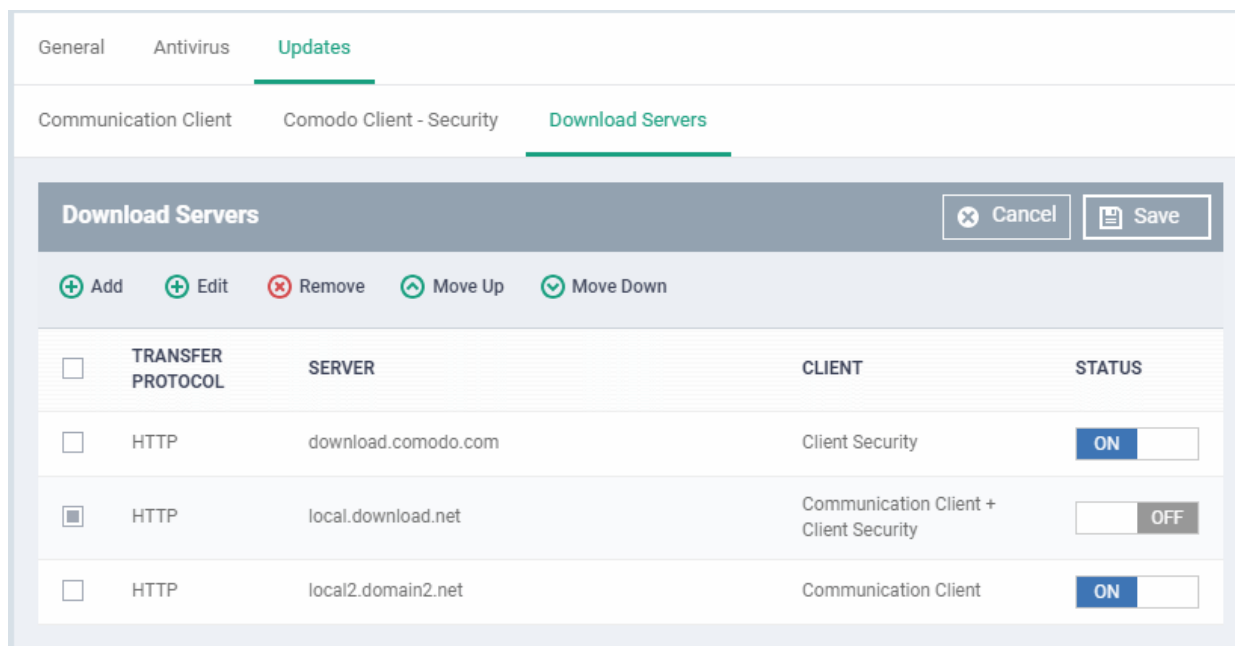
**Host \***

**Client**

Client Security
▼

Add

- Transfer Protocol - Select HTTP or HTTPS
- Host - Enter the server details in the 'Host' field, either IP or the host name.
- Client - Select the item for which the update proxy server should be configured:
  - Communication Client
  - Client Security
  - Communication Client + Client Security
- Click 'Add'. Repeat the process to add more servers.



- Use the 'on-off' switch to enable or disable a server. You need to add the server to a profile in order for endpoints to use it.

You can edit, remove or reorder the list of servers.

- To edit a server details, select it and click the 'Edit' button at the top.
  - Update the details as required and click the 'Set' button
- To remove a server, select it and click 'Remove' at the top

The updates are checked from the server at the top and moves down the list. You can reorder the list of servers.

- To reorder the server list, select the server(s) and click 'Move Up' or 'Move Down'
- Click 'Save' for the changes to updated in the profile.

### 6.1.3.1.3. File Rating Settings

The CCS rating system is a cloud-based file lookup service (FLS) that ascertains the reputation of files on the computer. Whenever a file is first accessed, CCS will check the file against Comodo's master whitelist and blacklists and will award it trusted status if:

- The application is from a vendor included in the Trusted Software Vendors list;
- The application is included in the extensive and constantly updated Comodo safelist;
- The application/file is awarded 'Trusted' status in the local File List.

**Note:** CCS uses Ports 4446 and 4447 of the endpoint computers for TCP and UDP connections to the cloud. If this option is enabled, we advise you keep these ports free and do not assign them to other applications.

The interface lets you configure the overall behavior of the file rating system on Windows devices to which the profile is applied. You can also choose whether or not local file ratings should be consulted.

#### To configure File rating settings

- Click 'Configuration Templates' > 'Profiles'
  - Click on the name of a Windows profile to open it's details page
    - Click the 'File Rating' tab, if it has already been added to the profile
- OR

- Click 'Add Profile Section' > 'File Rating' if it hasn't yet been added

The file rating screen has two tabs:

- **File Rating** - Enable file rating and configure overall behavior.
- **Local Verdict Server Settings** - Choose whether Endpoint Manager should obey or ignore the trust rating of files saved on the local installation. If disabled, file rating scans will only consider the verdicts of the cloud server.

## File Rating Settings

**File Rating Configuration - Table of Parameters**

Form Element	Description
Enable Cloud Lookup	CCS automatically checks the reputation of files on Comodo's file lookup service (FLS). <ul style="list-style-type: none"> <li>• Disable this option if you do not want CCS to use the cloud rating.</li> </ul> ( <b>Default = Enabled</b> )
Enable upload metadata of unknown files to the cloud	CCS uploads anonymized information about unknown files to Comodo servers. This allows us to analyze and whitelist/blacklist files more effectively. <ul style="list-style-type: none"> <li>• Disable this option if you do not want CCS to send metadata to Comodo servers.</li> </ul> ( <b>Default = Enabled</b> )
Show Cloud Alert	CCS can show an alert on the device when malware is found during a file rating scan. Users can block or allow the malware from the alert. <ul style="list-style-type: none"> <li>• Disable this option if you don't want users to see an alert. If disabled, CCS will automatically block and delete any discovered malware.</li> </ul>

File Rating Configuration - Table of Parameters	
	<b>(Default = Disabled)</b>
Detect potentially unwanted applications	<p>A potentially unwanted application (PUA) is an app that:</p> <ul style="list-style-type: none"> <li>• A user may or may not be aware is installed on their computer.</li> <li>• May have functionality and objectives that are not clear to the user.</li> </ul> <p>PUAs include adware and browser toolbars. They are often installed as an extra when the user is installing an unrelated piece of software. Unlike malware, many PUA's are legitimate pieces of software with their own EULA agreements. However, the true functionality of the software may not have been made clear to the end-user at the time of installation. For example, a browser toolbar may also contain code that tracks a user's activity on the Internet.</p> <p>CCS will show an alert on the endpoint if it detects a PUA and a log entry is created.</p> <p><b>(Default = Disabled)</b></p>
Auto-Purge is enabled	<p>CCS checks the file list and removes invalid and obsolete entries. You can specify the interval at which the check should take place.</p> <p><b>(Default = Enabled )</b></p>
Auto Purge Period	<p>The time interval at which auto-purge operations are performed.</p> <ul style="list-style-type: none"> <li>• Enter the time interval in hours.</li> </ul> <p><b>(Default = Four hours)</b></p>
Custom FLS access ports	<p>Define custom ports through which the file lookup service will connect.</p> <ul style="list-style-type: none"> <li>• Select the protocol(s) and enter the port details for UDP or TCP connections.</li> </ul> <p><b>(Default = Disabled)</b></p>
Enable report for non-executable files	<p>If enabled, CCS sends a report on files identified as non-executable to EM on each file rating scan.</p> <p><b>(Default = Enabled )</b></p>
Show non-executable files	<p>If enabled, non-executable files will also be added to the 'File List' interface of CCS on the endpoint.</p> <p>To access the file list in CCS, click 'Tasks' &gt; 'Advanced Tasks' &gt; 'Advanced settings' &gt; 'Security settings' &gt; 'File Rating' &gt; 'File list'.</p> <p><b>(Default = Enabled )</b></p>

- Click 'Save' to apply your file rating settings.

## Local Verdict Server Settings

The screenshot shows the 'Local Verdict Server Settings' dialog box. It has a title bar with 'Local Verdict Server Settings', 'Cancel', and 'Save' buttons. Below the title bar, there is a checkbox labeled 'Enable Local Verdict Server' with an information icon. Underneath, there are two timeout settings: 'Timeout for unknown files' with a spinner set to '2' and a dropdown menu set to 'Minutes', and 'Timeout for known files («Trusted», «Malware» and «Unrecognized»)' with a spinner set to '1' and a dropdown menu set to 'Hours'.

Local Verdict Server Settings - Table of Parameters	
Form Element	Description
Enable Local Verdict Server	<p>Local trust verdicts are those stored in CCS on an endpoint.</p> <p>For example, a user can assign a trust level to a file when answering an alert. Users and admins can also manually assign a trust verdict to a file in CCS.</p> <ul style="list-style-type: none"> <li>• Enabled - CCS will obey the local trust verdict on a file in the event of a conflict with the cloud verdict.</li> <li>• Disabled - CCS will ignore local verdicts and only use cloud verdicts to determine the trust level of a file <b>(Default = Enabled)</b></li> </ul>
Timeout for Unknown Files	<p>Validity period of locally-set trust ratings for unknown files. Unknown files are those that do not have a Comodo or admin rating.</p> <p>CCS will re-check the local rating when the timeout expires. <b>(Default = 2 Minutes)</b></p>
Timeout for known files (Trusted, malware and Unrecognized)	<p>Validity period of locally-set trust ratings for all types of files - malware, trusted and Unrecognized.</p> <p>CCS will re-check the local rating when the timeout expires. <b>(Default = 1 Hour)</b></p>

- Click 'Save' to apply your changes.

## 6.1.3.1.4. Firewall Settings

The Firewall Settings area allows you to configure the behavior of the CCS firewall on endpoints to which the profile is applied. You can also configure network zones, portsets and traffic filtering rules.

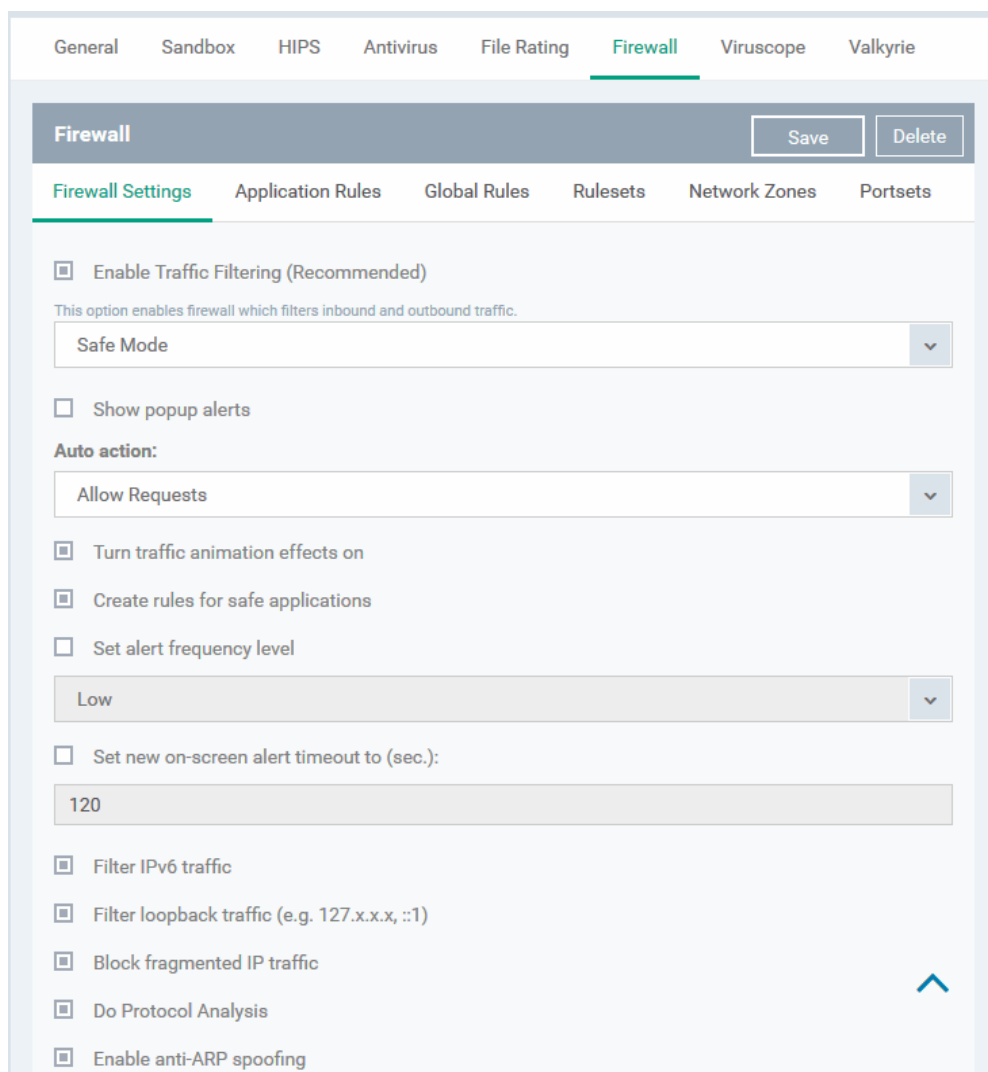
### To configure Firewall Settings and Traffic Filtering Rules

- Click 'Firewall' from the 'Add Profile Section' drop-down

The Firewall settings screen is displayed. It has six tabs:


- **Firewall Settings** - Configure the general firewall behavior
- **Application Rules** - Define rules that determine the network access privileges of individual applications or specific types of applications at the endpoint
- **Global Rules** - Define rules that apply to all traffic flowing in and out of the endpoint
- **Rulesets** - Create and manage predefined collections of firewall rules that can be applied, out-of-the-box, to Internet capable applications such as browsers, email clients and FTP clients.
- **Network Zones** - Create named grouping of one or more IP addresses. Once created, you can specify a zone as the target of firewall rule.
- **Portsets** - Define groups of regularly used ports that can be used and reused when creating traffic filtering rules.

### Firewall Settings



Firewall Configuration - Table of Parameters	
Form Element	Description
Enable Traffic Filtering	<p>Enable or disable Firewall protection at the endpoint. If enabled the following options are available:</p> <ul style="list-style-type: none"> <li> <b>Custom Ruleset</b> - The firewall applies ONLY the custom security configurations and network traffic policies specified by the administrator. New users may want to think of this as the 'Do Not Learn' setting because the firewall does not attempt to learn the behavior of any applications. Nor does it automatically create network traffic rules for those applications. The user will receive alerts every time there is a connection attempt by an application - even for applications on the Comodo Safe list (unless, of course, the administrator has specified rules and policies that instruct the firewall to trust the application's connection attempt).                     </li> </ul> <p>If any application tries to make a connection to the outside, the firewall audits all the loaded components and checks each against the list of components already allowed or blocked. If a component is found to be blocked, the entire application is denied Internet access and an alert is generated. This setting is advised for experienced firewall users that wish to maximize the visibility and control over traffic in and out of their computer.</p> <ul style="list-style-type: none"> <li> <b>Safe Mode</b> - While filtering network traffic, the firewall automatically creates rules that allow all traffic for the components of applications certified as 'Safe' by Comodo, if the checkbox Create rules for safe applications is selected. For non-certified new applications, the user will receive an alert whenever that application attempts to access the network. The administrator can choose to grant that application Internet access by selecting 'Treat this application as a Trusted Application' at the alert. This deploys the predefined firewall policy 'Trusted Application' onto the application.                     </li> </ul> <p>'Safe Mode' is the recommended setting for most users - combining the highest levels of security with an easy-to-manage number of connection alerts.</p> <ul style="list-style-type: none"> <li> <b>Training Mode</b> - The firewall monitors network traffic and create automatic allow rules for all new applications until the security level is adjusted. The user will not receive any alerts in 'Training Mode' mode. If you choose the 'Training Mode' setting, we advise that you are 100% sure that all applications installed on endpoints are assigned the correct network access rights.                     </li> </ul> <p>For more details on the Firewall Settings, see the of CCS - Firewall Settings online help page at <a href="http://help.comodo.com/topic-399-1-790-10358-Firewall-Settings.html">http://help.comodo.com/topic-399-1-790-10358-Firewall-Settings.html</a> .</p>
Show popup alerts	<p>Whether or not firewall alerts are to be displayed at the endpoint whenever the firewall encounters a request for network access, for the user to respond.</p> <p>If you choose not to show the alerts, you can select the default responses from the 'Auto Action' drop-down. The available options are:</p> <ul style="list-style-type: none"> <li>Block Requests</li> <li>Allow Requests</li> </ul>
Turn traffic animation effects on	<p>The CCS tray icon can display a small animation whenever traffic moves to or from your computer.</p>



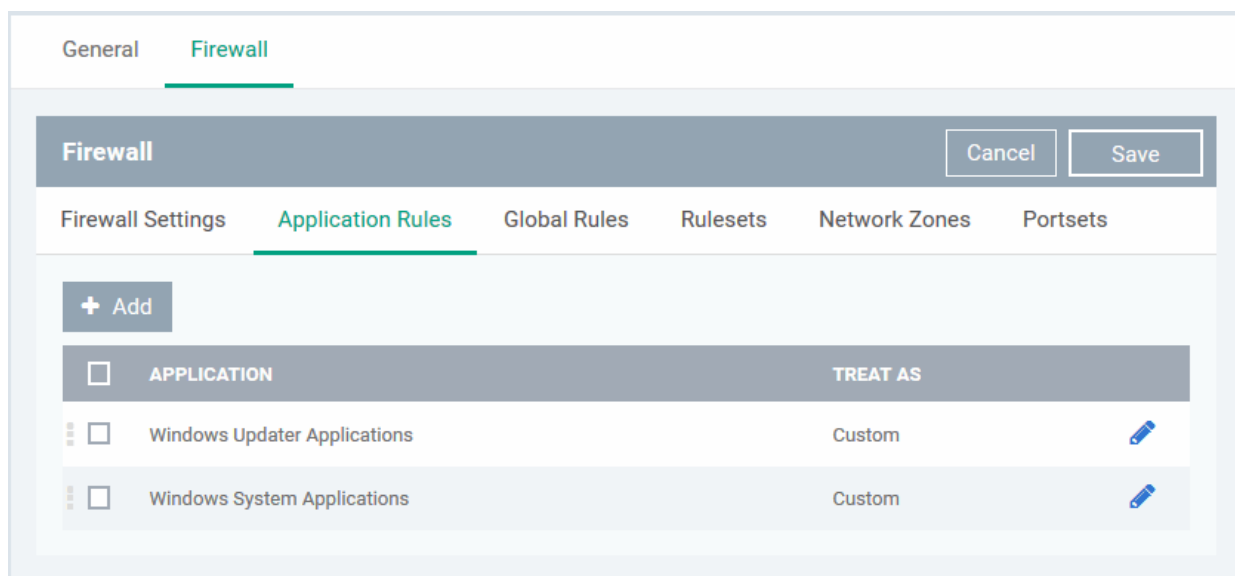
Firewall Configuration - Table of Parameters	
	 <p>You can enable or disable the animation to be displayed at the endpoint.</p>
Create rules for safe applications	<p>Comodo Firewall trusts the applications if:</p> <ul style="list-style-type: none"> <li>• The application/file is included in the Trusted Files list under File Rating Settings;</li> <li>• The application is from a vendor included in the <b>Trusted Software Vendors</b> list</li> <li>• The application is included in the extensive and constantly updated Comodo safelist.</li> </ul> <p>By default, CCS does not automatically create 'allow' rules for safe applications. This helps saving the resource usage, simplifies the rules interface by reducing the number of 'Allowed' rules in it, reduces the number of pop-up alerts and is beneficial to beginners who find difficulties in setting up the rules.</p> <p>Enabling this option instructs CCS at endpoints to begin learning the behavior of safe applications so that it can automatically generate the 'Allow' rules. These rules are listed in the 'Advanced Settings' &gt; 'Firewall Settings' &gt; 'Application Rules' interface of the local CCS installation. Advanced users can edit/modify the rules as they wish. (Default = Disabled)</p>
Set alert frequency level	<p>Enabling this option allows you to configure the amount of alerts that Comodo Firewall generates, from the drop-down at the endpoint. It should be noted that this does not affect your security, which is determined by the rules you have configured (for example, in '<b>Application Rules</b>' and '<b>Global Rules</b>'). For the majority of users, the default setting of 'Low' is the perfect level - ensuring you are kept informed of connection attempts and suspicious behaviors whilst not overwhelming you with alert messages. (<b>Default=Disabled</b>)</p> <p>The options available are:</p> <ul style="list-style-type: none"> <li>• <b>Very High:</b> The firewall shows separate alerts for outgoing and incoming connection requests for both TCP and UDP protocols on specific ports and for specific IP addresses, for an application. This setting provides the highest degree of visibility to inbound and outbound connection attempts but leads to a proliferation of firewall alerts. For example, using a browser to connect to your Internet home-page may generate as many as 5 separate alerts for an outgoing TCP connection alone.</li> <li>• <b>High:</b> The firewall shows separate alerts for outgoing and incoming connection requests for both TCP and UDP protocols on specific ports for an application.</li> <li>• <b>Medium:</b> The firewall shows alerts for outgoing and incoming connection requests for both TCP and UDP protocols for an application.</li> <li>• <b>Low:</b> The firewall shows alerts for outgoing and incoming connection requests for an application. This is the setting recommended by Comodo and is suitable for the majority of users.</li> <li>• <b>Very Low:</b> The firewall shows only one alert for an application.</li> </ul> <p>The Alert Frequency settings refer only to connection attempts by applications or from IP addresses that you have not (yet) decided to trust.</p>
Set new on-screen alert	How long the Firewall shows an alert for, without any user intervention at the

Firewall Configuration - Table of Parameters	
timeout to:	endpoint. By default, the timeout is set at 120 seconds. You may adjust this setting to your own preference by selecting this option and choosing the period from the drop-down combo-box.
Filter IPv6 traffic	<p>If enabled, the firewall component of CCS at the endpoint will filter IPv6 network traffic in addition to IPv4 traffic.</p> <p><b>Background Note:</b> IPv6 stands for Internet Protocol Version 6 and is intended to replace Internet Protocol Version 4 (IPv4). The move is primarily driven by the anticipated exhaustion of available IP addresses. IPv4 was developed in 1981 and is still the most widely deployed version - accounting for almost all of today's Internet traffic. However, because IPv4 uses 32 bits for IP addresses, there is a physical upper limit of around 4.3 billion possible IP addresses - a figure widely viewed as inadequate to cope with the further expansion of the Internet. In simple terms, the number of devices requiring IP addresses is in danger of exceeding the number of IP addresses that are available. This hard limit has already led to the development of 'work-around' solutions such as Network Address Translation (NAT), which enable multiple hosts on private networks to access the Internet using a single IP address.</p> <p>IPv6 on the other hand, uses 128 bits per address (delivering <math>3.4 \times 10^{38}</math> unique addresses) and is viewed as the only realistic, long term solution to IP address exhaustion. IPv6 also implements numerous enhancements that are not present in IPv4 - including greater security, improved support for mobile devices and more efficient routing of data packets.</p>
Filter loopback traffic	<p>Loopback connections refer to the internal communications within your PC. Any data transmitted by your computer through a loopback connection is immediately received by it. This involves no connection outside your computer to the Internet or a local network. The IP address of the loopback network is 127.0.0.1, which you might have heard referred to, under its domain name of 'http://localhost', i.e. the address of your computer.</p> <p>Loopback channel attacks can be used to flood your computer with TCP and/or UDP requests which can smash your IP stack or crash your computer. Leaving this option enabled means the firewall will filter traffic sent through this channel at the endpoints. (<b>Default = Enabled</b>).</p>
Block fragmented IP traffic	<p>When a connection is opened between two computers, they must agree on a Maximum Transmission Unit (MTU). IP Datagram fragmentation occurs when data passes through a router with an MTU less than the MTU you are using i.e when a datagram is larger than the MTU of the network over which it must be sent, it is divided into smaller 'fragments' which are each sent separately.</p> <p>Fragmented IP packets can create threats similar to a DOS attack. Moreover, these fragmentations can double the amount of time it takes to send a single packet and slow down your download time.</p> <p>If you want the firewall component of CCS at the endpoint to block the fragmented datagrams, enable this option. (<b>Default = Enabled</b>).</p>
Do Protocol Analysis	<p>Protocol Analysis is key to the detection of fake packets used in denial of service (DOS) attacks.</p> <p>If you want firewall at the endpoint to check whether every packet conforms to that protocols standards, select this option. If not, then the packets are blocked (<b>Default = Enabled</b>).</p>
Enable anti-ARP spoofing	<p>A gratuitous Address Resolution Protocol (ARP) frame is an ARP Reply that is broadcast to all machines in a network and is not in response to any ARP Request.</p>

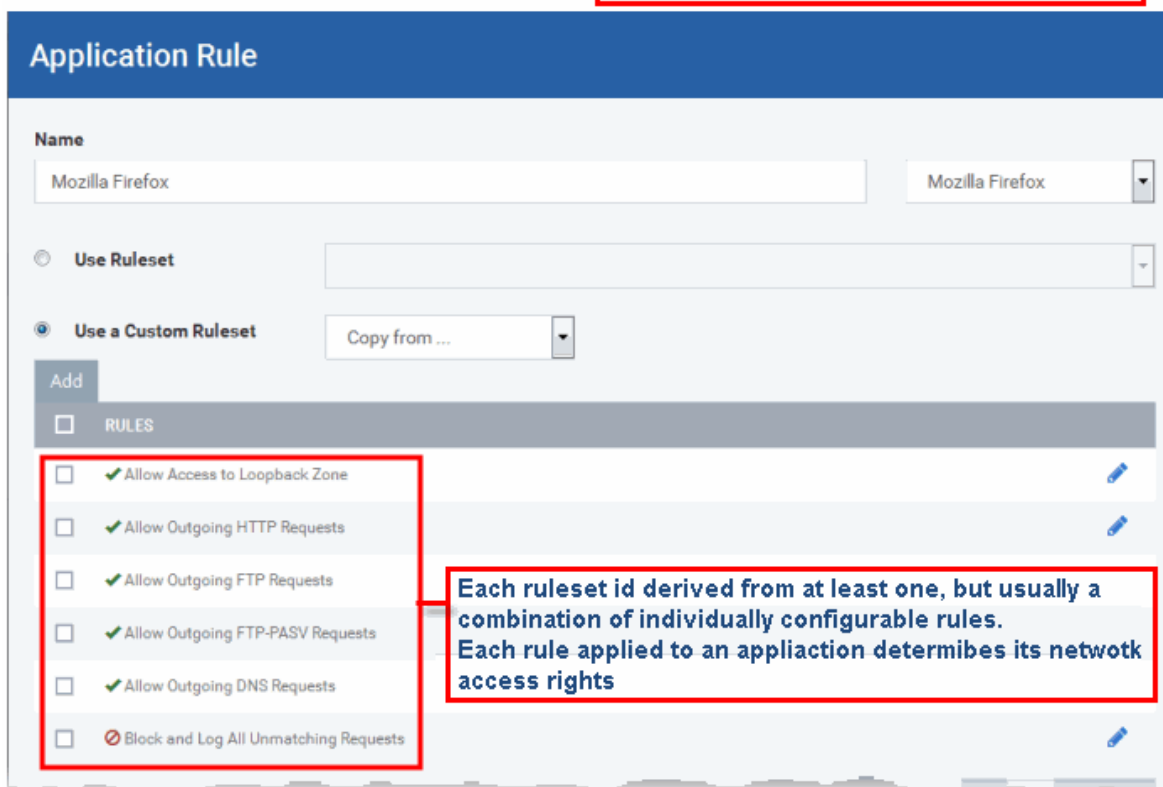
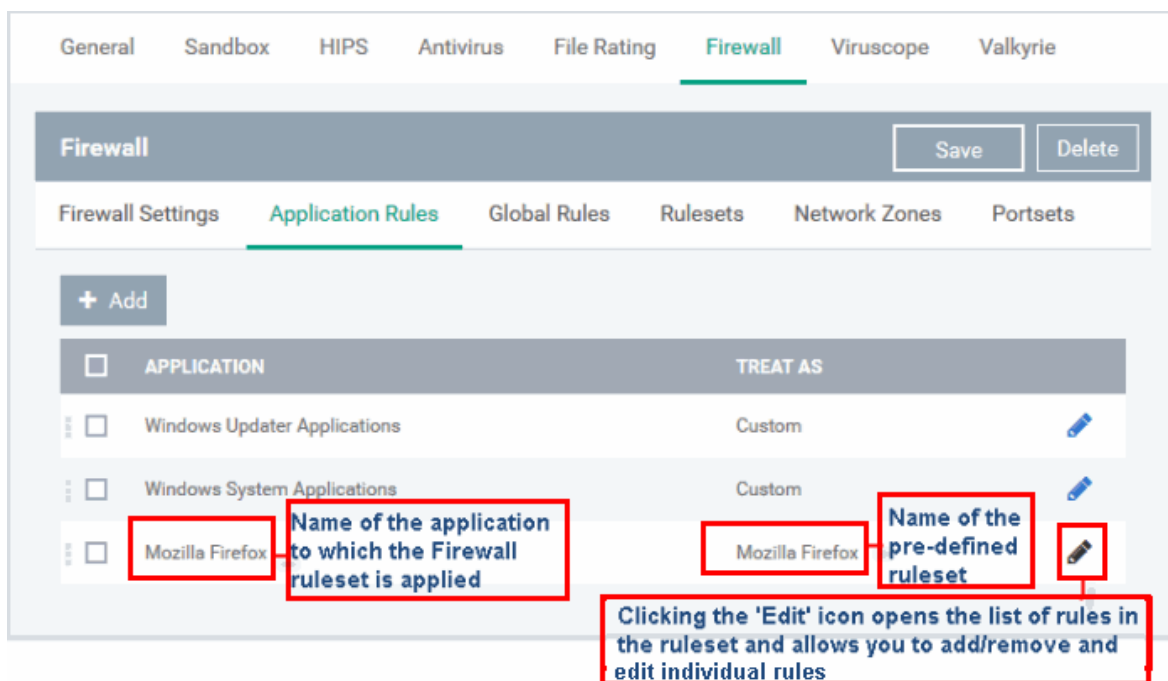
Firewall Configuration - Table of Parameters	
	<p>When an ARP Reply is broadcast, all hosts are required to update their local ARP caches, whether or not the ARP Reply was in response to an ARP Request they had issued. Gratuitous ARP frames are important as they update the machine's ARP cache whenever there is a change to another machine on the network (for example, if a network card is replaced in another machine on the network, then a gratuitous ARP frame informs your machine of this change and requests to update its ARP cache so that data can be correctly routed). However, while ARP calls might be relevant to an ever shifting office network comprising many machines that need to keep each other updated, it is of far less relevance to, say, a single computer in a small network. Enabling this setting helps to block such requests at the endpoints to which the profile is applied - protecting the ARP cache from potentially malicious updates (<b>Default = Enabled</b>).</p>

## Application Rules

Whenever an application makes a request for Internet or network access, Comodo Firewall allows or denies this request based upon the Firewall Ruleset that has been specified for that application. Firewall Rulesets are, in turn, made up from one or more individual network access rules. Each individual network access rule contains instructions that determine whether the application should be allowed or blocked; which protocols it is allowed to use; which ports it is allowed to use and so forth.



The 'Application Rules' interface allows you to create and manage application rules for regulating network access to individual applications at the endpoints to which the profile is applied.

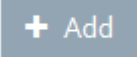

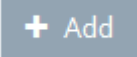



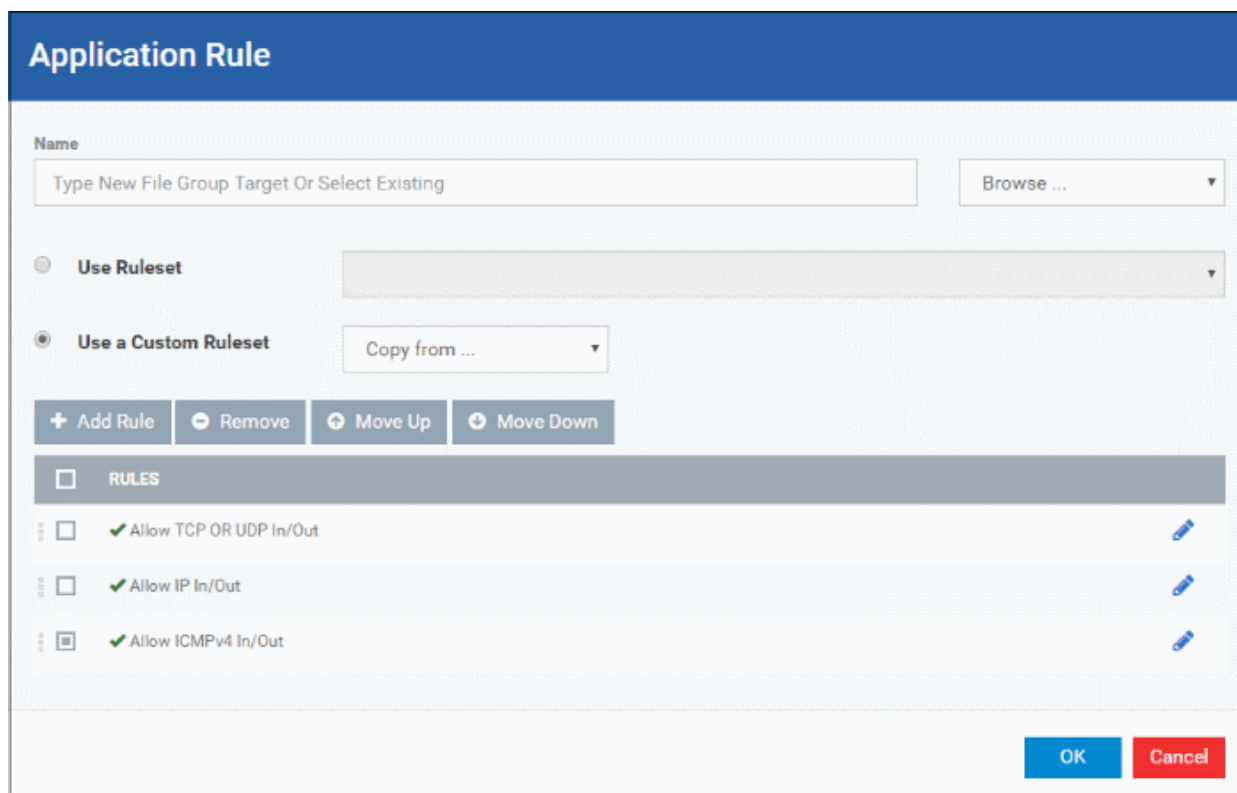
Although each ruleset can be defined from the ground up by individually configuring its constituent rules, this practice would be time consuming if it had to be performed for every single program on your system. For this reason, Comodo Firewall contains a selection of predefined rulesets according to broad application category. For example, you may choose to apply the ruleset 'Web Browser' to the applications like 'Internet Explorer', 'Firefox' and 'Opera'. Each predefined ruleset has been specifically designed by Comodo Firewall to optimize the security level of a certain type of application. Administrators can, of course, modify these predefined rulesets to suit their environment and requirements. For more details, see [Predefined Rule Sets](#).

- See [Application Rule interface](#) for an introduction to the rule setting interface
- See [Create and Modify Firewall Rulesets](#) to learn how to create and edit Firewall rulesets
- See [Understanding Firewall Rules](#) for an overview of the meaning, construction and importance of individual rules

- See [Add and Edit a Firewall Rule](#) for an explanation of individual rule configuration.

## Application Rule interface

- Click the 'Add' button  or 'Edit' icon  beside a ruleset in 'Application Rules' interface to open the 'Application Rule' interface.
- The rules in a Firewall ruleset can be added/modified/removed and re-ordered through the 'Application Rule' interface.
- You can also create new rules or edit existing rules in the ruleset in the 'Firewall Rule' interface (Click the 'Add' button  or 'Edit' icon  beside a rule in 'Application Rules' interface). See [Add and Edit a Firewall Rule](#) for guidance on this.



Comodo Firewall applies rules on a per packet basis and applies the first rule that matches that packet type to be filtered (see [Understanding Firewall Rules](#) for more information). If there are a number of rules in the list relating to a packet type then one nearer the top of the list is applied. Administrators can re-prioritize rules by using the 'Move Up' or 'Move Down' buttons.


## Create and Modify Firewall Rulesets

To begin defining an application's Firewall ruleset, you need take two basic steps.

- Step 1 - **Select the application that you wish the ruleset is to be applied.**
- Step 2 - **Configure the rules for this application's ruleset.**

### Step 1 - Select the application that you wish the ruleset is to be applied

- To define a ruleset for a new application ( i.e. one that is not already listed), click the 'Add' button

 at the top of the list in the 'Application Rules' interface.

The 'Application Rule' interface will open as shown below:

**Application Rule**

Name  
Type New File Group Target Or Select Existing Browse ... ▼

**Use Ruleset** ▼

**Use a Custom Ruleset** Copy from ... ▼

+ Add Rule

RULES

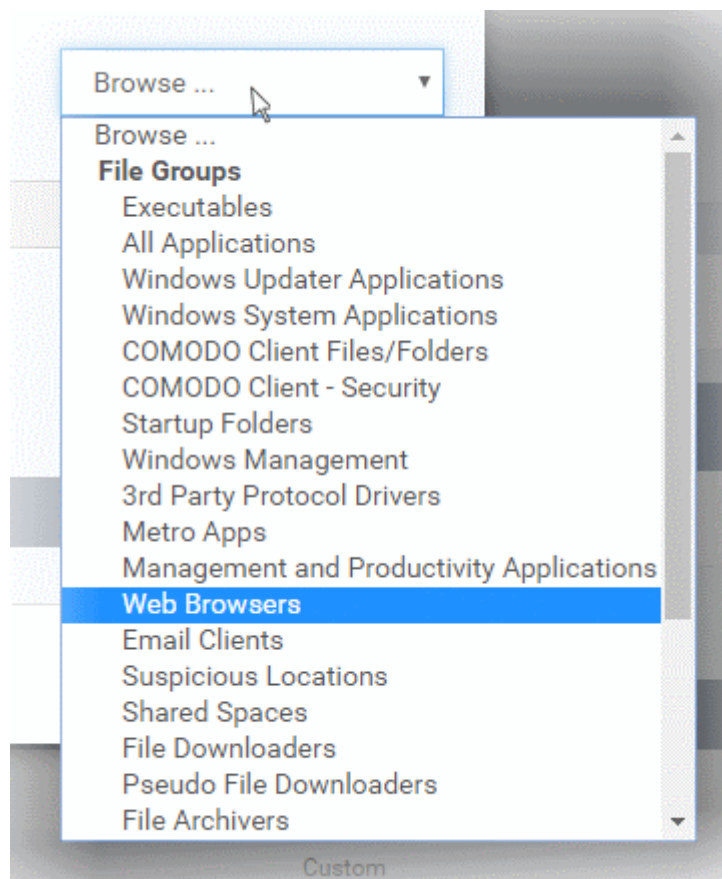
OK Cancel

Because this is a new application, the 'Name' field is blank. (If you are modifying an existing ruleset, then this interface shows the individual rules for that application's ruleset).

You can enter the application(s) to which the rule set is to be applied in two ways:

- Enter the installation path of the application with the application file name in the Name field (For example, 'C:\Program Files\Mozilla Firefox\firefox.exe').
- Or
- Open the drop-down beside the 'Name' field and choose the application group to which the ruleset is to be applied. Choosing a 'File Group' allows you to create firewall ruleset for a category of pre-set files or folders. For example, selecting 'Executables' would enable you to create a Firewall Ruleset for any file that attempts to connect to the Internet with the extensions .exe .dll .sys .ocx .bat .pif .scr .cpl . Other such categories available include 'Windows System Applications', 'Windows Updater Applications', 'Start Up Folders' etc - each of which provide a fast and convenient way to apply a generic ruleset to important files and folders. Endpoint Manager ships with a set of predefined 'File Groups'. If required you can add new file groups and edit existing groups ('Settings' > 'System Templates' > 'File Groups Variables'). See **Create and Manage File Groups** for guidance on this.

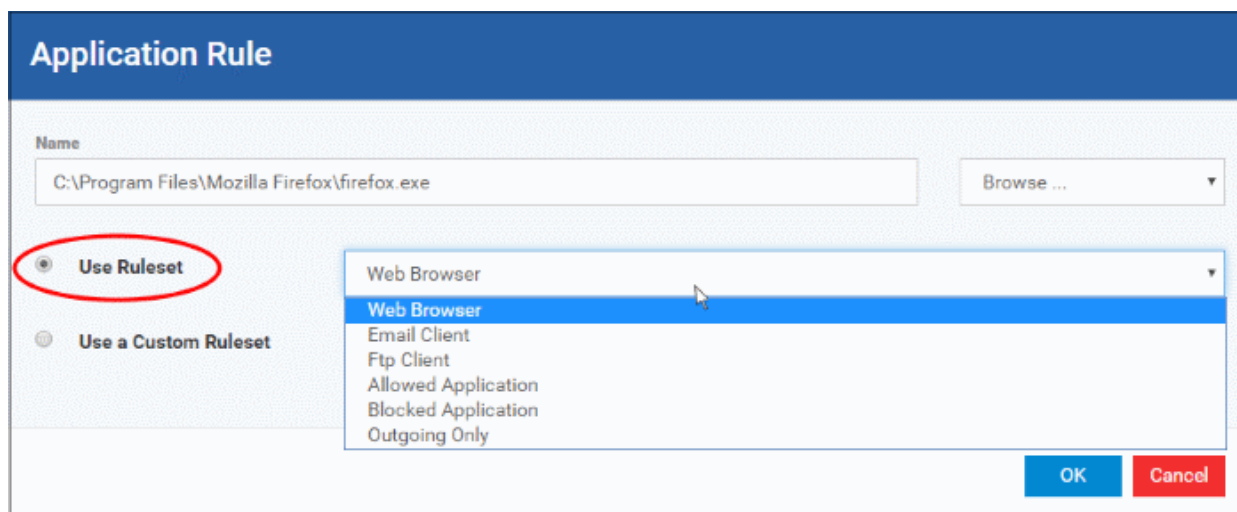




## Step 2 - Configure the rules for this application's ruleset

There are two broad options available for creating a ruleset that applies to an application - **Use a Predefined Ruleset** or **Use a Custom Ruleset**.

- **Use a Predefined Ruleset** - Allows you to quickly deploy an existing ruleset on to the target application. Choose the ruleset you wish to use from the drop-down menu. In the example below, we have chosen 'Web Browser' because we are creating a ruleset for the 'Firefox' browser. The name of the predefined ruleset you choose is displayed in the '**Treat As**' column for that application in the '**Application Rules**' interface (*Default = Disabled*).





**Note:** Predefined Rulesets, once chosen, cannot be modified *directly* from this interface - they can only be modified and defined using the **Application Rule** interface. If you require the ability to add or modify rules for an application then you are effectively creating a new, custom ruleset and should choose the more flexible **Use Custom Ruleset** option instead.

- **Use a Custom Ruleset** - Designed for more experienced administrators, the Custom Ruleset option enables full control over the configuration of Firewall Ruleset and the parameters of each rule within that ruleset (**Default = Enabled**).

Use Ruleset

**Use a Custom Ruleset**

+ Add Rule

Copy from ...

Copy from ...

Ruleset

Another Application

Ruleset

Please select ...

Please select ...

Web Browser

Email Client

Ftp Client

Allowed Application

Blocked Application

Outgoing Only

Use a Custom Ruleset

Copy from ...

+ Add Rule

Remove

Move Up

Move Down

RULES

- Allow Access to Loopback Zone
- Allow Outgoing HTTP Requests
- Allow Outgoing FTP Requests
- Allow Outgoing FTP-PASV Requests
- Allow Outgoing DNS Requests
- Block and Log All Unmatching Requests

Choosing 'Use Custom Ruleset', then 'Copy from' > 'Ruleset' > selecting a pre-defined ruleset, will populate the rules window with the constituent rules of the pre-defined ruleset. In the example shown, the individual rules from the 'Web Browser' ruleset are included in the ruleset to be created. Using this as a starting point, administrators can add, re-order, modify and remove rules to suit to their applications.

OK Cancel

You can create an entirely new ruleset or use a predefined ruleset as a starting point by:

- Clicking 'Add' from the top to add individual Firewall rules. See **'Add and Edit a Firewall Rule'** for an overview of the process.

- Use the 'Copy From' button to populate the list with the Firewall rules of a Predefined Firewall Rule.
- Use the 'Copy From' button to populate the list with the Firewall rules of another application's ruleset.

## General Tips:

- If you wish to create a reusable ruleset for deployment on multiple applications, we advise you add a new Predefined Firewall Rules (or modify one of the existing ones to suit your needs) - then come back to this section and use the 'Ruleset' option to roll it out.
- If you want to build a bespoke ruleset for maybe one or two specific applications, then we advise you choose the '**Use a Custom Ruleset**' option and create your ruleset either from scratch by adding individual rules or by using one of the built-in rulesets as a starting point.

## Understanding Firewall Rules

At their core, each Firewall rule can be thought of as a simple **IF THEN** trigger - a set of **conditions** (or attributes) pertaining to a packet of data from a particular application and an **action** it that is enforced if those conditions are met.

As a packet filtering firewall, Comodo Firewall analyzes the attributes of *every single* packet of data that attempts to enter or leave the computer. Attributes of a packet include the application that is sending or receiving the packet, the protocol it is using, the direction in which it is traveling, the source and destination IP addresses and the ports it is attempting to traverse. The firewall then tries to find a Firewall rule that matches all the conditional attributes of this packet in order to determine whether or not it should be allowed to proceed. If there is no corresponding Firewall rule, then the connection is automatically blocked until a rule is created.

The actual **conditions** (attributes) you see \* on a particular Firewall Rule are determined by the protocol chosen in the 'Firewall Rule' interface. See **Add and Edit a Firewall Rule** for more details.

If you chose 'TCP', 'UDP' or 'TCP and 'UDP', then the rule has the form: **Action | Protocol | Direction | Source Address | Destination Address | Source Port | Destination Port**

If you chose 'ICMP', then the rule has the form: **Action | Protocol | Direction | Source Address | Destination Address | ICMP Details**

If you chose 'IP', then the rule has the form: **Action | Protocol | Direction | Source Address | Destination Address | IP Details**

- **Action:** The action the firewall takes when the conditions of the rule are met. The rule shows '**Allow**', '**Block**' or '**Ask**'.\*\*
- **Protocol:** States the protocol that the target application must be attempting to use when sending or receiving packets of data. The rule shows 'TCP', 'UDP', 'TCP or UDP', 'ICMP' or 'IP'
- **Direction:** States the direction of traffic that the data packet must be attempting to negotiate. The rule shows 'In', 'Out' or 'In/Out'
- **Source Address:** States the source address of the connection attempt. The rule shows '**From**' followed by one of the following: **IP**, **IP range**, **IP Mask**, **Network Zone**, **Host Name** or **Mac Address**
- **Destination Address:** States the address of the connection attempt. The rule shows '**To**' followed by one of the following: **IP**, **IP range**, **IP Mask**, **Network Zone**, **Host Name** or **Mac Address**
- **Source Port:** States the port(s) that the application must be attempting to send packets of data through. Shows '**Where Source Port Is**' followed by one of the following: '**Any**', '**Port #**', '**Port Range**' or '**Port Set**'
- **Destination Port:** States the port(s) on the remote entity that the application must be attempting to send to. Shows '**Where Source Port Is**' followed by one of the following: '**Any**', '**Port #**', '**Port Range**' or '**Port Set**'
- **ICMP Details:** States the ICMP message that must be detected to trigger the action. See **Add and Edit a Firewall Rule** for details of available messages that can be displayed.
- **IP Details:** States the type of IP protocol that must be detected to trigger the action: See **Add and Edit a**

**Firewall Rule** to see the list of available IP protocols that can be displayed here.

Once a rule is applied, Comodo Firewall monitors all network traffic relating to the chosen application and take the specified action if the conditions are met. Users should also see the section '**Global Rules**' to understand the interaction between Application Rules and Global Rules.

\* If you chose to add a descriptive name when creating the rule then this name is displayed here rather than it's full parameters. See the next section, '**Add and Edit a Firewall Rule**', for more details.

\*\* If you selected 'Log as a firewall event if this rule is fired' then the action is postfixed with 'Log'. (e.g. Block & Log)

## Add and Edit a Firewall Rule

The Firewall Rule Interface is used to configure the actions and conditions of an individual Firewall rule. If you are not an experienced firewall user or are unsure about the settings in this area, we advise you first gain some background knowledge by reading the sections '**Understanding Firewall Rules**', '**Overview of Rules and Policies**' and '**Create and Modify Firewall Rulesets**'.

**Firewall Rule**

**Action** Allow  Log as firewall event if this rule is fired

**Protocol** TCP or UDP

**Direction** In or Out

**Description**

Source Address Destination Address Source Port Destination Port

Exclude (i.e. NOT the choice below)

**Type** IPv4 Single Address

**IP** 10.100.100.10

OK Cancel

## General Settings

- **Action:** Define the action the firewall takes when the conditions of the rule are met. Options available via the drop down menu are '**Allow**' (*Default*), '**Block**' or '**Ask**'.
- **Protocol:** Allows the user to specify which protocol the data packet should be using. Options available via the drop down menu are '**TCP**', '**UDP**', '**TCP or UDP**' (*Default*), '**ICMP**' or '**IP**' .

**Note:** Your choice here alters the choices available to you in the tab structure on the lower half of the interface.

- **Direction:** Allows the user to define which direction the packets should be traveling. Options available via the drop down menu are '**In**', '**Out**' or '**In/Out**' (*Default*).
- **Log as a firewall event if this rule is fired:** Checking this option creates an entry in the firewall event log viewer whenever this rule is called into operation. (i.e. when ALL conditions have been met) (*Default = Disabled*).

- **Description:** Allows you to type a friendly name for the rule. Some users find it more intuitive to name a rule by its intended purpose. ('Allow Outgoing HTTP requests'). If you create a friendly name, then this is displayed to represent instead of the full actions/conditions in the main **Application Rules interface** and the **Application Rule interface**.

## Protocol

- 'TCP', 'UDP' or 'TCP or UDP'

If you select 'TCP', 'UDP' or 'TCP or UDP' as the Protocol for your network, then you have to define the source and destination IP addresses and ports receiving and sending the information

**Firewall Rule**

**Action**   Log as firewall event if this rule is fired

**Protocol**

**Direction**

**Description**

Exclude (i.e. NOT the choice below)

**Type**

## Source Address and Destination Address:

1. You can choose any IP Address by selecting Any Address in the Type drop-down box. This menu defaults to an IP range of 0.0.0.0- 255.255.255.255 to allow connection from all IP addresses.
2. You can choose a named host by selecting a Host Name which denotes your IP address.
3. You can choose an IPv4 Range by selecting IPv4 Address Range - for example the range in your private network and entering the IP addresses in the Start Range and End Range text boxes.
4. You can choose a Single IPv4 address by selecting IPv4 Single Address and entering the IP address in the IP address text box, e.g., 192.168.200.113.
5. You can choose IPv4 Mask by selecting IPv4 Subnet Mask. IP networks can be divided into smaller networks called sub-networks (or subnets). An IP address/ Mask is a subnet defined by IP address and mask of the network. Enter the IP address and Mask of the network.
6. You can choose a Single IPv6 address by selecting IPv6 Single Address and entering the IP address in the IP address text box, e.g., 3ffe:1900:4545:3:200:f8ff:fe21:67cf.
7. You can choose IPv6 Mask by selecting IPv6 Subnet Mask. IP networks can be divided into smaller networks called sub-networks (or subnets). An IP address/ Mask is a subnet defined by IP address and mask of the network. Enter the IP address and Mask of the network.
8. You can choose a MAC Address by selecting MAC Address and entering the address in the address text box.

9. You can choose an entire network zone by selecting Zone .This menu defaults to Local Area Network. But you can also define your own zone by first creating a Zone through the '**Network Zones**' area.
- Exclude (i.e. NOT the choice below): The opposite of what you specify is applicable. For example, if you are creating an Allow rule and you check the Exclude box in the Source IP tab and enter values for the IP range, then that IP range is excluded. You have to create a separate Allow rule for the range of IP addresses that you DO want to use.

### Source Port and Destination Port:

Enter the source and destination Port in the text box.

Source Address    Destination Address    **Source Port**    Destination Port

Exclude (i.e. NOT the choice below)

Type

Any  
A Port Range  
A Set of Ports  
A Single Port  
Any

OK    Cancel

1. You can choose any port number by selecting Any - set by default , 0- 65535.
2. You can choose a Single Port number by selecting Single Port and selecting the single port numbers from the list.
3. You can choose a Port Range by selecting Port Range and selecting the port numbers from the From and To list.
4. You can choose a predefined **Port Set** by choosing A Set of Ports. If you wish to create a custom port set then please see the section '**Port Sets**'.

### ii. ICMP

When you select ICMP as the protocol in **General Settings**, you are shown a list of ICMP message types in the 'ICMP Details' tab alongside the **Destination Address** tabs. The last two tabs are configured identically to the **explanation above**. You cannot see the source and destination port tabs.

### iii. ICMP Details

ICMP (Internet Control Message Protocol) packets contain error and control information which is used to announce network errors, network congestion, timeouts, and to assist in troubleshooting. It is used mainly for performing traces and pings. Pinging is frequently used to perform a quick test before attempting to initiate communications. If you are using or have used a peer-to-peer file-sharing program, you might find yourself being pinged a lot. So you can create rules to allow / block specific types of ping requests. With Comodo Firewall you can create rules to allow/ deny inbound ICMP packets that provide you with information and minimize security risk.

1. Type in the source/ destination IP address. Source IP is the IP address from which the traffic originated and destination IP is the IP address of the computer that is receiving packets of information.

The screenshot shows a configuration window with three tabs: 'Source Address', 'Destination Address', and 'ICMP Details'. The 'ICMP Details' tab is active. It contains two dropdown menus: 'Type' with 'ICMPv4' selected and 'Message' with 'Any' selected. At the bottom right, there are two buttons: 'OK' (blue) and 'Cancel' (red).

2. Under the 'ICMP Details' tab, choose the ICMP version from the 'Type' drop-down.
3. Specify ICMP Message, Types and Codes. An ICMP message includes a Message that specifies the type, that is, the format of the ICMP message.

This screenshot shows the 'ICMP Details' tab with the 'Message' dropdown menu expanded. The 'Type' dropdown is still set to 'ICMPv4'. The 'Message' dropdown menu lists the following options: 'Any', 'Custom', 'Any', 'ICMP Echo Request', 'ICMP Echo Reply', 'ICMP Net Unreachable', 'ICMP Host Unreachable', 'ICMP Protocol Unreachable', 'ICMP Port Unreachable', 'ICMP Time Exceeded', 'ICMP Source Quench', and 'ICMP Fragmentation Needed'. The 'Any' option is currently selected.

When you select a particular ICMP message , the menu defaults to set its code and type as well. If you select the ICMP message type 'Custom' then you are asked to specify the code and type.

iv. IP

When you select IP as the protocol in **General Settings**, you are shown a list of IP message type in the 'IP Details' tab alongside the **Source Address and Destination Address** tabs. The last two tabs are configured identically to the **explanation above**. You cannot see the source and destination port tabs.



Description

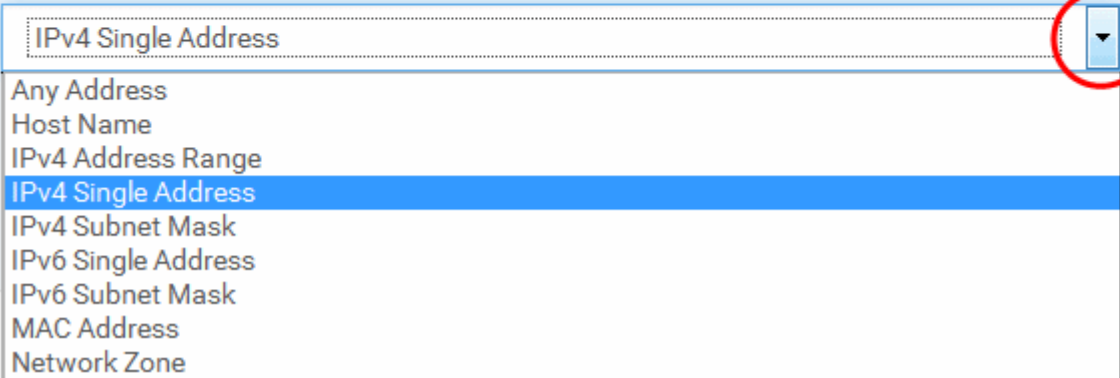
Source Address   Destination Address   IP Details

Exclude (i.e. NOT the choice below)

**Type**

IPv4 Single Address

- Any Address
- Host Name
- IPv4 Address Range
- IPv4 Single Address**
- IPv4 Subnet Mask
- IPv6 Single Address
- IPv6 Subnet Mask
- MAC Address
- Network Zone



v. **IP Details**

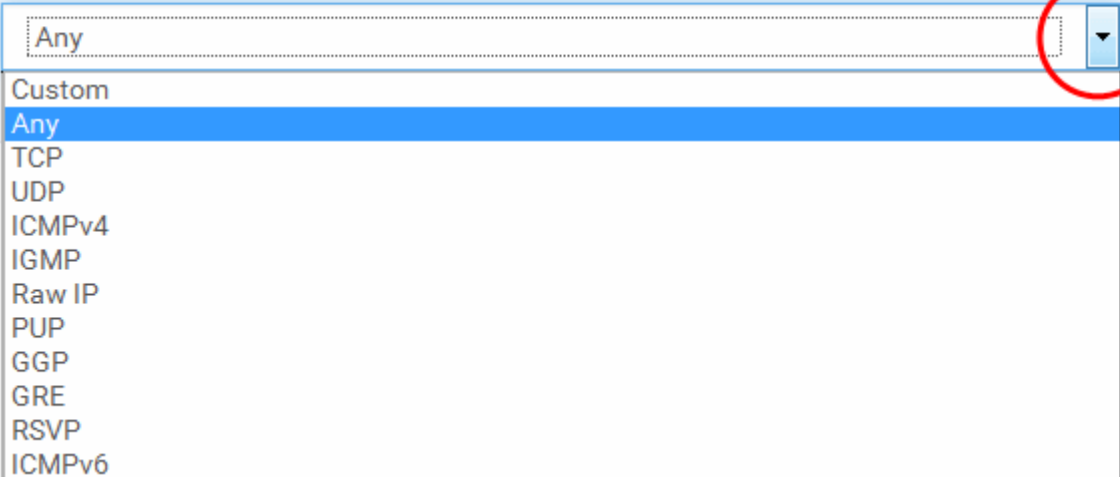
Select the types of IP protocol that you wish to allow, from the ones that are listed.

Source Address   Destination Address   IP Details

**IP Protocol**

Any

- Custom
- Any**
- TCP
- UDP
- ICMPv4
- IGMP
- Raw IP
- PUP
- GGP
- GRE
- RSVP
- ICMPv6



- Click 'OK' to save the firewall rule.

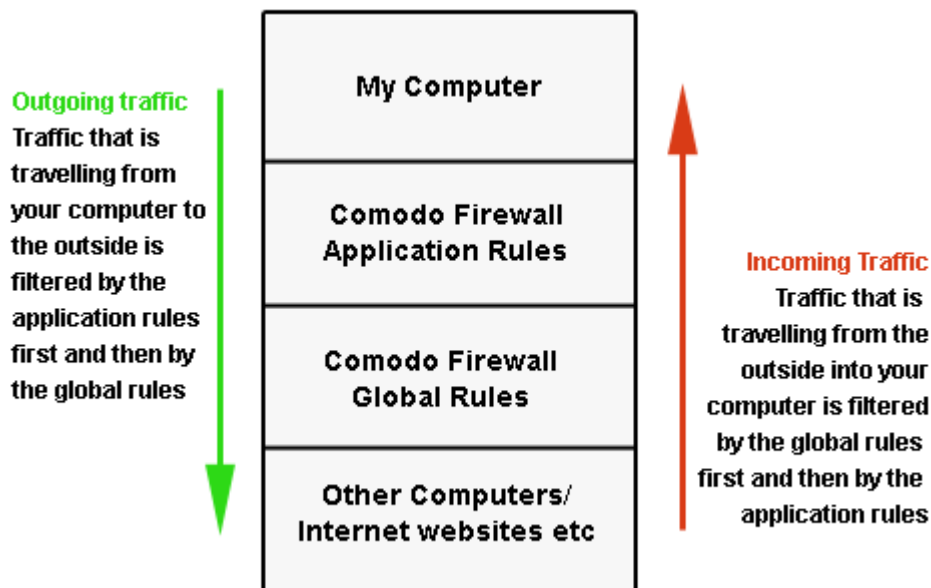
## Global Rules

Unlike Application rules, which are applied to and triggered by traffic relating to a specific application, Global Rules are applied to all traffic traveling in and out of the computers applied with this profile.



Comodo Firewall analyzes every packet of data in and out of the computer using combination of Application and Global Rules.

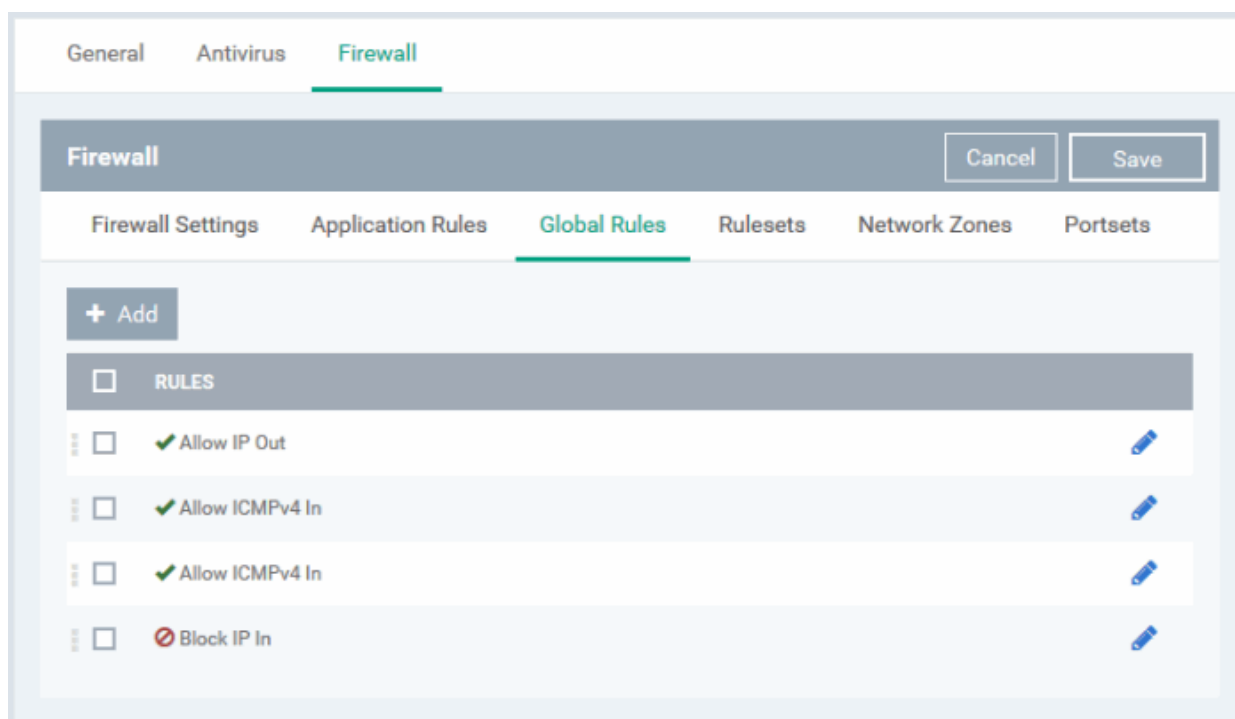
- For Outgoing connection attempts, the application rules are consulted first and then the global rules second.
- For Incoming connection attempts, the global rules are consulted first and then the application rules second.



Therefore, outgoing traffic has to 'pass' both the application rule then any global rules before it is allowed out of your system. Similarly, incoming traffic has to 'pass' any global rules first then application specific rules that may apply to the packet.


Global Rules are mainly, but not exclusively, used to filter incoming traffic for protocols other than TCP or UDP.

The 'Global Rules' panel in the under 'Firewall' tab allows you to view create and manage the global firewall rules.



The configuration of Global Rules is identical to that for application rules. To add a global rule, click the 'Add' button

 Add

on the top. To edit an existing global rule, click the edit icon  beside it.

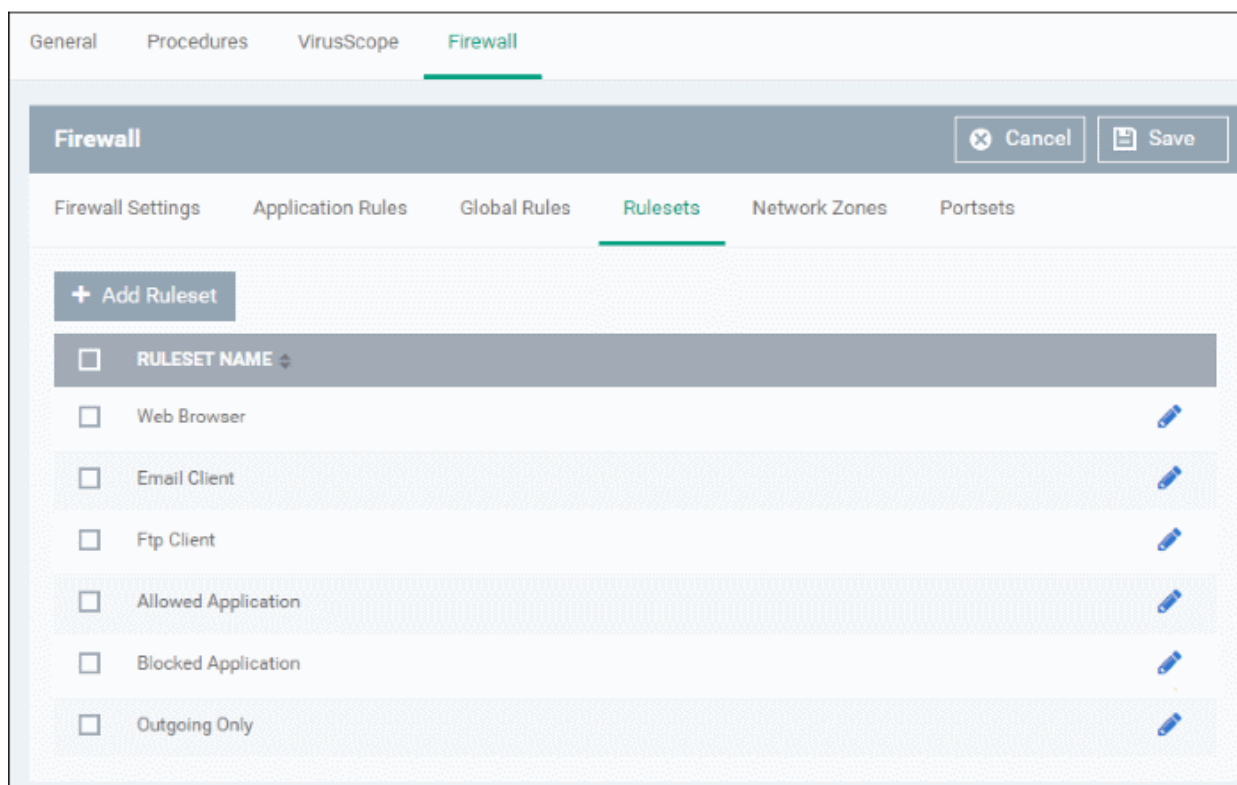
- See [Application Rules](#) for an introduction to the rule setting interface.
- See [Understanding Firewall Rules](#) for an overview of the meaning, construction and importance of individual rules.
- See [Add and Edit a Firewall Rule](#) for an explanation of individual rule configuration.

## Rulesets

As the name suggests, a firewall Ruleset is a set of one or more individual Firewall rules that have been saved and which can be re-deployed on multiple applications. Endpoint Manager ships with six predefined rulesets and allows you to create and manage custom rulesets as required. This section contains advice on the following:

- [Predefined Rulesets](#)
- [Creating a new ruleset](#)

The 'Rulesets' panel under the 'Firewall' tab allows you to view, create and manage the firewall rulesets.



The Rulesets panel displays a list of pre-defined and custom Firewall Rulesets.

Although each application's firewall ruleset *could* be defined from the ground up by individually configuring its constituent rules, this practice may prove time consuming if it had to be performed for every single program on your system. For this reason, Comodo Firewall contains a selection of predefined rulesets according to broad application category. For example, you may choose to apply the ruleset 'Web Browser' to the applications 'Internet Explorer', 'Firefox' and 'Opera'. Each predefined ruleset has been specifically designed by Comodo to optimize the security level of a certain type of application. Users can, of course, modify these predefined policies to suit their environment and requirements. (for example, you may wish to keep the 'Web Browsers' name but wish to redefine the parameters of it rules).

Endpoint Manager ships with six predefined firewall rulesets for different categories of applications:

- Web Browser
- Email Client
- FTP Client
- Allowed Application
- Blocked Application
- Outgoing Only

These rulesets can be edited by adding new rules or reconfiguring the existing rules. For more details see the explanation of **adding and editing firewall rules** in the section 'Application Rules'.

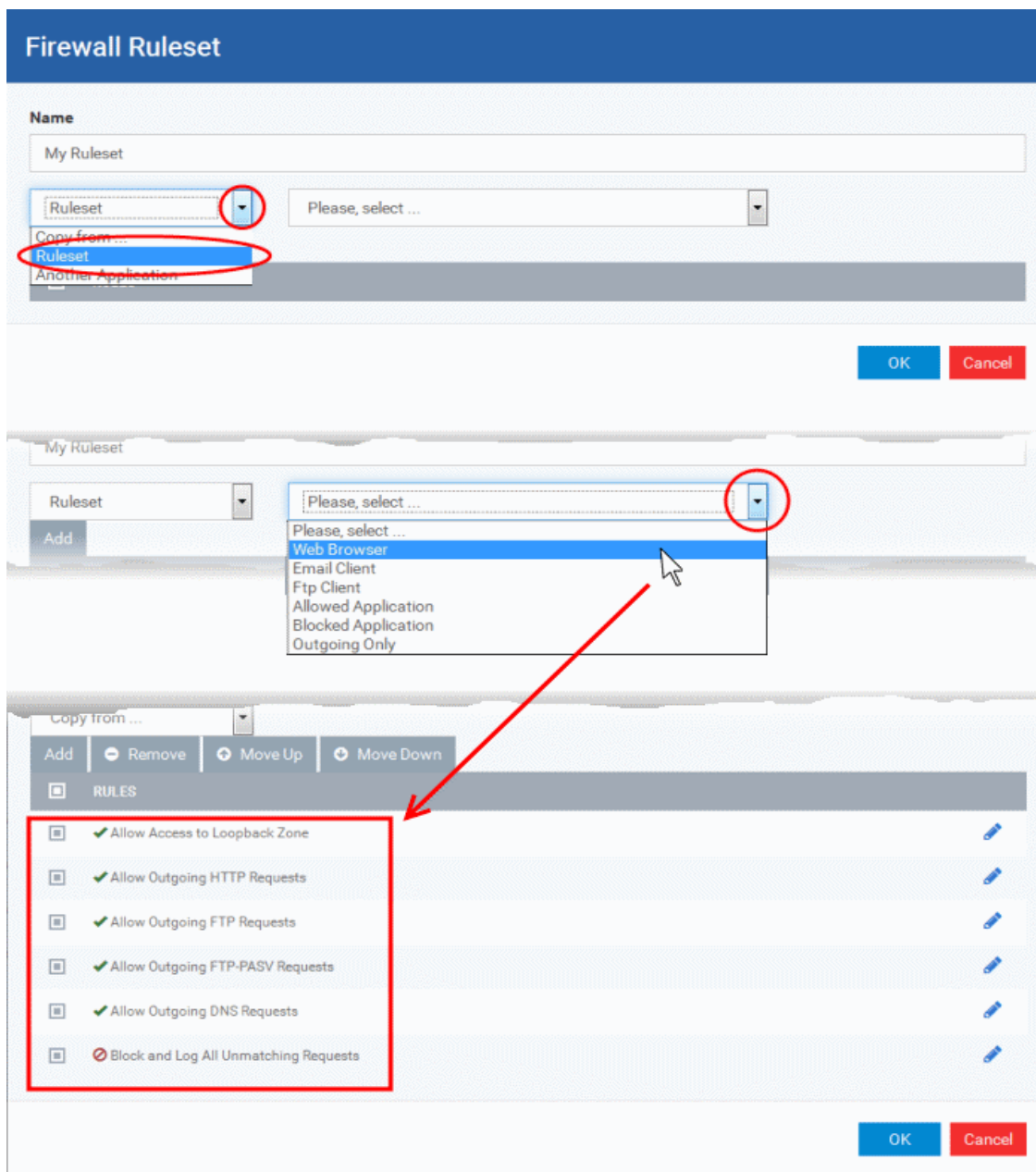
### Create a new ruleset

You can create new rulesets with network access control rules customized as per your requirements and can roll out them to required applications while **creating firewall ruleset** for the applications individually.

#### To add a new Ruleset

- Click the 'Add Ruleset' button  from the top of the list of rulesets in the 'Rulesets' panel


The 'Firewall Ruleset' interface will open.



- As this is a new ruleset, you need to name it in the 'Name' field at the top. It is advised that you choose a name that accurately describes the category/type of application you wish to define the ruleset for. Next you should add and configure the individual rules for this ruleset. See '**Add and Edit a Firewall Rule**' for more advice on this.

Once created, this ruleset can be quickly called from 'Use Ruleset' when **creating or modifying a Firewall ruleset**.

## To view or edit an existing predefined Ruleset

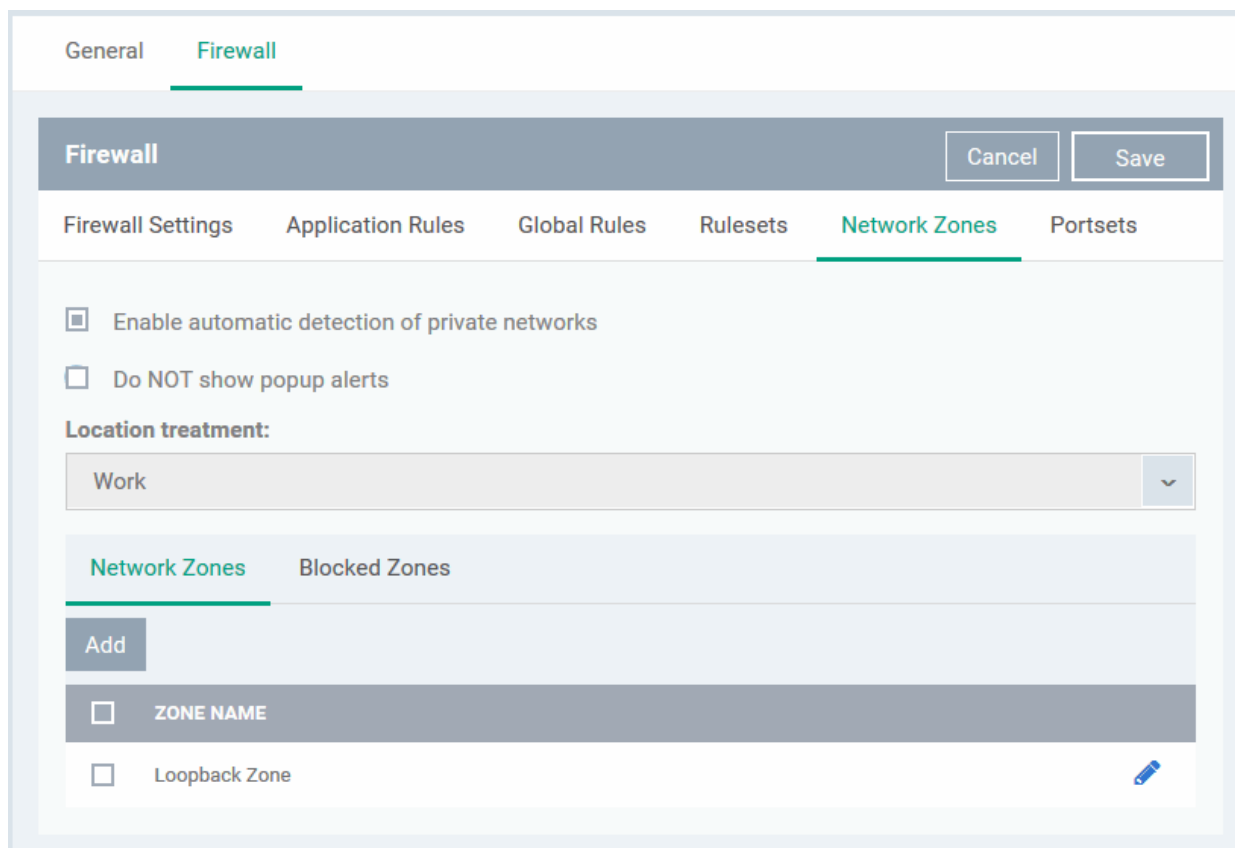
- Click on the 'Edit' icon  beside Ruleset Name in the list.
- Details of the process from this point on can be found under '**Use Custom Rule Set**'.

## Network Zones

The 'Network Zones' panel under the 'Firewall' tab allows you to:

- Configure to detect any new network (wired or wireless) that the computer applied with this profile is trying to connect and provide alerts for the same

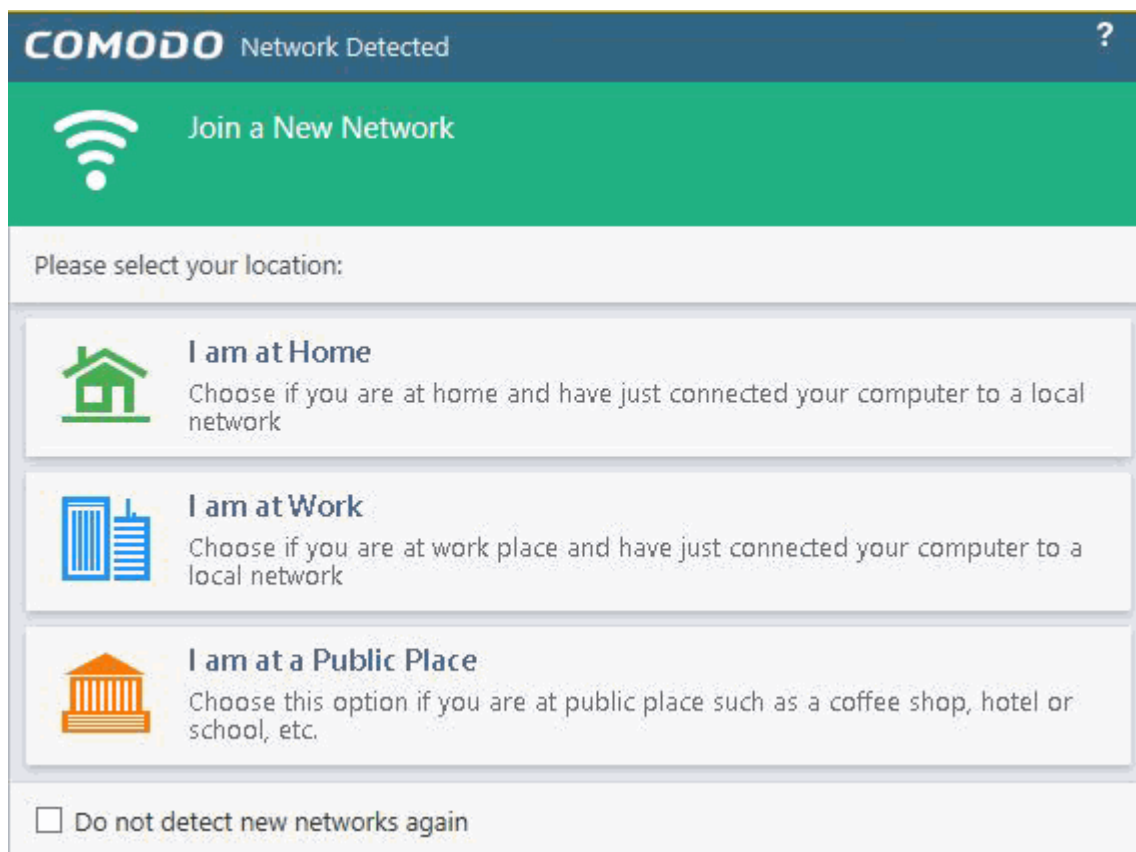
- Define network zones that are trusted, and to specify access privileges to them
- Define network zones that are untrusted, and to block access to them



The 'Network Zones' panel contains options for configuring the general network monitoring settings and lists of 'Allowed Network Zones' and 'Blocked Network Zones' under respective tabs. You can add and manage network zones to be allowed and blocked from this interface.

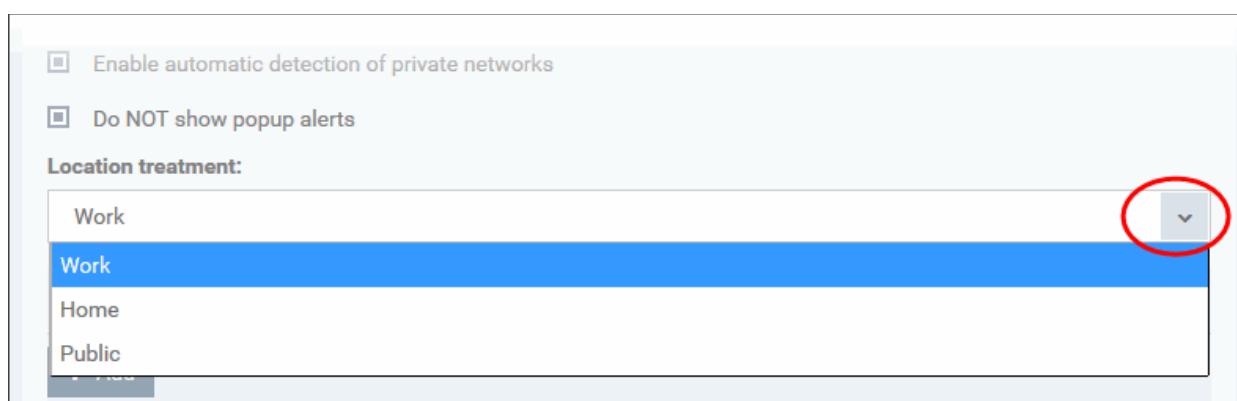
### Network Monitoring Settings:

- **Enable automatic detection of private networks** - Instructs Comodo Firewall to keep monitoring whether the computer applied with this security profile is connected to any new wired or wireless network (**Default = Enabled**). Deselect this option if you do not want the new connection attempts to be detected and/or wish to manually set-up their own trusted networks (this can be done in '**Network Zones**').
- **Do Not show popup alerts** - By default, an alert will be displayed at the computer, if the computer attempts to connect to a new network, for the end-user to select the type of network. CCS will optimize its firewall settings for the new network, based on the selection. An example is shown below.



If you do not want the alert to be displayed to the end-user and wish the CCS at the computer to decide on the type of network by default, deselect this option and choose the network type from the drop-down under Location Treatment. The available options are:

- Home
- Work
- Public



The panel has two tabs:

- **Network Zones** - Allows you to define network zones and to allow access to them for applications, with the access privileges specified through **Application Rule** interface. Refer to '**Creating or Modifying Firewall Rules**' for more details.
- **Blocked Zones** - Allows you to define trusted networks that are not trustworthy and to block access to them.

## Network Zones

A 'Network Zone' can consist of an individual machine (including a single home computer connected to Internet) or a

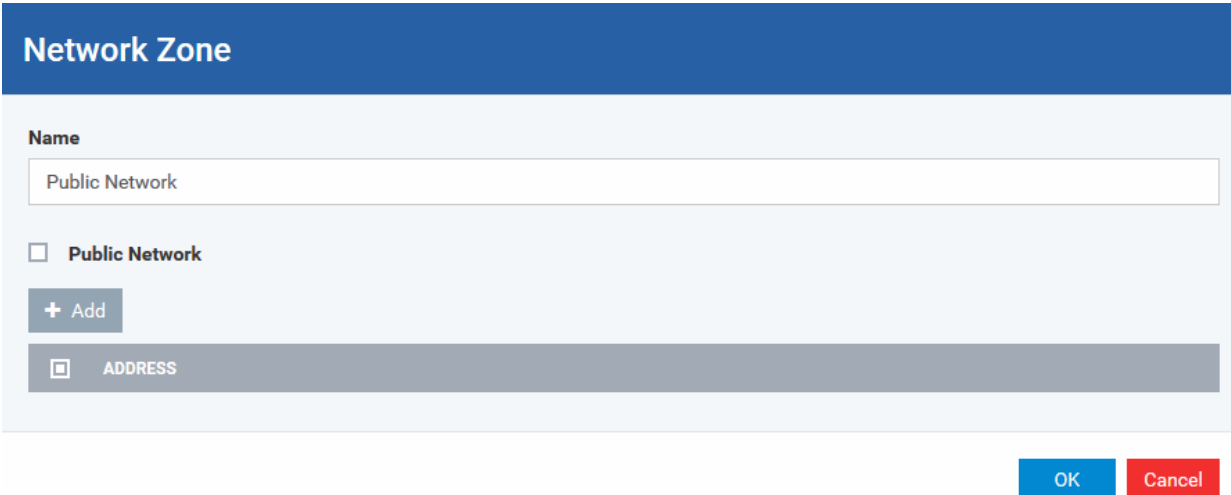
network of thousands of machines to which access can be granted or denied.

The 'Network Zones' tab in the 'Network Zones' panel displays a list of defined network zones and allows you to define network zones, to which the computer applied with this profile can connect, with access rights as defined by the firewall rules or blocked access to.

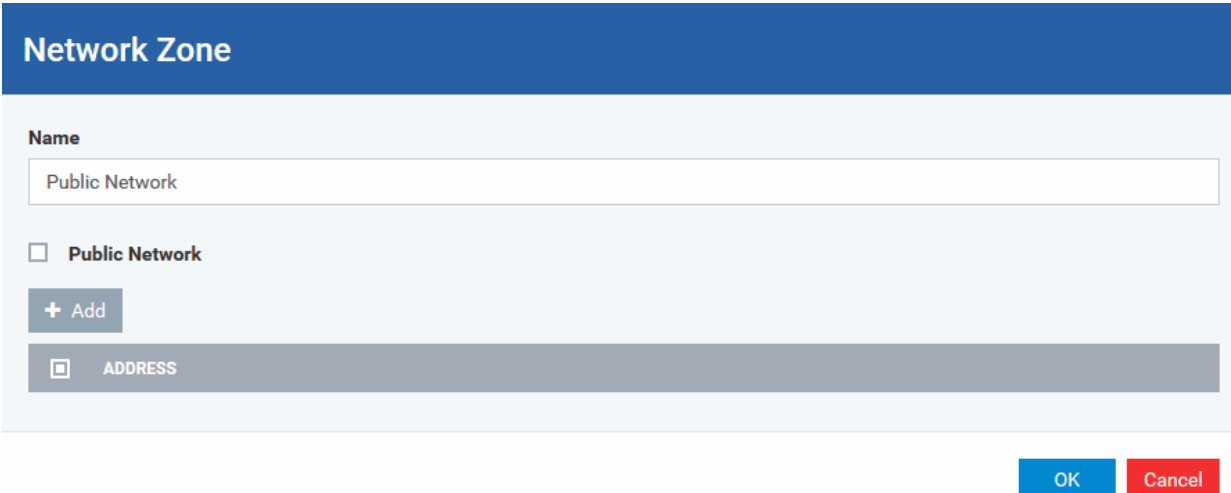
### To define a new Network Zone

- Click the 'Add'  button at the top of the list.

The 'Network Zone' dialog will open.



- Enter a name for the new network zone in the 'Name' field.
- Select the checkbox 'Public Network' if you are defining a network zone for a network in a public place, for example, when you are connecting to a Wi-Fi network at an airport, restaurant etc., so that Comodo Firewall will optimize the configuration accordingly.
- Click 'Add' to add the computers in the new network zone



The 'Address' dialog allows you to select an address from the 'Type' drop-down box shown below (**Default = Any Address**). The 'Exclude' check box will be enabled only if any other choice is selected from the drop-down box.

### Address Types:

- i. Any Address - Adds all the IP addresses (0.0.0.0- 255.255.255.255) to the zone.
- ii. Host Name- Enter a named host which denotes an address on your network.
- iii. IPv4 Range - Will include all the IPv4 addresses between the values you specify in the 'Start Range'



and 'End Range' text boxes.

- iv. IPv4 Single Address - Enter a single IP address to be added to the zone - e.g. 192.168.200.113.
  - v. IPv4 Subnet Mask - A subnet mask allows administrators to divide a network into two or more networks by splitting the host part of an IP address into subnet and host numbers. Enter the IP address and Mask of the network you wish to add to the defined zone.
  - vi. IPv6 Single Address - Enter a single address to be added to the zone - e.g. 3ffe:1900:4545:3:200:f8ff:fe21:67cf.
  - vii. IPv6 Subnet Mask. Ipv6 networks can be divided into smaller networks called sub-networks (or subnets). An IP address/ Mask is a subnet defined by IP address and mask of the network. Enter the IP address and Mask of the network.
  - viii. MAC Address - Enter a specific MAC address to be added to the zone.
- Select/enter the Addresses to be included in the new network zone
  - If you want to select all the other addresses to be included in the network zone, excluding those selected under the Type drop-down, select the 'Exclude' option.
  - Click 'OK' in the 'Address' dialog.
  - Click 'OK' in the 'Network Zone' dialog

The network zone will be added under Network Zones list and will be available to be quickly called as 'Zone' when **creating or modifying a Firewall Ruleset**. Or when defining a **Blocked Zone**.

## Firewall Rule

**Action**

Allow

Log as firewall event if this rule is fired

**Protocol**

UDP

**Direction**

Out

**Description**

Allow Outgoing DNS Requests

Source Address    Destination Address    Source Port    Destination Port

Exclude (i.e. NOT the choice below)

**Type**


Network Zone

**Network Zone**

Loopback Zone

Sales Dept. Computers

OK    Cancel

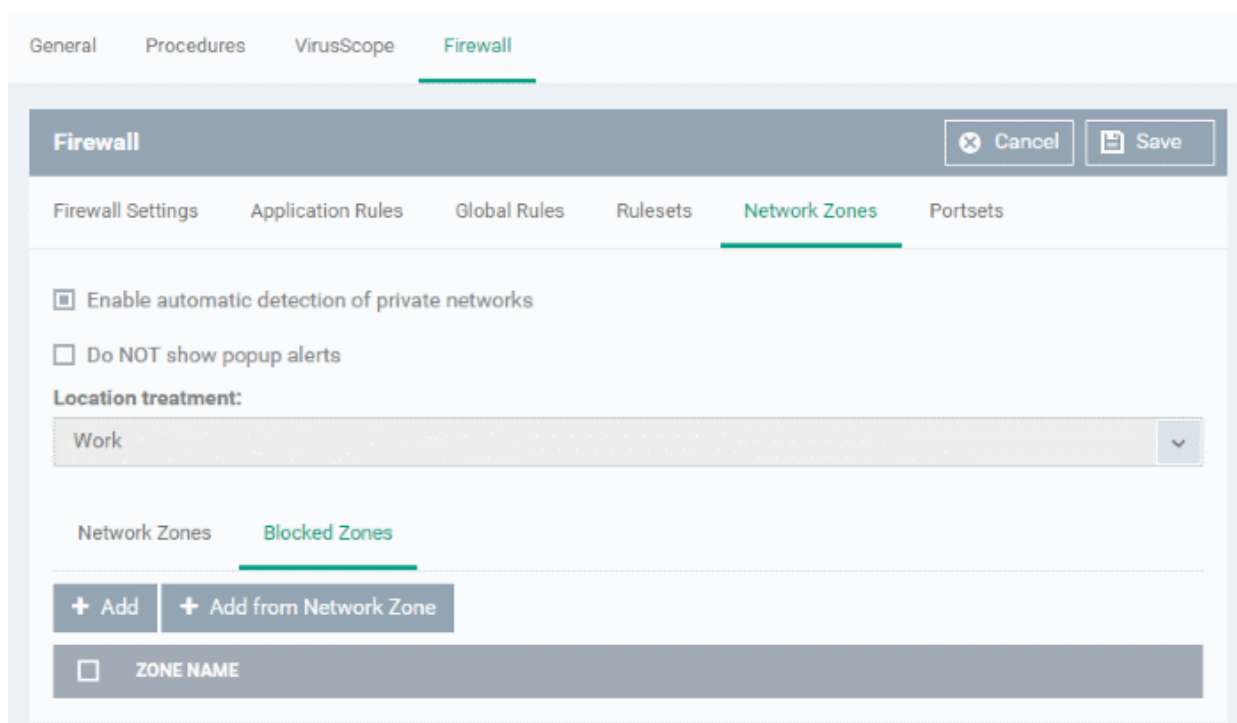
To edit a network zone, click the 'Edit' icon  beside the network zone name. The 'Network Zone' dialog will appear populated with the name and the addresses of the network zone. Edit the details as required. The process is similar to **defining a new network zone** as explained above.

### Blocked Zones

A computer network enables users to share information and devices between computers and other users within the network. There are certain networks that you'll want to 'trust' and grant access to - for example your work network. Conversely, there may be other networks that you do not trust and want to restrict communication with - or even block entirely.

The 'Blocked Zones' section allows you to configure restrictions on network zones that you do not wish to trust and the computers applied with this profile will be blocked access to them.

The 'Blocked Zones' tab allows you to view the list of blocked network zones and add new blocked zones.



The 'Blocked Zones' tab displays a list of zones that are currently blocked and allows you to:

- **Deny access to an existing network zone**
- **Deny access to a network by manually defining a new blocked zone**

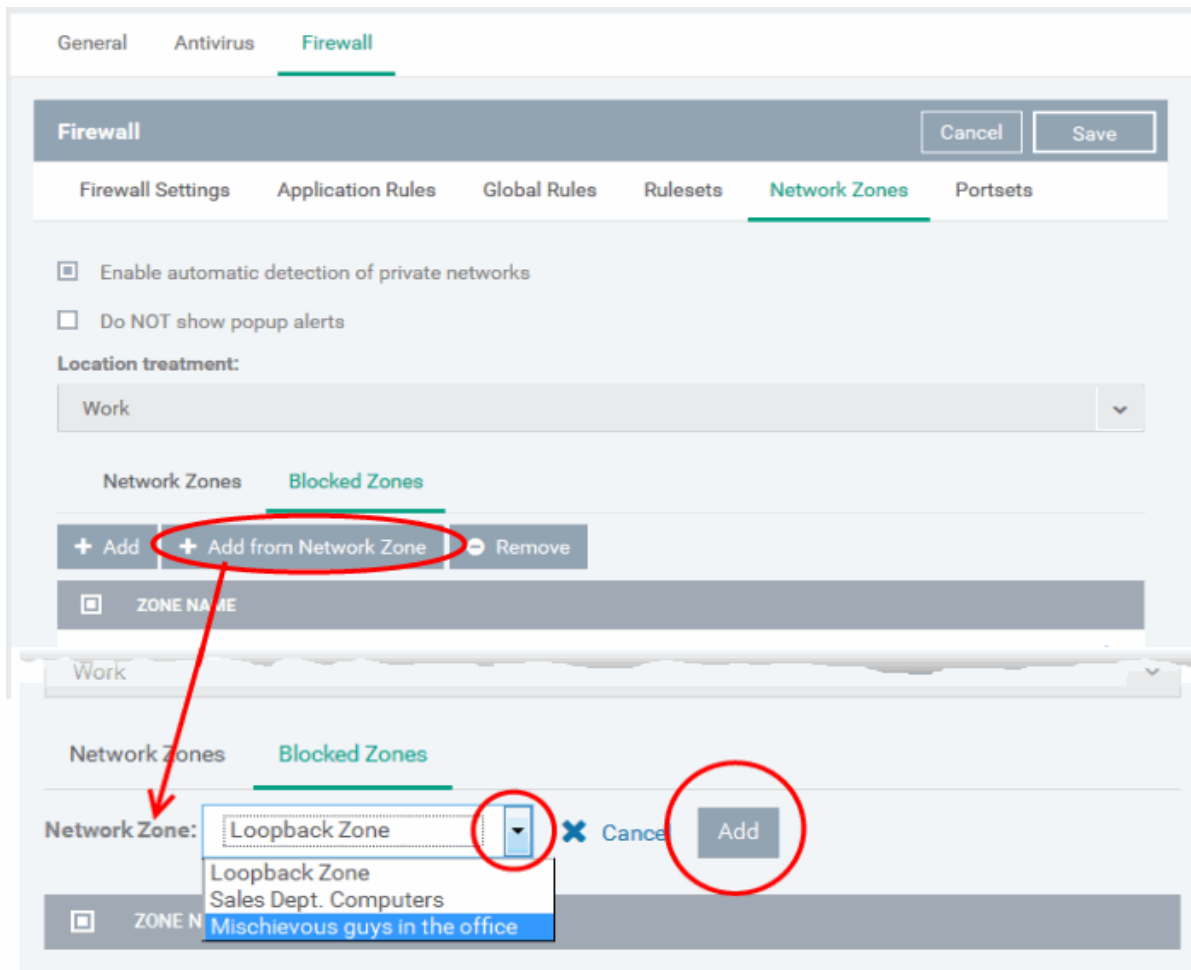
**Note 1:** You must create a zone before you can block it. There are two ways to do this;

1. Using '**Network Zones**' to name and specify the network you want to block.
2. Directly from this interface using 'New blocked address...'

**Note 2:** You cannot reconfigure *existing* zones from this interface (e.g. to add or modify IP addresses). You need to use '**Network Zones**' if you want to change the settings of existing zones.

### To deny access to an existing network zone

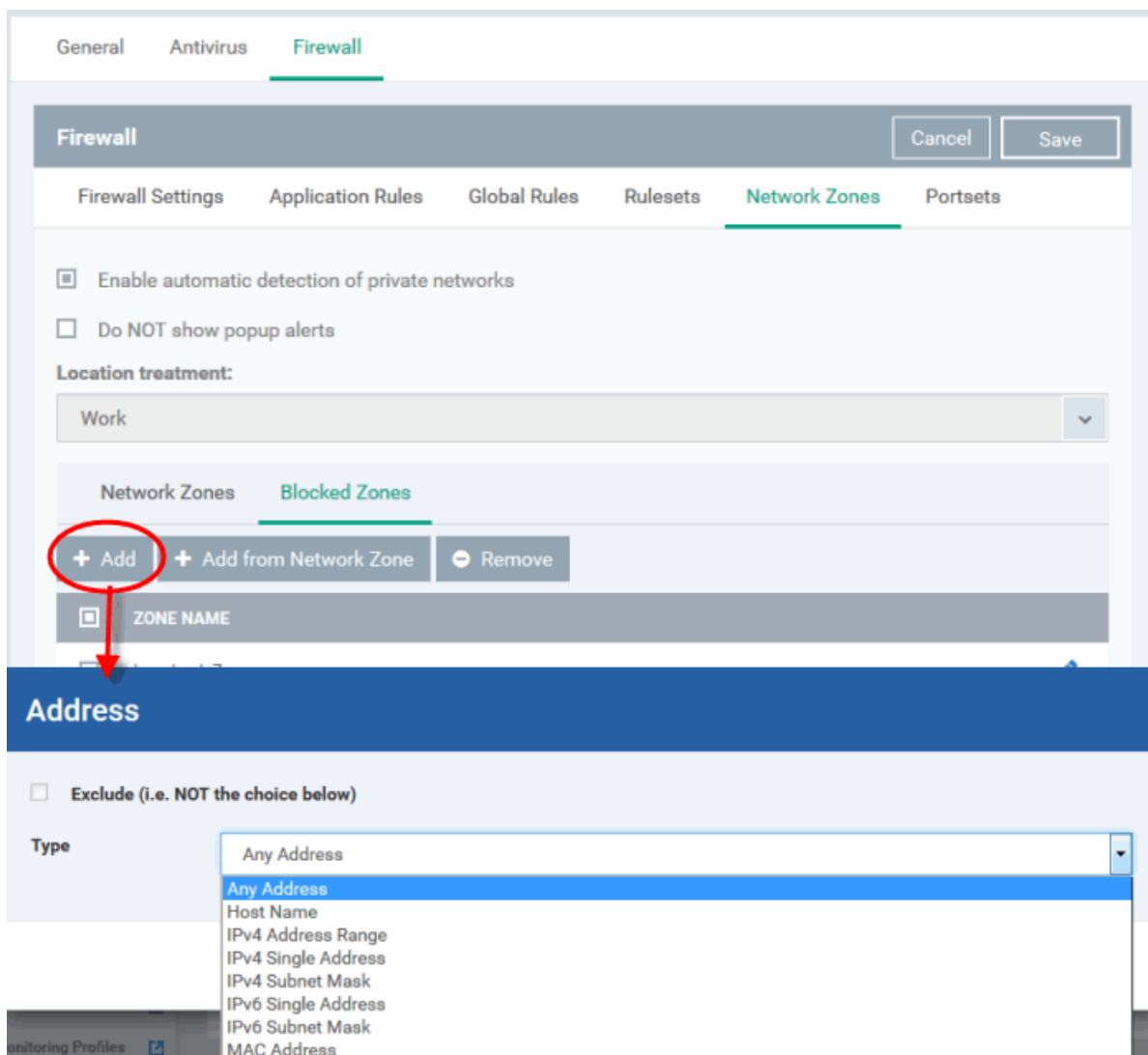
- Click 'Add from Network Zone' button from the top
- Choose the particular zone you wish to block from the 'Network Zone' drop-down.



- Click 'Add'
- Repeat the process to add more blocked network zones for the profile

### To deny access to a network by manually defining a new blocked zone

- Click the 'Add' button from the top.



- Select the address type you wish to block from the 'Type' drop-down. Select 'Exclude' if you want to block all IP addresses except for the ones you specify using the drop-down.

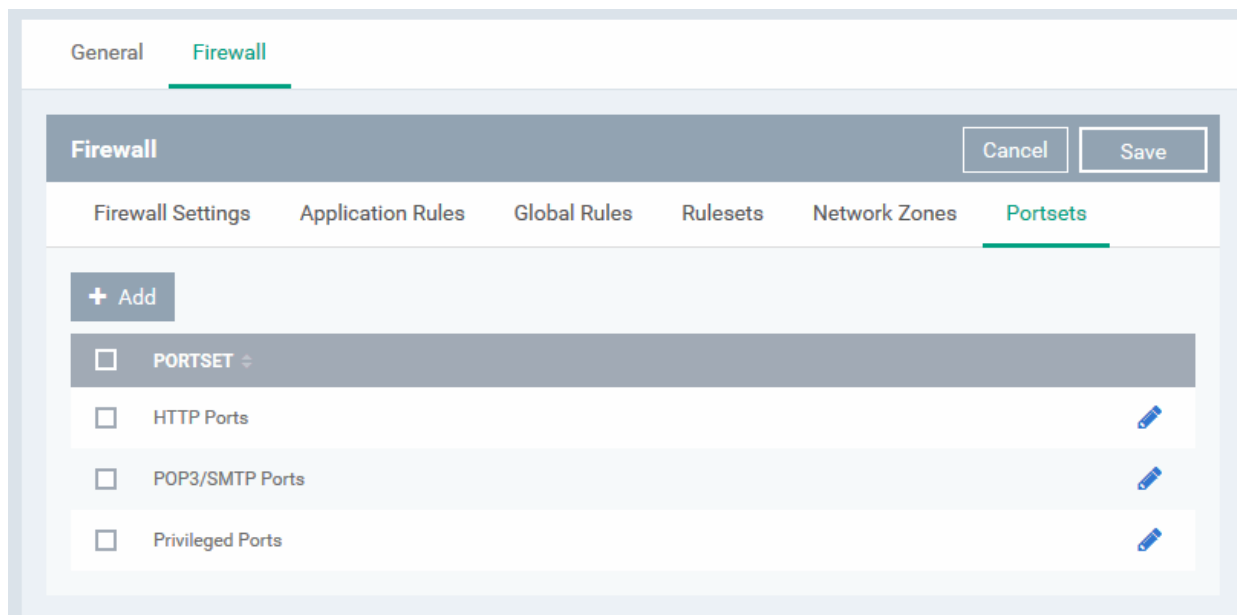
**Address Types:**

- i. Any Address - Will block connections from all IP addresses (0.0.0.0- 255.255.255.255)
  - ii. Host Name- Enter a named host which denotes an address on your network.
  - iii. IPv4 Range - Will block access to the IPv4 addresses you specify in the 'Start Range' and 'End Range' text boxes.
  - iv. IPv4 Single Address - Block access to a single address - e.g. 192.168.200.113.
  - v. IPv4 Subnet Mask - A subnet mask allows administrators to divide a network into two or more networks by splitting the host part of an IP address into subnet and host numbers. Enter the IP address and Mask of the network you wish to block.
  - vi. IPv6 Single Address -Block access to a single address - e.g. 3ffe:1900:4545:3:200:f8ff:fe21:67cf.
  - vii. IPv6 Subnet Mask. Ipv6 networks can be divided into smaller networks called sub-networks (or subnets). An IP address/ Mask is a subnet defined by IP address and mask of the network. Enter the IP address and Mask of the network.
  - viii. MAC Address - Block access to a specific MAC address.
2. Select the address to be blocked and click 'OK'

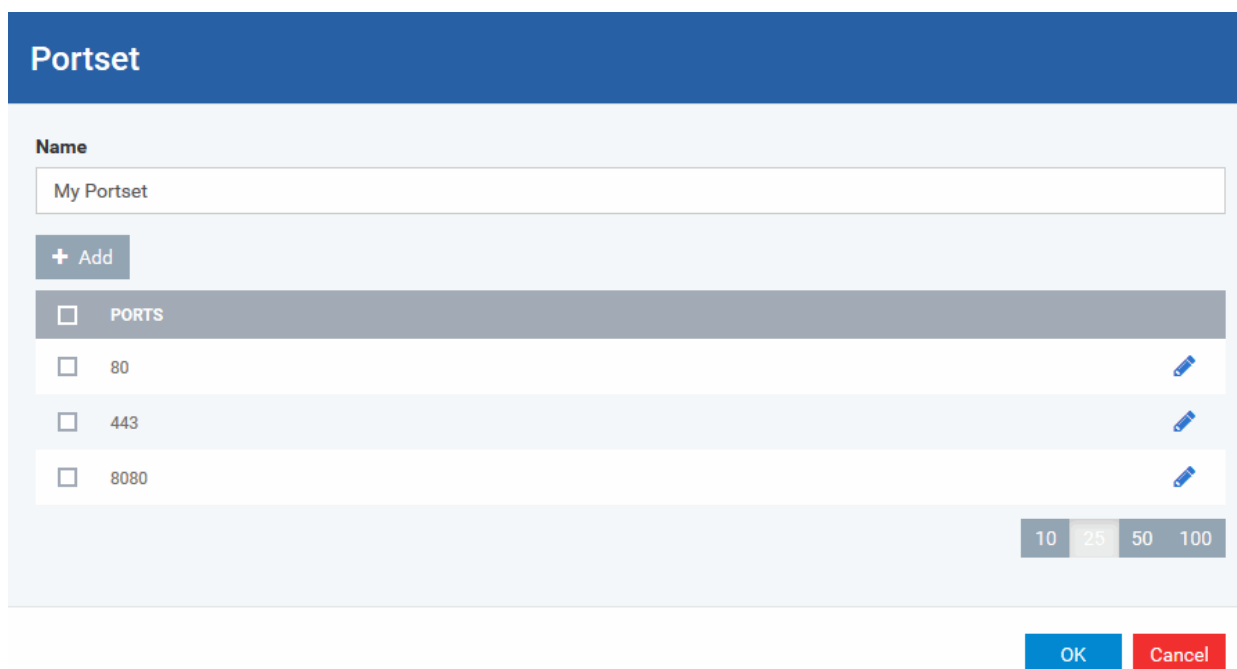
- The address(es) you block will appear in the 'Blocked Zones' tab. You can modify these addresses at any time by selecting the entry and clicking 'Edit'.
3. Click 'OK' in 'Network Zones' interface to confirm your choice. All traffic intended for and originating from computer or devices in this zone are now blocked.

## Portsets

Port Sets are handy, predefined groupings of one or more ports that can be re-used and deployed across multiple **Application Rules** and **Global Rules**. The 'Port Sets' panel under the 'Firewall' tab allows you to view and manage pre-defined port sets and to add new port sets for the profile. The name of the port set is listed above the actual port numbers that belong to that set.



The panel lists all portsets that are defined for the profile. Clicking the 'Edit' icon  beside a name reveals the ports included in the set.



Endpoint Manager ships with three default portsets:

- **HTTP Ports:** 80, 443 and 8080. These are the default ports for http traffic. Your internet browser uses these ports to connect to the internet and other networks.
- **POP3/SMTP Ports:** 110, 25, 143, 995, 465 and 587. These ports are typically used for email communication by mail clients like Outlook and Thunderbird.
- **Privileged Ports:** 0-1023. This set can be deployed if you wish to create a rule that allows or blocks access to the privileged port range of 0-1023. Privileged ports are so called because it is usually desirable to prevent users from running services on these ports. Network admins usually reserve or prohibit the use of these ports.

## Define a new Port Set

You can create new portsets and allow access to them for applications, with the access privileges specified through **Application Rule** interface. See '**Create or Modify Firewall Rules**' for more details.

### To add a new portset

- Click the 'Add' button from the top.

The 'Portset' dialog will open.

The screenshot shows the 'Firewall' configuration interface with the 'Portsets' tab selected. A red circle highlights the '+ Add' button in the top left of the portsets list. Below, the 'Portset' dialog is open, showing the 'Name' field with the text 'Ports to be guarded'. Another red circle highlights the '+ Add' button above the 'PORTS' list. The 'Port' configuration section is visible, with options for 'Exclude', 'Any', 'A Single Port', and 'A Port Range'. The 'A Port Range' option is selected, with '1' and '65535' entered in the respective fields. 'OK' and 'Cancel' buttons are at the bottom right.

- Enter a name for the new portset in the 'Name' field.
- To add ports to the new portset, click the 'Add' button above the list of ports.
- Specify the ports to be included in the new portset:



- **Any** - to choose all ports;
  - **A single port** - Define the port number in the combo box beside;
  - **A port range** - Enter the start and end port numbers in the respective combo boxes.
  - Exclude (i.e. NOT the choice below): The opposite of what you specify is applicable.
- Click 'OK' in the 'Port' dialog. The ports will be added to the new portset in the 'Edit Portset' interface.
- Click 'OK' in the 'Portset' dialog to create the new portset.

Once created, a Portset can be:

- Quickly called as 'A Set of Ports' when **creating or modifying a Firewall Ruleset**

## Firewall Rule

**Action**

Block

Log as firewall event if this rule is fired

**Protocol**

TCP

**Direction**

Out

**Description**

Allow Outgoing HTTP Requests

Source Address    Destination Address    **Source Port**    Destination Port

Exclude (i.e. NOT the choice below)

**Type**

A Set of Ports

**Port Set**

HTTP Ports  
POP3/SMTP Ports  
Privileged Ports  
**Ports to be guarded**

To edit an existing port set

- Click the 'Edit' icon  beside the name of the portset. The 'Portset' dialog will appear with a list of port numbers in the port set.
- The editing procedure is similar to **adding the portset** explained above.
- Click the 'Save' button at the top of 'Firewall' interface to save your settings for the profile.

The saved 'Firewall' settings screen will be displayed with options to edit the settings or delete the section. See **Edit Configuration Profiles** for more details.

### 6.1.3.1.5. HIPS Settings

- The host intrusion prevention system (HIPS) constantly monitors system activity. It only allows processes to run if they comply with security rules in the Windows profile applied to the endpoint.
- For example, HIPS automatically protects system-critical files, folders and registry keys to prevent unauthorized modifications by malicious programs.
- Comodo Client Security (CCS) ships with a default HIPS ruleset that provides extremely high levels of protection 'out of the box'. You can also create custom rulesets as required.
- You can configure the feature by adding a HIPS section to a Windows profile.

#### To configure HIPS Settings and Rules

- Click 'Configuration Templates' > 'Profiles'
- Click on the name of a Windows profile to open it's details page
  - Click the 'HIPS' tab, if it has already been added to the profile  
OR
  - Click 'Add Profile Section' > 'HIPS' if it hasn't yet been added

The HIPS settings screen contains four tabs:

- **HIPS Settings** - Configure settings that govern the overall behavior of the HIPS component.
- **HIPS Rules** - View and create rules that control the behavior of applications on the managed computer.
- **Rulesets** - View predefined rulesets and create new rulesets. Rulesets can be applied to applications on managed computers.
- **Protected Objects** - A protected object is a collection of items which can be referenced as the target of a HIPS rule. For example 'Registry Keys' and 'COM Classes'. This interface lets you view and create new protected objects.

### HIPS Settings

General **HIPS**

**HIPS** Cancel Save

**HIPS Settings** HIPS Rules Rulesets Protected Objects

Enable HIPS

Safe mode Monitoring settings

This option enables the Host Intrusion Protection System, the component that monitors critical operating system activities to protect the computer against malware actions.

Do NOT show popup alerts Allow requests

Set popup alerts to verbose mode

Create rules for safe applications

Set new on-screen alert timeout to  secs.

Enable adaptive mode under low system resources

Block unknown requests when the application is not running

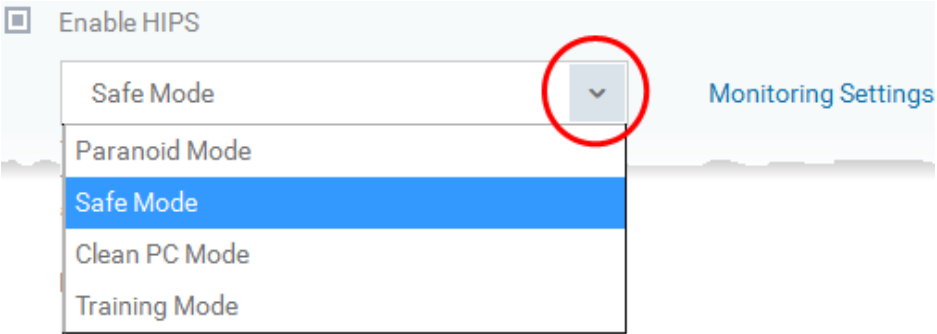
Enable enhanced protection mode (requires a system restart) up to CCS 10.1

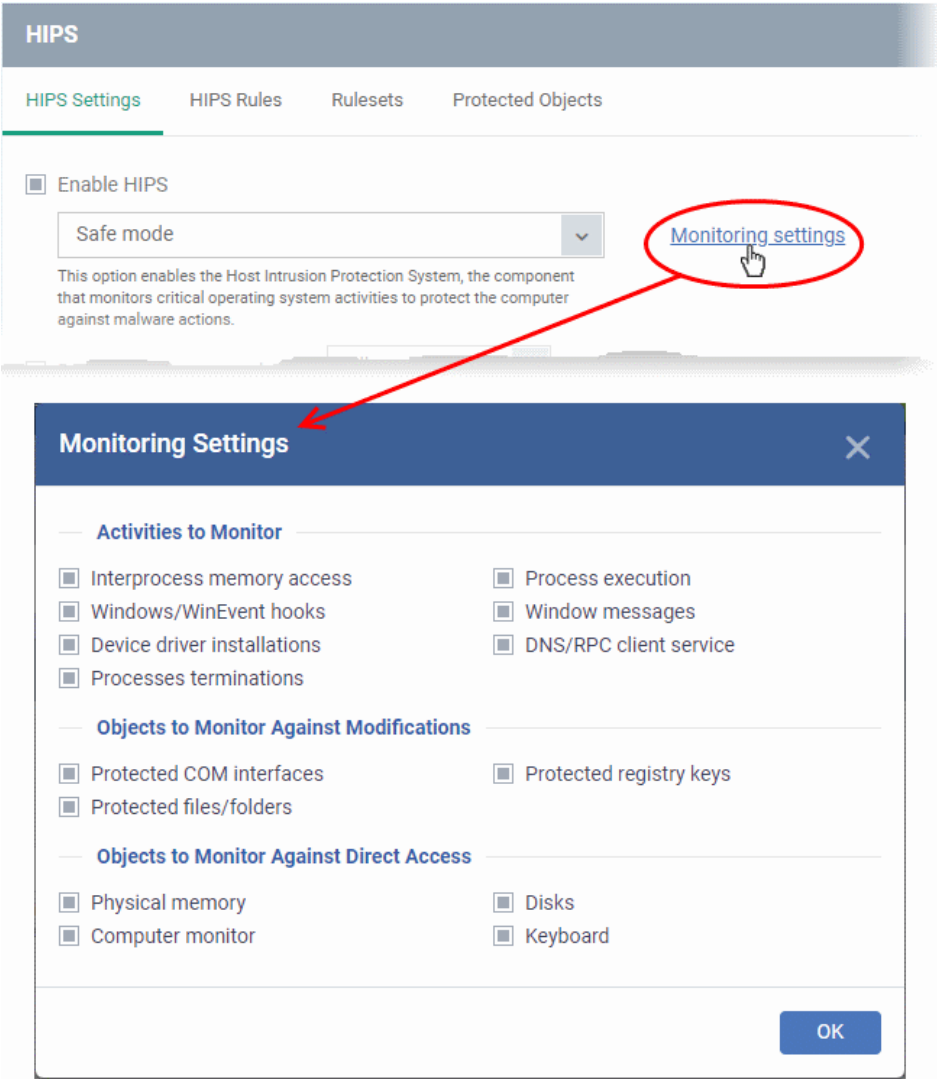
Enable embedded code detection and heuristic command-line analysis for Certain applications

Limit the total size of saved detected scripts to  KB

When reaching the set limit, the older records will be deleted to free up space.

Detect shellcode injections Exclusions

HIPS Settings - Table of Parameters	
Form Element	Description
Enable HIPS	<p>Activate or deactivate HIPS protection on managed computers to which the profile is applied.</p> <p>If enabled, you can configure the HIPS security level and monitoring settings. <b>(Default=Enabled)</b></p>
Hips Security Level	<p>If HIPS is enabled, you can choose the security level for the HIPS to provide at the managed computer from the drop-down below 'Enable HIPS'.</p>  <p>The available options are:</p> <ul style="list-style-type: none"> <li> <b>Paranoid Mode:</b> This is the highest security level setting and means that HIPS monitors and controls all executable files apart from those that you have deemed safe. Comodo Client Security does not attempt to learn the behavior of any applications - even those applications on the Comodo safe list and only uses <i>your</i> configuration settings to filter critical system activity. Similarly, the Comodo Client Security does automatically create 'Allow' rules for any executables - although the end user still has the option to treat an application as 'Trusted' at the HIPS alert. Choosing this option generates the most amount of HIPS alerts and is recommended for advanced users that require complete awareness of activity on their system.         </li> <li> <b>Safe Mode:</b> While monitoring critical system activity, HIPS automatically learns the activity of executables and applications certified as 'Safe' by Comodo. It also automatically creates 'Allow' rules for these activities, if the option '<b>Create rules for safe applications</b>' is selected. For non-certified, unknown, applications, the end-user will receive an alert whenever that application attempts to run. Should you choose, the end-user can add that new application to the safe list by choosing 'Treat this application as a Trusted Application' at the alert. This instructs the HIPS not to generate an alert the next time it runs. If the endpoint is not new or known to be free of malware and other threats as in 'Clean PC Mode' then 'Safe Mode' is recommended setting for most users - combining the highest levels of security with an easy-to-manage number of HIPS alerts.         </li> <li> <b>Clean PC Mode:</b> From the time you set the setting to 'Clean PC Mode', HIPS learns the activities of the applications currently installed on the server while all new executables introduced to the server are monitored and controlled. This patent-pending mode of operation is the recommended option on a new server or one that the user knows to be clean of malware and other threats. From this point onwards HIPS alerts the user whenever a new, unrecognized application is being installed. In this mode, the files with 'Unrecognized' rating in the '<b>File List</b>' are excluded from being considered as clean and are monitored and controlled.         </li> </ul>

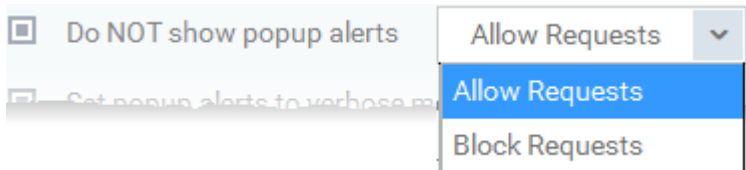
HIPS Settings - Table of Parameters	
Form Element	Description
	<ul style="list-style-type: none"> <li><b>Training Mode:</b> HIPS monitors and learn the activity of any and all executables and create automatic 'Allow' rules until the security level is adjusted. The end-user will not receive any HIPS alerts in 'Training Mode'. If you choose the 'Training Mode' setting, we advise that you are 100% sure that all applications and executables installed on the endpoints are safe to run.</li> </ul>
Monitoring Settings	<p>If HIPS is enabled, you can configure the activities, entities and objects that should be monitored by it at the managed endpoint by clicking the 'Monitoring Settings' link.</p>  <p><b>Activities To Monitor:</b></p> <ul style="list-style-type: none"> <li><b>Interprocess Memory Access</b> - Malware programs use memory space modification to inject malicious code for numerous types of attacks. These include recording your keyboard strokes; modifying the behavior of applications and stealing data by sending confidential information from one process to another. One of the most serious aspects of memory-space breaches is the ability of the offending malware to take the identity of a compromised process to 'impersonate' the application under attack. This makes life harder for traditional virus scanning software and intrusion-detection systems. Leave this option selected, and HIPS generates alerts when an application attempts to modify the memory space allocated to another application (<b>Default = Enabled</b>)</li> <li><b>Windows/WinEvent Hooks</b> - In the Microsoft Windows® operating system, a</li> </ul>

HIPS Settings - Table of Parameters	
Form Element	Description
	<p>hook is a mechanism by which a function can intercept events before they reach an application. Example intercepted events include messages, mouse actions and keystrokes. Hooks can react to these events and, in some cases, modify or discard them. Originally developed to allow legitimate software developers to develop more powerful and useful applications, hooks have also been exploited by hackers to create more powerful malware. Examples include malware that can record every stroke on your keyboard; record your mouse movements; monitor and modify all messages on your computer and take remote control of your computer. Leaving this option selected means that an alert is generated every time a hook is executed by an untrusted application <b>(Default = Enabled)</b>.</p> <ul style="list-style-type: none"> <li>• <b>Device Driver Installations</b> - Device drivers are small programs that allow applications and/or operating systems to interact with hardware devices on the managed computer. Hardware devices include your disk drives, graphics card, wireless and LAN network cards, CPU, mouse, USB devices, monitor, DVD player etc. Even the installation of a perfectly well-intentioned device driver can lead to system instability if it conflicts with other drivers on the system. The installation of a malicious driver could, obviously, cause irreparable damage to the computer or even pass control of that device to a hacker. Leaving this option selected means HIPS generates alerts every time a device driver is installed on the computer by an untrusted application <b>(Default = Enabled)</b>.</li> <li>• <b>Processes' Terminations</b> - A process is a running instance of a program. Terminating a process, obviously, terminates the program. Viruses and Trojan horses often try to shut down the processes of any security software you have been running in order to bypass it. With this setting enabled, HIPS monitors and generates alerts for all attempts by an untrusted application to close down another application <b>(Default = Enabled)</b>.</li> <li>• <b>Process Execution</b> - Malware such as rootkits and key-loggers often execute as background processes. With this setting enabled, HIPS monitors and generates alerts whenever a process is invoked by an untrusted application. <b>(Default = Enabled)</b>.</li> <li>• <b>Windows Messages</b> - This setting means Comodo Client Security monitors and detects if one application attempts to send special Windows Messages to modify the behavior of another application (e.g. by using the WM_PASTE command) <b>(Default = Enabled)</b>.</li> <li>• <b>DNS/RPC Client Service</b> - This setting generates alerts if an application attempts to access the 'Windows DNS service' - possibly in order to launch a DNS recursion attack. A DNS recursion attack is a type of Distributed Denial of Service attack whereby a malicious entity sends several thousand spoofed requests to a DNS server. The requests are spoofed in that they appear to come from the target or 'victim' server but in fact come from different sources - often a network of 'zombie' computers which send out the requests without the owners knowledge. The DNS servers are tricked into sending all their replies to the victim server - overwhelming it with requests and causing it to crash. Leaving this setting enabled prevents malware from using the DNS Client Service to launch such an attack <b>(Default = Enabled)</b>.</li> </ul> <p><b>Objects To Monitor Against Modifications:</b></p> <ul style="list-style-type: none"> <li>• <b>Protected COM Interfaces</b> enables monitoring of COM interfaces you specified from the <b>COM Protection</b> pane. <b>(Default = Enabled)</b></li> </ul>



HIPS Settings - Table of Parameters	
Form Element	Description
	<ul style="list-style-type: none"> <li>• <b>Protected Registry Keys</b> enables monitoring of Registry keys you specified from the <b>Registry Protection</b> pane. <b>(Default = Enabled)</b>.</li> <li>• <b>Protected Files/Folders</b> enables monitoring of files and folders you specified from the <b>File Protection</b> pane. <b>(Default = Enabled)</b>.</li> </ul> <p><b>Objects To Monitor Against Direct Access:</b></p> <p>Determines whether or not Comodo Client Security should monitor access to system critical objects on the managed computer. Using direct access methods, malicious applications can obtain data from a storage devices, modify or infect other executable software, record keystrokes and more. Comodo advises the average user to leave these settings enabled:</p> <ul style="list-style-type: none"> <li>• <b>Physical Memory:</b> Monitors your computer's memory for direct access by an applications and processes. Malicious programs attempt to access physical memory to run a wide range of exploits - the most famous being the 'Buffer Overflow' exploit. Buffer overruns occur when an interface designed to store a certain amount of data at a specific address in memory allows a malicious process to supply too much data to that address. This overwrites its internal structures and can be used by malware to force the system to execute its code <b>(Default = Enabled)</b>.</li> <li>• <b>Computer Monitor:</b> Comodo Client Security raises an alert every time a process tries to directly access the computer monitor. Although legitimate applications sometimes require this access, spyware can also use such access to take screen shots of the current desktop, record browsing activities of the user and more <b>(Default = Enabled)</b>.</li> <li>• <b>Disks:</b> Monitors the local disk drives at the managed computer, for direct access by running processes. This helps guard against malicious software that need this access to, for example, obtain data stored on the drives, destroy files on a hard disk, format the drive or corrupt the file system by writing junk data <b>(Default = Enabled)</b>.</li> <li>• <b>Keyboard:</b> Monitors the keyboard for access attempts. Malicious software, known as 'key loggers', can record every stroke made on keyboard and can be used to steal passwords, credit card numbers and other personal data typed through the keyboard. With this setting is enabled, Comodo Client Security generates alerts every time an application attempts to establish direct access to the keyboard <b>(Default = Enabled)</b>.</li> </ul> <p><b>Note:</b> The settings you choose here are universally applied. If you disable monitoring of an activity, entity or object using this interface it completely switches off monitoring of that activity on a global basis - effectively creating a universal 'Allow' rule for that activity . This 'Allow' setting over-rides any Ruleset specific 'Block' or 'Ask' setting for that activity that you may have selected using the 'Access Rights' and 'Protection Settings' interface.</p>
Do NOT show popup alerts	<p>Configure whether or not the HIPS alerts are to be displayed at the managed computer for the end-user to respond. Choosing 'Do NOT show popup alerts' will minimize disturbances but at some loss of user awareness <b>(Default = Enabled)</b>.</p> <p>If you choose not to show alerts then you have a choice of default responses that CCS should automatically take - either 'Block Requests' or 'Allow Requests'.</p>



HIPS Settings - Table of Parameters	
Form Element	Description
	
Set popup alerts to verbose mode	Enabling this option instructs CCS to display HIPS alerts in verbose mode, providing more more informative alerts and more options for the user to allow or block the requests ( <b>Default = Enabled</b> ).
Create rules for safe applications	Automatically creates rules for safe applications in HIPS Ruleset ( <b>Default = Enabled</b> ) <b>Note:</b> HIPS trusts the applications if: <ul style="list-style-type: none"> <li>• The application/file is rated as 'Trusted' in the <b>File List</b></li> <li>• The application is from a vendor included in the <b>Trusted Software Vendors</b> list</li> <li>• The application is included in the extensive and constantly updated Comodo safelist.</li> </ul>
Set new on-screen alert timeout to	Determines how long the HIPS shows an alert for without any user intervention. By default, the timeout is set at 60 seconds. You may adjust this setting to your own preference.
Enable adaptive mode under low system resources	Very rarely (and only in a heavily loaded system), low memory conditions might cause certain CCS functions to fail. With this option enabled, CCS will attempt to locate and utilize memory using adaptive techniques so that it can complete its pending tasks. However, the cost of enabling this option may be reduced performance in even lightly loaded systems ( <b>Default = Enabled</b> ).
Block unknown requests when the application is not running	Selecting this option blocks all unknown execution requests if Comodo Client Security is not running/has been shut down. This is option is very strict indeed and in most cases should only be enabled on seriously infested or compromised machines while the user is working to resolve these issues. If you know the managed computer machine is already 'clean' and are looking just to enable the highest CCS security settings then it is OK to leave this option disabled. ( <b>Default = Disabled</b> )
Enable enhanced protection mode (Requires a system restart)	On 64 bit systems, enabling this mode will activate additional host intrusion prevention techniques to counteract extremely sophisticated malware that tries to bypass regular HIPS protection. Because of limitations in Windows 7/8 x64 systems, some HIPS functions in previous versions of CCS could theoretically be bypassed by malware. Enhanced Protection Mode implements several patent-pending ways to improve HIPS. EM requires a system restart for enabling enhanced protection mode. ( <b>Default = Disabled</b> )
Enable embedded code detection and heuristic command-line analysis for certain applications	Embedded code detection protects you against file-less malware attacks. File-less malware attacks allow malicious actors to directly execute powershell commands on your system. These commands can be used to take control of endpoints, install ransomware, steal confidential data and more. File-less scripts reside in memory so no trace of them remains after the computer is restarted.  Example programs affected by this option are wscript.exe, cmd.exe, java.exe and javaw.exe.  For example, the program wscript.exe can be made to execute visual basic scripts (.vbs file extension) via a command similar to 'wscript.exe c:\tests\test.vbs'. If this option is selected, CCS detects c:\tests\test.vbs from the command-line and applies all security

HIPS Settings - Table of Parameters	
Form Element	Description
	<p>checks to this file.</p> <ul style="list-style-type: none"> <li>• Enabled - If test.vbs attempts to connect to the internet, the alert will state 'test.vbs' is attempting to connect to the internet.</li> <li>• Disabled - The alert will only state 'wscript.exe' is trying to connect to the internet'.</li> </ul> <p>Click the 'Certain applications' link to view and select which apps are analyzed.</p> <p>See <b>Select Applications for Heuristic Command Line/Embedded code Analysis</b> for more details.</p> <p><b>Background note:</b> 'Heuristics' describes the method of analyzing a file to ascertain whether it contains codes typical of a virus. Heuristics is about detecting virus-like behavior or attributes rather than looking for a precise virus signature that matches a signature on the virus blacklist. This helps to identify previously unknown (new) viruses.</p>
Detect shellcode injections	<ul style="list-style-type: none"> <li>• A shellcode is an attack which exploits software vulnerabilities to give attackers control of a compromised machine.</li> <li>• For example, shellcode attacks are often used to create buffer-overflows on victim machines. Enabling this setting turns-on buffer overflow protection.</li> <li>• By default, Comodo Client Security (CCS) monitors all applications to make sure they do not suffer shellcode attacks.</li> <li>• However, you may want to omit certain applications from protection for compatibility reasons. Click the 'Exclusions' link to do this.</li> <li>• The process to add exclusions is similar to that explained in Containment Settings.</li> </ul> <p><b>Background:</b> A buffer overflow is an anomalous condition where a process/executable attempts to store data beyond the boundaries of a fixed-length buffer. The result is that the extra data overwrites adjacent memory locations. The overwritten data may include other buffers, variables and program flow data and may cause a process to crash or produce incorrect results. They can be triggered by inputs specifically designed to execute malicious code or to make the program operate in an unintended way. As such, buffer overflows cause many software vulnerabilities and form the basis of many exploits.</p> <p>Comodo recommends this setting is left enabled (<b>Default = Enabled</b>).</p>

## Select Applications for Heuristic Command Line/Embedded Code Analysis

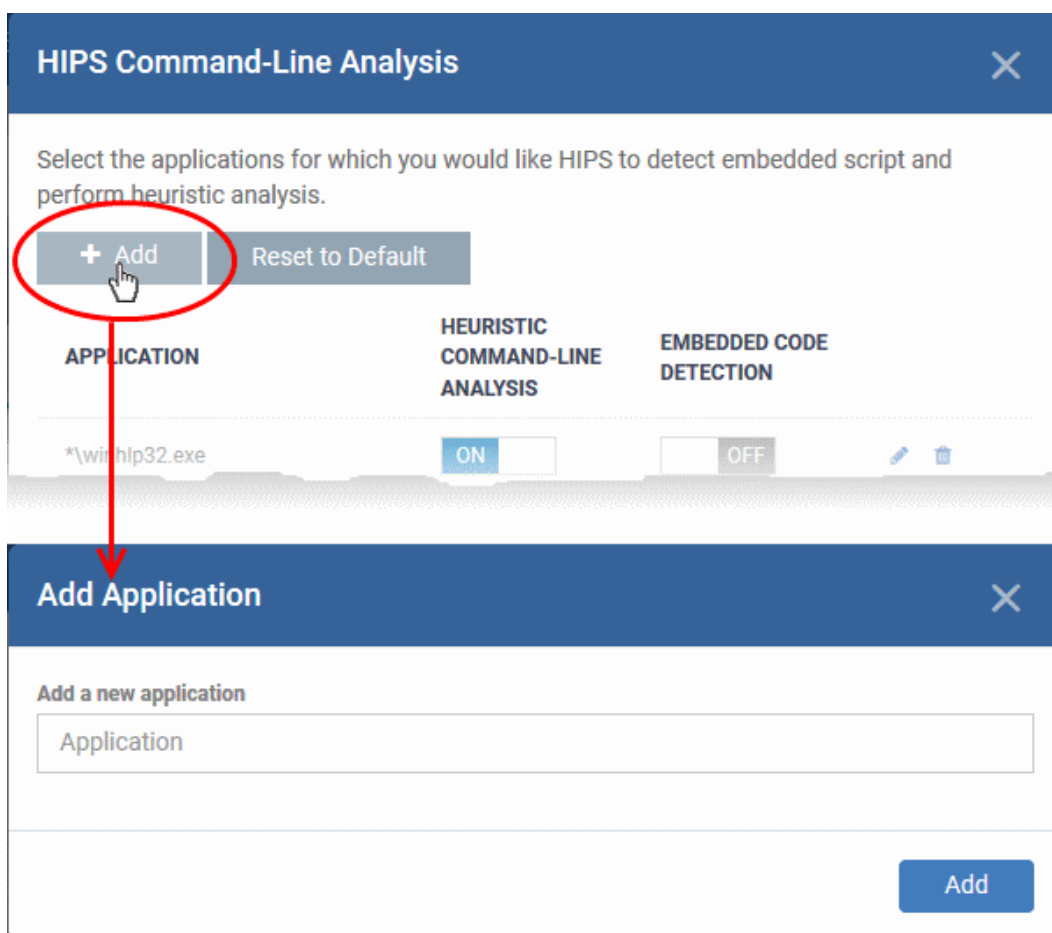
- Click 'Configuration Templates' > 'Profiles' > select a profile > Open the 'HIPS settings' tab.
- If it is not available, click 'Add Section' and add 'HIPS settings'.
- Click the 'Certain Applications' link



The 'HIPS Command-Line Analysis' dialog displays a list of applications to choose from. You can also add custom

applications which you want to protect.

- Use the switch in the 'Heuristic Command-Line Analysis' column to enable/disable heuristic command line analysis for each application.
- Use the switch in the 'Embedded Code Detection' column to enable/disable embedded code detection for each application.
- Click the edit button to update application details.
- Click the trash can icon to remove an application from the list.
- Click 'Add' at the top to include a new application to the list.

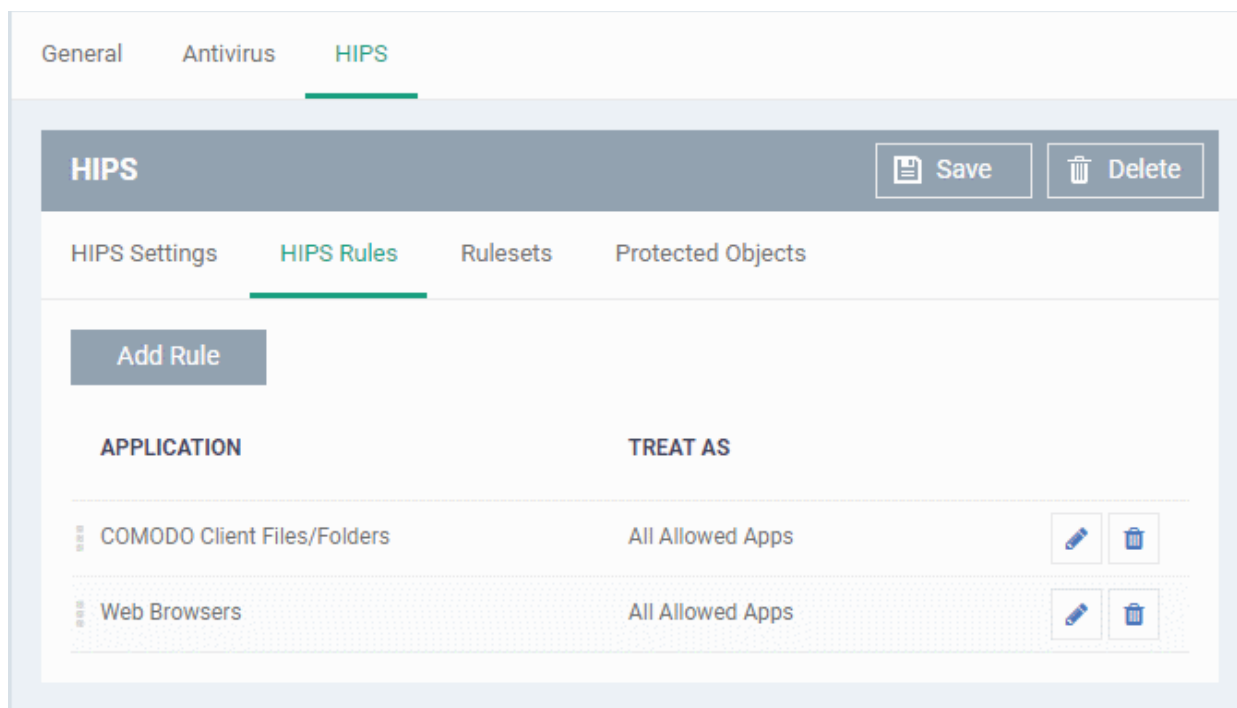


- Enter the name of the application in the 'Add Application' dialog and click 'Add'.
- The new application will be added to the list and will be selected by default. You can use the toggle switch beside it to enable/disable it at any time.
- Repeat the process to add more applications
- To reset the list to the default list of applications, click 'Reset to Default' at the top
- Click 'OK' to apply your changes.

## HIPS Rules

The 'HIPS Rules' screen allows you to view the list of active HIPS rulesets applied to different groups of or individual applications and to create and manage rules for the profile. You can change the ruleset applied to a selected application or application group.

**Note:** HIPS Rulesets are to be created before applying them to an individual application or an application group. Refer to the next section **Rulesets** for details on creating new rulesets.



HIPS Rules - Column Descriptions	
Column Header	Description
Application	Name of the individual application or the application group to which the ruleset is applied
Treat As	The ruleset applied. For more details on the rulesets, see the next section <b>Rulesets</b> .
Actions	Contains control buttons to edit or remove the rule

## Create and Modify HIPS Rules

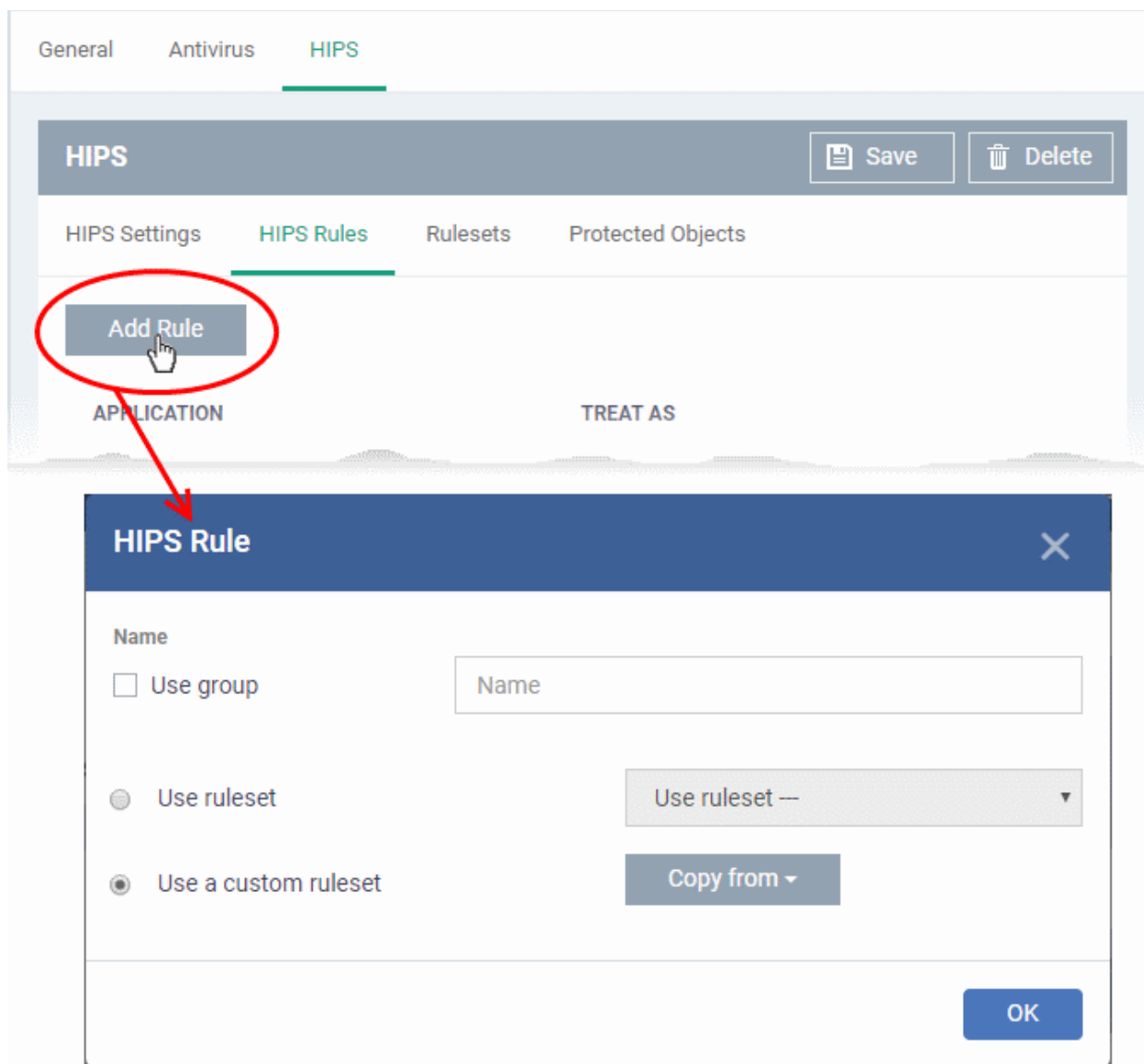
To begin defining an application's HIPS rule, you need take two basic steps.

- Step 1 - **Select the application that you wish the ruleset is to be applied.**
- Step2 - **Configure the rules for this application's ruleset.**

### Step 1 - Select the application that you wish the ruleset is to be applied

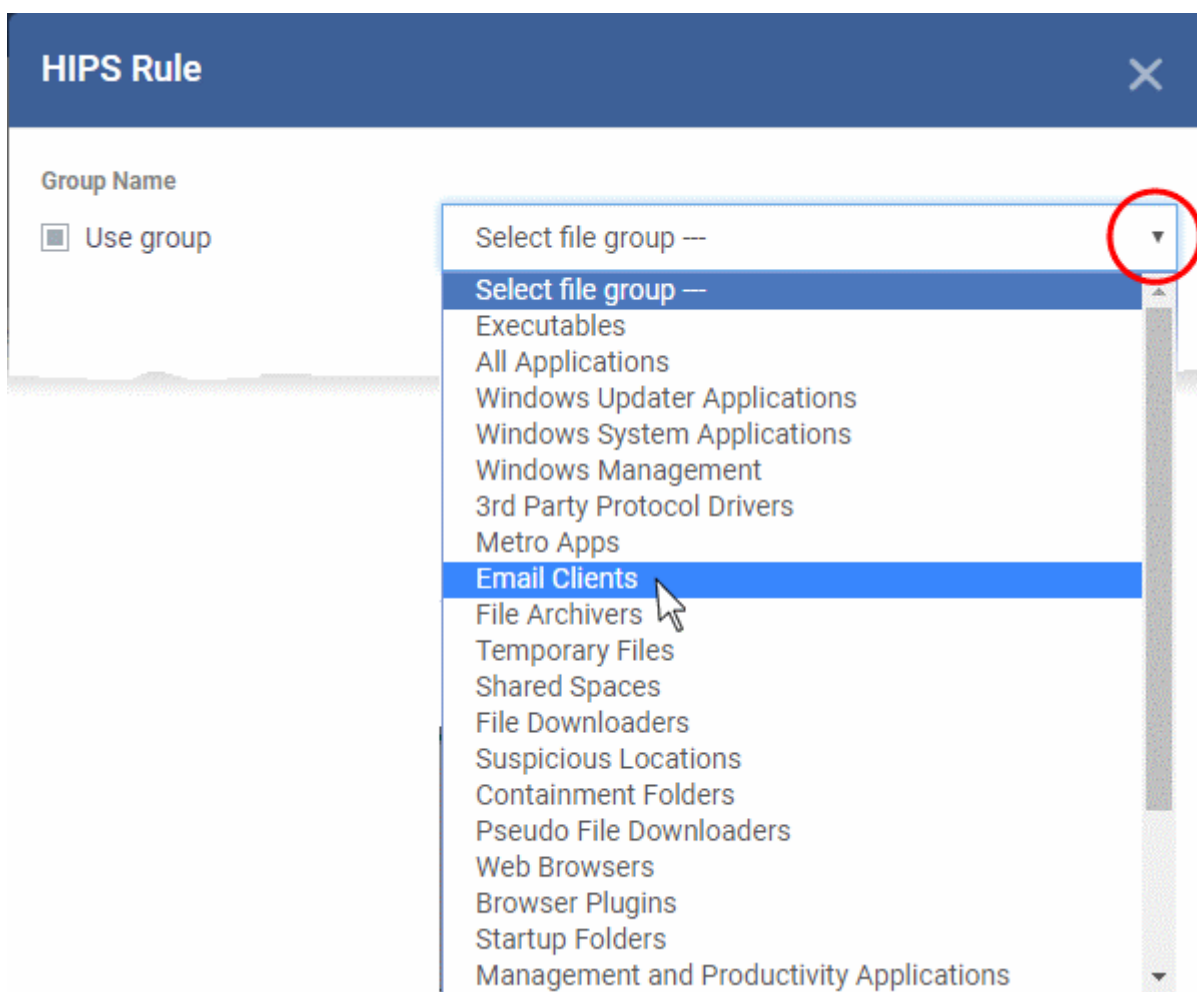
- To define a ruleset for a new application ( i.e. one that is not already listed), click the 'Add Rule' button at the top of the list in the 'HIPS Rules' interface.

The 'HIPS Rule' interface will open as shown below:



Because this is a new application, the 'Name' field is blank. (If you are modifying an existing rule, then this interface shows the individual rules for that application's ruleset).

- To create a rule for a single application enter the file name of it in the 'Name' field
- To create a rule for an application group, select 'Use Group' and choose the file group from the drop-down



**Note:** Endpoint Manager ships with a set of predefined file groups containing collections of files under respective categories. Admins can also create custom file groups with required applications. All the pre-defined and the custom file groups will be available in the drop-down. The custom file groups can be created under 'Settings' > 'System Templates' > 'File Groups Variables' interface. See [Create and Manage File Groups](#) for more details.

## Step 2 - Configure the rules for this application's ruleset

There are two broad options available for creating a ruleset that applies to an application - **Use a Predefined Ruleset** or **Use a Custom Ruleset**.

- **Use a Predefined Ruleset** - Allows you to quickly deploy an existing HIPS ruleset on to the target application. Choose the ruleset you wish to use from the drop-down menu. The name of the predefined ruleset you choose is displayed in the 'Treat As' column for that application in the 'HIPS Rules' interface.



## HIPS Rule ✕

**Group Name**

Use group COMODO Client Files/Folders ▾

You can add/edit file groups [here](#)

Use ruleset All Allowed Apps ▾

Use a custom ruleset

**Access Rights** Protection Settings

ACCESS NAME	ACTION	EXCLUSIONS
Run an executable	Ask ▾	Modify (0 0)
Interprocess Memory Accesses	Allow ▾	Modify (0 0)
Windows Event Hooks	Allow ▾	Modify (0 0)
DNS Client Service	Allow ▾	
Physical Memory	Allow ▾	
Computer Monitor	Allow ▾	
Disk	Allow ▾	
Keyboard	Allow ▾	

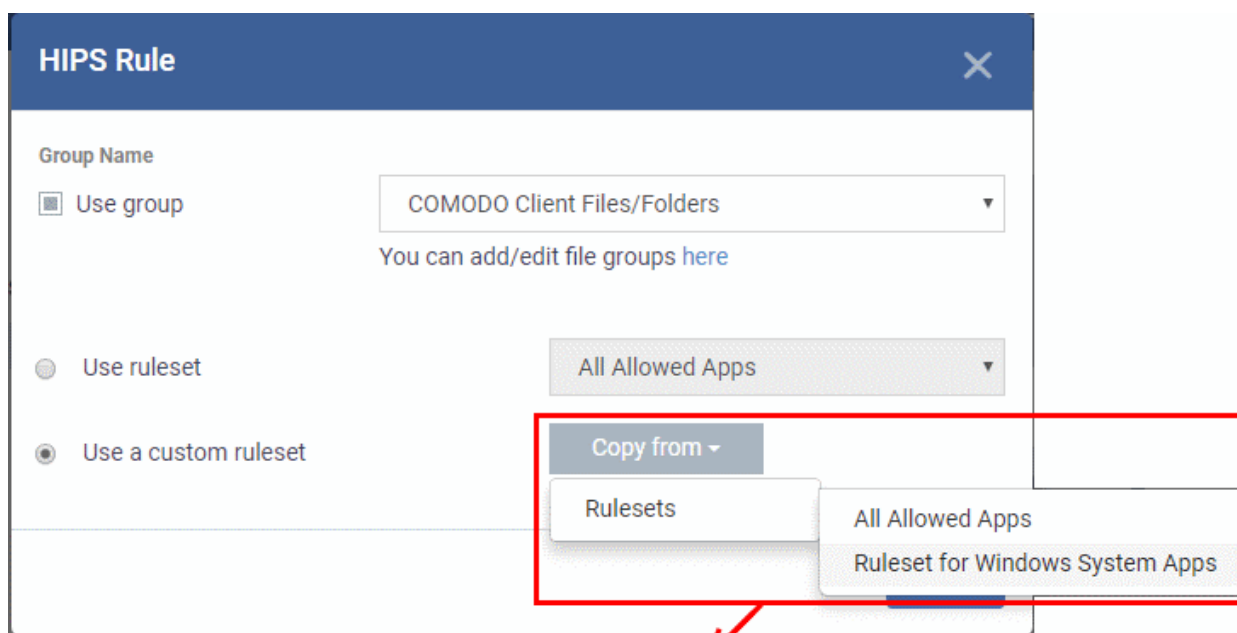
OK

Selecting 'Use ruleset' and choosing a pre-defined ruleset from the drop-down will populate the rules from the ruleset for the application/group.

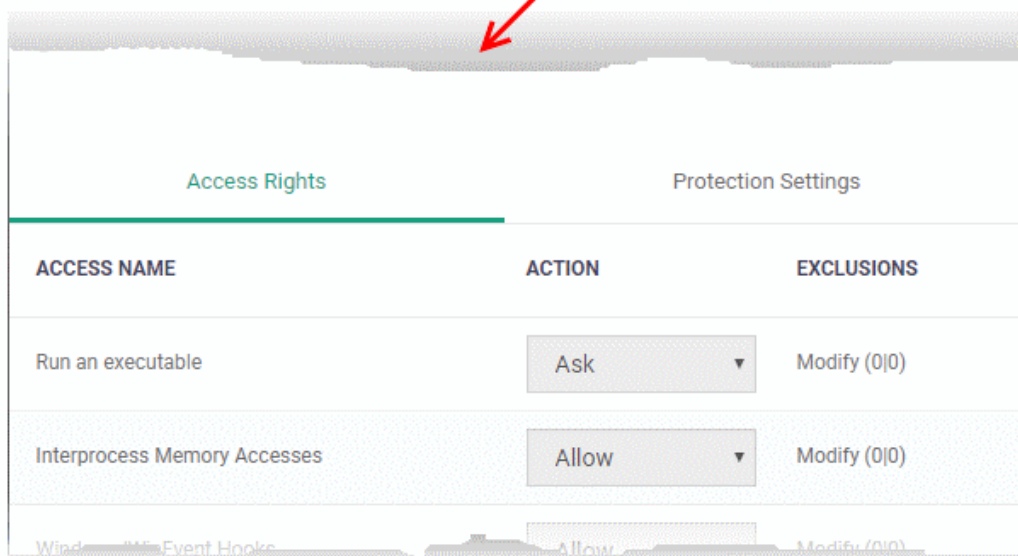


**Note:** Predefined Rulesets, once chosen, cannot be modified *directly* from this interface - they can only be modified and defined using the **Ruleset** interface. If you require the ability to modify components of the rule set, then you are effectively creating a new, custom ruleset and should choose the more flexible **Use Custom Ruleset** option instead.

- **Use a Custom Ruleset** - Designed for more experienced administrators, the 'Custom Ruleset' option grants full control over the configuration of each rule within that ruleset. The custom ruleset has two main configuration areas - Access Rights and Protection Settings. (**Default = Enabled**)

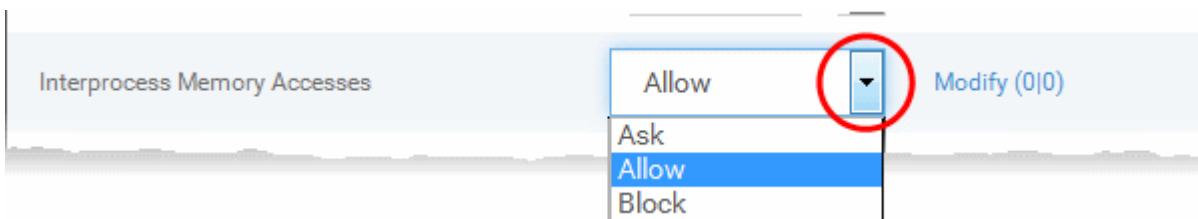


Choosing 'Use a custom ruleset' then selecting 'Copy from' > 'Rulesets' > a pre-defined ruleset will populate the rules window with the constituent rules. In the example shown, the parameters of the ruleset are configured as per the pre-defined ruleset 'All Allowed Apps'. Using this as a starting point, you can change the options for 'Access Rights' and 'Protection Settings'.



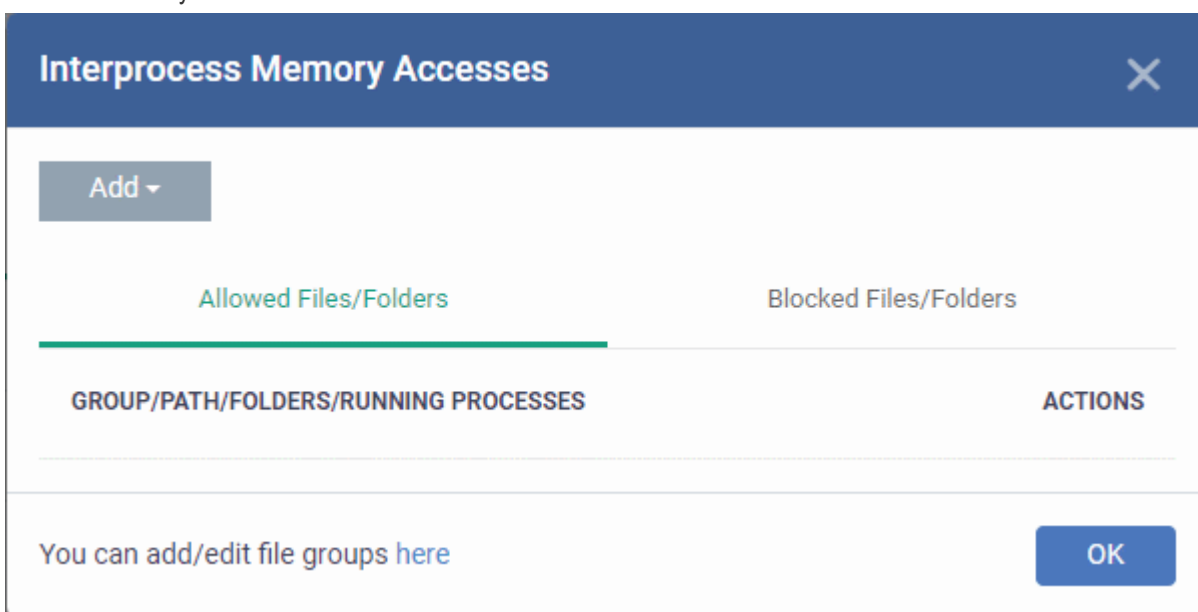
In simplistic terms 'Access Rights' determine what the application *can do to other processes and objects* whereas 'Protection Settings' determine what the application *can have done to it by other processes*.

- **Access Rights** - The 'Process Access Rights' area allows you to determine what activities can be performed by the applications in your custom ruleset.

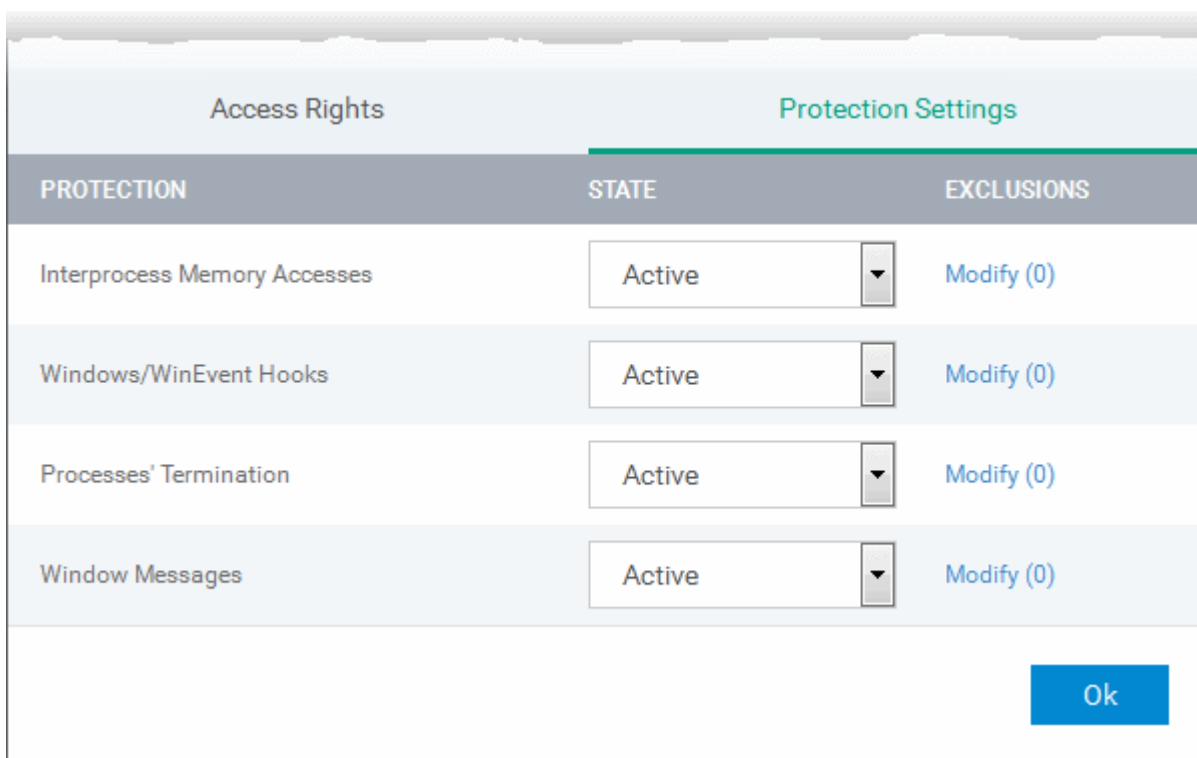


See **HIPS Settings > Activities to Monitor** to view a list of definitions of the Action Names listed above and the implications of choosing the action from 'Ask', 'Allow' or 'Block' for each setting as shown below:

- Exceptions to your choice of 'Ask', 'Allow' or 'Block' can be specified for the ruleset by clicking the 'Modify' link on the right.
- Select the 'Allowed Files/Folders' or 'Blocked Files/Folders' tab depending on the type of exception you wish to create.



- Click the 'Add' button at the top to choose which applications or file groups you wish this exception to apply to. ([click here](#) for an explanation of available options).
- ii. **Protection Settings** - Protection Settings determine how protected the application or file group in your ruleset is *against* activities by other processes. These protections are called 'Protection Types'.



- Select 'Active' to enable monitoring and protect the application or file group against the process listed in the 'Protection State' column. Select 'Inactive' to disable such protection.

**Click here** to view a list of definitions of the 'Protection Types' listed above and the implications of activating each setting.

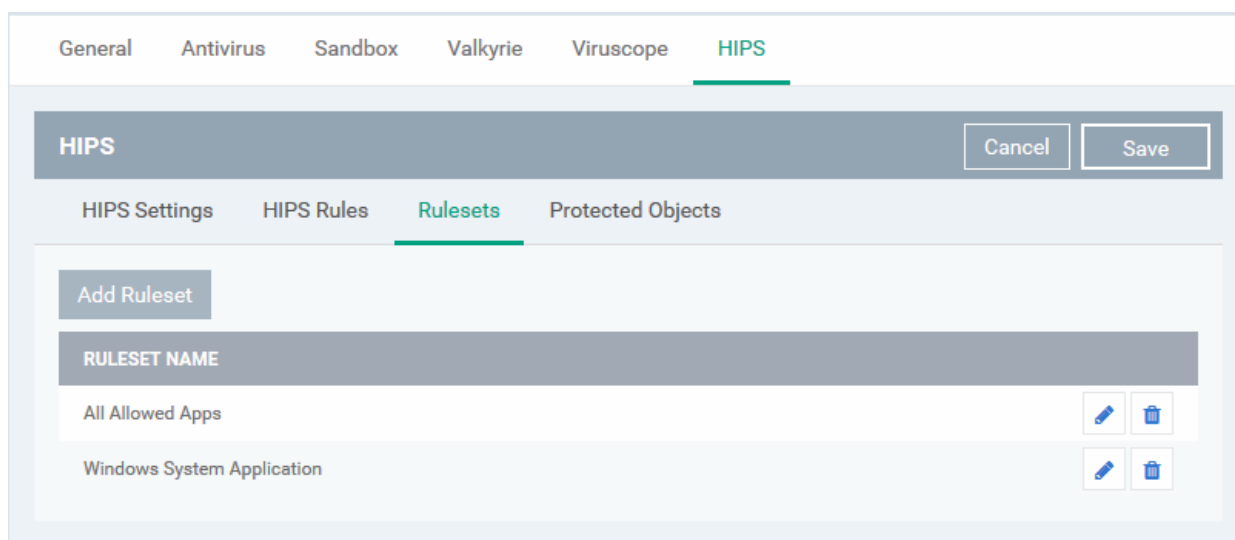
Exceptions to your choice of 'Active' or 'Inactive' can be specified in the application's Ruleset by clicking the 'Modify' link on the right.

5. Click 'OK' to confirm your settings.

## Rulesets

A Pre-defined ruleset is a set of **access rights and protection settings** that has been saved and can be re-used and deployed on multiple applications or groups. Each ruleset is comprised of a number of rules and each of these rules is defined by a set of conditions/settings/parameters. Rulesets concern an application's access rights to memory, other programs, the registry etc.

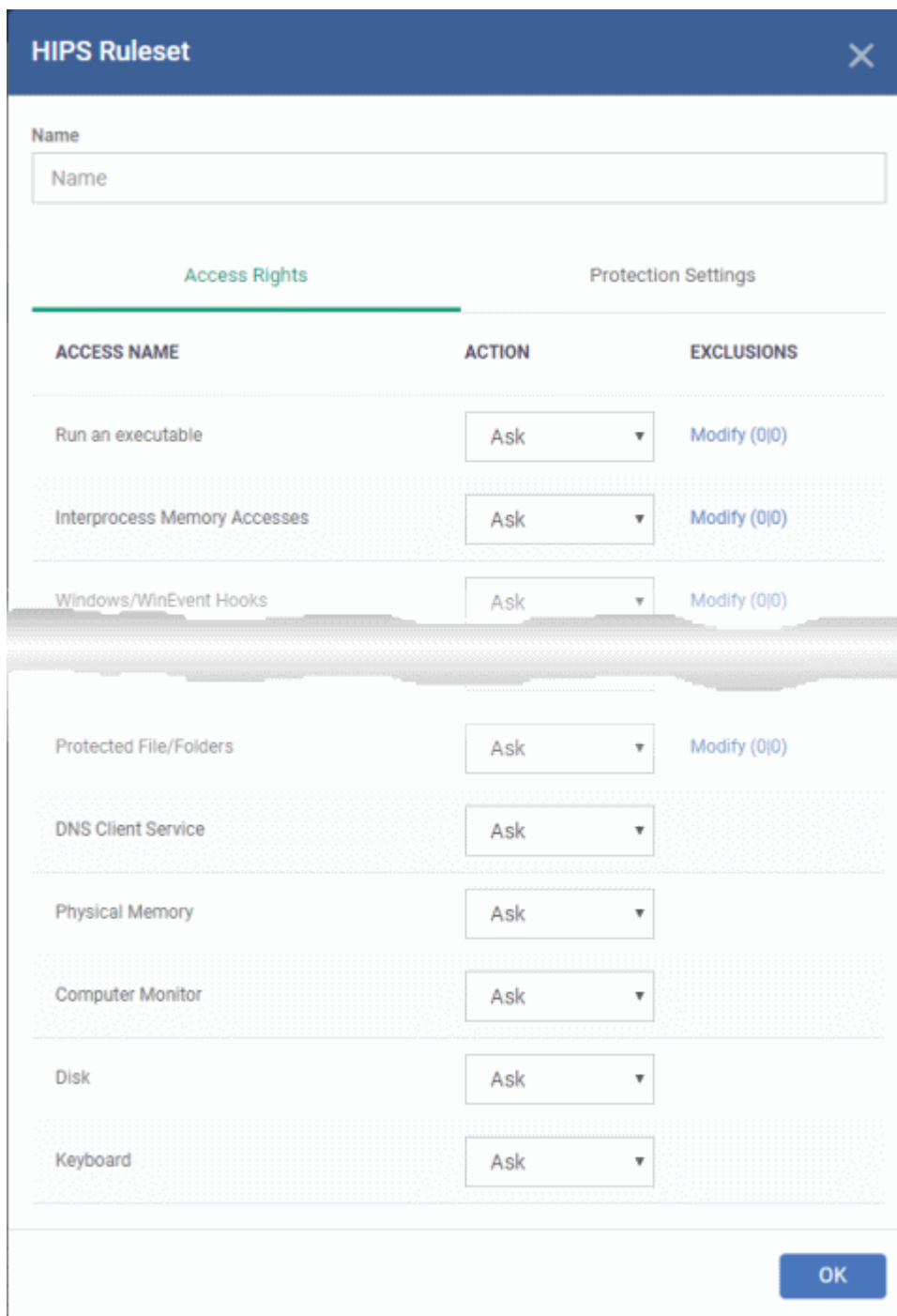
The Rulesets screen under the the 'HIPS' tab displays the list of rulesets and allows you to add and manage new rulesets.



## To add a new ruleset

- Click the 'Add Ruleset' button  above the list of rulesets.

The 'HIPS Ruleset' dialog will appear.

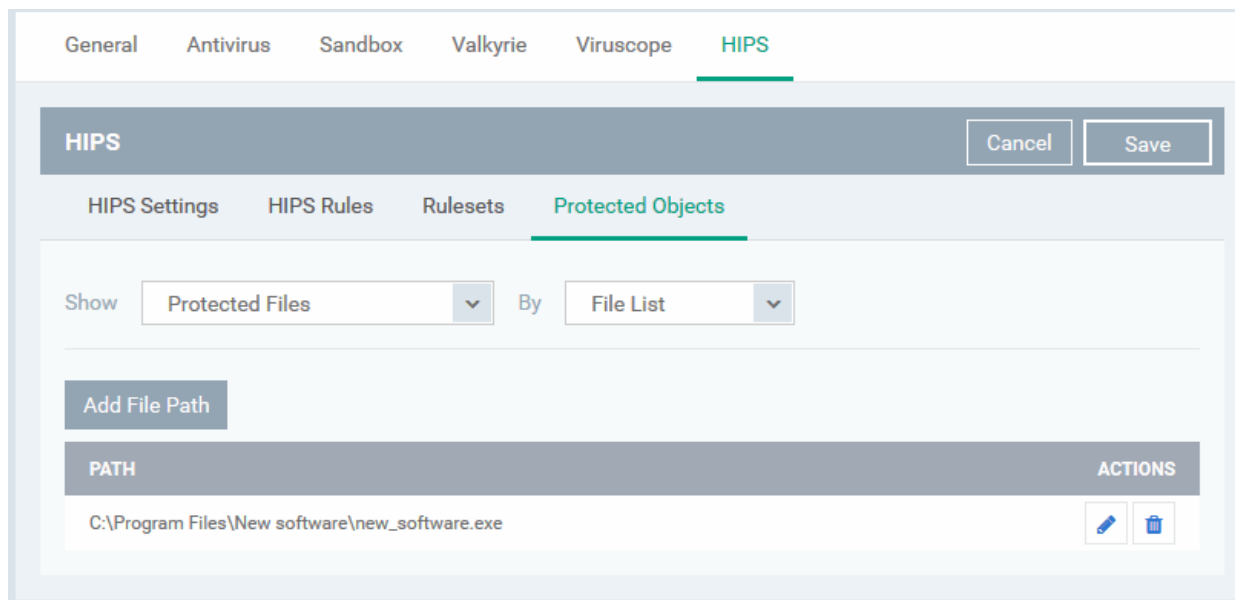


ACCESS NAME	ACTION	EXCLUSIONS
Run an executable	Ask	Modify (0 0)
Interprocess Memory Accesses	Ask	Modify (0 0)
Windows/WinEvent Hooks	Ask	Modify (0 0)
Protected File/Folders	Ask	Modify (0 0)
DNS Client Service	Ask	
Physical Memory	Ask	
Computer Monitor	Ask	
Disk	Ask	
Keyboard	Ask	

- Enter a name for the ruleset
- Configure the Actions, states and exclusions for '**Access Rights**' and '**Protection Settings**' as explained above. Any changes you make here are automatically rolled out to all applications that are covered by the ruleset. The new ruleset will be available for deployment to HIPS rule for applications/application groups from the HIPS Rules interface.
- To edit a ruleset, click the Edit button under the Actions in the Rulesets interface. The Editing process is similar to the Ruleset creation process explained above.

## Protected Objects

The 'Protected Objects' panel under 'HIPS' tab allows you to protect specific files and folders, system critical registry keys and COM interfaces at the managed computers, against access or modification by unauthorized processes and services. You can also add files in 'Protected Data Folders', so that 'Contained' programs will be blocked from accessing them.



The 'Show' drop-down allows you to choose the category of protected objects to be displayed in the list and add and manage the protected objects of that category. You can add following categories of protected objects:

- **Protected Files** - Allows you to view and specify programs, applications, files and file groups that are to be protected from changes
- **Registry Keys** - Allows you to view and specify registry keys that are to be protected from changes
- **COM Interfaces** - Allows you to view and specify COM interfaces that are to be protected from changes
- **Protected Data Folders** - Allows you to view and specify folders containing data files that are to be protected from changes by 'Contained' programs

## Protected Files

The 'Protected Files' list under 'Protected Objects' interface allows you to view and manage list of files and file groups that are to be protected from access by other programs, especially malicious programs such as virus, Trojans and spyware at the managed computer. It is also useful for safeguarding very valuable files (spreadsheets, databases, documents) by denying anyone and any program the ability to modify the file - avoiding the possibility of accidental or deliberate sabotage. If a file is 'Protected' it can still be accessed and read by users, but not altered. A good example of a file that ought to be protected is your 'hosts' file (c:\windows\system32\drivers\etc\hosts). Placing this in the 'Protected Files and Folders' area would allow web browsers to access and read from the file as per normal. However, should any process attempt to modify it then Comodo Client Security blocks this attempt and produces a 'Protected File Access' pop-up alert.

If you add a file to 'Protected Files', but want to allow trusted application to access it, then rules can be defined in HIPS Rulesets. Refer to the explanation of **adding 'Exceptions' at the end of this section** for more details about how to allow access to files placed in Protected Files.

- To view the list of Protected Files, choose 'Protected Files' from the 'Show' drop-down in the 'Protected Objects' interface

The Protected File list is displayed under two categories, which can be selected from the drop-down at the right.

General    Antivirus    **HIPS**

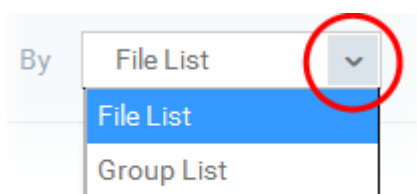
**HIPS**    Save    Delete

HIPS Settings    HIPS Rules    Rulesets    **Protected Objects**

Show    Protected files    By    File list

Add File Path

PATH	ACTIONS
C:\Program Files (x86)\OpenOffice 4\program\soffice.exe	



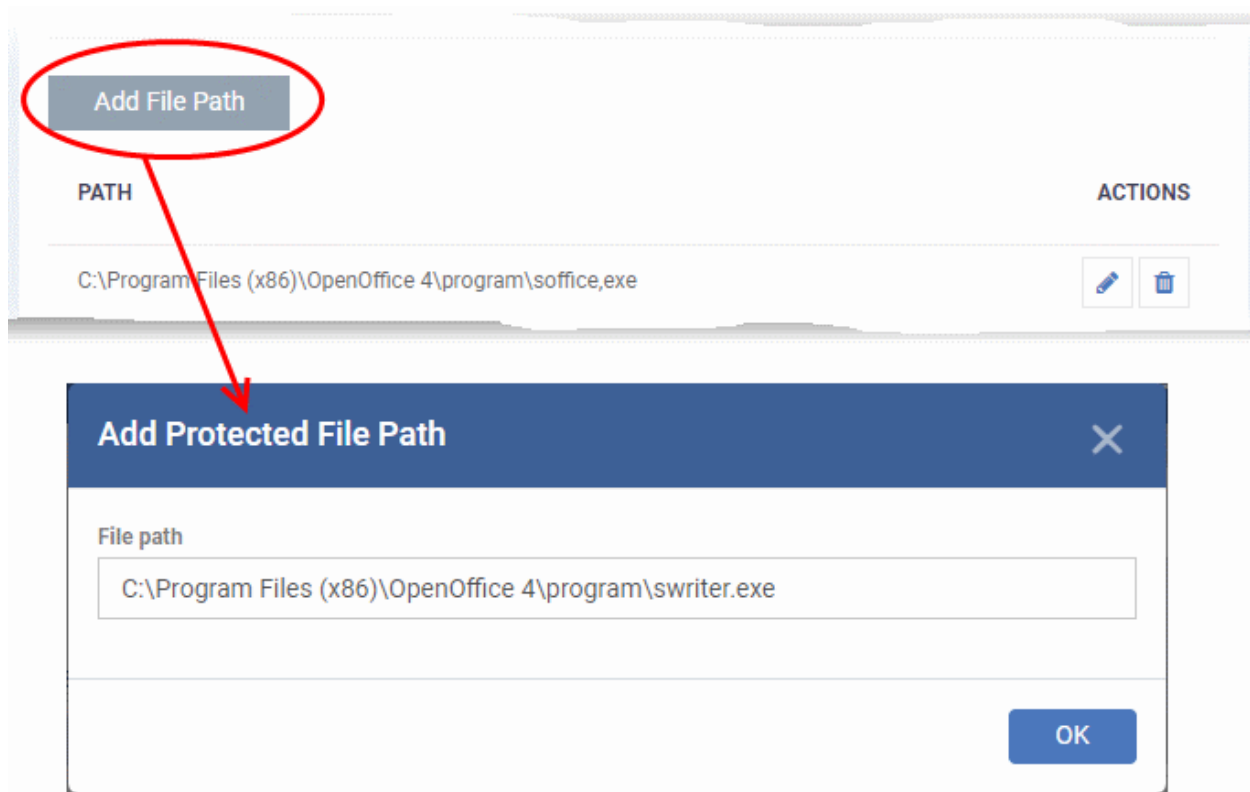
- To view the list of individual files, programs, applications added to the Protected Files list and manage them, choose 'File List'
- To view the File Groups added to the Protected File list, choose 'Group List'

You can add individual files, programs, applications or file/groups to 'Protected Files'.

### To add an individual file, program or an application

- Choose 'File List' from the drop-down at the right and click the 'Add File Path' button.

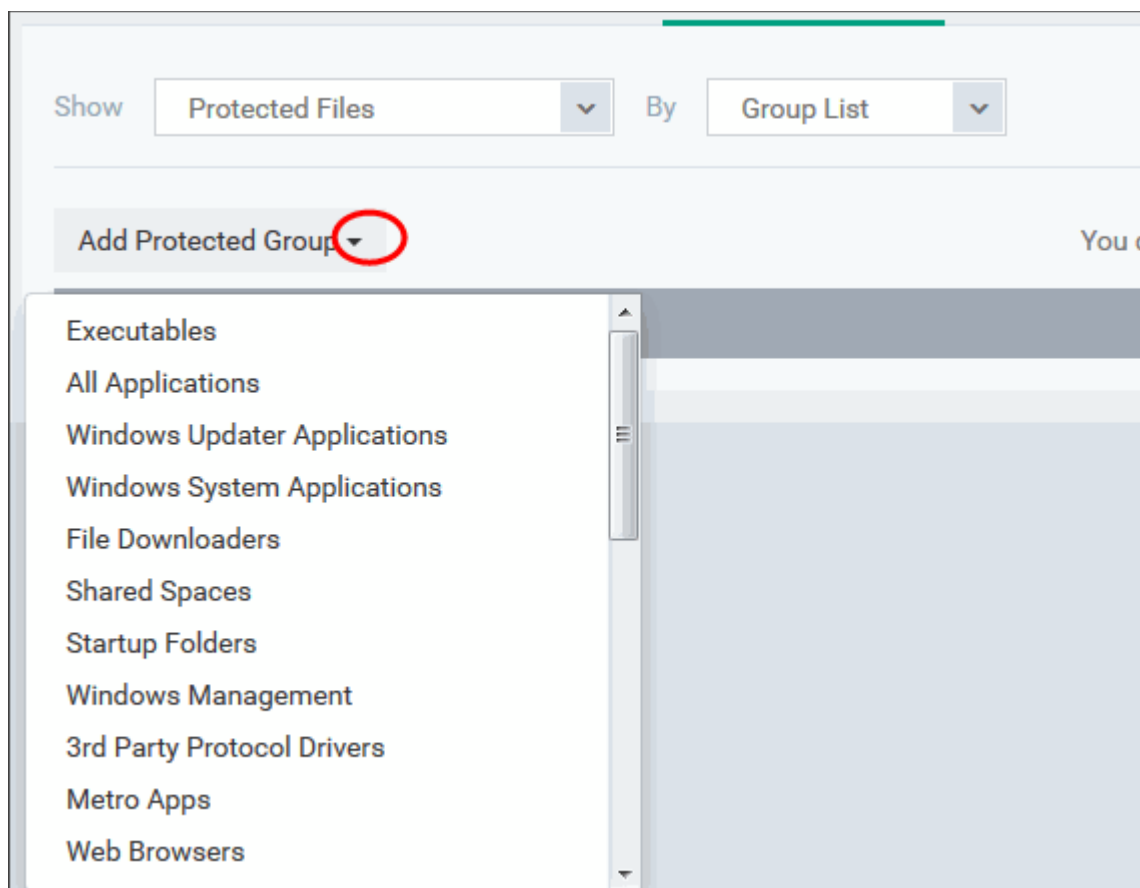




- Enter the installation/storage path with file name of the file to be protected, in the managed computers, in the 'Add Protected File Path' dialog and click 'OK'.
- Repeat the process to add more files.
- To edit the path of an item in the list, click the Edit icon under the 'Actions' in the list.
- To remove an item from the list, click the trash can icon under 'Actions' in the list

### To add an application/file group to the Protected Files list

- Choose 'Group List' from the drop-down at the right and click the 'Add Protected Group' button



- Choose the file group from the drop-down and click 'OK'.

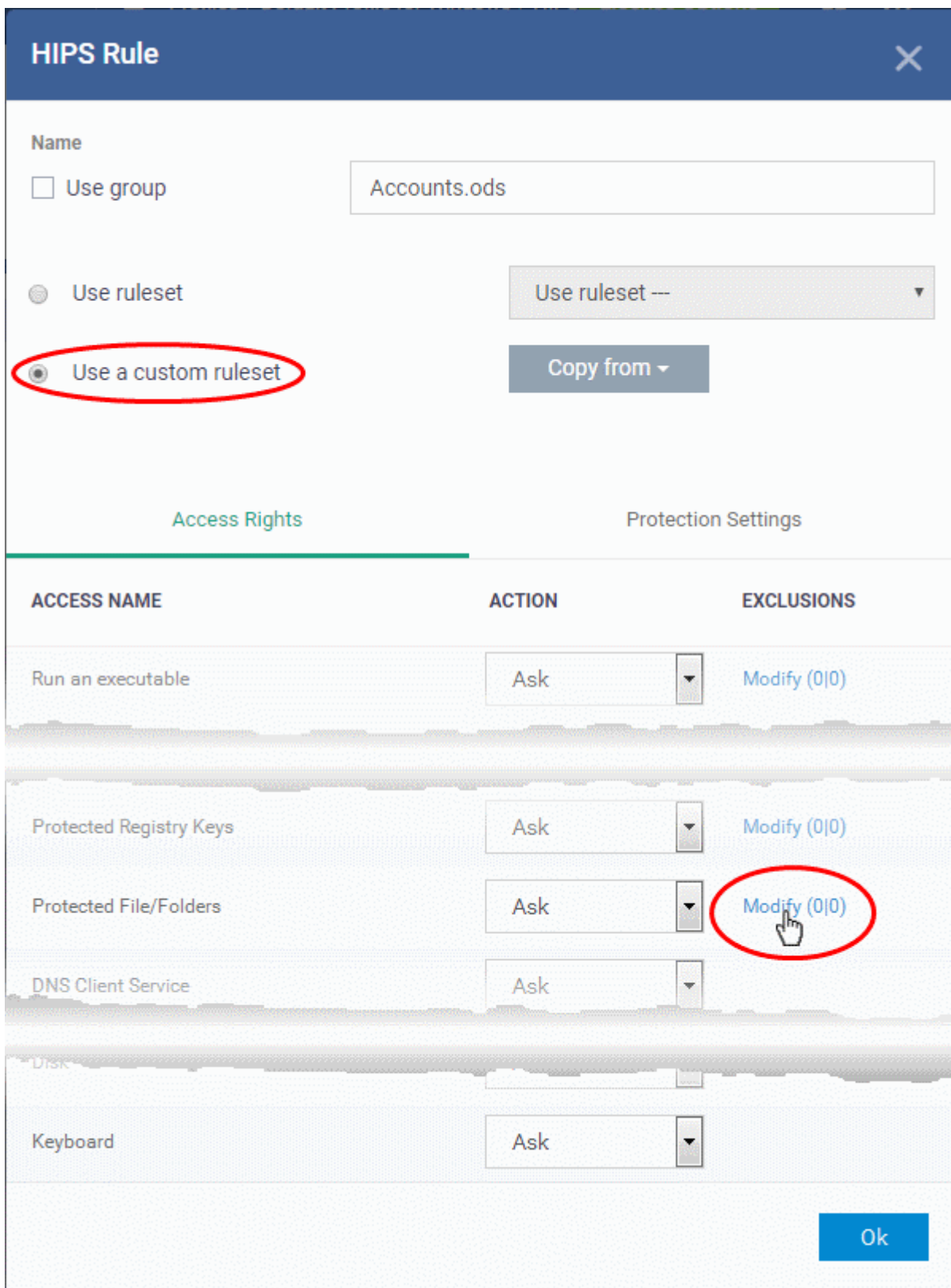
**Note:** Endpoint Manager ships with a set of predefined file groups containing collections of files under respective categories. You can also create custom file groups with required applications. All the pre-defined and the custom file groups will be available in the drop-down. The custom file groups can be created under 'Settings' > 'System Templates' > 'File Groups Variables' interface. See [Create and Manage File Groups](#) for more details.

- Repeat the process to add more file groups.
- To edit the path of an item in the list, click the Edit icon under the 'Actions' in the list.
- To remove an item from the list, click the trash can icon under 'Actions' in the list

### Exceptions

You can choose to selectively allow another application (or file group) to modify a protected file by affording the appropriate 'Access Right' in '**HIPS Rules**' interface. A simplistic example would be the imaginary file 'Accounts.ods'. You would want the 'Open Office Calc' program to be able to modify this file as you are working on it, but you would not want it to be accessed by a potential malicious program. You would first **add** the spreadsheet to the 'Protected Files' area. Once added to 'Protected Files', you would go into '**HIPS Rules**' and create an exception for 'scalcl' so that it alone could modify 'Accounts.ods'.

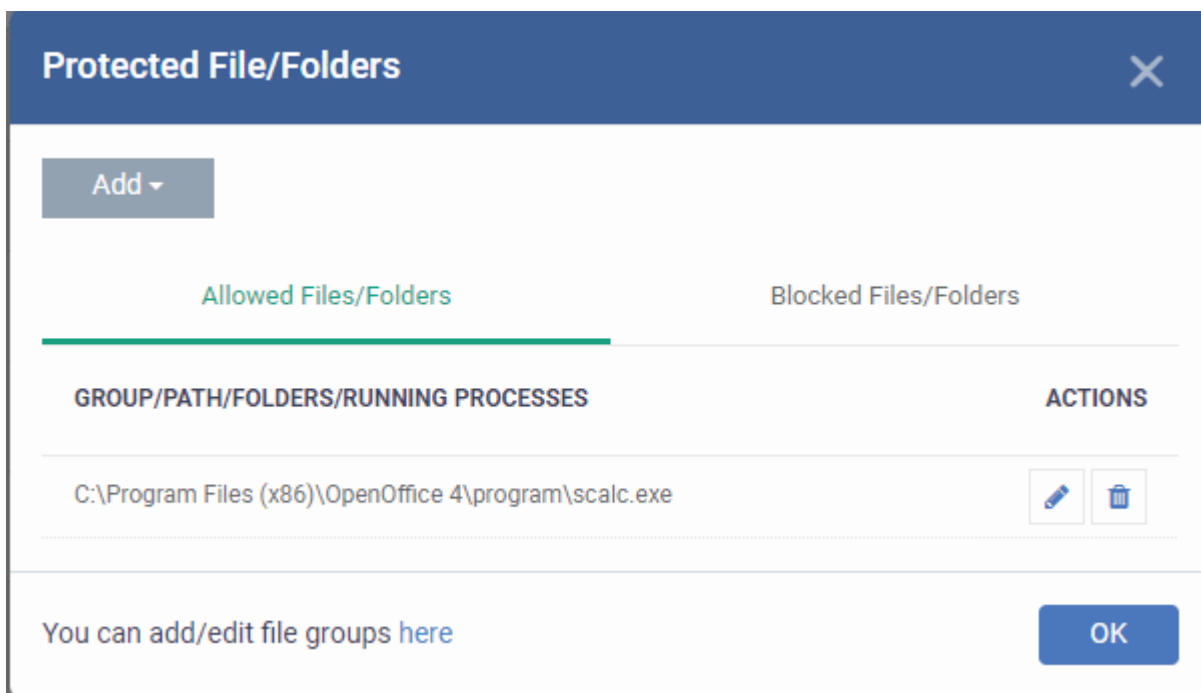
- First add Accounts.ods to 'Protected Files' area as explained **above**.
- Then go to 'HIPS Rules' interface and add it to the list of applications.
- In the 'HIPS Rule' interface, enter the file name as Accounts.ods, choose 'Use a Custom Ruleset' and select a ruleset from the 'Copy From' drop-down.
- Under 'Access Rights' tab, set all the rules to 'Ask'



- Click the 'Modify' beside 'Protected File/Folders'
- Under the 'Access Rights' section, click the link 'Modify' beside the entry 'Protected Files/Folders'.

The 'Protected Files/Folders' interface will appear.

- Under the 'Allowed Files/Folders' section, click 'Add' > 'Files' and add scalc.exe as exceptions to the 'Ask' or 'Block' rule in the 'Access Rights'.

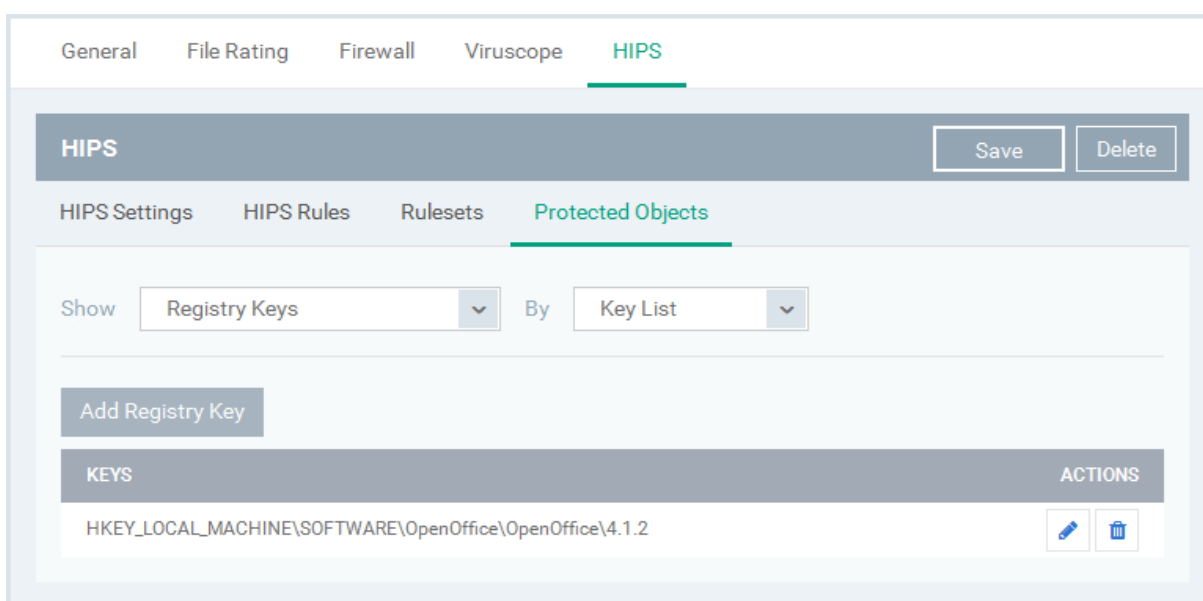


Another example of where protected files should be given selective access is the Windows system directory at 'c:\windows\system32'. Files in this folder should be off-limits to modification by anything except certain, Trusted, applications like Windows Updater Applications. In this case, you would add the directory c:\windows\system32\* to the 'Protected Files area (\* = all files in this directory). Next go to '**HIPS Rules**', locate the file group 'Windows Updater Applications' in the list and follow the same process outlined above to create an exception for that group of executables.

## Registry Keys

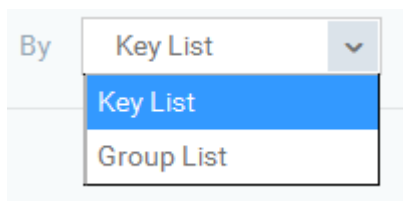
The 'Registry Keys' list under 'Protected Objects' interface allows you to view and manage list of critical registry keys and registry groups to be protected against modification. Irreversible damage can be caused to the managed endpoint if important registry keys are corrupted or modified in any way. It is essential that the registry keys are protected against any type of attack.

To view the list of Protected Registry Keys, choose 'Registry Keys' from the 'Show' drop-down in the 'Protected Objects' interface



The Protected Registry Keys list is displayed under two categories, which can be selected from the drop-down at the

right.

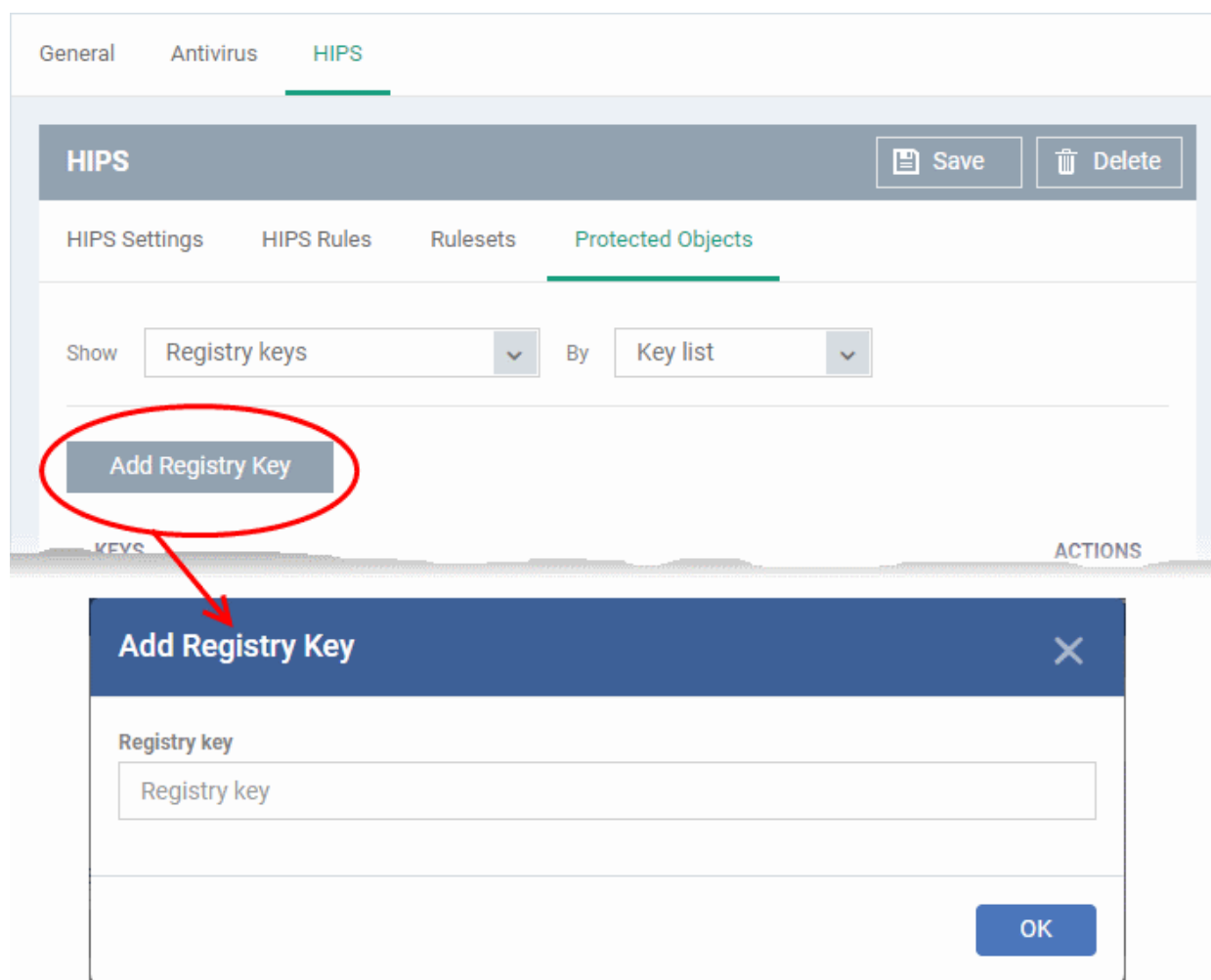


- To view the list of individual keys and values, and manage them, choose 'Key List'
- To view the Registry Groups, choose 'Group List'

You can add individual registry keys and Registry groups to Protected Registry Keys list.

### To add an individual key

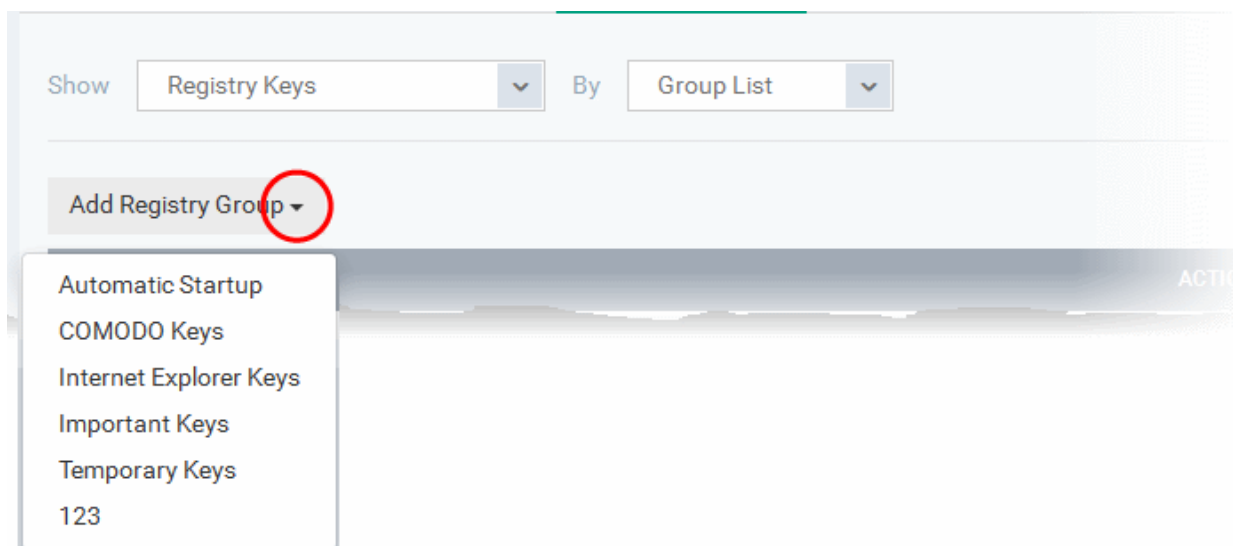
- Choose 'Key List' from the drop-down at the right and click the 'Add Registry Key' button.



- Enter the key name to be protected in the 'Add Registry Key' dialog and click 'OK'.
- Repeat the process to add more keys.
- To edit an item in the list, click the 'Edit' icon under the 'Actions' in the list.
- To remove an item from the list, click the trash can icon under 'Actions' in the list

### To add an Registry group to the Protected Registry Keys list

- Choose 'Group List' from the drop-down at the right and click the 'Add Protected Files' button



- Choose the Registry group from the drop-down and click 'OK'.

**Note:** Endpoint Manager ships with a set of predefined Registry groups containing collections of registry keys under respective categories. You can also create custom Registry groups with required key values. All the predefined and the custom Registry groups will be available in the drop-down. The custom Registry groups can be created under 'Settings' > 'System Templates' > 'Registry Variables' interface. See [Create and Manage Registry Groups](#) for more details.

- Repeat the process to add more Registry groups.
- To edit the an item in the list, click the Edit icon under the 'Actions' in the list.
- To remove an item from the list, click the trash can icon under 'Actions' in the list

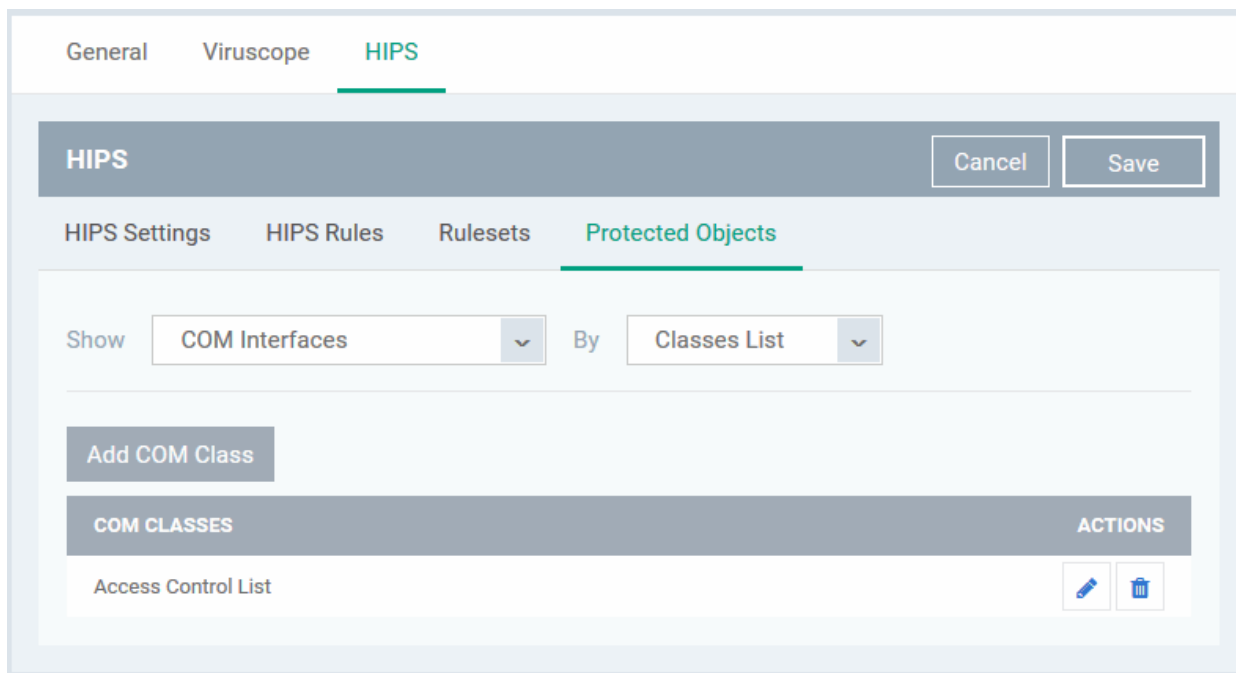
## COM Interfaces

Component Object Model (COM) is Microsoft's object-oriented programming model that defines how objects interact within a single application or between applications - specifying how components work together and inter-operate. COM is used as the basis for Active X and OLE - two favorite targets of hackers and malicious programs to launch attacks on a computer. It is a critical part of any security system to restrict processes from accessing the Component Object Model - in other words, to protect the COM interfaces.

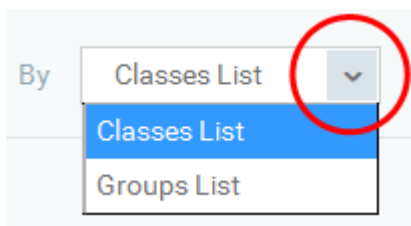
The 'COM Interfaces' list under 'Protected Objects' interface allows you to view and manage list of individual COM classes and COM groups that are to be protected by the Comodo Client Security at the managed computer against modification, corruption and manipulation by malicious processes.

### To view the list of Protected COM interfaces,

- Choose 'COM Interfaces' from the 'Show' drop-down in the 'Protected Objects' interface



The Protected COM Interfaces list is displayed under two categories, which can be selected from the drop-down at the right.



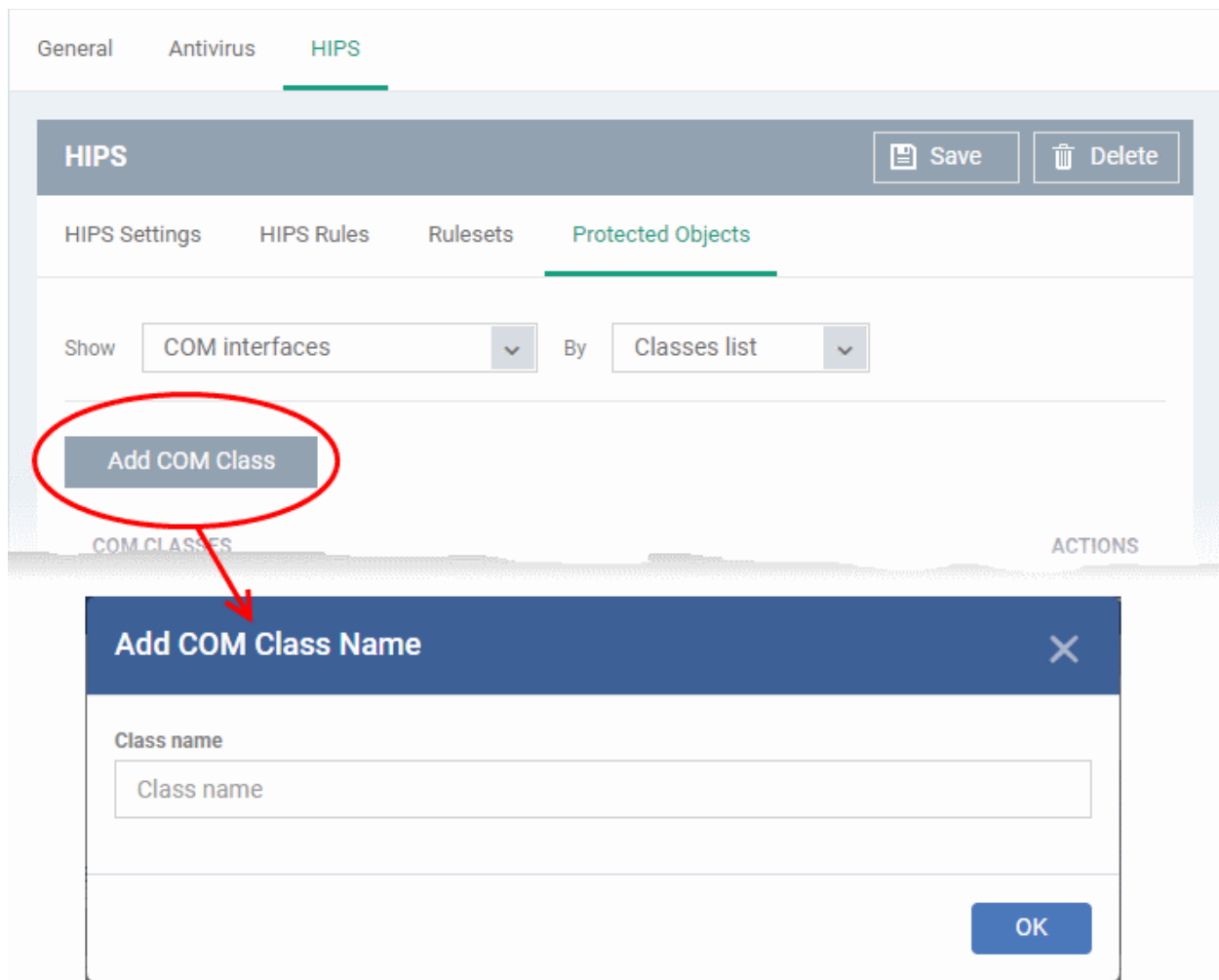
- To view the list of individual COM Interfaces/Classes and manage them, choose 'Classes List'
- To view the COM Groups and manage them, choose 'Group List'

You can add individual COM Interfaces/Classes and/or pre-defined COM groups to 'Protected COM Objects' list.

### To add an individual COM object

- Choose 'Classes List' from the drop-down at the right and click the 'Add COM Class' button

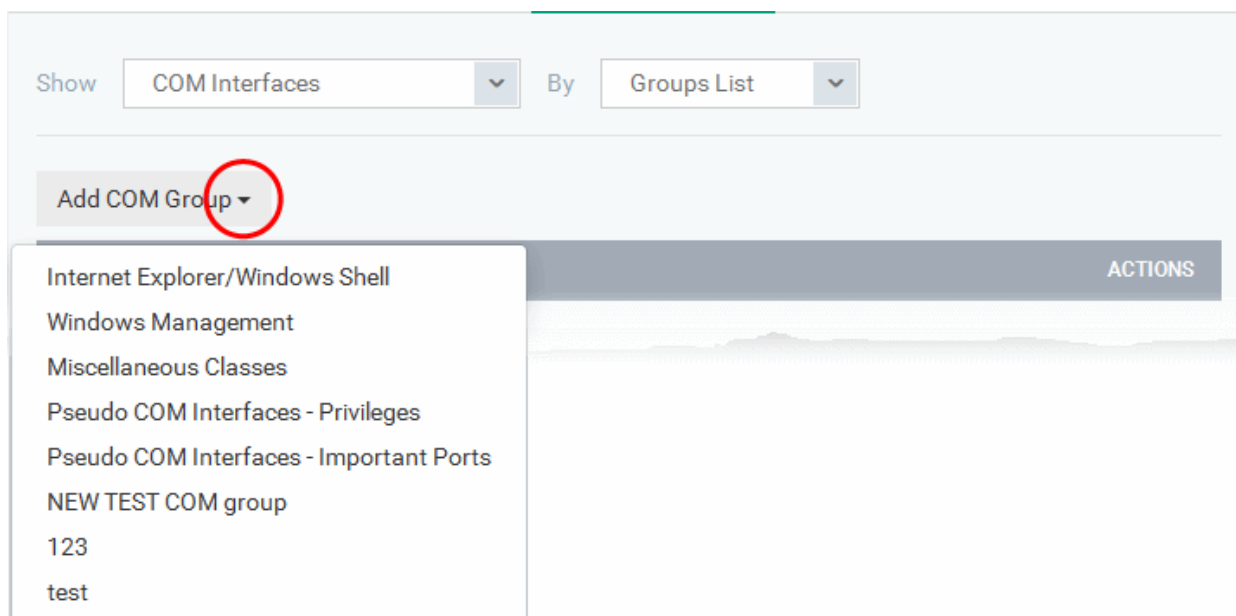




- Enter the name of the COM object to be protected at the managed computer, in the 'Add COM Class Name' dialog and click 'OK'.
- Repeat the process to add more COM objects.
- To edit an item in the list, click the Edit icon under the 'Actions' in the list.
- To remove an item from the list, click the trash can icon under 'Actions' in the list

#### **To add a predefined COM Group to the Protected COM objects list**

- Choose 'Group List' from the drop-down at the right and click the 'Add COM Group' button



- Choose the file group from the drop-down and click 'OK'.

**Note:** Endpoint Manager ships with a set of predefined COM groups containing collections of COM interfaces under respective categories. You can also create custom COM groups with required COM objects. All the predefined and the custom file groups will be available in the drop-down. The custom COM groups can be created under 'Settings' > 'System Templates' > 'COM Variables' interface. See [Create and Manage COM Groups](#) for more details.

- Repeat the process to add more COM groups.
- To edit an item in the list, click the Edit icon under the 'Actions' in the list.
- To remove an item from the list, click the trash can icon under 'Actions' in the list

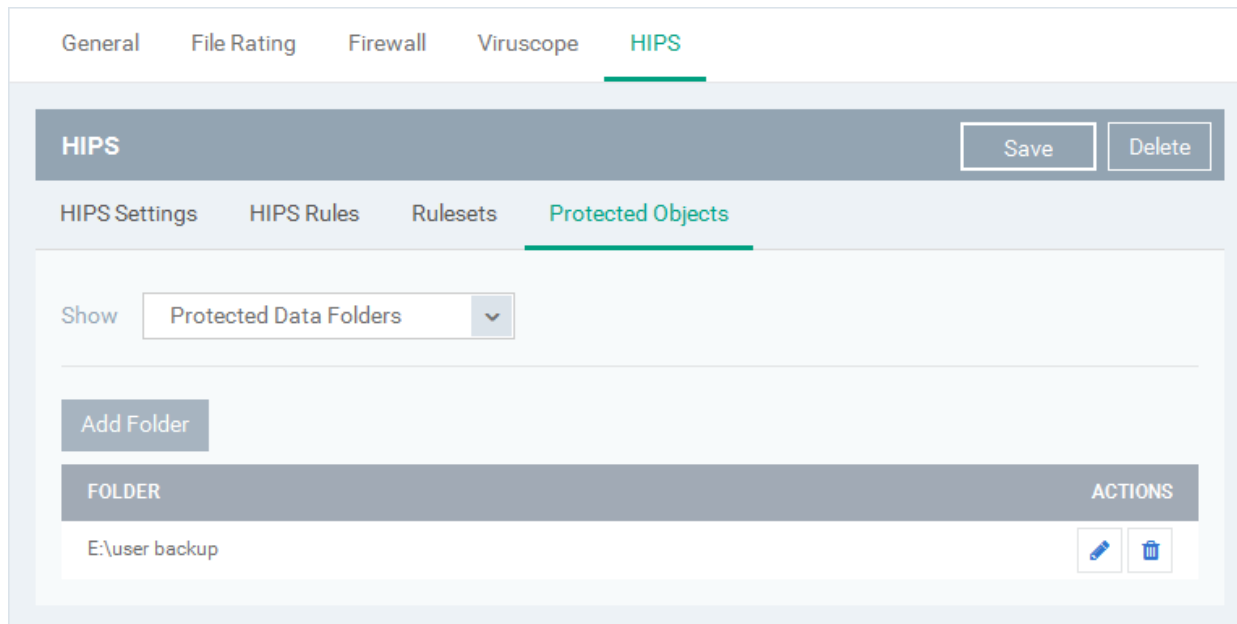
## Protected Data Folders

The data files in the folders listed under the 'Protected Data Folders' area cannot be seen, accessed or modified by any known or unknown application that is running inside the container.

**Tip:** Files and folders that are added to '[Protected Files](#)' interface are allowed read access by other programs but cannot be modified, whereas the files/folders in 'Protected Data folders' are totally hidden to contained programs. If you want a file to be read by other programs but protected from modifications, then add it to 'Protected Files' list. If you want to totally conceal a data file from all the contained programs but allow read/write access by other known/trusted programs, then add it to Protected Data Folders.

The Protected Data Folders list under Protected Objects allows you define protected data folders at the managed computers and to manage them.

- To open the Protected Data Folders list, choose 'Protected Data Folders' from the Show drop-down in the Protected Objects interface.



You can add standard folders at the managed computers as Protected Data Folders. Data files to be protected from contained programs, can be saved inside the folders at the managed computers.

### To add the path of protected data folder

- Click the 'Add Folder' button at the top of the list

The screenshot shows the HIPS configuration interface. At the top, there are tabs for 'General', 'Antivirus', and 'HIPS'. Under the 'HIPS' tab, there are sub-tabs for 'HIPS Settings', 'HIPS Rules', 'Rulesets', and 'Protected Objects'. The 'Protected Objects' sub-tab is active. Below the sub-tabs, there is a 'Show' dropdown menu set to 'Protected data folders'. A table with columns 'FOLDER' and 'ACTIONS' is partially visible. A red circle highlights the 'Add Folder' button, and a red arrow points from it to a modal dialog box titled 'Add Folder'. The dialog box has a close button (X) in the top right corner, a text input field labeled 'Folder name' with the placeholder text 'Folder name', and an 'OK' button at the bottom right.

- Enter the folder path in the Add Folder dialog and click 'OK'
- Repeat the process to add more folders
- To edit the an item in the list, click the Edit icon under the 'Actions' in the list.
- To remove an item from the list, click the trash can icon under 'Actions' in the list

#### 6.1.3.1.6. Containment Settings

- Comodo Client Security (CCS) can be configured to run all unknown files in a security hardened environment known as the 'container'.
- Files in the container are prevented from causing damage because they are isolated from the OS, file system and user data.
- The 'Containment' settings area lets you configure the overall behavior of the containment component.
- You can also create rules to define what types of files should be contained and at what restriction level.
- Modifications to containment settings are automatically logged. You can view the old and new values in the 'Dashboard' > 'Audit Logs' screen. See '**Audit Logs**' in the '**Dashboard**' section for more information.

Restriction levels include:

- **Run Virtually.** The file is completely isolated from your operating system and files on your computer
- **Run Restricted.** The file is contained but has limited access to operating system resources
- **Block.** The file is completely prevented from running

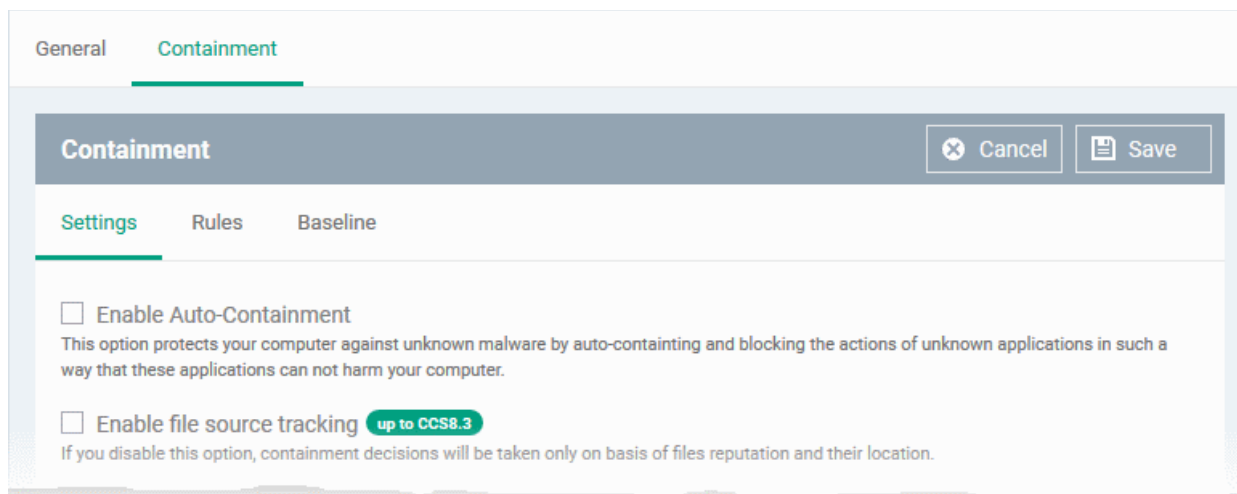
- **Ignore.** The file is run outside the container without restrictions

See **Auto-Containment Rules** for more information about rules.

### To configure Containment settings

- Click 'Configuration Templates' > 'Profiles'
- Open the profile you wish to work on
- Click 'Add Profile Section' > 'Containment'

The containment settings screen will open:

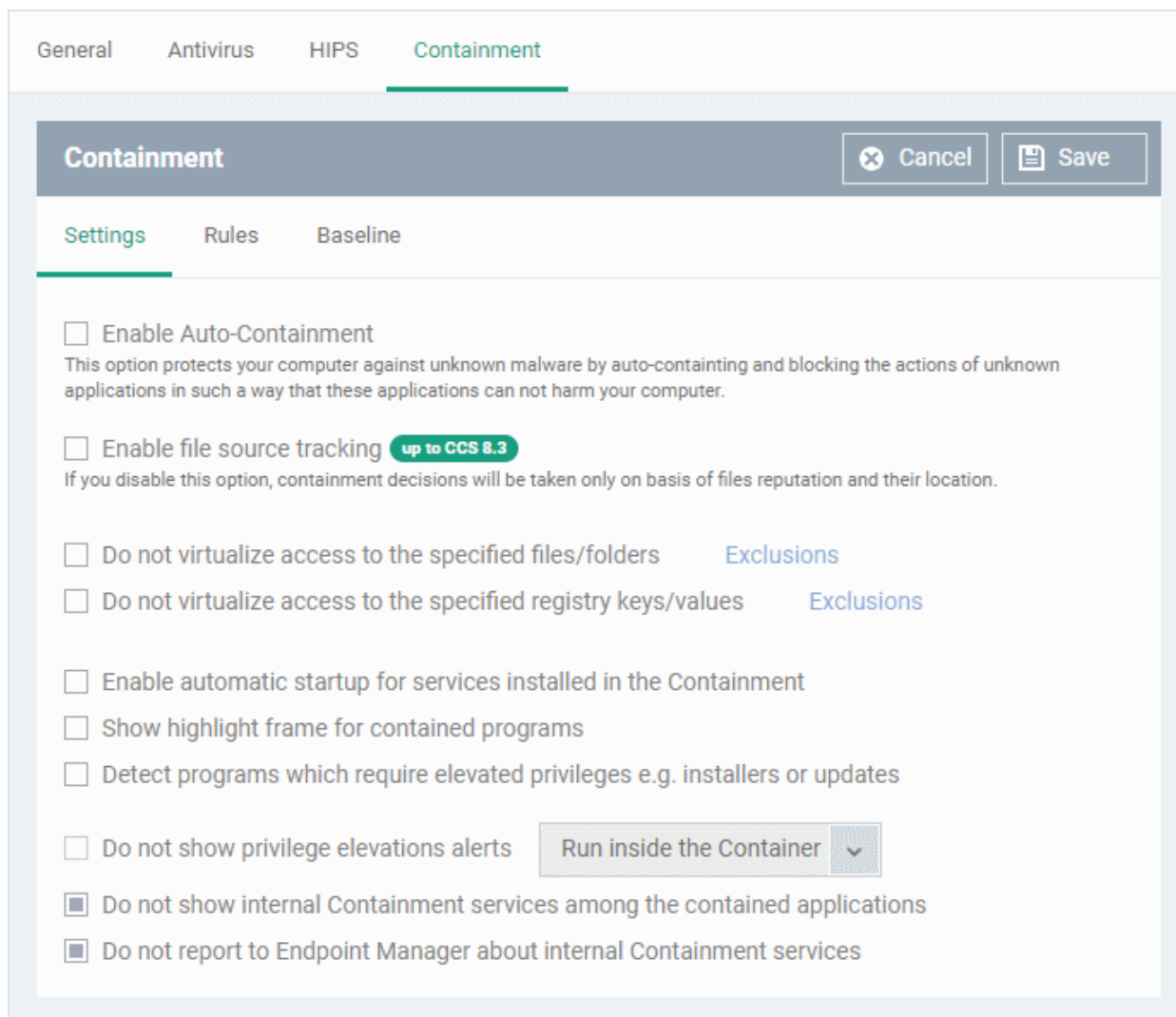


It contains three tabs.

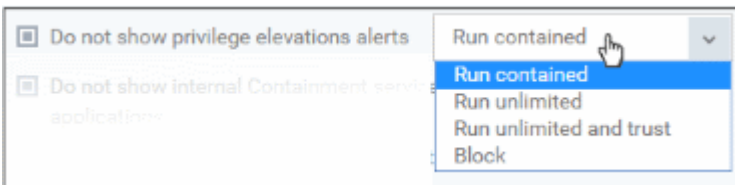
- **Containment Settings**
- **Auto-Containment Rules**
- **Baseline Settings**

### Containment Settings

- Enable or disable auto-containment
- Select files/folders that contained applications are allowed to access
- Configure various settings related to the behavior of the auto-containment system



Containment Settings - Table of Parameters	
Form Element	Description
Enable Auto-Containment	<p>Enable or disable auto-containment on the endpoint. If enabled, CCS will automatically run unknown applications inside the container.</p> <p>You can also create rules to fine-tune exactly which types of files are contained.</p> <p>For more details on rules, see '<a href="#">Configure Rules for Auto-Containment</a>'.</p> <p><b>(Default = Disabled)</b></p>
Enable file source tracking	<p>If enabled, the source parameter of a containment rule will be considered.</p> <p>For example, if you only want to auto-contain files downloaded from the internet, then 'internet' is your source.</p> <p>If this setting is disabled then the source will be disregarded and only the reputation and location parameters will be considered.</p> <ul style="list-style-type: none"> <li>Applies only to CCS versions 8.3 or lower.</li> </ul> <p><b>(Default = Disabled)</b></p>
Do not virtualize access to the specified	Contained applications can access folders and files on the local system

Containment Settings - Table of Parameters	
files/folders	<p>but cannot save any changes to them. However, you can define exceptions to this rule. <b>(Default = Disabled)</b></p> <p>See <b>exclusions for files/folders</b> (below this table) to find out how to add exclusions.</p> <p>Note - This setting determines whether or not a contained application can access specific files/folders on your local system. It does not determine whether or not an application should run in the container in the first place. If you wish to exclude applications in their entirety from the container, see '<b>Configure Rules for Auto-Containment</b>' instead.</p>
Do not virtualize access to the specified registry keys/values	<ul style="list-style-type: none"> <li>• Contained applications can access registry keys and values on the local system but cannot save any changes to them.</li> <li>• This setting lets you define exceptions to that rule. Contained applications will be able to access and save changes to registry items.</li> <li>• Click the 'Exclusions' link to choose registry keys/values which contained files are allowed to modify.</li> </ul> <p><b>(Default = Disabled)</b></p> <p>See <b>exclusions for registry keys/values</b> (below this table) to find out how to add exclusions.</p>
Enable automatic startup for services installed in the Containment	<p>By default, CCS does not permit contained services to run at Windows startup. Select this check-box to allow them to do so on target endpoints. <b>(Default = Disabled)</b></p>
Show highlight frame for contained programs	<p>If enabled, CCS will display a green border around programs running in the container on the endpoint. <b>(Default = Disabled)</b></p>
Detect programs which require elevated privileges e.g. installers or updates	<p>If enabled, CCS will proactively track programs that require admin privileges to run. An program that is allowed to run with elevated privileges is permitted to make changes to important areas of the endpoint, such as the registry. <b>(Default = Disabled)</b></p>
Do not show privilege elevation alerts	<p>If 'Detect...' is enabled (see setting above) then an alert is shown to the end-user when a new or unrecognized program requires admin or elevated privileges to run. If you do not want these alerts to be shown, select this option and choose the action to be taken for unrecognized programs:</p>  <p><b>(Default = Disabled)</b></p>
Do not show internal Containment services among the contained applications	<p>If enabled, any processes started by CCC/CCS will not be shown in the 'Active Process List' in CCS.</p> <p>You can view contained processes in CCS by clicking:</p> <ul style="list-style-type: none"> <li>• Tasks &gt; 'General Tasks' &gt; 'View Active Processes'</li> </ul>

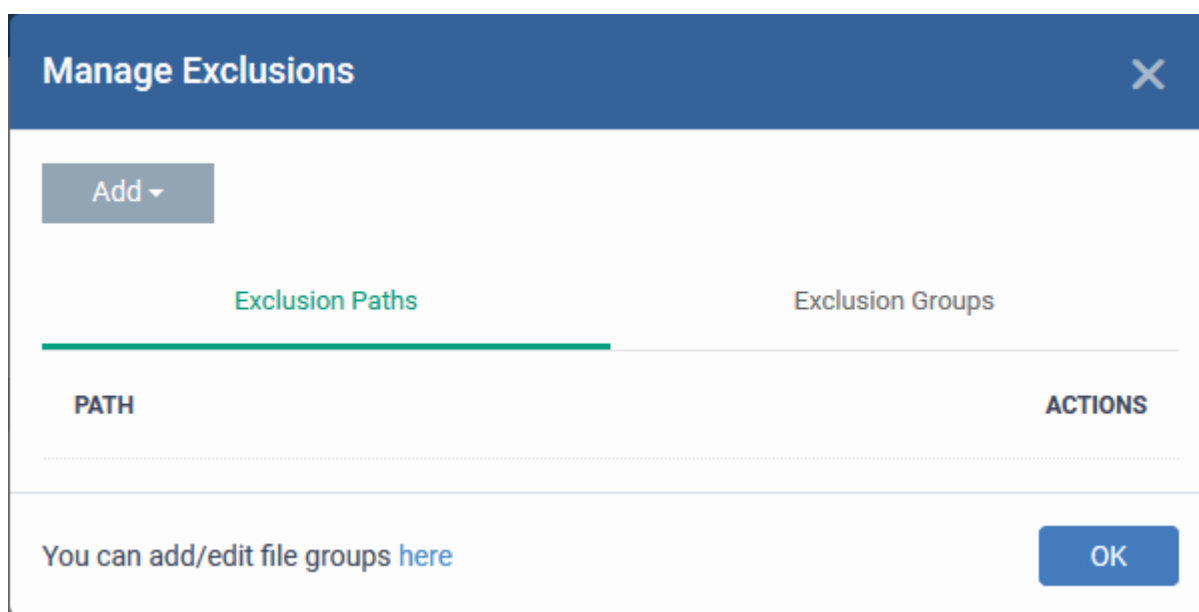


Containment Settings - Table of Parameters	
	<ul style="list-style-type: none"> <li>Right-click anywhere in the interface &gt; select 'Show Contained only'</li> </ul> <p><b>(Default = Enabled)</b></p>
Do not report to Endpoint Manager about internal Containment services	<p>If enabled, no information about contained processes started by communication client / CCS will be sent to Endpoint Manager.</p> <p>Click 'Security Sub-Systems' &gt; 'Containment' in EM console to view a history of contained applications and processes.</p> <p><b>(Default = Enabled)</b></p>

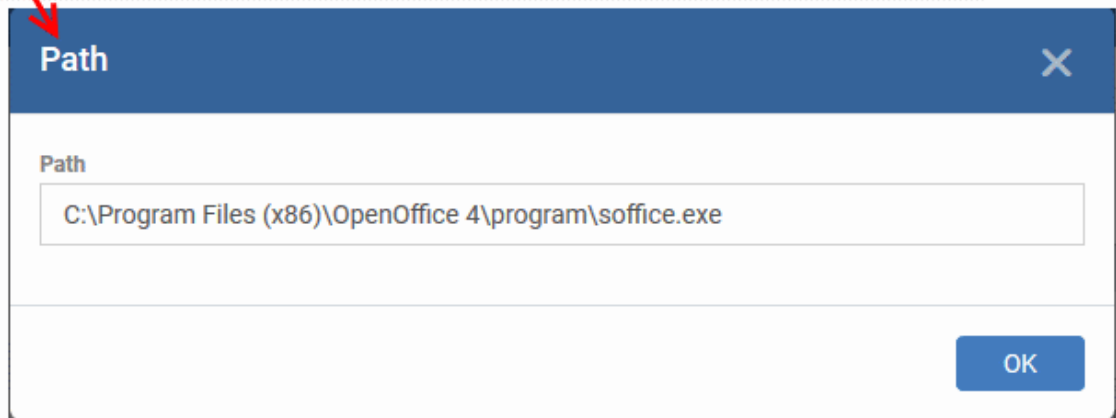
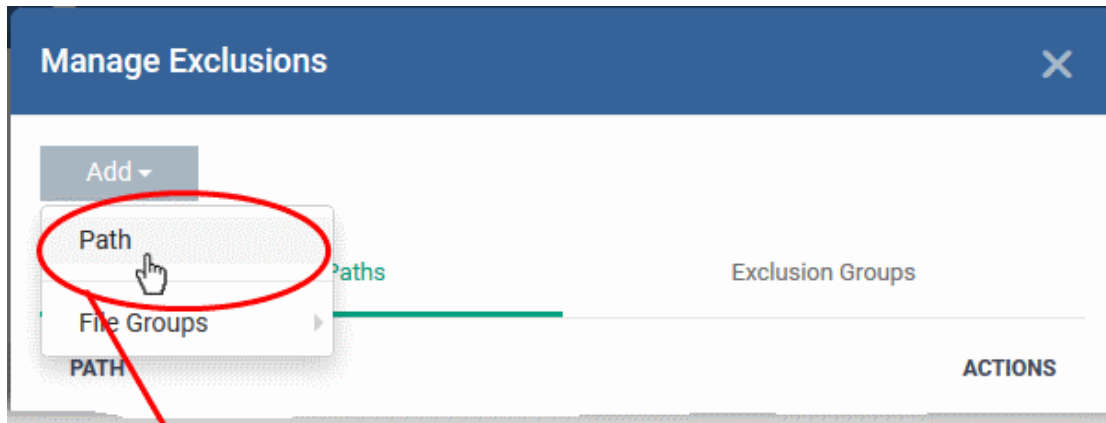
## To define exclusions for files and folders

**Note.** This section explains how to create an exclusion which allows an application in the container to access specific files and folders on the local system. If you want to entirely exclude an application from the container, then please see '[Configure Rules for Auto-Containment](#)' instead.

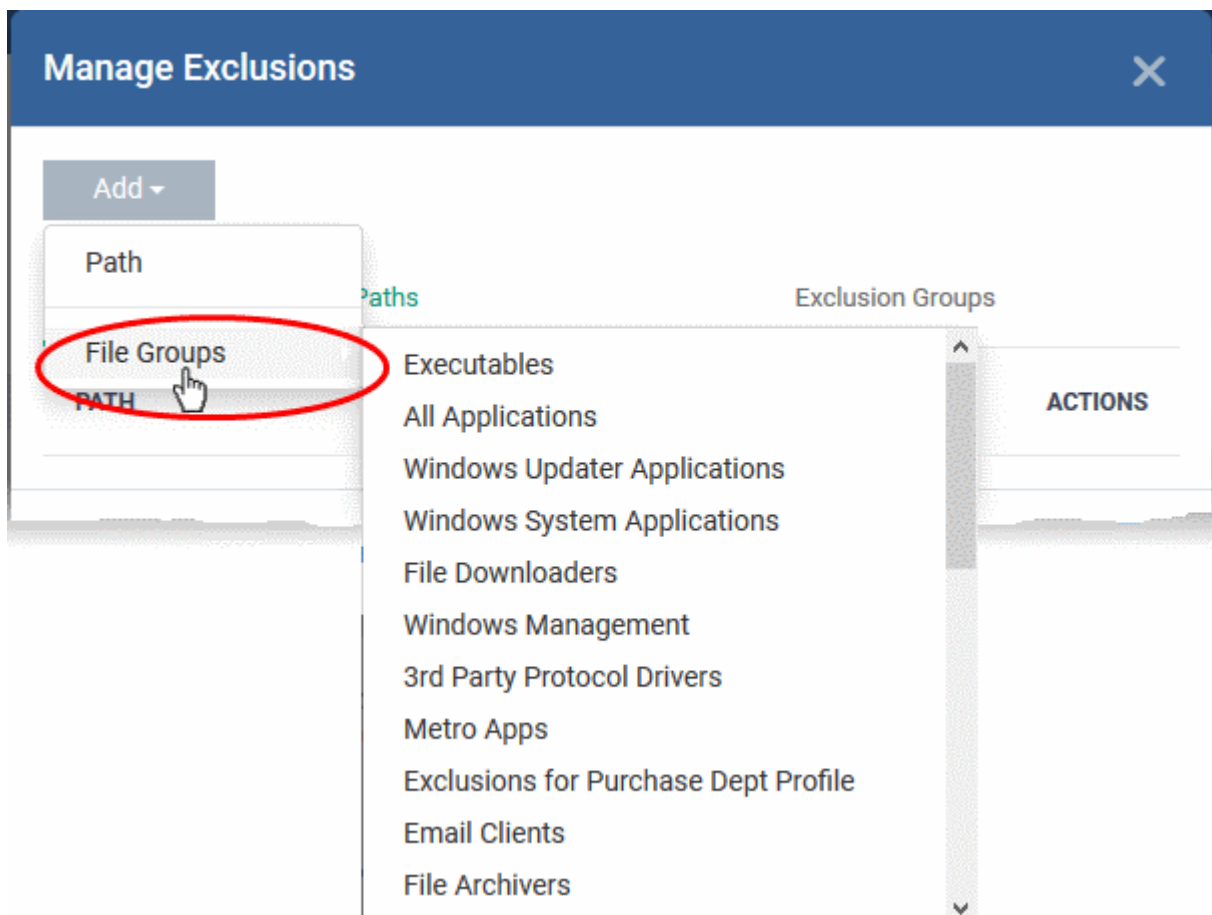
- Enable the 'Do not virtualize access to the specified files/folders' option then click 'Exclusions'.



- The 'Manage Exclusions' dialog will appear with a list of defined exclusions under two tabs:
  - Exclusion Paths** - The individual files that are added to the list, with their installation path
  - Exclusion Groups** - The file groups that are added to the list. A file group is a group of executable files of certain category. Endpoint Manager ships with a set of file groups. You can create custom file groups from the 'Settings' > 'System Templates' > 'File Groups Variables' interface. See [Create and Manage File Groups](#) for more details.
- To add a file path, choose File Path from the 'Add' Drop-down



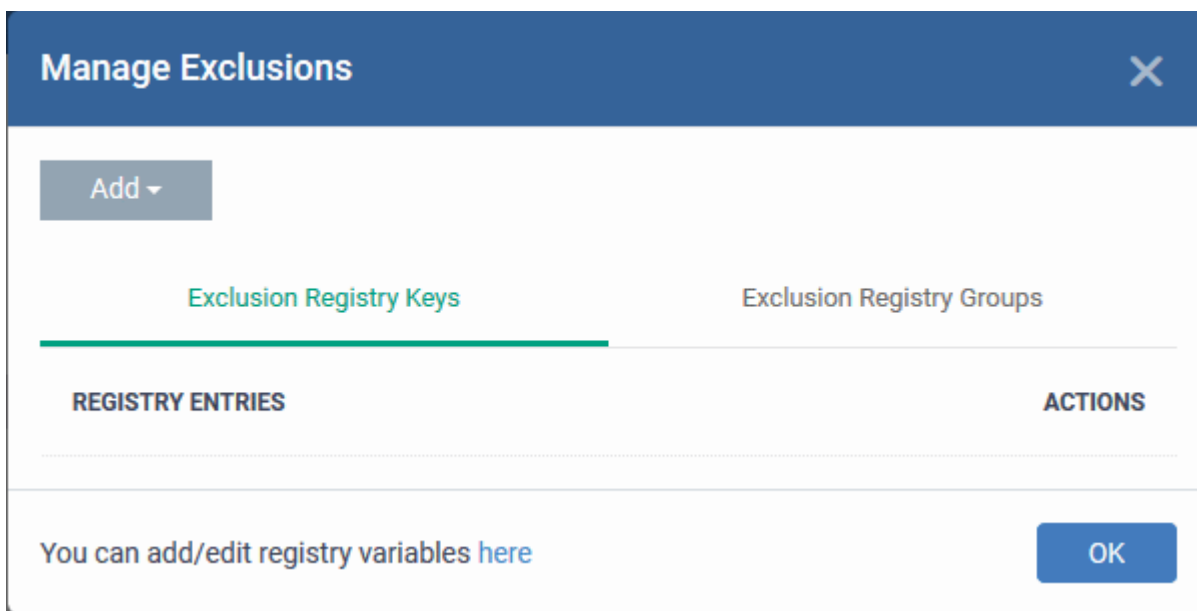
- Enter the storage/installation path of the file to be added to the exclusions list
- To add a File Group to exclusions, choose File Groups from the Add drop-down and choose the File Group.



- Click 'OK' to save your settings.
- You can edit or remove the exclusions using the respective buttons in the 'Action' column in the File/Folders interface.

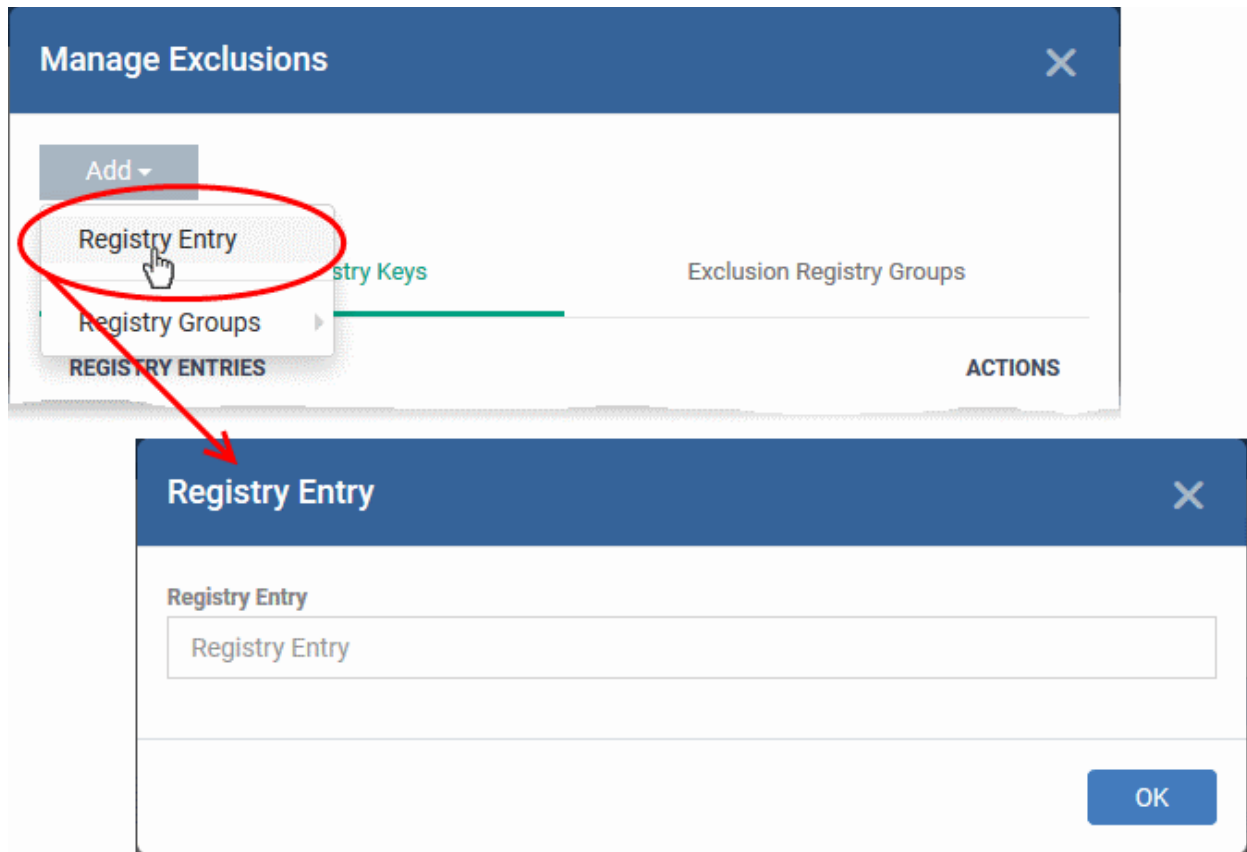
## To define exclusions for specific Registry keys and values

- Click 'Exclusions' beside 'Do not virtualize access to specified registry keys/values'.

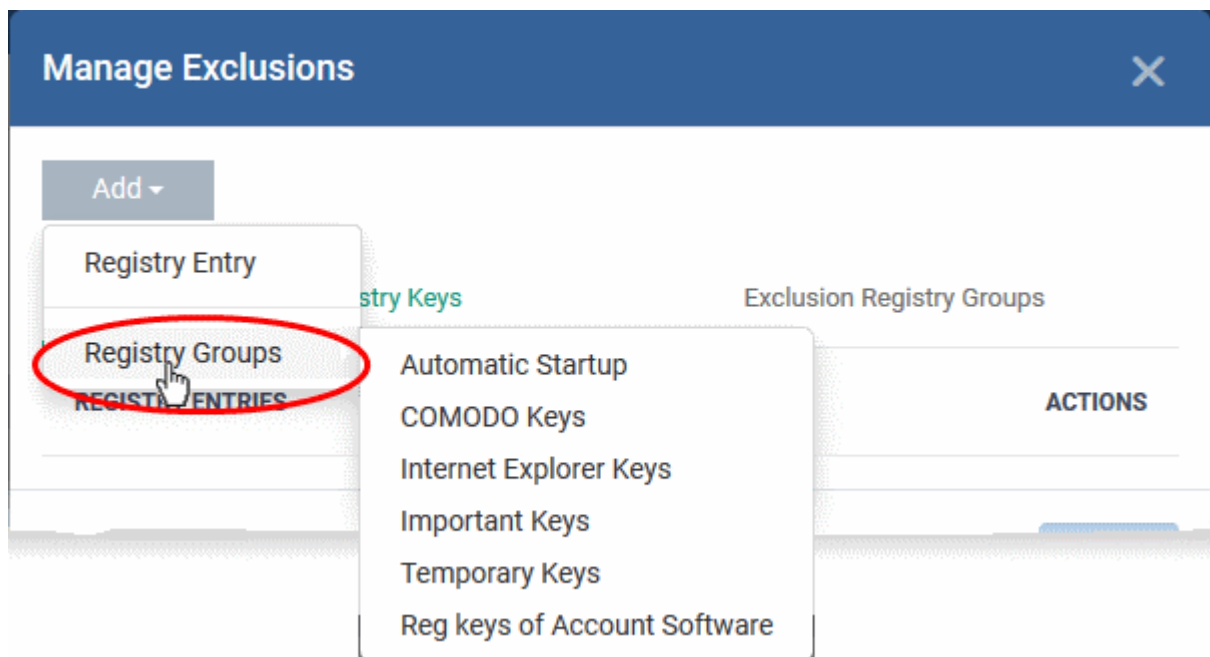


The 'Manage Exclusions' dialog will appear with a list of defined exclusions under two tabs:

- **Exclusion Registry Keys** - The Registry Keys /Values that are added to the list
- **Exclusion Registry Groups** - The Registry Groups that are added to the list. A Registry Group is a collection of Windows registry keys and values of certain category. Endpoint Manager ships with a set of registry groups. You can create custom registry groups from the 'Settings' > 'System Templates' > 'Registry Variables' interface. See [Create and Manage Registry Groups](#) for more details.
- To add a registry key or value, choose 'Registry Entry' from the 'Add' drop-down.



- Enter the registry key to be added to the list in the File Path dialog and click 'OK'
- To add a pre-defined 'Registry Group' to exclusions, choose 'Registry Groups' from the 'Add' drop-down and choose the Group.



- Click 'OK' to save your settings.

You can edit or remove the exclusions using the respective buttons in the 'Action' column in the Registry Keys / Values interface.

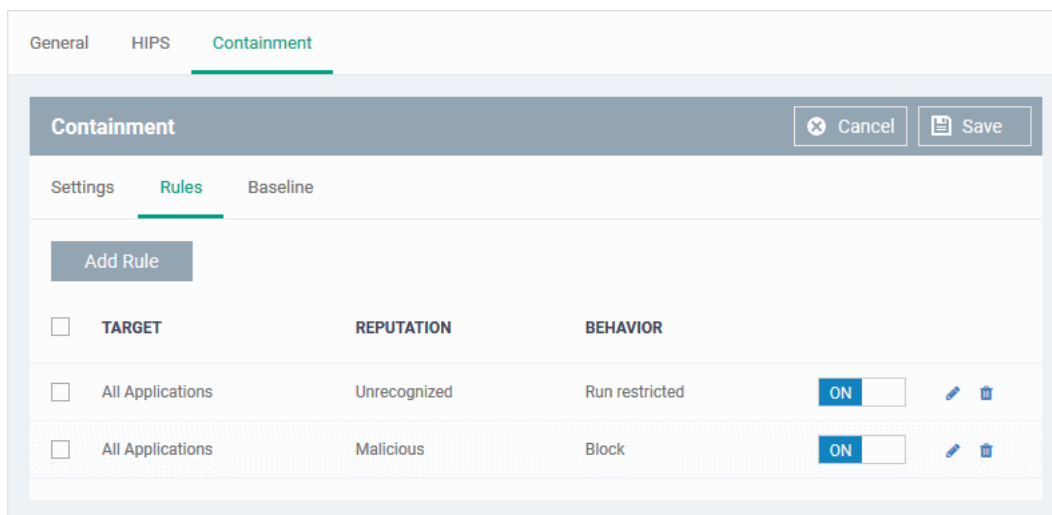
- Click the 'Save' button.

## Configure Auto-Containment Rules

- Containment rules determine whether a program should be run virtually in the container, run with restricted privileges, or allowed to run outside the container.
- CCS will show a green border around programs that are running in the container if so configured in **containment settings**.

### To open the rules interface:

- Click 'Configuration Templates' > 'Profiles'
- Open the profile you wish to work on
- Click the 'Containment' tab (click 'Add Profile Section' > 'Containment' if you haven't added it yet)
- Click the 'Rules' tab to view and manage auto-containment rules:



- The table lists all rules configured for the profile.
- Rules at the top of the table have a higher priority than those at the bottom. The setting in the rule nearer the top will prevail in the event of a conflict between rules.

Containment Rules - Column Descriptions	
Column Heading	Description
Target	The files, file groups or locations to which the rule applies.
Reputation	The trust status of the files to which the rule should apply. The possible values are: <ul style="list-style-type: none"> <li>• 'Any'</li> <li>• 'Malicious'</li> <li>• 'Trusted'</li> <li>• 'Unrecognized'.</li> </ul>
Behavior	The action that will be taken on the targets if the rule criteria are met. Possible actions are: <ul style="list-style-type: none"> <li>• Run virtually. File is sandboxed inside a fully virtual environment.</li> <li>• Run restricted. File is sandboxed with limited access to device resources.</li> <li>• Block. File is not allowed to run at all.</li> </ul>

- Ignore. File is not sandboxed and is allowed to run on the host without restriction.

- Use the slider to enable/disable a rule.
- Click the trash icon to remove a rule.
- Click the edit icon to modify a rule.


Target(s) can be filtered by numerous criteria. These are, however, optional, so admins can create a very simple rule to run an application in the container just by specifying the action and the target application.

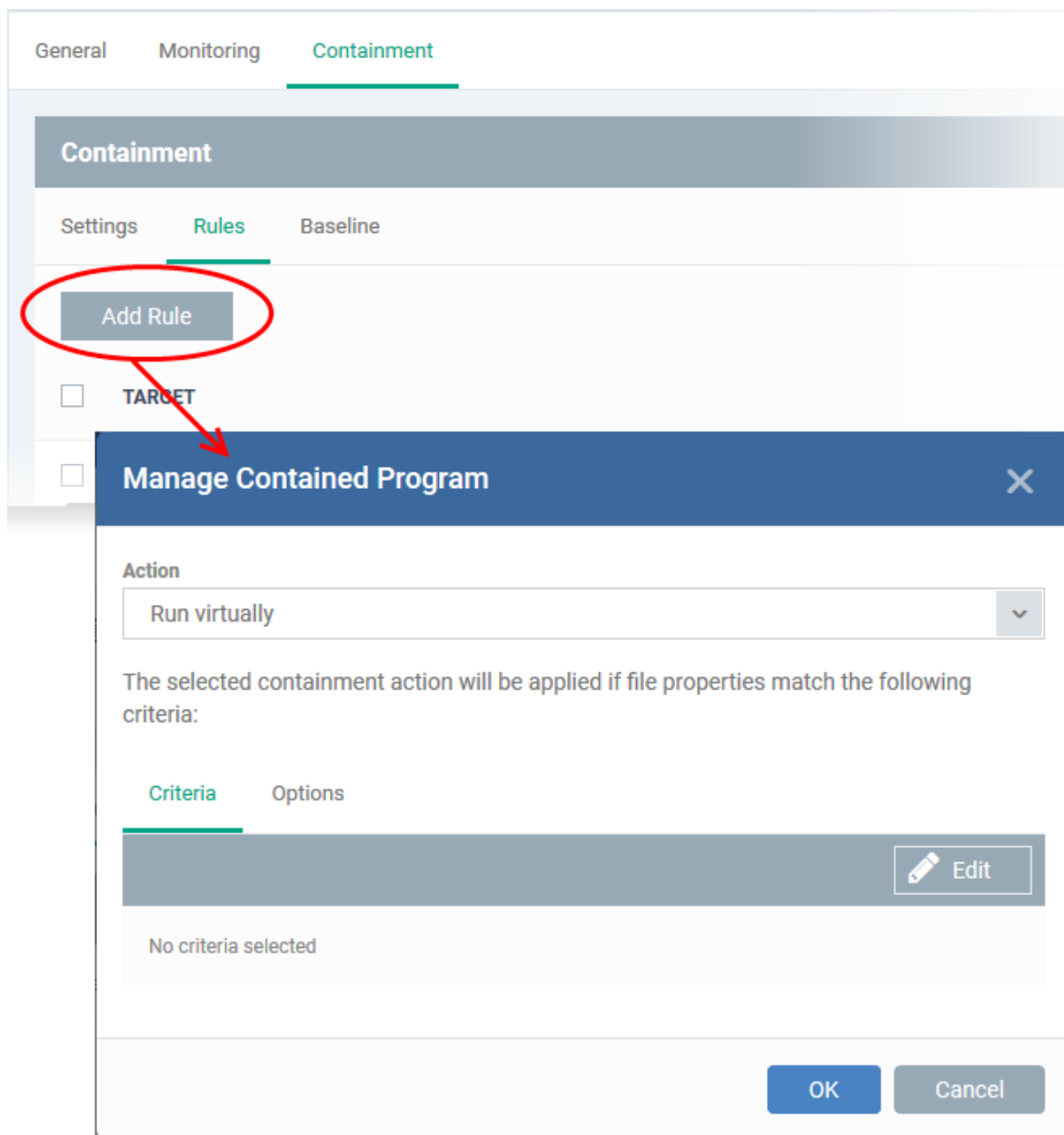
Example:

### Run an application outside the container

- Open the containment tab and click 'Rules'
- Click 'Add Rule'
- Select 'Ignore' in the 'Action' drop-down
- Click 'Edit' in the 'Criteria' section to choose the application(s) you wish to exclude
- Choose the file, folder, file group or hash you want to exclude
- Click 'OK'
- Move the new rule to the top of the rules list (you can drag and drop rules)

### To add a new rule

- Open the profile you wish to add the rule to
- Click the 'Containment' tab. Click 'Add Profile Section' > 'Containment' if you haven't added it yet.
- Click the 'Rules' tab
- Click the 'Add Rule' button 
- The 'Manage Contained Program' dialog will open:



The dialog shows the action at the top and contains two tabs:

- Criteria - Define conditions upon which the rule should be applied.
- Options - Configure additional actions like logging, memory allowance and execution time restrictions.

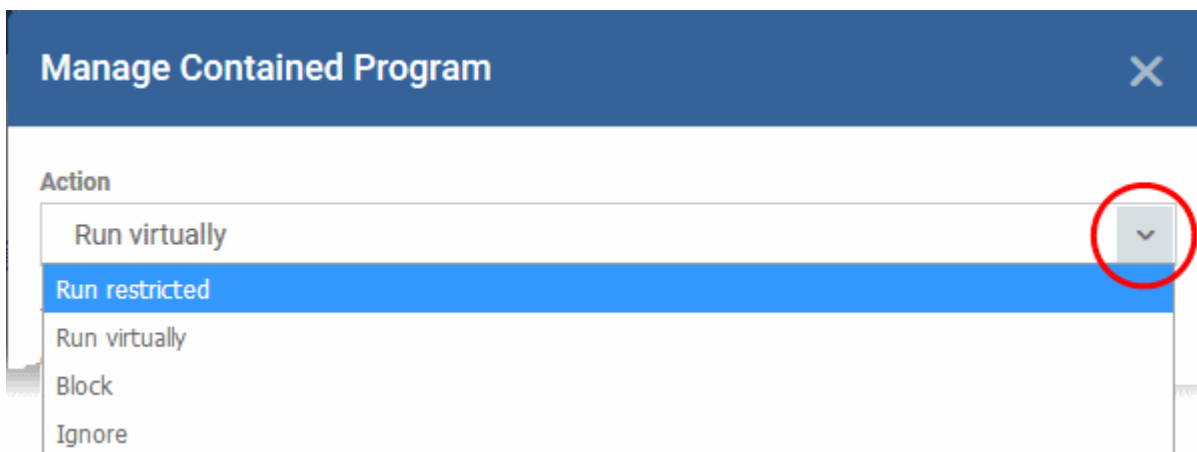
Creating a new containment rule involves the following steps:

- **Step 1 - Choose the action**
- **Step 2 - Select the target file/group and set the filter criteria for the target files**
- **Step 3 - Select the options**

### Step 1 - Choose the action

- The setting in the 'Action' drop-down and the restriction level in the 'Options' tab determine the privileges of an auto-contained application.





The options available in the 'Action' drop-down are:

- **Run Restricted** - The application is allowed to access very few operating system resources. The application is not allowed to execute more than 10 processes at a time and is run with very limited access rights. Some applications, like computer games, may not work properly under this setting.
- **Run Virtually** - The application will be run in a virtual environment completely isolated from your operating system and files on the rest of your computer.
- **Block** - The application is not allowed to run at all.
- **Ignore** - The application will not be contained and allowed to run with all privileges.

### Step 2 - Select the target file/group and set the filter criteria for the target files

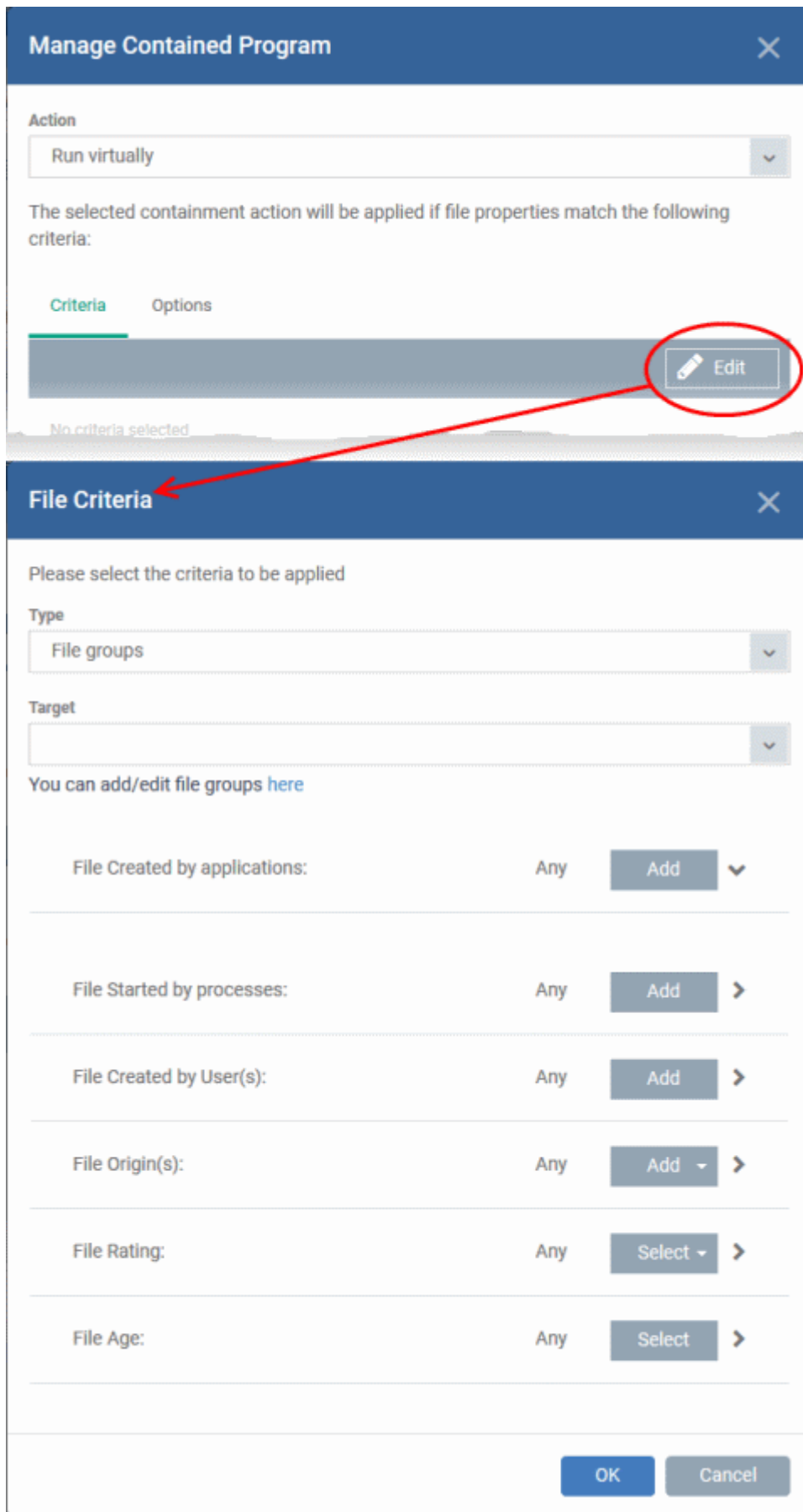
- The next step is to select the rule targets and configure filter parameters in the 'Criteria' tab.
- Filters let you target very specific types of file. For example, if you choose 'File Groups' as the type, 'Executables' as the target and add a 'File Origin' filter of 'Internet', then the rule only affects executables downloaded from the internet.
- Another example is if you want to allow unrecognized files created by a specific process to run outside the container:
  - Select 'Ignore' as the 'Action' then click 'Edit' in the 'Criteria' tab.
  - Select 'File Groups' as the type and 'All Applications' as the target
  - Select 'File created by process(es)' as the filter criteria
  - Click 'Add' and select 'Files' as the type.
  - Browse to the executable you wish to exempt.

#### To select the target and set filters

- Click the 'Criteria' tab.

The target and the filter criteria, if any, configured for the rule will be displayed.

- To add new target and filter criteria, click the 'Edit' button at the far right



The 'File Criteria' dialog will open. The file criteria dialog allows you:

- **Select the target**
- **Configure the filter criteria**

## Select the target

- Select the type of target item from the 'Type' drop-down. The 'Target' field lets you choose a target application, file group, folder or hash as applicable:
  - **Files** - Add an executable as the target by entering its installation path + file name.
  - **File Groups** - File groups are handy, predefined groupings of one or more file types. For example, selecting 'Executables' would include all files with the extensions .exe .dll .sys .ocx .bat .pif .scr. Other predefined categories include 'Windows System Applications', 'Windows Updater Applications' and 'Start Up Folders'. You can also create custom file groups in 'Settings' > 'System Templates' > 'File Groups Variables'. Refer to **Creating and Managing File Groups** for more details.
    - Select the predefined or custom file-group from the 'Target' drop-down.
  - **Folder** - Add the contents of a folder as the target.
    - Enter the path to the folder that contains the target files in the 'Target' field.
  - **File Hash** - Add a program as a target by specifying the SHA1 Hash value of the executable file. CCS monitors the files at the endpoint applied with the policy and if the executable file with the same hash value attempts to execute, the rule will be triggered and the program will be auto-contained.
    - Enter the SHA1 hash value of the target executable file in the 'Target' field.
  - **Process Hash** - Add a program as a target by specifying the SHA1 hash value of the process created by the executable. CCS monitors the files at the endpoint applied with the policy and if a process with the same hash value attempts to execute, the rule will be triggered and the program will be auto-contained as per the rule.
    - Enter the SHA1 hash value of the process created by the target file in the 'Target' field.

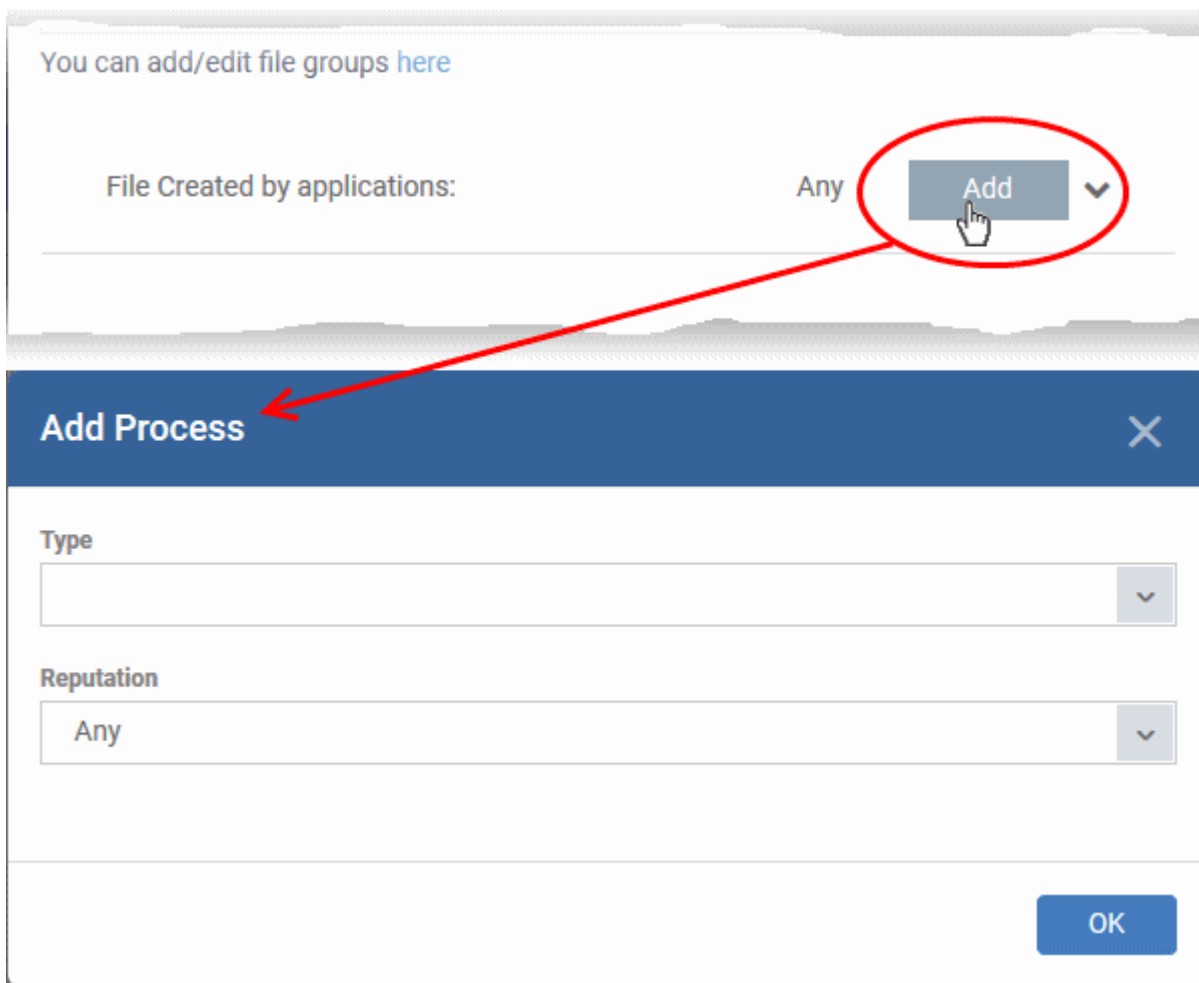
## Configure the Filter Criteria and File Rating

Filter criteria let you further refine which files are caught by the rule. The available filters are:

- **By application that created the file**
- **By process that created the file**
- **By user that created the file**
- **By location from which the file was downloaded**
- **By file rating**
- **By file age**

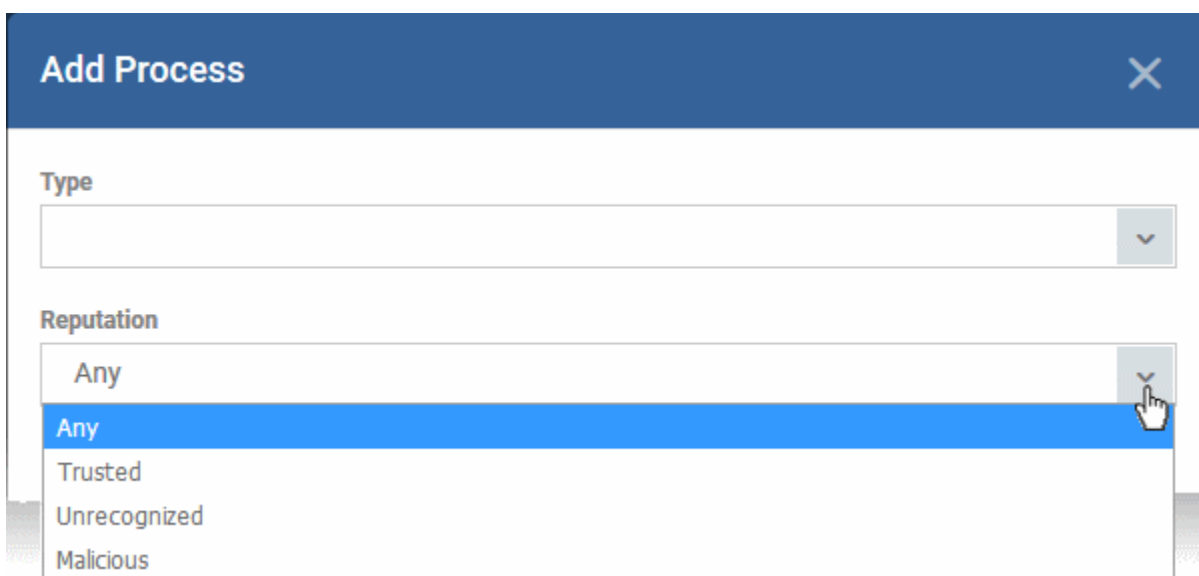
### By application that created the file

- Click the 'Add' button in the 'File Created by applications' stripe.



The 'Action' you specified earlier will be applied to files matching the type and reputation you choose here:

- **Type** - See **target types** above for more details.
- **Reputation** - Choose the file rating of the source you specified in the 'Type' drop-down.

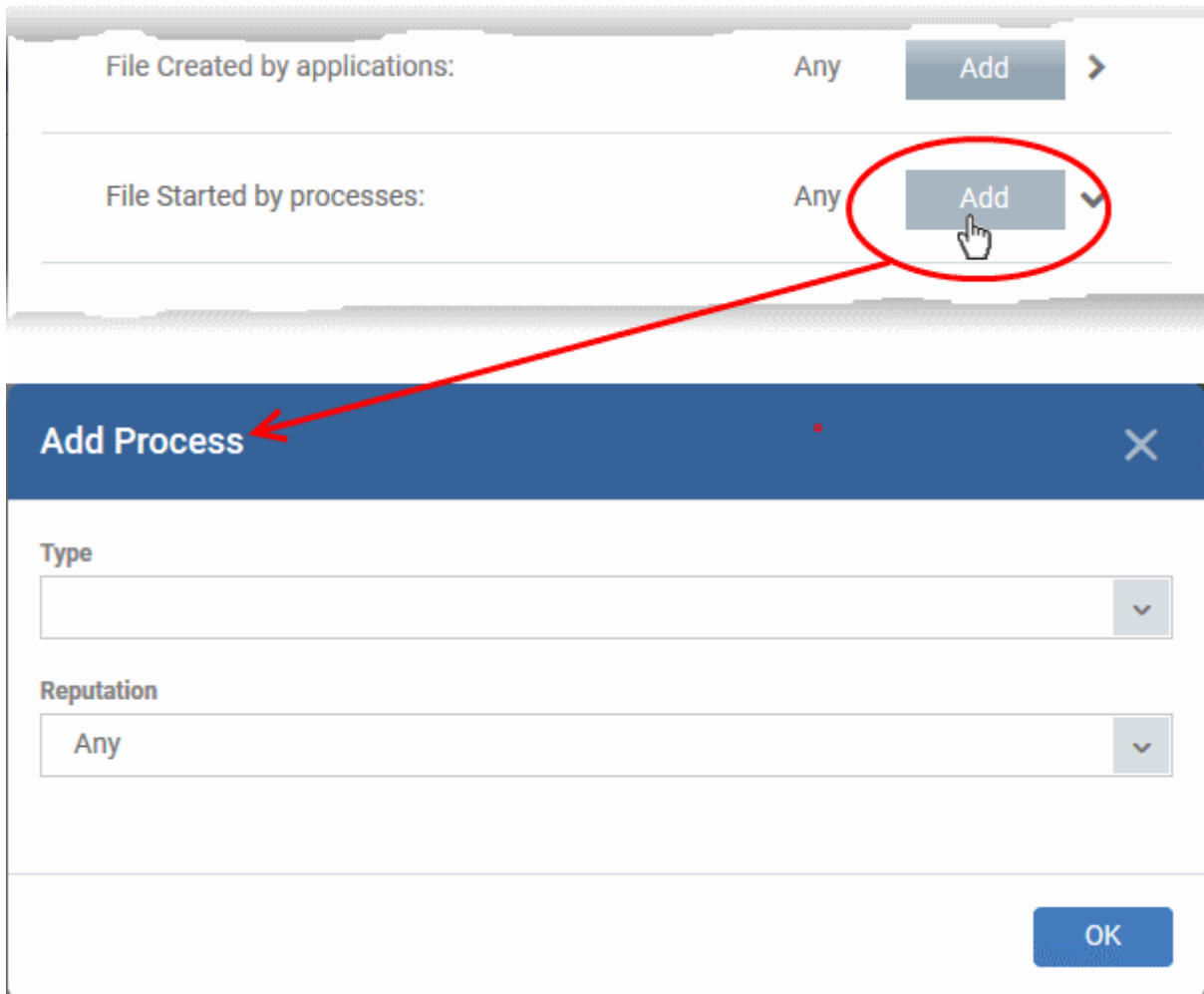


- Click 'OK' to save your settings
- Repeat the process to add more source applications

- To edit the source application items in the list, click the 'Edit' at the right of the item
- To remove an item, click 'Delete' at the right of the item

### To select the source process(es) to auto-contain the files started/opened by them

- Click the 'Add' button in the 'File Started by Process(es)' stripe.



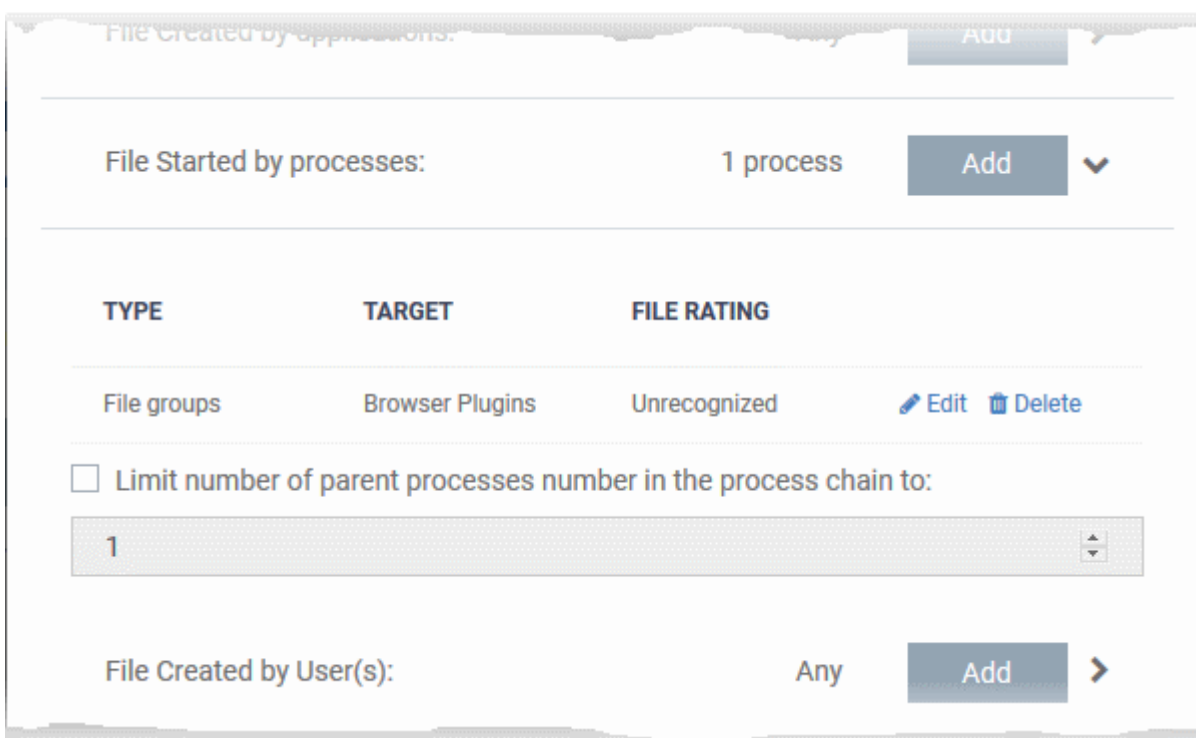
The 'Action' you specified earlier will be applied to files matching the type and reputation you choose here:

- **Type** - See **target types** above for more details.
- **Reputation** - Choose the file rating of the source you specified in the 'Type' drop-down.



- Click 'OK'

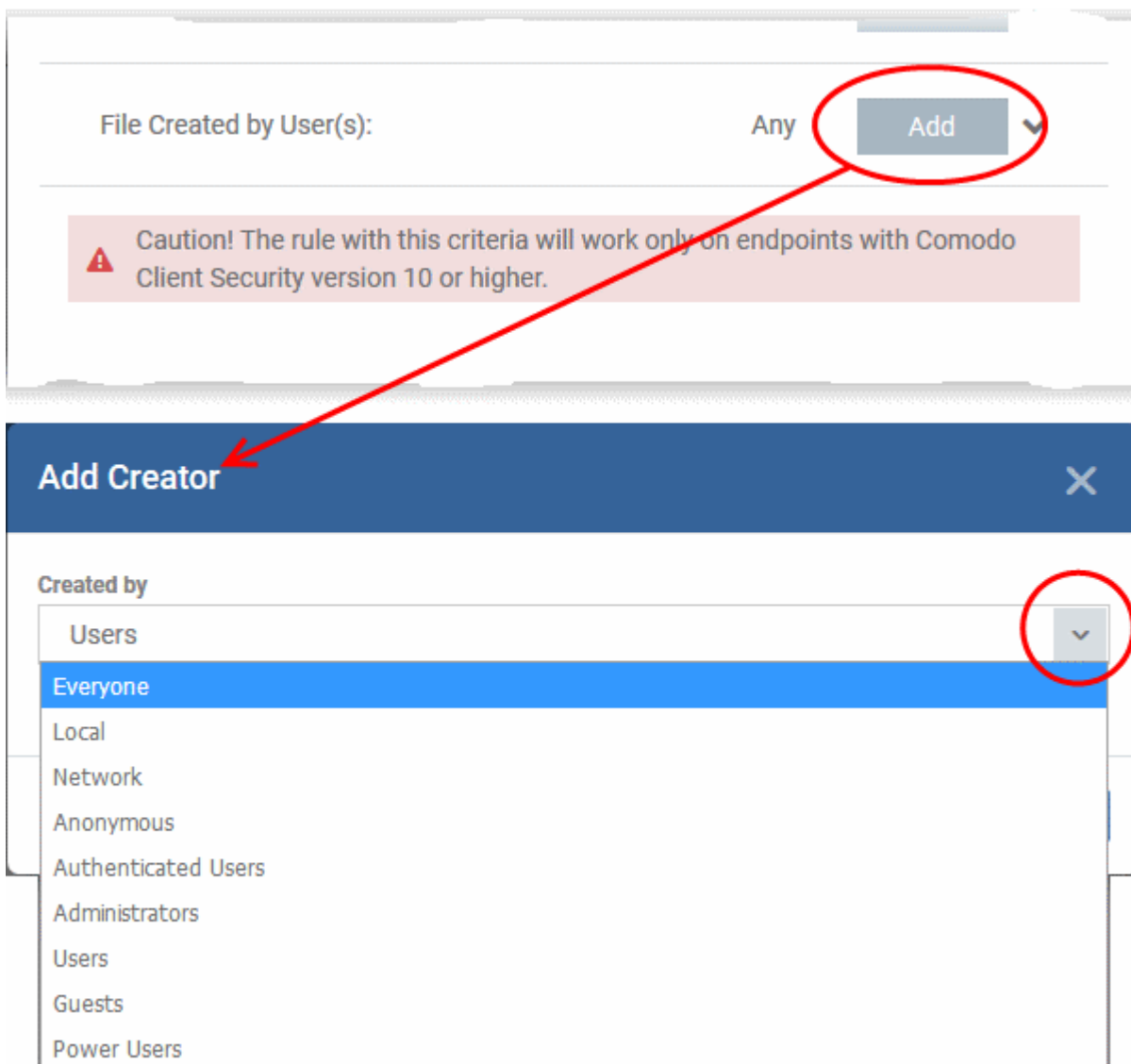
The source process type will be added.



- **'Limit number of parent processes in the process chain to'** - Specify how far up the process tree should be checked when inspecting the file's sources. 1 = will only check the file's parent process. 2 = will check the parent process and the grand-parent process, etc., etc.
- Repeat the process to add more source processes
- To edit the source process items in the list, click the 'Edit' at the right of the item
- To remove an item, click 'Delete' at the right of the item

### To select the user(s) to auto-contain the files created by them

- Click the 'Add' button in the 'File Created by User(s)' stripe.



- The 'Add Creator' dialog will appear.
- Choose the pre-defined user group from the 'Created by' drop-down

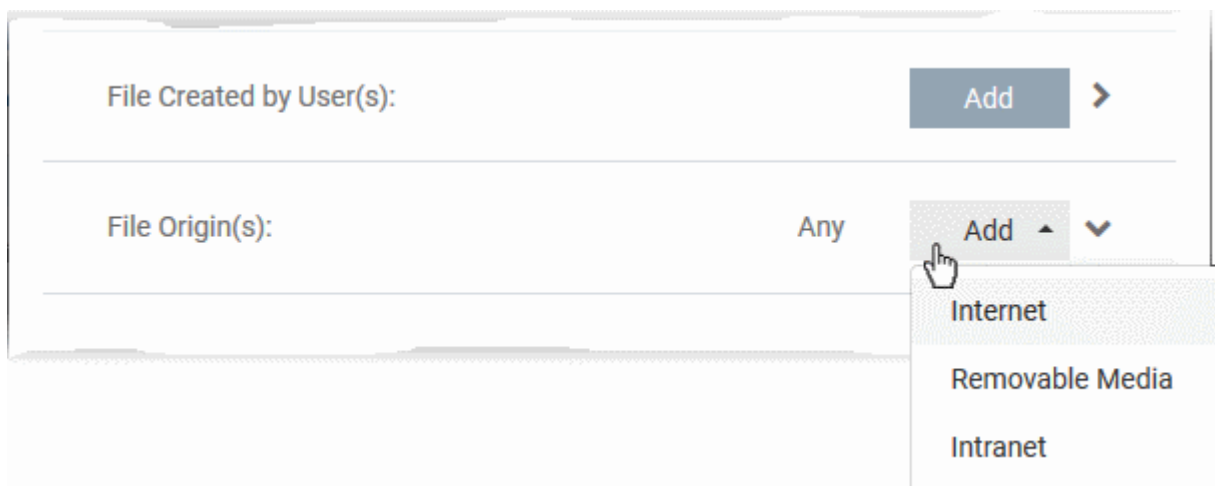
The User Group will be added to the list of creators.

- Repeat the process to add more user groups
- Click 'X' at the right end of the user name to remove a group

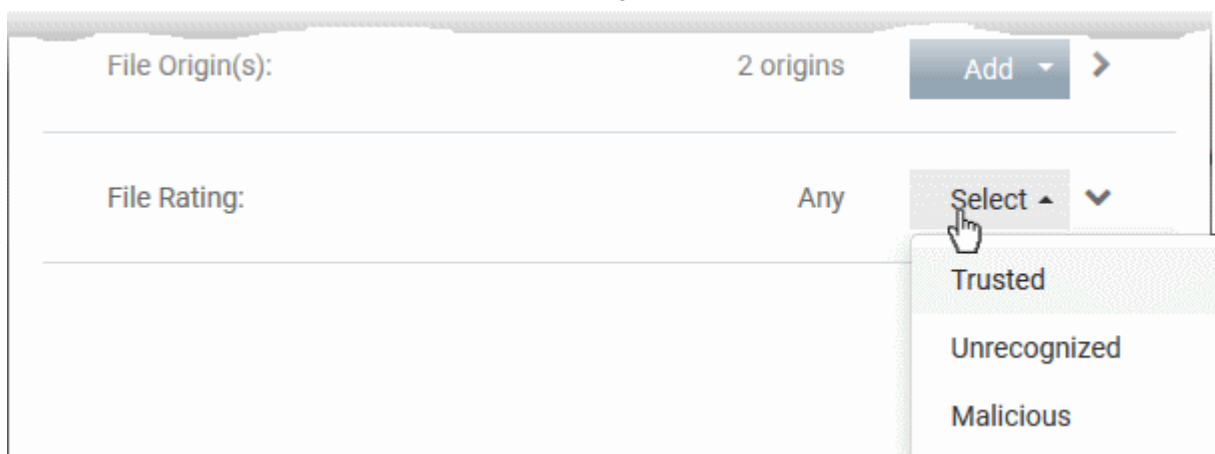
### To select the source(s) from which the file was downloaded/copied to the computer

- Click the 'Add' button in the 'File Origin(s)' stripe.
- Choose the source from the options:





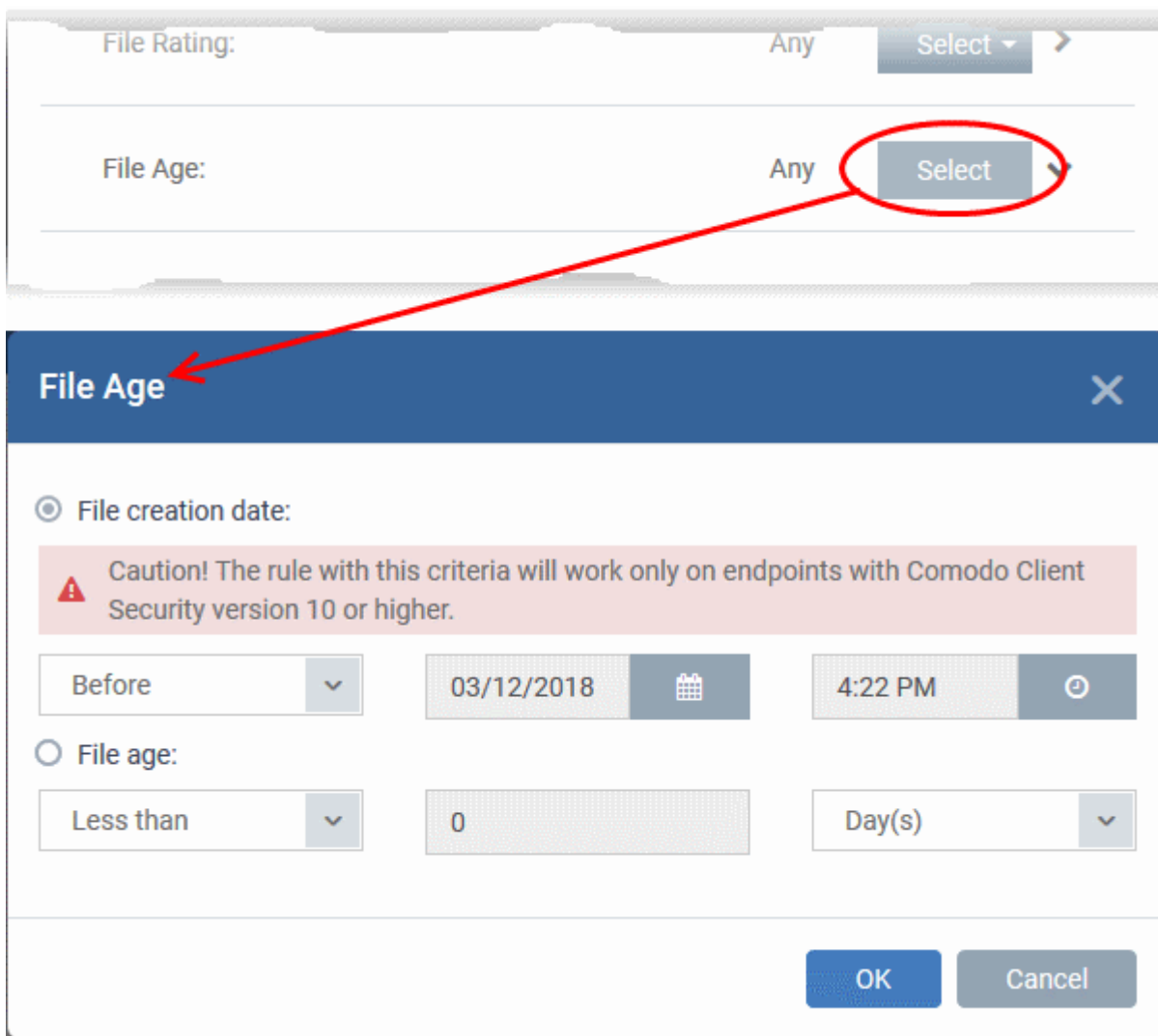
- **Internet** - The rule will only apply to files that were downloaded from the internet.
- **Removable Media** - The rule will apply only to items copied to the computer from removable storage devices like a USB drive, CD/DVD or portable hard disk drive
- **Intranet** - The rule will only apply to files that were downloaded from the local intranet.
- Repeat the process to add more sources
- To remove a source added by mistake or no longer needed in the list, click 'X' at the right end of the item
- To select the file rating as filter criteria
  - Click the 'Select' button in the 'File Rating' stripe



- Choose the source from the options:
- **Trusted** - Applications that are signed by trusted vendors and files installed by trusted installers are categorized as Trusted files as configured under File Rating configuration of the profile. Refer to the section explaining **File Rating configuration**.
- **Unrecognized** - Files that are scanned against the Comodo safe files database not found in them are categorized as Unrecognized files.
- **Malicious** - Files are scanned according to a set procedure and categorized as malware.
- Repeat the process to add more file ratings
- To remove a rating added by mistake or no longer needed in the list, click 'X' at the right end of the item

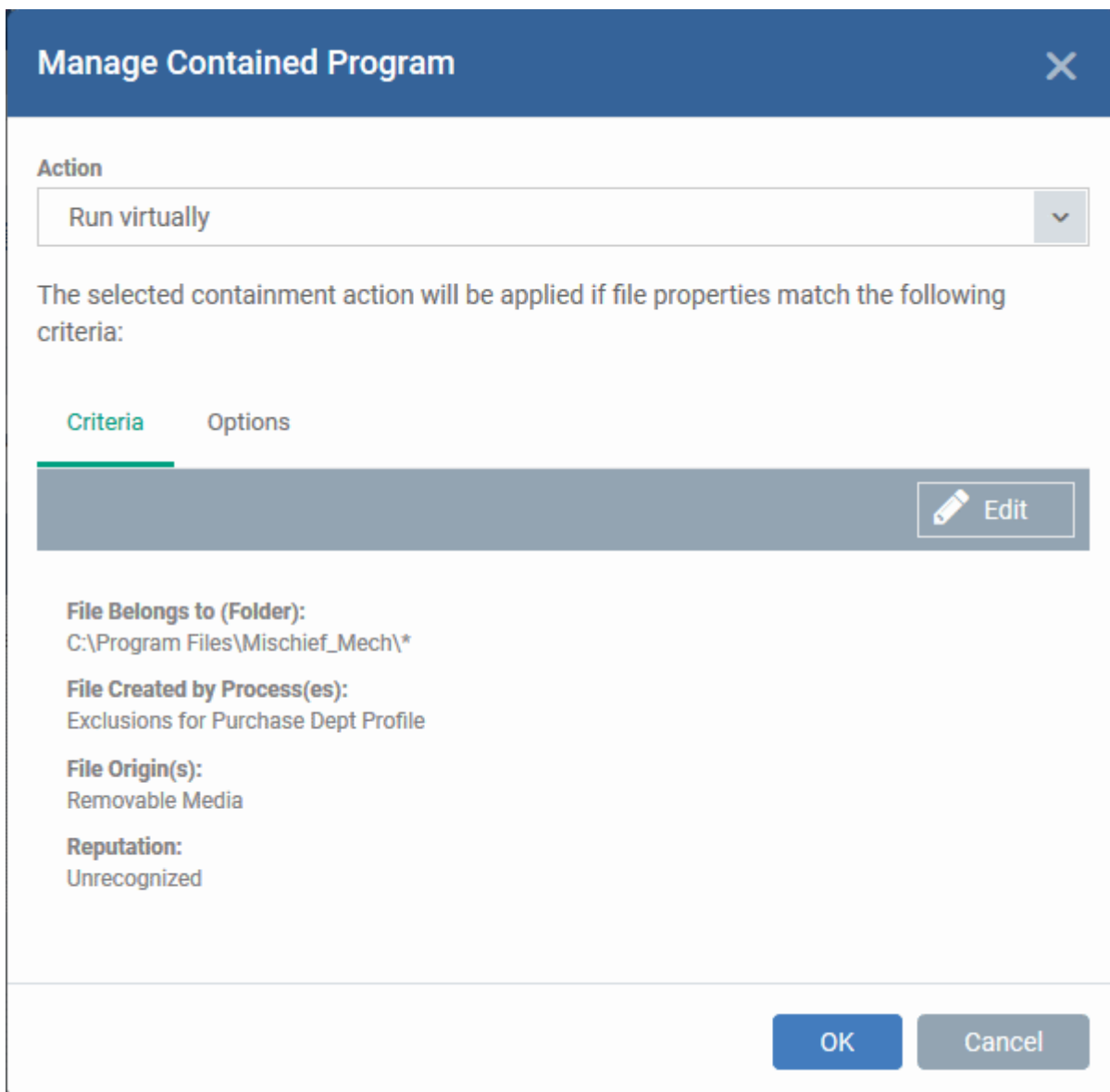
### To set the file age as filter criteria

- Click the 'Select' button in the 'File age' stripe.



The 'File Age' dialog will appear. You can set the file age in two ways:

- **File Creation Date** - To set a threshold date to include the files created before or after that date, choose this option, choose 'Before'/'After' from the first drop-down and set the threshold date and time in the respective combo-boxes.
- **File age** - To select the files whose age is less than or more than a certain period, choose this option and specify the period.
  - **Less Than** - Include files whose age is less than the specified time period. Specify the time period using the two fields.
  - **More Than** - Include files whose age is greater than the specified time period. Specify the time period using the two fields.
- Click 'OK' in the File Criteria dialog after selecting the filters to save your settings to the rule. The list of criteria will be displayed under the Criteria tab in the 'Manage Contained Program' dialog.

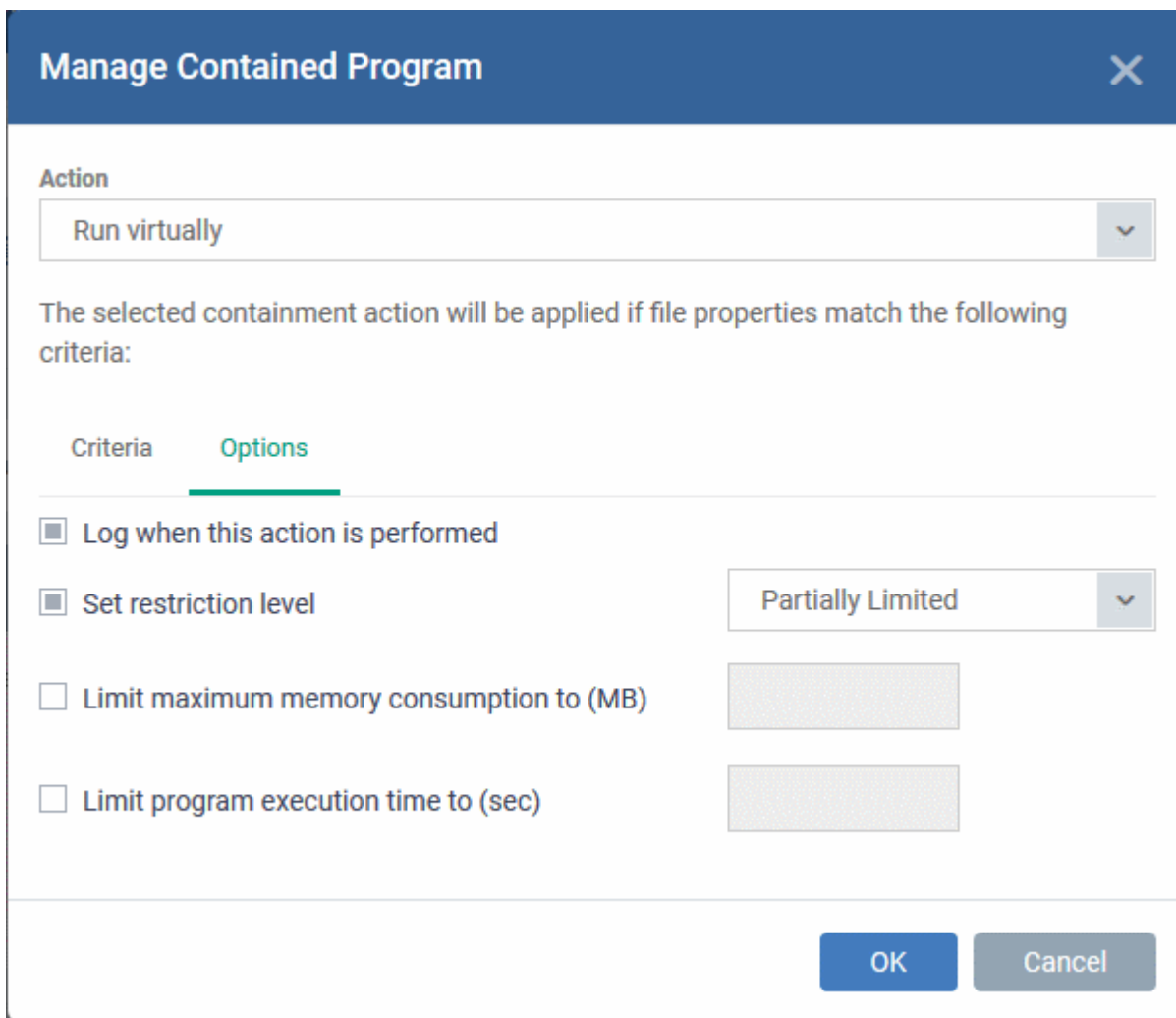


### Step 3 - Select the Options

The next step is to choose optional actions and restrictions to be imposed on items contained by the rule.

#### To select the options

- Click the 'Options' tab.



The options will be displayed, depending on the 'Action' chosen in **Step 1**.

The options available for 'Ignore' action are:

- **Log when this action is performed** - Choose whether or not to add the event to the CCS logs at the endpoint, whenever this rule is triggered.
- **Don't apply the selected action to child processes** - Child processes are the processes initiated by the applications, such as launching some unwanted app, third party browsers plugins / toolbars that was not specified in the original setup options and / or EULA. CCS treats all the child processes as individual processes and forces them to run as per the file rating and the Containment rules.
  - By default, this option is not selected and the ignore rule is applied also to the child process of the target application(s).
  - If this option is selected, then the 'Ignore' rule will be applied only for the target application and all the child processes initiated by it will be checked and Containment rules individually applied as per their file rating.

The options available for 'Run Restricted' and 'Run Virtually' actions are:

- **Log when this action is performed** - Choose whether or not to add the event to the CCS logs at the endpoint, whenever this rule is triggered.
- **Set Restriction Level** - When Run Restricted is selected in Action, then this option is automatically selected and cannot be unchecked while for Run Virtually action the option can be checked or unchecked.
- You can select the 'Restriction Level' from the following options:
- **Partially Limited** - The application is allowed to access all operating system files and resources like the

clipboard. Modification of protected files/registry keys is not allowed. Privileged operations like loading drivers or debugging other applications are also not allowed.(Default)

- **Limited** - Only selected operating system resources can be accessed by the application. The application is not allowed to execute more than 10 processes at a time and is run without Administrator account privileges.
- **Restricted** - The application is allowed to access very few operating system resources. The application is not allowed to execute more than 10 processes at a time and is run with very limited access rights. Some applications, like computer games, may not work properly under this setting.
- **Untrusted** - The application is not allowed to access any operating system resources. The application is not allowed to execute more than 10 processes at a time and is run with very limited access rights. Some applications that require user interaction may not work properly under this setting.
- **Limit maximum memory consumption to** - Enter the memory consumption value in MB that the process should be allowed.
- **Limit program execution time to** - Choose whether or not you wish to specify an upper limit for the time for which the target application can continuously be run.
  - If selected, enter the maximum time in seconds for which the program can be allowed to run. On lapse of the time, the program will be automatically terminated.

The options available for 'Blocked' action are:

- **Log when this action is performed** - Choose whether or not to add the event to the CCS logs at the endpoint, whenever this rule is triggered.
- **Quarantine program** - If selected, the applications satisfying the rule will be automatically quarantined. See [View and Manage Quarantined Items on Windows Devices](#) for more information.
- Choose the options and click 'OK' to save them for the rule. The rule will be added and displayed in the list.

The screenshot displays the 'Containment' configuration window. At the top, there are tabs for 'General', 'Monitoring', 'Antivirus', and 'Containment'. Below these, there are sub-tabs for 'Settings', 'Rules', and 'Baseline'. The 'Rules' sub-tab is selected. A table lists the configured rules:

TARGET	REPUTATION	BEHAVIOR	STATUS	ACTIONS
<input type="checkbox"/> C:\Program Files\Mischief_Mech\*	Unrecognized	Run virtually	ON	[Edit] [Delete]

- Repeat the process to add more rules
- You can move the rule up or down depending on the priority to be given to it, with respect to the other rules.
- You can edit or remove rules at any time using the options at the right.

## Baseline Settings

- The 'Baseline' feature allows you set a period of time during which unknown files will be submitted to Valkyrie for analysis.
- Unknown files will not be auto-contained for the duration of the baseline. This feature is best used during

the initial setup period when, typically, many unknown files are discovered.

**Containment**
Cancel Save

Settings Rules **Baseline**

---

**Enable Baseline**  
This option enables Baseline period for Containment. Information about unknown files would be collected over endpoints and submitted for Valkyrie analysis

**Stop Baseline and enable Auto-Containment after countdown**

Days:  Hours:

Baseline Settings - Table of Parameters	
Form Element	Description
Enable Baseline	A baseline is a period of time during which unknown files discovered on your network are sent to Valkyrie, but not run in the container. This can be useful if you want to create a whitelist of existing files on your network. <b>(Default = Disabled)</b>
Stop Baseline and Enable Auto-Containment after countdown	<b>Enabled</b> - Baselining will last the length of time you set in the fields at the bottom. Auto-containment will resume when this period expires. <b>Disabled</b> - Baselining will continue until you disable it in the setting at the top. The timer begins after you apply the profile to your network. <b>(Default = Disabled)</b>

- Click 'Save' to apply your changes.

### 6.1.3.1.7. VirusScope Settings

- 'VirusScope' is a CCS feature which closely monitors the activities of running processes and generates alerts if they take threatening actions.
- The feature uses a system of 'recognizers' to detect malicious behavior and thus identify brand-new malware.
- VirusScope alerts offer the choice to quarantine the process & undo its changes, or let the process go ahead.
- You can choose whether VirusScope should monitor all processes, or only contained processes.

#### To configure VirusScope settings

- Click 'Configuration Templates' > 'Profiles'
- Click the name of a Windows profile

- Click 'Add Profile Section' > 'VirusScope'

The VirusScope settings screen will open:

VirusScope Configuration - Table of Parameters	
Form Element	Description
Enable Viruscope	Enable or disable Viruscope. If enabled, Viruscope monitors the activities of all running processes and generates alerts on suspicious activities
Show popup alerts	Configure whether or not alerts are shown to end-users when suspicious activity is detected. <ul style="list-style-type: none"> <li>• Disabling alerts will minimize disturbances but at some loss of user awareness.</li> <li>• If you disable alerts then threats are automatically quarantined and their activities are reversed.</li> </ul>
Monitor contained applications only	Choose whether VirusScope should track every process on the host, or only processes which are running in the container.

- Click the 'Save' button.

The VirusScope component will be added to the Windows profile.

The saved 'VirusScope' settings screen will be displayed with options to edit the settings or delete the section. See [Edit Configuration Profiles](#) for more details.

### 6.1.3.1.8. Valkyrie Settings

Valkyrie is a cloud-based file verdicting service that tests unknown files with a range of static and behavioral checks



in order to identify those that are malicious. Comodo Client Security on managed Windows computers can automatically submit unknown files to Valkyrie for analysis. The results of these tests produce a trust verdict on the file which can be viewed in the 'Valkyrie Processed Files' tab in the 'Windows File List' interface. See [View list of Valkyrie Analyzed Files](#) for more details.

A summary of Valkyrie's results is all displayed in the [The Dashboard](#).

**Note:** The version of Valkyrie that comes with the free version of Endpoint Manager is limited to the online testing service. The Premium version of Endpoint Manager also includes manual testing of files by Comodo research labs, helping enterprises quickly create definitive whitelists of trusted files. Valkyrie is also available as a standalone service. Contact your Comodo Account manager for further details.

You can configure general Valkyrie settings and create an analysis schedule in the Valkyrie component of a Windows profile.

### To configure Valkyrie Settings

- Click 'Valkyrie' from the 'Add Profile Section' drop-down in the Windows Profile interface

The 'Valkyrie' settings screen will be displayed.

**Valkyrie Settings - Table of Parameters**

Form Element	Description
Lookup and Submit Files with Valkyrie	Choose this option if you want the files to be submitted to the cloud file lookup service with Valkyrie
Check Manual Analysis Interval (sec)*	Set the interval for manual analysis (Default=1800)

Valkyrie Settings - Table of Parameters	
Check Auto Analysis Interval (sec)*	Set the interval for auto analysis (Default=60)
Submit for	Choose the type of Valkyrie analysis, e.g, automatic online analysis or manual analysis. The options available depend on your type of subscription.
Enable Auto Auto-Whitelisting if NO suspicious activities detected by Automatic and/or Human-Expert analysis	Choose this option if you wish the files identified as harmless by Valkyrie to be added to your local whitelist.
Do NOT lookup and submit files to Valkyrie if File Lookup Service returns error	Choose this option,if you wish files haven't been submitted to the cloud file lookup service if File Lookup Service returns error.
Submit Metadata	Choose this option if you wish the unknown file is to be submitted to Valkyrie, along with their metadata. Metadata gives information about the file source, author, date of creation and so forth.
Submit When	Choose when the unknown files are to be submitted. The options available are: Immediately - CCS uploads the file to Valkyrie as soon as it encounters an Unknown file Schedule Analysis - CCS accumulates the unknown files and uploads them as per the set schedule. Refer to <b>Valkyrie Analysis Schedule</b> about how to set analysis schedule.

Fields marked \* are mandatory.

- The 'Valkyrie Premium License' link takes to Valkyrie signup page for a full subscription.

## Valkyrie Analysis Schedule

The Valkyrie allows you to create a schedule for CCS to upload unknown files.

- Select 'Schedule Analysis' from the 'Submit When' drop-down.

The screenshot shows a configuration interface for scheduling Valkyrie analysis. At the top, there is a 'Submit When' dropdown menu with 'Schedule Analysis' selected. Below this is a section titled 'Schedule your Valkyrie analysis:' with a dropdown menu set to 'Every Month'. Underneath is a 'Day of Month' section containing a calendar grid with days 1 through 31. At the bottom is a 'Time' section with a digital clock interface showing 10:12 AM. A blue upward-pointing arrow is visible in the bottom right corner of the interface.

- To upload the unknown files daily choose 'Daily' from the drop-down at the top and set the time for upload in HH:MM format in the combo boxes under 'Time'.
- To upload the unknown files once per week, choose 'Every Week' from the drop-down at the top. Choose the day of the week from the 'Day of Week' options and set the time for upload in HH:MM format in the combo boxes under 'Time'.
- To upload the unknown files monthly, choose 'Every Month' from the drop-down at the top, choose the day of the month from the 'Day of month' options and set the time for upload in HH:MM format in the combo boxes under 'Time'.

### 6.1.3.1.9. Global Proxy Settings

The Global Proxy settings allows you to specify a proxy server through which applications in endpoints using this profile should connect to external network such as the internet. Please note the setting done here will not affect how Comodo Client Security (CCS) and the Communication Client (CC) in the endpoints connect to Endpoint Manager and Comodo servers. The proxy setting for CCS and CC are done in the **Client Proxy** section.

#### To configure Global Proxy Settings

- Click 'Global Proxy' from the 'Add Profile Section' drop-down in the Windows Profile interface

Global Proxy Settings - Table of Parameters	
Form Element	Description
Type *	Select the type of the proxy. e.g, automatic or manual.
Pac Url*	This field will be displayed when 'Auto' is selected in the first field. Enter the URL where your proxy auto-config file is located.
Server *	This field will be displayed when 'Manual' is selected in the first field. Enter the address or domain of your proxy server.
Port *	This field will be displayed when 'Manual' is selected in the first field. Type the port number of the proxy. If you do not have a set port number, port 8080 will work in many cases.

\* - options are mandatory.

- Click 'Save' in the title bar to save your update settings to the profile.

### 6.1.3.1.10. Clients Proxy Settings

The 'Clients Proxy' settings allows you to specify a proxy server through which Comodo Client Security (CCS) and the Communication Client (CC) in the endpoints using this profile should connect to Endpoint Manager portal and Comodo servers. If you choose not to set these, then CCS and CC will connect directly as per the network settings.

During **bulk enrollment of endpoints**, make sure the proxy settings in the bulk enrollment form and the client proxy settings in the device group profile that is automatically applied to enrolled endpoints are the same. If the settings vary, then the connection to EM will be lost after first successful connection, since the device group profile will be deployed that has different proxy settings. Also make sure the profiles that are applied to the enrolled devices later on has the same proxy settings. Please note if no proxy settings is provided in the applied profiles then the connection to EM will be lost.

Please note the proxy setting done here will not affect how other applications in the endpoints connect to other networks such as the internet. The proxy setting for applications other than CCS and CC is done in the **Global Proxy** section.

#### To configure Clients Proxy Settings

- Click 'Clients Proxy' from the 'Add Profile Section' drop-down in the Windows Profile interface

Clients Proxy Settings - Table of Parameters	
Form Element	Description
Server *	Enter the address or domain of your proxy server.
Port *	Type the port number of the proxy. If you do not have a set port number, port 8080 will work in many cases.
Username	If required, enter a username for the proxy.
Password	If required, enter a username for the proxy.

- Click 'Save' to apply your changes to the profile.

### 6.1.3.1.11. Agent Discovery Settings

The Agent Discovery Settings allows you to specify whether or not CCS should log antivirus and contained events on the endpoint.

- Antivirus Log - Select this option if antivirus log is to be enabled
- Containment Log - Select this option if containment log is to be enabled
- Click 'Save' to apply your changes.

## 6.1.3.1.12. Communication Client and Comodo Client - Security Application UI Settings

- The UI settings screen lets you configure the appearance of Communication Client (CC) and Comodo Client Security (CCS).
- You can re-brand CC and CCS with your own company name, logo, product name and product logo. In addition, you can:
  - Add your support website, phone number and email to the GUI
  - Select which components of CCS should be visible to end-users in the GUI

### To configure UI settings

- Click 'Configuration Templates' > 'Profiles'
- Click the Windows profile in which you want to configure UI appearance
- Click 'Add Profile Section' > 'UI Settings'

The UI settings screen contains three tabs:

- **General Settings** - Select GUI language and which components/shortcuts are shown in the interface to the end-user.
- **Communication Client Rebranding** - Customize CC with your own brand name, company logo and more.
- **Comodo Client Security Rebranding** - Customize CCS with your own brand name, company logo and more.

### General Settings

'General Settings' lets you select interface language and which components/shortcuts are shown on the CCS interface at the endpoint.

General **UI Settings**

**UI Settings** Cancel Save

**General Settings** Communication Client Rebranding Comodo Client Security Rebranding

**Language**

English (United States) ▾

- Show messages from Comodo Message Center
- Show notification messages
- Show desktop widget
- Show information messages when tasks are minimized/sent to background
- Play sound when an alert is shown
- Show shared space shortcut on the desktop
- Show security client tray icon
- Show security client desktop shortcut icon
- Show communication client tray icon
- Show file list
- Show vendor list



General Settings - Table of Parameters	
Form Element	Description
Language	The language which should be used in the Comodo Client Security interface. <b>(Default = English (United States))</b>
Show messages from Comodo Message Center	Message Center notifications appear as pop-ups at the bottom right-hand corner of the screen. They contain news about updates, offers and other items of interest. <ul style="list-style-type: none"> <li>Select whether or not the messages should be displayed to end-users..</li> </ul> <b>(Default = Disabled)</b>
Show notification messages	Notifications inform end-users about actions and status updates. CCS notices appear in the bottom right hand corner of the screen (just above the tray icons). <ul style="list-style-type: none"> <li>Select whether or not notifications should be shown to end-users.</li> </ul> <b>(Default = Disabled)</b>
Show desktop widget	The widget contains shortcuts to important CCS tasks and information about security levels, traffic and background tasks. <ul style="list-style-type: none"> <li>Select whether or not the widget should be shown on endpoint desktops.</li> </ul> <b>(Default = Disabled)</b>
Show information messages when tasks are minimized/sent to background	These messages inform end-users of the effects of minimizing or moving a running task to the background. For example, when a virus scan task is moved to the background. <ul style="list-style-type: none"> <li>Select whether or not information messages should be displayed to end-users.</li> </ul> <b>(Default = Disabled)</b>
Play sound when an alert is shown	If selected, CCS plays a chime whenever it raises a security alert. <b>(Default = Disabled)</b>
Show Shared Space shortcut on the desktop	'Shared Space' is the special folder on an endpoint where contained applications are allowed to save files. The shared space shortcut provides access to this folder. <ul style="list-style-type: none"> <li>Select whether or not the shortcut should be shown to end-users.</li> </ul> <b>(Default = Disabled)</b>
Show security client tray icon	Select whether or not the CCS icon should be shown in the system tray. <b>(Default = Enabled)</b>
Show security client desktop shortcut icon	Select whether or not the CCS desktop shortcut should be displayed. <b>(Default = Disabled)</b>
Show communication client tray icon	Select whether or not the communication client shortcut icon should be available in the system tray. <b>(Default = Enabled)</b>
Show file list	CCS can show a list of files on a device along with their trust ratings ('Trusted', 'Unrecognized' or 'Malicious'). This is available in 'Advanced Settings' > 'Security Settings' > 'File Rating' > 'File List'. For more details click the link <a href="https://help.comodo.com/topic-399-1-790-10397-File-List.html">https://help.comodo.com/topic-399-1-790-10397-File-List.html</a> .

## General Settings - Table of Parameters

	<ul style="list-style-type: none"><li>• Select whether or not the file list should be available to end-users.</li></ul> <p><i>(Default = Disabled)</i></p>
--	------------------------------------------------------------------------------------------------------------------------------------------------------------

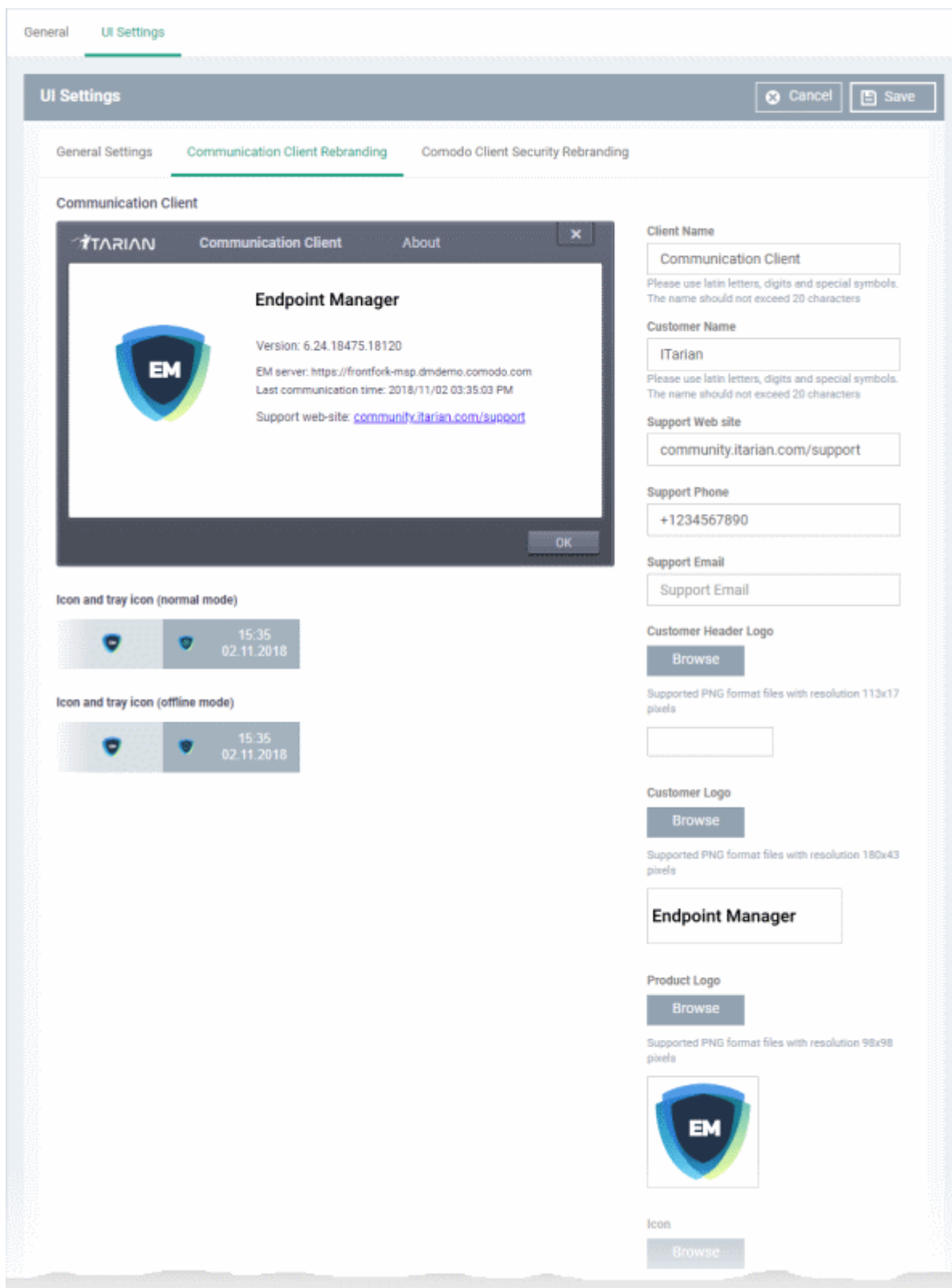
General Settings - Table of Parameters	
Show vendor list	<p>CCS can show a list of list of trusted vendors in 'Advanced Settings' &gt; 'Security Settings' &gt; 'File Rating' &gt; 'Trusted Vendors List'.</p> <p>Files published by vendors in the list are automatically trusted and skipped during antivirus scans.</p> <ul style="list-style-type: none"><li>Select whether or not the vendor list should be available to end-users.</li></ul> <p>For more details click the link <a href="https://help.comodo.com/topic-399-1-790-10401-Trusted-Vendors-List.html">https://help.comodo.com/topic-399-1-790-10401-Trusted-Vendors-List.html</a></p> <p><i>(Default = Disabled)</i></p>

- Click 'Save' to apply your changes to the profile.

## Communication Client Rebranding

The rebranding tab lets you change the appearance and interface texts of Communication Client .This is especially useful for customers who wish to white-label the CC interface for their clients.

- You can change the company name, support website, phone number and email.
- You can upload replacement images for company logo, header logo, product icons and product logo.
- The online editor lets you preview your changes in real-time.



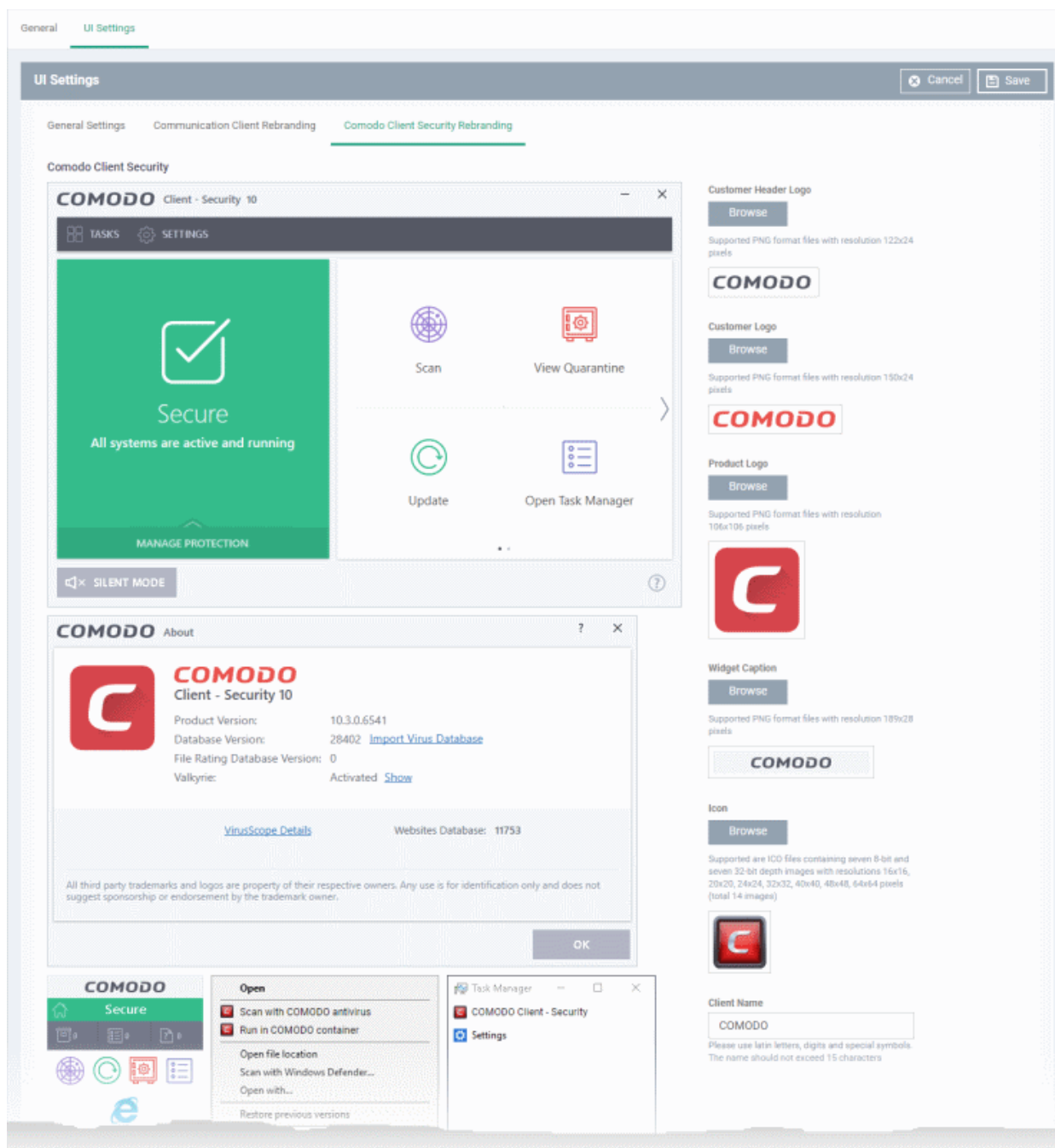
- Start typing in the fields to see your changes reflected in the example image
- Make sure all images you upload are the correct size and file format (.png).

Communication Client Rebranding - Table of Parameters	
Form Element	Description
Client Name	Enter a custom name for the application. You can use alphabetical, numeral and special characters. Maximum = 20 characters.
Company Name	Your company name.
Support Website	The URL of your support website. The URL will be shown in the 'About' dialog of the CC application.
Support Phone	Your customer support phone number. This number will be shown in the 'About' dialog of the CC application.
Support Email	Your customer support email address. This address will be shown in the 'About' dialog of the CC application.
Company Header Logo	Logo shown at the top-left corner of the application window. Accepted image size = 113 x 17 pixels Accepted image file format = .png
Company Logo	Logo shown at the top of the CC 'About' dialog. Accepted image size = 180 x 43 pixels Accepted image file format = .png
Product Logo	Logo shown at the left of the CC 'About' dialog. Accepted image size = 98 x 98 pixels Accepted image file format = .png
Icon	Windows start menu and shortcut icon. Accepted image sizes = 16 x 16, 20 x 20, 32 x 32, 40 x 40, 48 x 48 and 64 x 64 pixels Accepted image file format = .png
Tray Icon (normal mode)	Tray icon shown when the communication client is connected to Endpoint Manager. Accepted image sizes = 16 x 16 pixels Accepted image file format = .png
Tray Icon (offline mode)	Tray icon shown when the communication client is not connected to Endpoint Manager. Accepted image sizes = 16 x 16 pixels Accepted image file format = .png

- Click 'Save' to apply your new design to the profile.

## Comodo Client Security Rebranding

The rebranding tab lets you change the appearance and interface texts of CCS on Windows endpoints. You can change the look and feel of the product throughout the interface.



- Start typing in the fields to see your changes reflected in the example images.
- Make sure all images you upload are the correct size and file format (.png)
- The changes you make here will be rolled out to all interfaces in CCS.
- You cannot modify the UI in a default profile.

Comodo Client Security Rebranding - Table of Parameters	
Form Element	Description
Company Header Logo	Logo shown at the top-left corner of the application window. Accepted image size = 122 x 24 pixels Accepted image file format = .png
Company Logo	Logo shown in various CCS interfaces. Accepted image size = 150 x 24 pixels Accepted image file format = .png
Product Logo	Logo shown on the left side of the CCS 'About' dialog. Accepted image size = 106 x 106 pixels Accepted image file format = .png
Widget Caption	Logo shown on the header of the CCS desktop widget. Accepted image size = 189 x 28 pixels Accepted image file format = .png
Icon	Windows start menu and shortcut icon. Also shown in various other interfaces of the application. Accepted image sizes = 16 x 16, 20 x 20, 32 x 32, 40 x 40, 48 x 48 and 64 x 64 pixels Accepted image file format = .png
Client Name	Enter a custom name for the application. This will be shown in the interface and will be used as the product name in the Windows 'Start' menu. You can use letters, numbers and special characters. Maximum = 20 characters.

- Click 'Save' to apply your settings to the profile.
- Click the 'Edit' button if you wish to modify a design that you have saved.

### 6.1.3.1.13. Logging Settings

- This area lets you specify how logs should be collected in CC (Communication Client) and CCS (Comodo Client - Security).
- For example, you can choose max. log size, log format and location, and extended log options.

#### To configure 'Logging' settings

- Click 'Configuration Templates' > 'Profiles'
- Open the Windows profile that you want to configure
- Click 'Add Profile Section' > 'Logging Settings'

The settings screen contains two tabs:

- **Communication Client (CC)** - Choose whether a crash dump-file should be created when CC crashes on the endpoint. The dump file can help you to analyze and troubleshoot the issues.
- **Comodo Client - Security (CCS)** - Configure CCS log collection parameters, log file storage location and maximum size for the log file.

#### Communication Client



General    Antivirus    HIPS    **Logging Settings**

---

**Logging Settings** Cancel Save

Communication Client    Comodo Client - Security

---

Crash dumps collection ?

Log Type

Mini ▼

**Logging Settings - Communication Client - Table of Parameters**

Form Element	Type	Description
Crash dump collection	Checkbox	Endpoint Manager creates a dump file if the communication client crashes on the endpoint. This is useful for analysis and troubleshooting. You can also submit the file to Comodo for our technicians to assess. <b>(Default = Disabled)</b>
Log Type	Drop-down	Choose the type of dump file you want. The options are: <b>Mini</b> - The file only contains enough data to identify the conditions of the crash. <b>Full</b> - A detailed log of all information related to the crash. Full logs let you analyze the crash in greater detail, but may take longer to generate than mini reports.

## Comodo Client - Security

Logging Settings - Comodo Client Security - Table of Parameters	
Form Element	Description
Write to Local Log Database (COMODO Format)	The log is saved in native Comodo format on the local endpoint. You can enable extended logging for the following additional items:

	<ul style="list-style-type: none"> <li>• Process creation events</li> <li>• CCS components are enabled/disabled by CC</li> <li>• Changes to CCS configuration made by CC</li> <li>• Submitting files to CAMAS or Valkyrie</li> </ul>
Write to Syslog Server	EM log events are written to a remote syslog server. If enabled you have to specify the hostname/IP address and port number settings for the server.
Host *	The host name or IP address of the syslog server.
Port *	The port number of the syslog server.
Write to Log File (CEF Format)	Logs are saved locally on the endpoint in Common Event Format (CEF) file format. If enabled, please specify the location of the CEF file.
Path	Enter the storage location path of the CEF file.
Write to remote server (JSON format)	Logs are saved in JavaScript Object Notation (JSON) format on a remote server. If enabled, please specify the hostname/IP address of the server, its connection port and the security token.
Host *	Enter the host name or IP address of the remote server.
Port *	Type the port number of the remote sever for EM to connect to.
Token*	Enter the security token to access the remote server.
Log file size (MB)	Specify the maximum limit for the size of the log file (Default = 100 MB).
Action when file log size reaches limit:	Specify behavior when the log file reaches a certain size.
Keep on updating it removing the oldest records	Once the log file reaches the maximum size, the file will be appended with the new log entries and the oldest entries will be deleted depending on the size of the new entries.
Move it to	Choose this option if you wish to move and save the log file when it reaches the maximum size.
The path to the folder for old log files *	If 'Move it to' is enabled, type a destination path for the log file.
Send anonymous program statistics to Comodo	If enabled, select the types of statistics sent from the following options:
Crash dumps	CCS sends dump files to Comodo if the application crashes or there is a BSOD (blue screen of death) on the endpoint. This is useful for analysis and troubleshooting.
Telemetry Reports	Will send to Comodo a daily log about the files you scan with CCS. We use this data to improve EM and CCS.  The reports contain the following details: <ul style="list-style-type: none"> <li>• The hash value and path of the file</li> <li>• The hash value(s) and path of the parent file that executed the file</li> </ul>

- |  |                                                                                                             |
|--|-------------------------------------------------------------------------------------------------------------|
|  | <ul style="list-style-type: none"><li>• Size, certificate information, and attributes of the file</li></ul> |
|--|-------------------------------------------------------------------------------------------------------------|

Fields marked \* are mandatory.

- Click the 'Save' button to apply your changes.
- Click 'Delete' or 'Edit' to remove / edit the logging settings section. See **'Edit Configuration Profiles'** for more details about editing the parameters

#### 6.1.3.1.14. Client Access Control

- Lets you to password-protect access to the communication client (CC) and Comodo Client Security (CCS) on managed endpoints.

##### **Background Note:**

The security configuration of the antivirus, firewall, containment and HIPS modules are managed by their configuration profile(s). However, administrators or end-users are allowed to access the CCS interface locally to configure security settings. This is useful if:

- A custom configuration is required for a specific endpoint
- Administrators can use an endpoint to create a model configuration which can be imported to Endpoint Manager as a profile. See **Import Windows Profiles** for more details.

Endpoint Manager periodically checks endpoints to see if the local CCS settings matches with the endpoint's EM profile. By default, EM will revert any manual changes made. If you want the manual changes not to be overridden, you can configure the 'Client Access Control' section in the profile accordingly.

#### **To configure Client Access Control Settings**

- Click 'Configuration Templates' > 'Profiles' then click the name of the profile to which you want to add the section.
- Click 'Add Profile Section' > 'Client Access Control'

General Antivirus HIPS Client Access Control

**Client Access Control** [Cancel] [Save]

Apply password protection settings for

- Comodo Client - Security
- Communication Client

Require password

- Computer administrator
- Custom password

Password

Confirm password

Extra options

- Enable local user to override profile configuration  
This option protects local configurations that are done by entering password

- Apply password protection settings for - Select the component(s), CCS and CC to apply password protection.
  - Comodo Client - Security - If enabled, CCS can be accessed only after providing password.
  - Communication Client - If enabled, CC can be accessed only after providing password.
- Require Password - If enabled, CCS and CC interfaces can be accessed only after entering password.
  - Computer administrator - If selected, CCS and CC can be accessed after entering the computer administrator password.
  - Custom password - Select this to configure custom password. Enter the password and confirm it in the respective fields.
- Extra Options:
  - Enable local user to override profile configuration - If enabled, the manual changes made to the security setting parameters in the local installation of CCS will not be reverted to the settings as per the profile. This is useful if you want to allow the local user to configure CCS as per their wish or use the endpoint to manually configure the security settings of different components of CCS and import it as a profile. See **Import Windows Profiles** for more details.
- Click 'Save' to apply your changes to the profile.

## 6.1.3.1.15. External Devices Control Settings

- Lets you to define a list of devices that should be blocked on endpoints using this profile.

For example, you can block access to USB storage devices, human interface devices, Bluetooth devices, infrared devices, IDE ATA/ATAPI controllers.

- Endpoint Manager blocks access to devices connected through both serial and parallel ports and creates a log of their connection activities.
- You can create exclusions for external devices which you want to allow to connect to managed endpoints. Devices can be added as exclusion by specifying their Device Ids. You can use wildcard characters in the device ID if you want to include a series of devices with similar device IDs.

### To configure External Devices Control Settings

- Click 'Configuration Templates' > 'Profiles' then click the name of the profile to which you want to add the section.
- Click 'Add Profile Section' > 'External Devices Control'

The screenshot displays the 'External Devices Control' configuration window. At the top, there are tabs for 'General', 'Antivirus', 'HIPS', and 'External Devices Control'. The 'External Devices Control' tab is selected. Below the tabs, there is a header bar with 'External Devices Control' and 'Cancel' and 'Save' buttons. The main content area contains several settings:

- Enable device control**  
This option blocks devices of a client computer from accessing, such as USB drives, Bluetooth devices, printers, and serial and parallel ports.
- Log detected devices**
- Show notifications when devices disabled or enabled**

Below these settings are two sections: 'Blocked Device Classes' and 'Exclusions'. The 'Blocked Device Classes' section is highlighted with a blue bar and contains the text: 'Use this table to manage the list of device classes (e.g. "USB - Mass storage devices", "Optical devices"... ) to which you want to block access'. Below this text are 'Add' and 'Delete' buttons. A table follows with the following columns: 'DEVICE CLASS' and 'CLASS ID'. The table contains three rows of data:

<input type="checkbox"/>	DEVICE CLASS	CLASS ID
<input type="checkbox"/>	Floppy disks	4D36E980-E325-11CE-BFC1-08002BE10318
<input type="checkbox"/>	Tape drives	6D807884-7D21-11CF-801C-08002BE10318
<input type="checkbox"/>	CD/DVD drives	4D36E965-E325-11CE-BFC1-08002BE10318

- **Enable Device Control** - Enable or disable the external device control feature. This is useful if you want to configure external device control settings for a profile during its creation and enable it at a later time
- **Log detected devices** - Enable or disable logging of external device connection attempts on endpoints that use this profile. The logs can be viewed from 'Security Sub Systems' > 'Device Control' interface. See [View History of External Device Connection Attempts](#) for more details.

- **Show notifications when devices disabled or enabled** - Select whether or not a notification is to be shown to end-user when a connected device is blocked or allowed.

The 'External Devices Control' settings interface contains two tabs:

- Blocked Device Classes - Define the list of types of external devices to be blocked at the endpoints
- Exclusions - Specify the devices that should be excluded from blocking and allowed access at the endpoints

## Blocked Device Classes

The 'Blocked Device Classes' tab displays a list of types of device that are blocked as per the profile and allows you to add/remove new device types.

Blocked Device Classes - Column Descriptions	
Column Header	Description
Device Class	The device type as per global hardware classification
Class ID	The Globally Unique Identifier (GUID) of the device class

**Tip.** Block 'Portable Devices' in addition to 'USB storage devices' if you want to stop users connecting their phones to access the phone's memory card

### To add device types to be blocked

- Click 'Add' at the top of the list

The 'Add Device Class' dialog appears with a list of device types.



The screenshot shows the 'External Devices Control' window with the 'Add Device Class' dialog box open. The dialog box contains a table of device classes with checkboxes for selection. A red circle highlights the 'Add' button in the main window, with a red arrow pointing to the dialog box.

**External Devices Control** [Cancel] [Save]

Enable device control  
This option blocks devices of a client computer from accessing, such as USB drives, Bluetooth devices, printers, and serial and parallel ports.

Log detected devices

Show notifications when devices disabled or enabled

Blocked Device Classes Exclusions

Use this table to manage the list of device classes (e.g. "USB - Mass storage devices", "Optical devices"... ) to which you want to block access

[Add] [Delete]

<input type="checkbox"/>	DEVICE CLASS	CLASS ID
<input type="checkbox"/>	USB storage devices	8A63AD27-0CD7-4F43-B8E1-07AE6F236346
<input type="checkbox"/>	Human interface devices	745A17A0-74D3-11D0-B6FE-00A0C90F57DA
<input type="checkbox"/>	Floppy disks	4D36E980-E325-11CE-BFC1-08002BE10318
<input type="checkbox"/>	1394 FireWire devices	6BDD1FC1-810F-11D0-BEC7-08002BE2092F
<input type="checkbox"/>	IDE ATA/ATAPI controllers	4D36E96A-E325-11CE-BFC1-08002BE10318
<input type="checkbox"/>	Tap drivers	6D8C7884-7D21-11CE-801C-08002BE10318
<input type="checkbox"/>	Biometric	53D29EF7-377C-4D14-864B-EB3A85769359
<input type="checkbox"/>	Disk drives	4D36E967-E325-11CE-BFC1-08002BE10318
<input type="checkbox"/>	Storage volumes	71A27CDD-812A-11D0-BEC7-08002BE2092F

« Prev 1 2 Next »

Results per page: 20 [v] Displaying 1-20 of 21 results

[Ok]

- Select the device types to be added to the block list and click 'Ok'.
- Repeat the process to add more device types.

## To remove a device type from the list

- Select the device type from the list and click 'Delete'

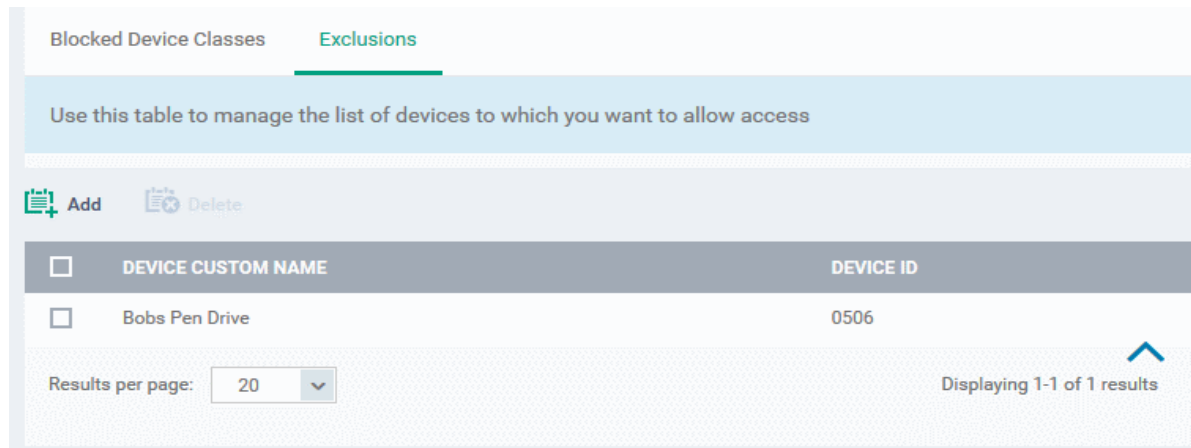
The screenshot shows the 'External Devices Control' window with the 'Blocked Device Classes' tab selected. The 'Delete' button is circled in red, and a red arrow points from it to a confirmation dialog box. The dialog box asks 'Do you really want to remove this class(es)?' and has 'Confirm' and 'Cancel' buttons.

<input type="checkbox"/>	DEVICE CLASS	CLASS ID
<input checked="" type="checkbox"/>	Printing devices	4D36E979-E325-11CE-BFC1-08002BE10318
<input type="checkbox"/>	USB storage devices	8A63AD27-0CD7-4F43-B8E1-07AE6F236346

- Click 'Confirm' to remove the device type from the blocked list.

## Exclusions

The 'Exclusions' tab displays a list of external devices that are exempt from the block rule and so allowed access to the endpoint(s).

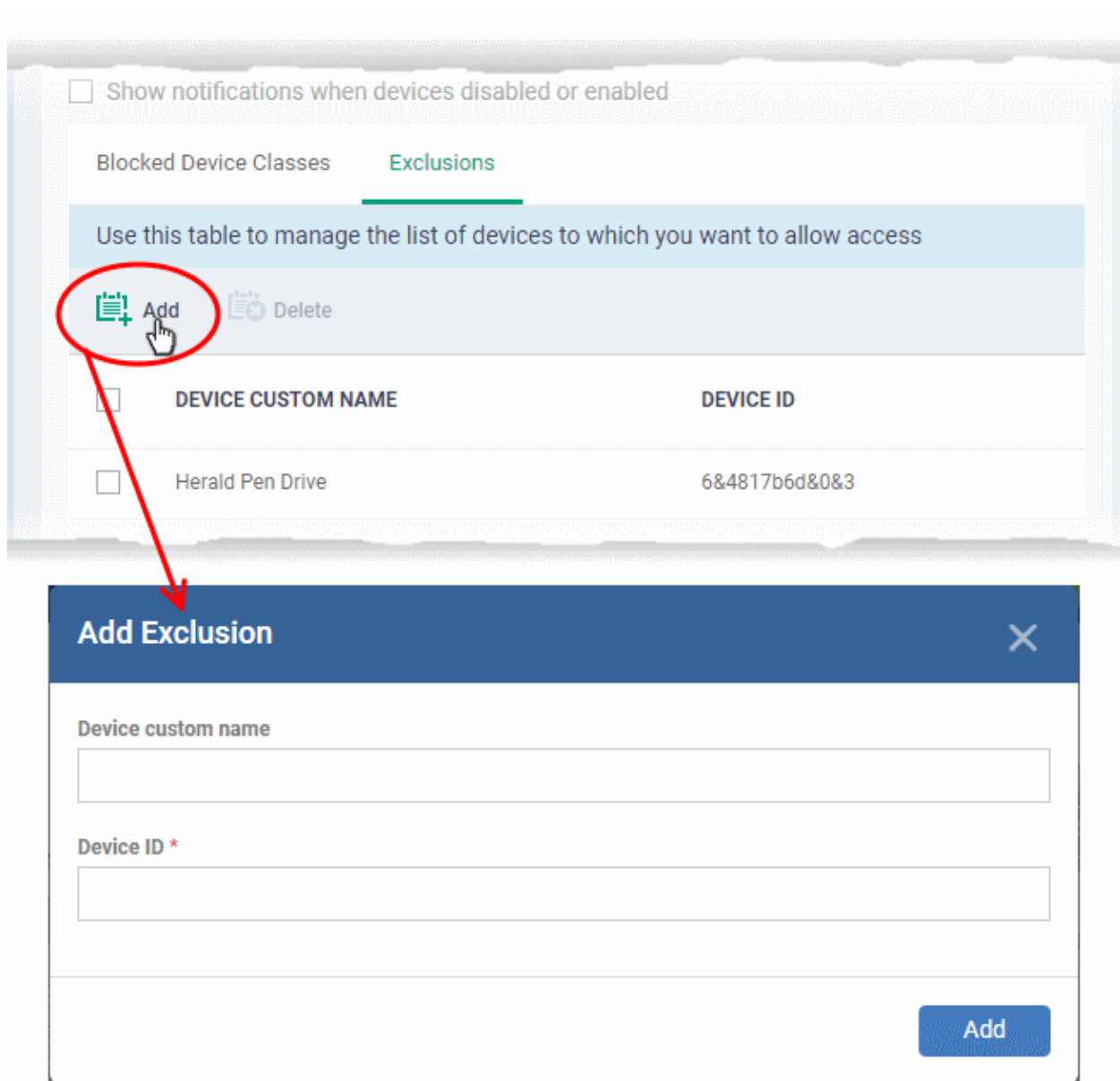


Exclusions - Column Descriptions	
Column Header	Description
Device Custom Name	Displays the name of the device.
Device ID	Displays the unique device identifier of the device.

### To add a device to be excluded

- Click 'Add' at the top of the list

The 'Add Device Class' dialog will appear with a list of device types.



- Enter a label for the device in the 'Device Custom Name' field (optional)
- Enter the unique device identifier in the 'Device ID' field

**Tip:** You can use a wildcard character "\*" in the Device ID if you want to cover a range of devices with similar IDs. For example, to include all USB storage devices whose device IDs start with "4C5310", you could enter:

USBSTOR\DISK&VEN\_SANDISK\4C5310\*

- Click 'Add'

The device will be added to the exclusions list and will be allowed access at the endpoint(s).

#### To remove a device from exclusions

- Select the device and click 'Delete'

The screenshot shows the 'Exclusions' tab in the Endpoint Manager interface. At the top, there are two tabs: 'Blocked Device Classes' and 'Exclusions'. Below the tabs is a blue instruction bar: 'Use this table to manage the list of devices to which you want to allow access'. Underneath, there are two buttons: 'Add' and 'Delete'. The 'Delete' button is circled in red. Below the buttons is a table with two columns: 'DEVICE CUSTOM NAME' and 'DEVICE ID'. The table contains two rows: 'Herald Pen Drive' with ID '6&4817b6d&0&3' and 'John Flash Drive' with ID '674817bedf063'. The 'John Flash Drive' row is selected, and its checkbox is circled in red. A red arrow points from the 'Delete' button to a modal dialog box titled 'Exclusion Remove'. The dialog box contains the text 'Do you really want to remove this device id(s)?' and two buttons: 'Confirm' and 'Cancel'.

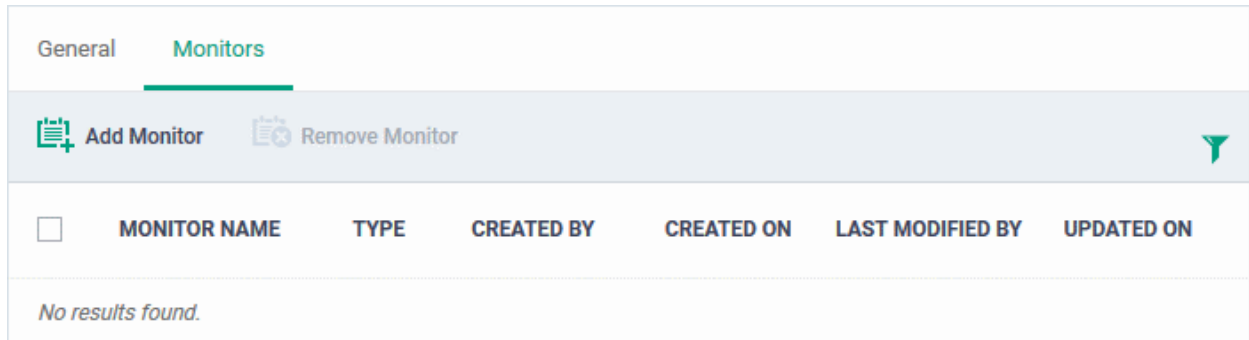
- Click 'Confirm' to remove the item from the list
- Click the 'Save' button save the 'External Devices Control' settings.
- Click 'Delete' to remove the 'External Devices Control' section from the profile. See [Edit Configuration Profiles](#) for more details about editing the parameters.

#### 6.1.3.1.16. Monitor Settings

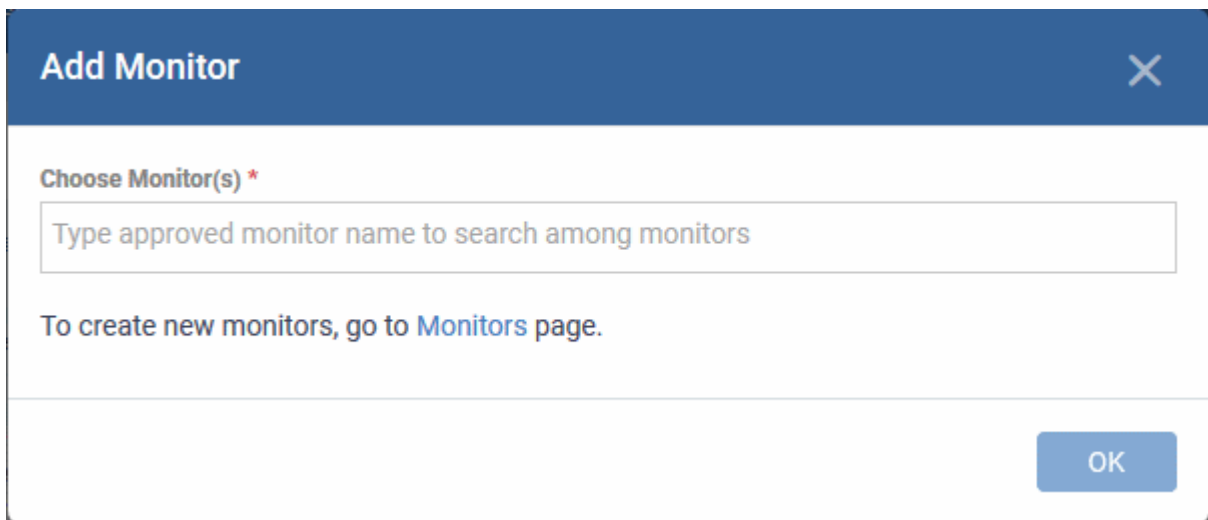
- The 'Monitors' settings section lets you add performance and event monitors to a profile.
- A monitor is a script which tracks events on a managed endpoint and takes specific actions if its conditions are met.
  - For example, 'Alert me when a USB removable disk is connected to the system', or 'Create a log entry if CPU usage goes above 75% for a certain length of time'.
- Monitors can also be configured to run a procedure to remediate issues.
- There are two types of monitor:
  - 'Predefined Monitors' - A collection of monitors from Comodo which perform a range of useful monitoring tasks. These can be used in custom profiles, but cannot be edited.
  - 'My Monitors' - Custom monitors that you create. You can configure custom monitors in the 'Monitors' inventory ('Configuration Templates' > 'Monitors'). See [Manage Monitors](#) for more details.
- Monitors added to the inventory can be added to a profile. You can add multiple monitors to a single profile.

To configure monitors settings

- Click 'Configuration Templates' > 'Profiles'
- Open the Windows profile you want to configure
- Click 'Add Profile Section' > 'Monitors'



- Click 'Add Monitor'



- Choose Monitor(s) - Lets you add monitors to the profile
  - Start typing the first few letters of the monitor name and select the monitor for the options
  - Repeat the process to add more monitors to the profile
  - See **Manage Monitors** for help to configure monitors in Endpoint Manager.
- Click 'OK' to save your settings

The list of monitors included in the profile will be displayed:

General		Monitors				
Add Monitor                  Remove Monitor						
<input type="checkbox"/>	MONITOR NAME	TYPE	CREATED BY	CREATED ON	LAST MODIFIED BY	UPDATED ON
<input type="checkbox"/>	For Finance Dept...	Custom	herculespopular22@gmail.com	2018/07/30 03:13:36 PM	herculespopular22@gmail.com	2018/07/30 03:45:01 PM
<input type="checkbox"/>	CPU1 [Finance D...	Custom	herculespopular22@gmail.com	2018/07/17 03:20:37 PM	Never modified	Never modified
<input type="checkbox"/>	Second Monitor [...]	Custom	herculespopular22@gmail.com	2018/07/11 03:06:20 PM	Never modified	Never modified

Monitors - Column Descriptions	
Column Heading	Description
Monitor Name	The monitor label. <ul style="list-style-type: none"> <li>Click the name of a monitor view and edit it. See <a href="#">View and Edit Monitors</a> for more details.</li> </ul>
Type	Whether the monitor is custom or predefined.
Created by	The administrator who created the custom monitor. <ul style="list-style-type: none"> <li>Click the admin name to view their details. See <a href="#">View User Details</a> if you need help with this.</li> </ul>
Created On	Date and time the monitor was created.
Last Modified By	The admin who most recently edited the monitor.
Updated On	Date and time the monitor was last edited.
Controls	
Add Monitor	Add a monitor to the profile. See the explanation <a href="#">above</a> for help with this.
Remove Monitor	Delete monitors from the profile Use the check-boxes to select the monitors you want to remove.

- Click any column header to sort the items based on alphabetical or ascending/descending order of entries in the respective column.
- Click the funnel button at the right end to open the filter options.



Monitor name

Monitor name

Created by

Created by

Type

All

Last modified by

Last modified by

Created on

Start End

Updated on

Start End

### 6.1.3.1.17. SCM Certificate Settings

The 'CCM Certificates' settings section of a profile allows you to add requests for client and device authentication certificates to be issued by Sectigo Certificate Manager (SCM).

**Note** - Sectigo Certificate Manager is the new name for Comodo Certificate Manager. We are in the process of updating the Endpoint Manager UI to reflect this name change. [Click here](#) if you want to read more about the Comodo CA/Sectigo rebrand.

Once the profile is applied to a device, a certificate request is automatically generated and forwarded to SCM. After issuance, the certificate will be sent to EM which in turn pushes it to the agent on the device for installation. You can add any number of certificates to a single profile. Appropriate certificate requests will be generated on each device to which the profile is applied.

In addition to user authentication, client certificates can be used for email signing and encryption.

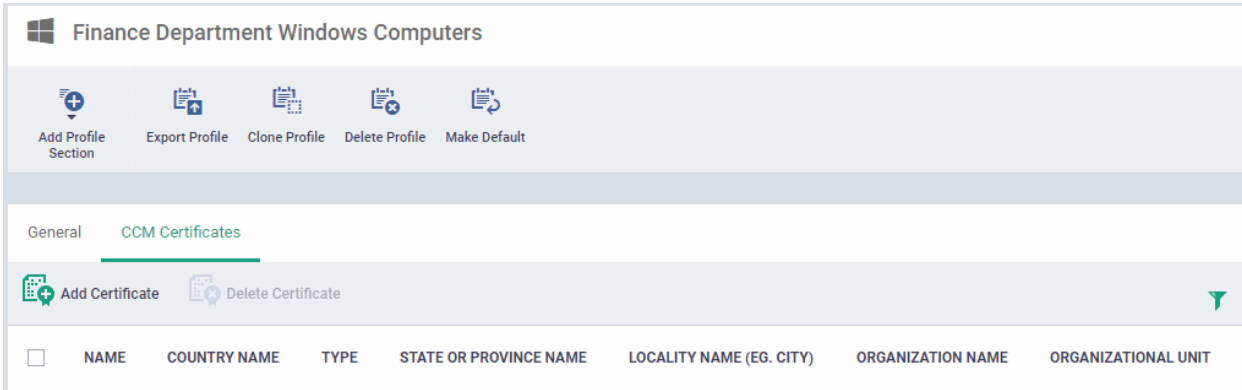
**Prerequisite:** Your SCM account should have been integrated to your EM server in order for EM to forward requests to SCM. For more details, see [Integrate with Sectigo Certificate Manager](#).

#### To configure SCM Certificate settings

- Click 'Configuration Templates' > 'Profiles'
- Open the Windows profile you want to configure

- Click 'Add Profile Section' > 'CCM Certificates'

The settings screen for adding certificate requests to the profile appears:



The screenshot shows the 'Finance Department Windows Computers' profile settings. At the top, there are five action buttons: 'Add Profile Section', 'Export Profile', 'Clone Profile', 'Delete Profile', and 'Make Default'. Below these is a tabbed interface with 'General' and 'CCM Certificates' tabs. The 'CCM Certificates' tab is active, showing 'Add Certificate' and 'Delete Certificate' buttons. At the bottom, there is an empty table with the following columns: NAME, COUNTRY NAME, TYPE, STATE OR PROVINCE NAME, LOCALITY NAME (EG. CITY), ORGANIZATION NAME, and ORGANIZATIONAL UNIT.

<input type="checkbox"/>	NAME	COUNTRY NAME	TYPE	STATE OR PROVINCE NAME	LOCALITY NAME (EG. CITY)	ORGANIZATION NAME	ORGANIZATIONAL UNIT
--------------------------	------	--------------	------	------------------------	--------------------------	-------------------	---------------------

- Click 'Add Certificate' at the top to add a certificate request to the profile

**Add Certificate**
✕

**Name \***

**Type**

S/MIME certificate
▼

**Identifier \***

%u.username%
+ Variables

**Country name \***

Albania
▼

**State or province name**

**Locality name (eg. city)**



**Organization name**

**Organizational unit**

Add

- Fill-in the details for the certificate request

Add Certificate - Table of Parameters		
Form Element	Type	Description
Name	Text Field	Type a label for the certificate.
Type	Drop-down	Select the kind of certificate you want to add. The options are: <ul style="list-style-type: none"> <li>S/MIME Certificate (Client Certificate)</li> <li>Device Certificate</li> </ul>
Identifier	Text Field	The 'Identifier' field will be auto-populated with mandatory variables

Add Certificate - Table of Parameters		
		<p>depending on the chosen certificate type.</p> <ul style="list-style-type: none"> <li>For client certificate, %username% will be added for fetching the username to be included as subject in the certificate request.</li> <li>For device certificate, %d.uuid% will be added for fetching the device name to be included as subject in the certificate request.</li> </ul> <p>You can add more variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a>.</p>
Country Name	Text Field	The address details of the user/organization
State or Province Name		
Locality Name (eg. City)		
Organization Name	Text Field	<p>The customer company to whom the user/device belongs.</p> <p><b>Prerequisite:</b> The organization should have been added to your SCM account.</p>
Organizational Unit	Text Field	<p>The department to whom the user/device belongs.</p> <p><b>Prerequisite:</b> The department should have been defined under the organization in your SCM account.</p>

- Click 'Add' once you have completed the form.
- Repeat the process to add more certificate requests.

The certificate requests will be generated from the devices once the profile is applied to them.

### 6.1.3.1.18. Procedure Settings

- Endpoint Manager allows you to run scripts and patches as procedures on Windows devices.
- You can also automate procedure deployment by adding them to a profile along with a schedule.
- The 'Procedures' area of a profile lets you add, view, delete and prioritize procedures which have been added to a profile.

#### To add procedures to a profile

- Click 'Configuration Templates' > 'Profiles'
- Open a Windows profile from the list
- Click 'Add Profile Section' > 'Procedures'

The 'Add' button allows you to add and schedule a procedure which has been created in the 'Procedures' area.

Click 'Save' to apply your changes.

Procedures will be executed in numerical order. Select a procedure then use 'Move Up' or 'Move Down' controls to prioritize.

<input type="checkbox"/>	ORDER	PROCEDURE NAME	DESCRIPTION	TYPE	SCHEDULE	LAST MODIFIED BY	UPDATED AT
<input type="checkbox"/>	1	Patch maintenance	Maintains the latest patches to be updated on the Windows Endpoint	Patch	Never		2016/11/07 01:52:26 PM
<input checked="" type="checkbox"/>	2	Script for monitoring the user Access report (logon/logoff /logonfailure) [Script]	Script monitor, To Monitor Users Access Report (It will implement a report of all accesses (Logon, Logoff, Failed Logon))	Script	Never		Not modified

- Note. Procedures are actually created and configured in the 'Procedures' area ('Configuration Templates' > 'Procedures').
- Related. **Manage Procedures** contains help about configuring a procedure and adding a procedure to a profile:
  - **Create a Custom Procedure**
  - **Combine procedures to build broader procedures**
  - **Review / Approve / Decline new procedures**
  - **Add a Procedure to a Profile / Procedure Schedules**
  - **Import / Export / Clone Procedures**
  - **Change Alert Settings**
  - **Directly Apply Procedures to Devices**
  - **Edit / Delete Procedures**
  - **View Procedure Results**

### To add a procedure

- Choose 'Procedures' from the 'Add Profile Section drop down' and click 'Add'.

**Add Existing Procedure**
✕

**Procedure name**

To create a new procedure please go to [Procedures](#)

**Start date\***

2018/03/27

**Schedule**

Never

**Scheduled time**

▲  

12

▼

:

▲  

51

▼

PM

Run as LocalSystem User

Run as Logged in User

Run this procedure immediately when the profile is assigned to a new device

Skip procedure if the device is offline

Add

Add Existing Procedure to a Profile - Form Parameters	
Parameter	Description
Procedure Name	Choose an existing 'Patch' or 'Script' procedure by typing the first few characters of the procedure name. Make sure you have already approved the procedure. See <b>View and Manage Procedures</b> for help to configure procedures in EM.
Schedule Options	Create a schedule for the procedure to run periodically on the devices applied with this profile. (optional) <ul style="list-style-type: none"> <li>Select the 'Start date' for the procedure by clicking the calendar icon beside 'Start Date'..</li> <li>Select the period fro the schedule from the 'Schedule' drop-down. The available options are:                             <ul style="list-style-type: none"> <li>Never</li> <li>Daily</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>Weekly - If chosen you need to select the days of the week on which the procedure is to be run</li> <li>Monthly - If chosen you need to select the dates of a month on which the procedure is to be run</li> <li>Set the time at which the procedure is to run on the scheduled days from the 'Scheduled' Time field</li> <li>Then select the 'Finish date'. If you select 'End date', from the drop down, then specify the end date for the procedure from the calendar.</li> </ul>
User Account Options	<ul style="list-style-type: none"> <li>Choose 'Run as system user' or 'Run as logged in user' based on the access rights required for the procedure to run at the endpoint.</li> <li>This applies only to 'Script' procedure</li> </ul>
Execution Options	<p><b>Run this procedure immediately when the profile is assigned to a new device</b></p> <p>The procedure will run on target devices as soon as the profile is applied to the device, in addition to any schedule.</p> <p><b>Skip procedure if the device is offline</b></p> <p>The procedure will be aborted is the device is not connected to EM at the time of execution.</p> <p>By default, procedures are queued for later deployment if the device is not connected to EM. The task will be executed as soon as it comes online.</p> <ul style="list-style-type: none"> <li>Select this option If you do not want the task to be added to the queue.</li> </ul>

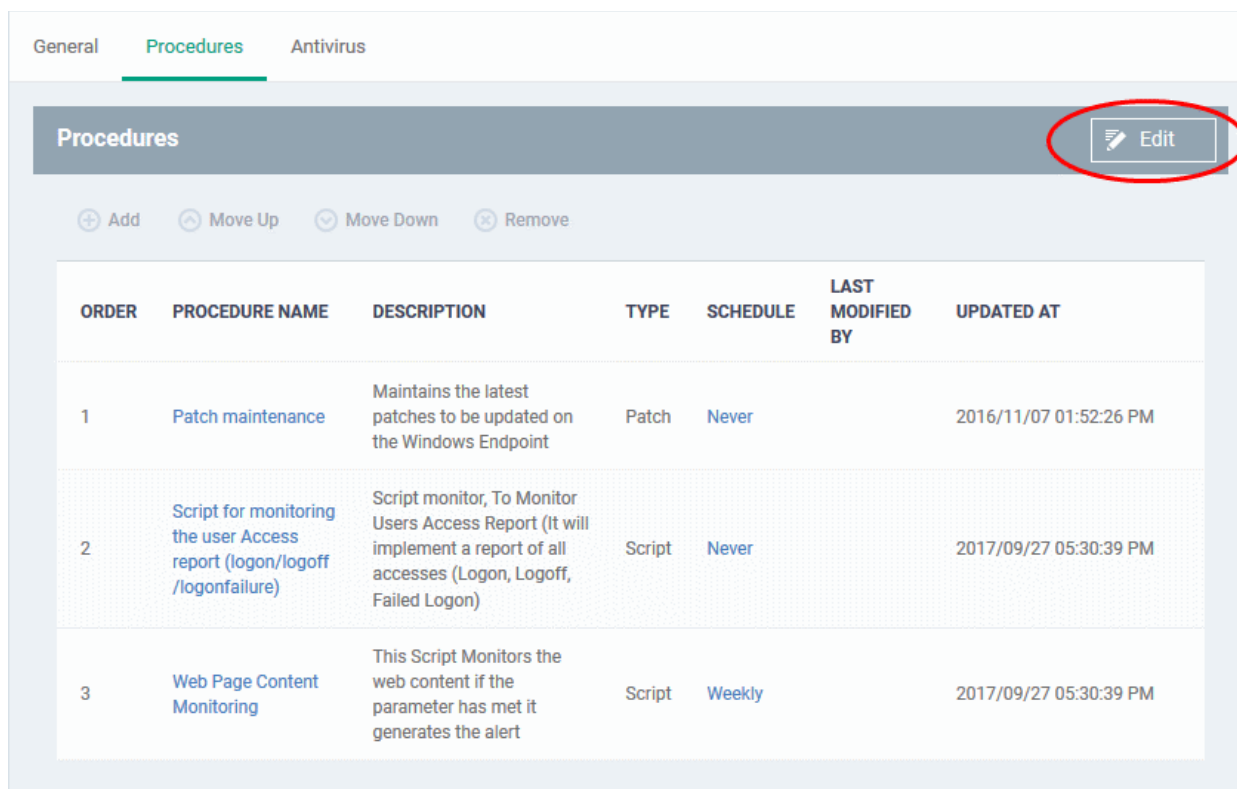
- Configure the options and click 'Save'
- Repeat this process to add multiple procedures.

Administrators can add or edit procedure by clicking 'Edit' button present on the top right corner of the profile section tab.

**To edit a procedure:**

- Click 'Configuration Templates' > 'Profiles'
- Open the Windows profile containing the procedures component to be edited
- Click the 'Procedures' tab
- Click 'Edit' and select the procedure that needs to be modified.





- Then click either 'Add', 'Move Up', 'Move down', or 'Remove' based on the changes that need to take effect.
  - Click 'Add' to add another procedure to the existing list
  - Click 'Move Up' to increase the priority of the procedure.
  - Click 'Move Down' to decrease the priority of the procedure.
  - Click 'Remove' to delete the procedure.
- Click 'Save'.

### 6.1.3.1.19. Remote Control Settings

- 'Remote Control' settings let you choose the protocol and ports used for remote connections.
- You can also configure notifications which are shown to end-users before and during a session.
- See **Remote Management of Windows and Mac OS Devices** if you need help to set up the remote control service

#### To configure Remote Control Settings

- Click 'Configuration Templates' > 'Profiles'
- Open the profile that you want to configure (click the profile name to do this)
- Click 'Add Profile Section' and choose 'Remote Control' from the drop-down.
  - If 'Remote Control' is not in the 'Add...' menu then it has already been added to the profile.
- Click the 'Remote Control' tab on the profile file-menu:

General   Procedures   Antivirus   **Remote Control**

---

**Remote Control** Cancel Save

**Remote Control Options**

- Silent remote control  
*Remote control endpoint without asking permission*
- Ask permission then allow after  seconds ⚠  
*If user is logged in: ask for permission and connect if user allows or does not respond in given time.*  
*If user is not logged in: proceed remote control*
- Ask permission then deny after  seconds ⚠  
*If user is logged in: ask for permission and connect only if user approves in given time.*  
*If user is not logged in: proceed remote control*
- Do not allow remote control  
*Use this option to completely disable remote control*

**Remote Control Message**

Your IT administrator would like to view and control your desktop. Please click "Allow" to start remote session.

**Client Notification Options**

- Show notification to device user about who connected to his/her workstation and allow terminating the connection
  - Allow endpoint user to terminate the connection

**Protocol Options**

*Ports that will be applied are UDP ports only, please make sure your firewall configurations are compatible with the UDP settings*

- Use WebRTC ⚠ from CCC 6.17  
*Set at least 1 port*  
Port(s)  ▼  
*WinXP : 1025 - 5000 range by default*  
*Win7+ : 49152 - 65535 range by default*
- Use Chromoting from CCC 6.17  
*Set at least 4 ports*  
Ports  ▼  
*49152 - 65535 range by default*

## Remote Control Options:

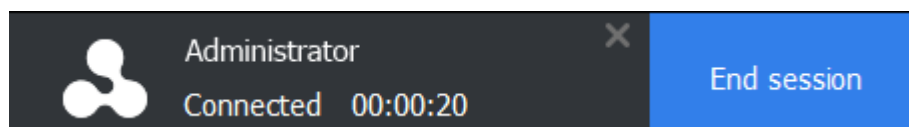
- Silent remote control - The remote connection will be established without showing a request to the user.
- Ask permission then allow after NN seconds - A message will be shown to the user which requests them to accept the connection. The connection will be established if the user does not respond within the timeout period.
  - Enter the timeout period (in seconds) in the text box
- Ask permission then deny after NN seconds - A message will be shown to the user which requests them to accept the connection. The connection attempt will be abandoned if the user does not respond within the timeout period.
  - Enter the timeout period (in seconds) in the text box
- Do not allow remote control - Disable the ability to take remote control of the endpoint.

## Remote Control Message

- Enter the text of the request message. For example, 'Your administrator would like to take control of your desktop. Click 'Allow' to accept the connection request.'
- Please note that you can enter the message only on choosing the second or third notification options from the remote control settings.

## Client Notification Options

This area lets you configure the notification box which is shown on the endpoint when a remote session is active:



- Show notification to device user about who... - Enable or disable the notification box
  - Allow endpoint user to terminate the connection - Choose whether or not the 'End Session' button is shown in the notification box. If enabled, the end-user will be able to close the connection.

## Protocol Options

These options let you configure the protocol used for the remote session.

- These settings apply to RC version 6.17 and above.
- You can also specify custom ports to be used by the protocol for an additional layer of safety. This allows you to keep only the specified ports open and block other ports for security.

**Note:** Please make sure you do not assign well-known special ports. We recommend the following port range for custom use: 49152-65535.

- Use WebRTC - RC uses WebRTC protocol to connect to the device. This option is mandatory and cannot be deselected.
- Ports - Select the port type to be used by WebRTC protocol and specify the ports. The available options are:
  - Default - WebRTC will use port range 1025 - 5000 for Windows XP and port range 49152 - 65535 for Windows 7 and later versions
  - Custom - Allows you to specify a single custom port to be used by WebRTC
  - Custom Range - Allows you to specify a port range to be used by WebRTC
- Use Chromoting - Chromoting provides a better quality of remote control and experience and is supported only by Windows 7 and later.

- If selected, RC uses Chromoting to connecting to devices Windows 7 and later and use WebRTC for Windows XP devices.
- If not selected, RC will use only WebRTC to connect to devices with any Windows version.
- Ports - Select the port type to be used by Chromoting protocol and specify the ports. The available options are:
  - Default - Chromoting will use the port range 49152 - 65535
  - Custom Range - Allows you to specify a port range to be used by Chromoting. Enter a range covering at least 4 ports.
- Click 'Save' to apply your changes to the profile.

### 6.1.3.1.20. Miscellaneous Settings

- Lets you monitor the registry for changes to auto-run entries, services and scheduled tasks by unrecognized files. You can then specify the action to be taken if a change is detected.
- Applies only to CCS versions 10.7 and higher

#### To configure 'Miscellaneous' Settings

- Click 'Configuration Templates' > 'Profiles'
- Click the name of a Windows profile
- Click 'Add Profile Section' > 'Miscellaneous'

The 'Miscellaneous' settings screen will open:

General    Antivirus    **Miscellaneous**

**Miscellaneous**    [Cancel]    [Save]

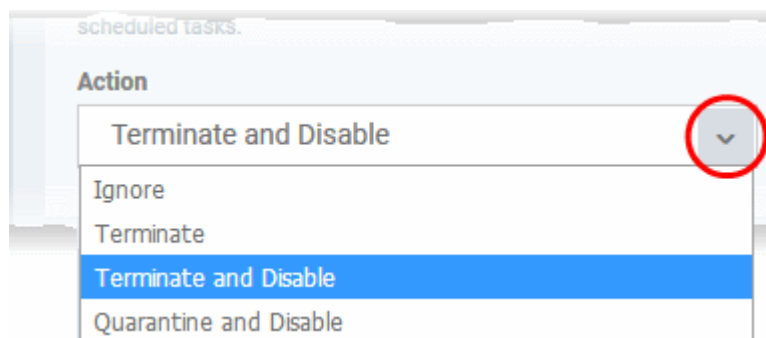
**Apply the selected action to unrecognized autorun entries related to new/modified registry items:**  
When this option is enabled, the registry will be monitored for modifications and the selected protective action will be applied to detected unrecognized Windows services, autostart entries or scheduled tasks.

**CCS 10.7+**

**Action**

Ignore [v]

- Apply the selected action to...' - CCS will monitor registry entries related to Windows services, auto-run items and scheduled tasks. If any entries are created or modified by unrecognized files/scripts, they will be handled per the action chosen. (**Default = Enabled**)
- Action - Choose the action to be taken on registry entries created/modified by unrecognized files and scripts.



- Click 'Save' to apply your changes to the profile.

### 6.1.3.2. Import Windows Profiles

In addition to creating a new Windows profile from the Endpoint Manager interface, you can create new profiles for rolling out to endpoints or endpoint group(s) in the following ways:

- Import the security configuration of CCS from a managed endpoint and save it as a new profile
- Export a profile from EM in .cfg format then import it as a new profile
- Clone an existing profile and edit it to create a new profile

This section explains more about **importing CCS configuration from a selected endpoint**.

- For more details on **importing configuration from an exported profile**, see **Export and Import Configuration Profiles**.
- For more details on creating a new profile by using an existing profile as base, see **Clone a Profile**.

#### Import CCS Configuration from a Managed Device

By importing the configuration of Comodo Client Security from an existing endpoint, you can create a Windows profile which can be deployed to similar machines on your network.

- **Step 1 - Export the current configuration from the selected device as an .xml file**
- **Step 2 - Import the .xml file as a profile to required endpoints or endpoint group(s).**

#### Step 1 - Export the current configuration from the selected device as an .xml file

The current security configuration of the CCS installation on the endpoints depends on:

- The configuration profiles applied to the endpoint
- Manual configuration of the parameters at the endpoint.

**Note:** If you are manually configuring the security parameters, ensure that the option 'Enable local user to override profile configuration' is selected in the 'Client Access Control' section in the profile(s) in action on the endpoint. Otherwise your manual settings will be reverted and the security parameters will be automatically set as per the configuration profile(s) effective on the endpoint during the next polling cycle of the communication client. See **Client Access Control** for more details.

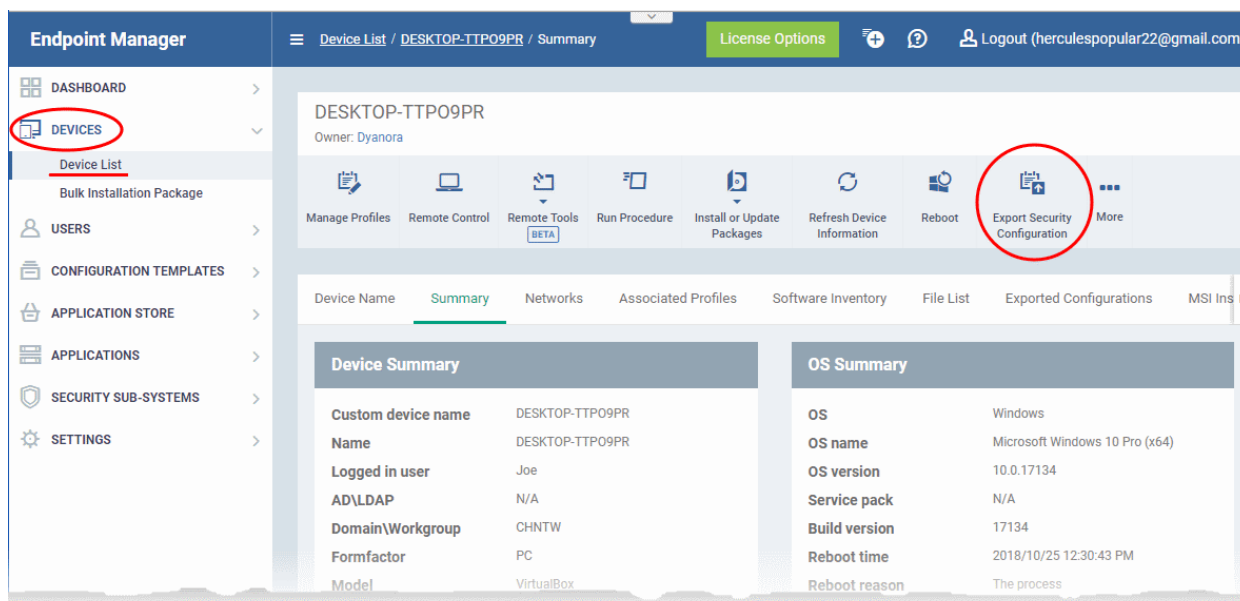
You can export the CCS configuration from a managed Windows device in two ways:

- **Export configuration of a selected device from EM interface**
- **Manually export the CCS configuration from the selected device**

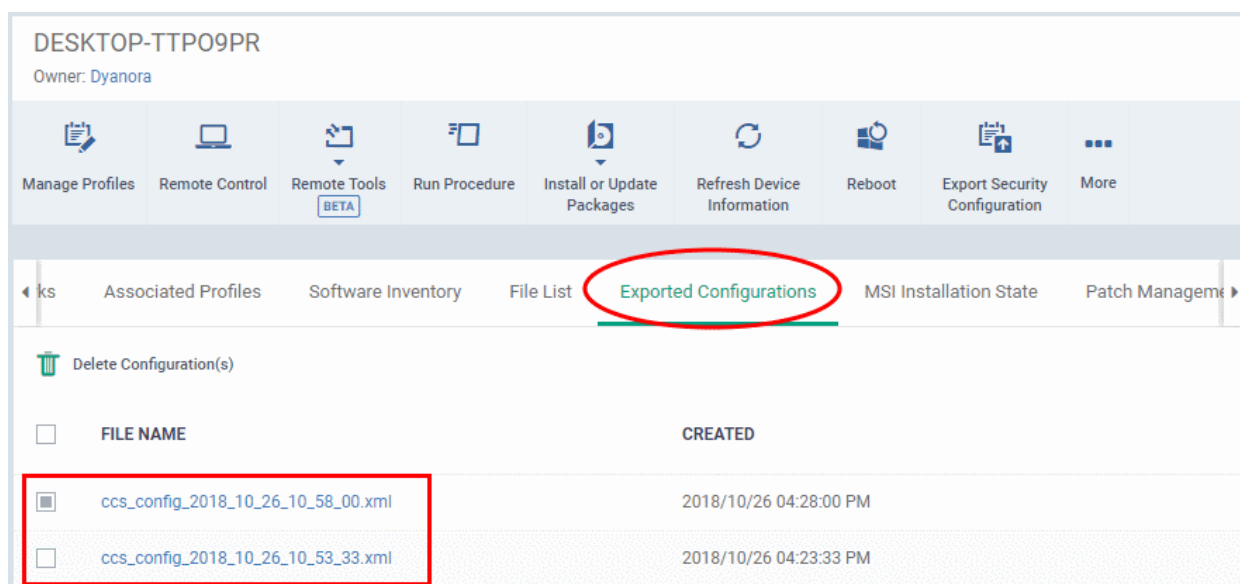
#### Export Configuration from EM interface

- Open the 'Device List' interface from the EM console by clicking 'Devices' > 'Device List' on the left

- Click the name of the device whose configuration you wish to export to open its 'Device Details'
- Click the 'Export Security Configuration' button:



- The CCS configuration will be exported as a .xml file and saved in EM.
- You can view all configuration files exported from this device under the 'Exported Configurations' tab in 'Device Details':



- Click the name of the file that you want to import as a profile and save it in a safe location.
- Then move on to **Step 2 - Import the .xml file as a profile to required endpoints or endpoint group(s).**

## Manually exporting CCS configuration from a selected device

- If you haven't done so already, configure the security settings of CCS at an endpoint to your requirements. Refer to 'Advanced Settings' in the CCS guide if you need help with this - <https://help.comodo.com/topic-399-1-790-10272-Introduction-to-Comodo-Client-Security.html>

- To export the current configuration as an xml file, the following command locally on the endpoint:

```
C:\[installation folder of CCS]cfpconfig.exe --xcfgExport="C:\<filename>.xml" --filter=""
```

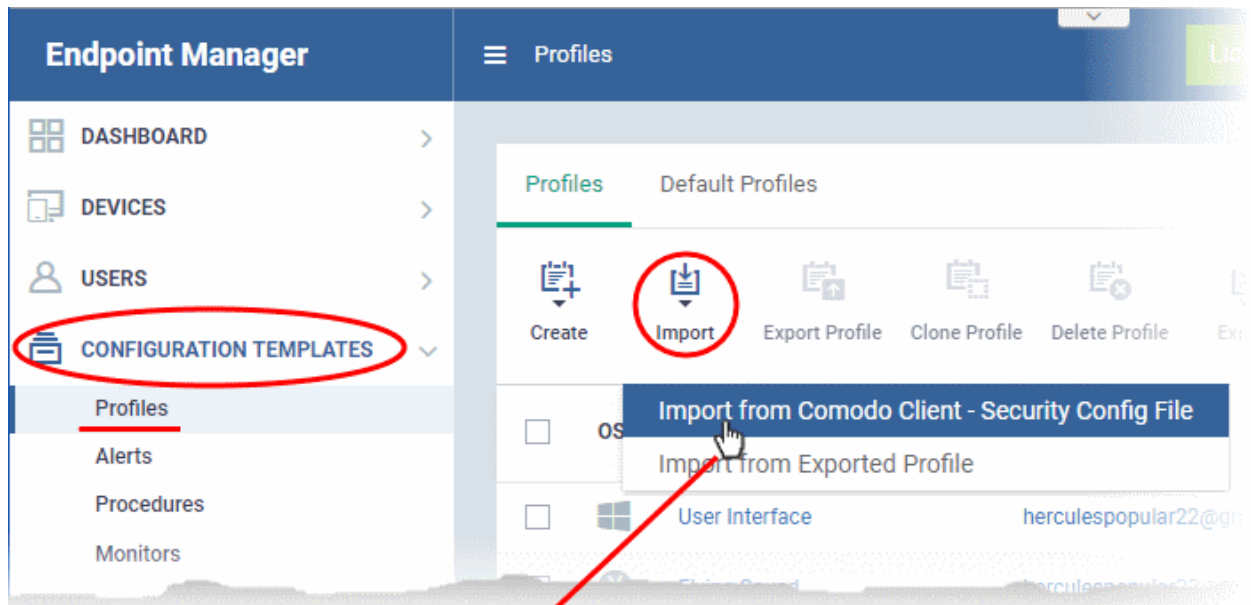


For example, C:\Program Files\COMODO\COMODO Internet Security\cfpconfig.exe --xcfgExport="C:\winconfigprofile.xml" --filter=""

- Copy the .xml file from the endpoint to the computer from which the EM console is accessed.
- Then move on to **Step 2 - Import the .xml file as a profile for application to required endpoints or endpoint group(s).**

## Step 2 - Import the .xml file as a profile for application to required endpoints or endpoint group(s)

- Click 'Configuration Templates' > 'Profiles'
- Click 'Import' > 'Import from 'Comodo Client Security Config file'



### Import Windows Profile

Name \*

Comodo Client - Security configuration file \*

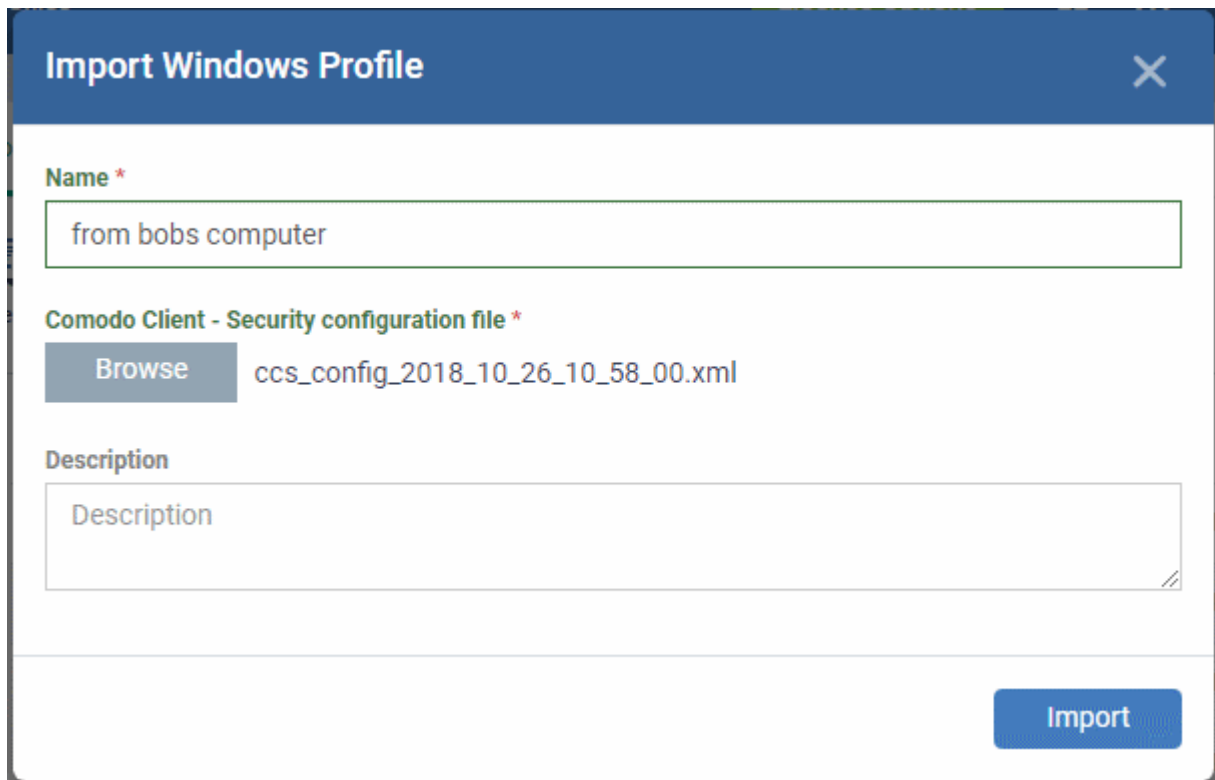
Description

The 'Import Windows Profile' opens.

- Enter a name and description for the profile.

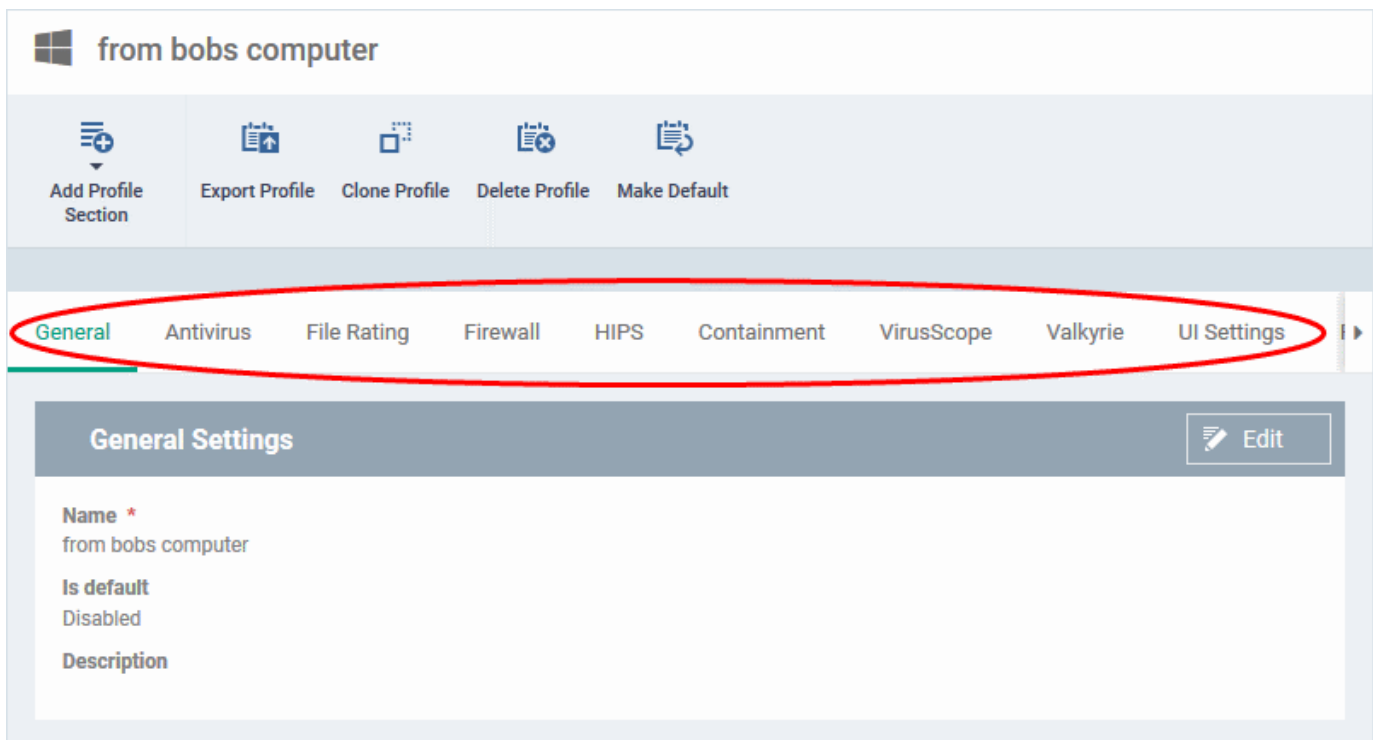


- Click 'Browse', navigate to the location in your computer where the .xml file is saved, select the file and click 'Open'.



- Click the 'Import' button.

The Windows Profile interface will open, with the security components pre-configured as per the settings in the configuration file.



- The imported profile will not be set as 'Default Profile' by default.
- To change the name of the profile and/or to enable it as a default profile, click on the 'Edit' button



at the top right of the 'General' settings screen, edit the settings and click the 'Save' button.

- You can now deploy this profile to endpoints and endpoint groups. You can add new profile components by clicking 'Add Profile Section' and can edit the settings for any security component by clicking the relevant tab. For more details on the options available under each component, see the [explanation of the component settings](#) [Create Windows Profiles](#).

## 6.1.4. Profiles for Mac OS Devices

Mac OS profiles let you specify the general settings and configuration of Comodo Client - Security (CCS) on Mac OS devices.

There are two ways you can add a MAC OS profile:

- Create a brand new profile. See [Create Mac OS Profiles](#) for more details.
- Clone an existing profile and modify its settings. See [Clone a Profile](#), for more details.

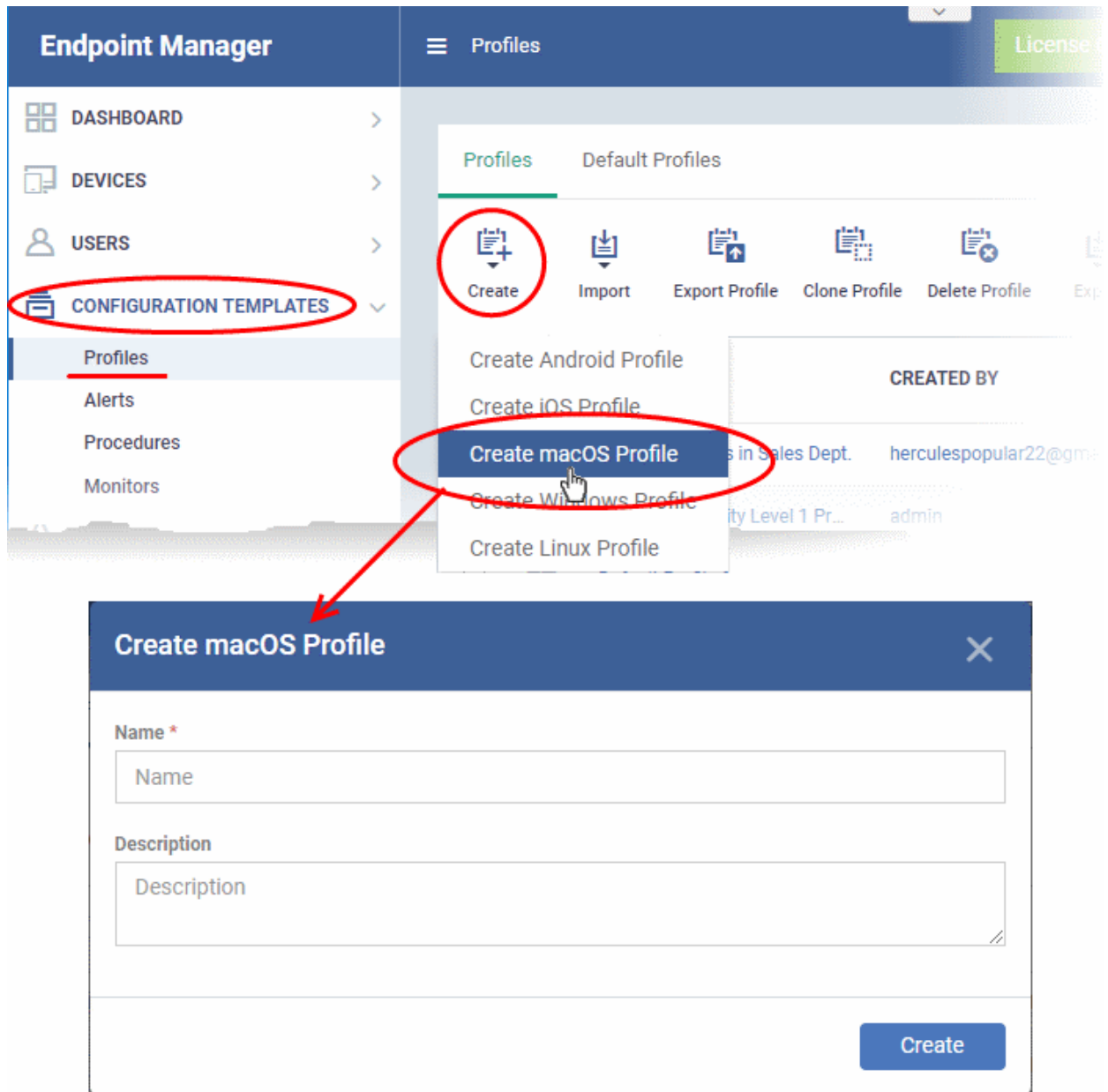
### 6.1.4.1. Create a Mac OS Profile

Process in brief:

- Click 'Configuration Templates' > 'Profiles'
- Click 'Create' > 'Create Mac OS Profile'
- Type a name and description for your profile then click the 'Create' button. The new profile will appear in 'Configuration Templates' > 'Profiles'.
- New profiles have only one section - 'General'. Click 'Add Profile Section' to add settings for various security and management features. Each section you add will appear as a new tab.
- Once configured, you can apply the profile to users, devices and user/device groups.
- Click the 'General' tab then 'Edit' to make it a 'Default' profile.
  - A 'default' profile is one that is applied automatically to any device which matches its operating system. You can have multiple 'default' profiles per operating system.
- This part of the guide explains the processes above in more detail, and includes descriptions of each section.

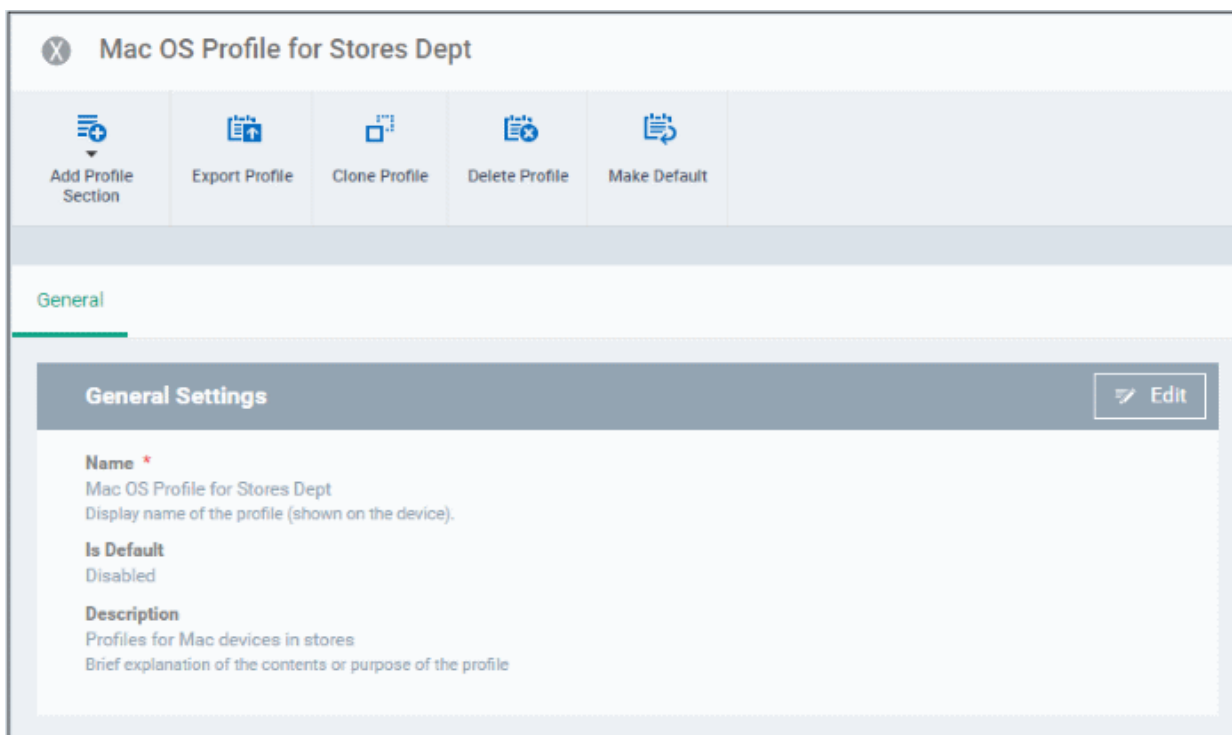
#### To create a new profile

- Click 'Configuration Templates' > 'Profiles' > 'Create' > 'Create Mac OS Profile'



- Enter a name and description for the profile
- Click the 'Create' button

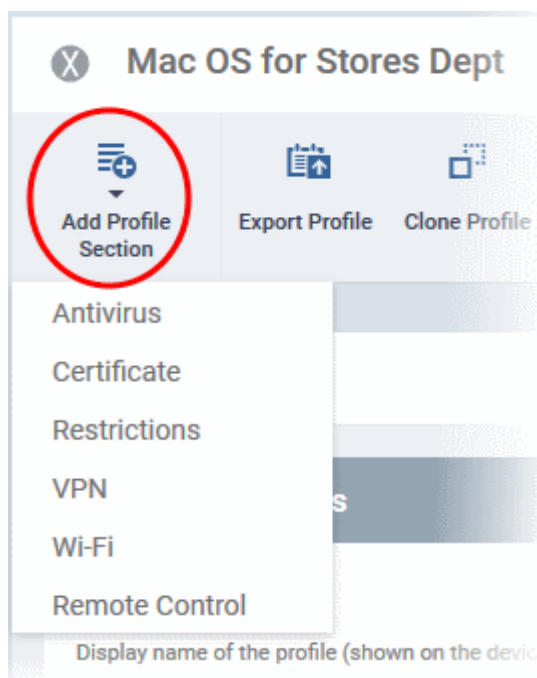
The new profile will open at the general settings page:



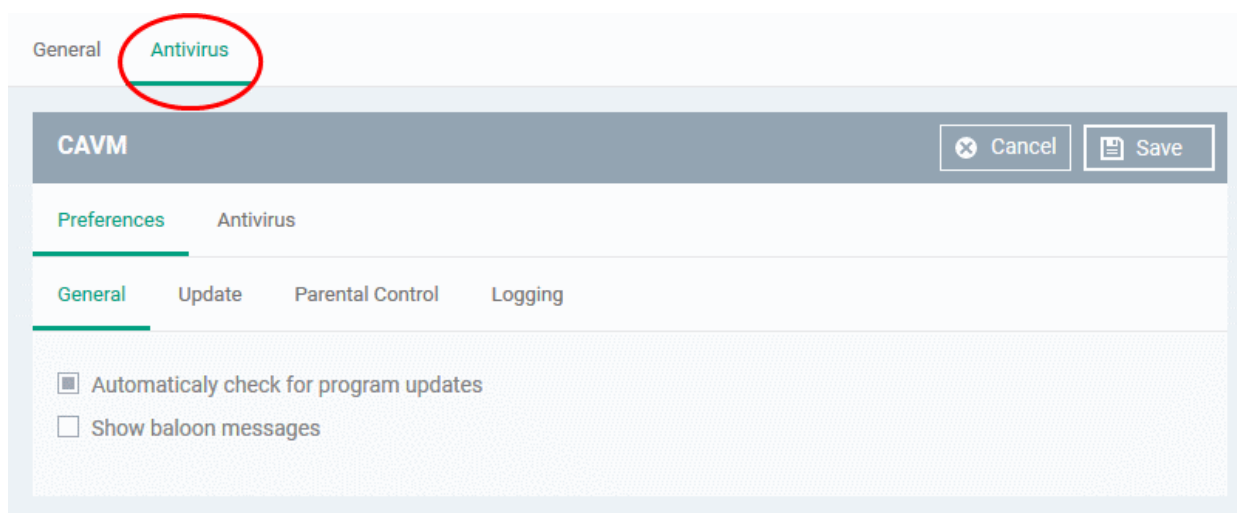
- 'Make Default' - A 'default' profile is one that is applied automatically to any device which matches its operating system. Click this button if you want all MAC OS devices to receive this profile.
- Click 'Save'.

The next step is to add sections to the profile. Each section lets you define settings for a particular security or management feature.

- Click 'Add Profile Section' then select the section you want to add from the list:



The new section will appear as a tab under the profile name. You can add as many sections as required to a profile.



Following sections explain more about each of the settings:

- **Antivirus**
- **Certificate**
- **SCM Certificates**
- **Restrictions**
- **VPN**
- **Wi-Fi**
- **Remote control**

#### 6.1.4.1.1. Antivirus Settings for Mac OS Profile

The antivirus section lets you configure real-time monitoring, custom scans, scan schedules, exclusions and more.

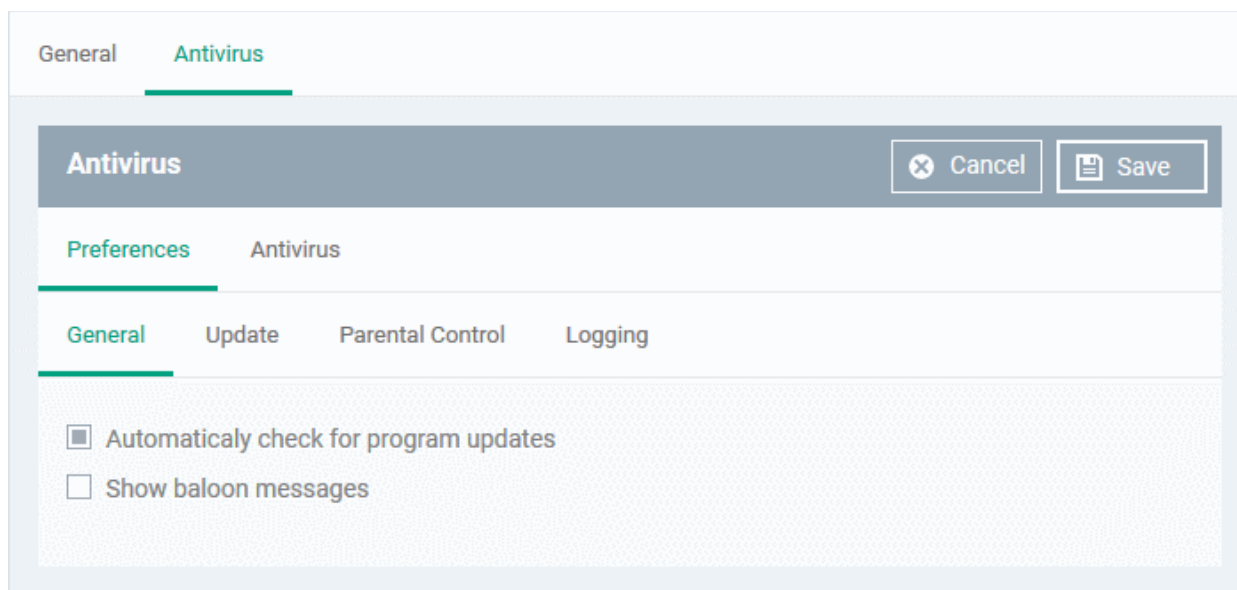
##### **Configure antivirus settings in a Mac OS profile**

- Click 'Configuration Templates' > 'Profiles'
- Click the name of a Mac OS profile
- Click 'Add Profile Section' then 'Antivirus' (if you haven't yet added the AV section)

OR

- Open the 'Antivirus' tab if it was already added

The antivirus settings screen will open:



It contains two tabs:

- **Preferences** - Configure general behavior, updates, parental control and log settings
- **Antivirus** - Configure settings for all scan types, create custom scan profiles and schedule AV scans.

## Configure Preferences for CCS for Mac

The 'Preferences' tab lets you to configure general settings.

Click the following links for more details:

- **General**
- **Update**
- **Parental Control**
- **Logging**

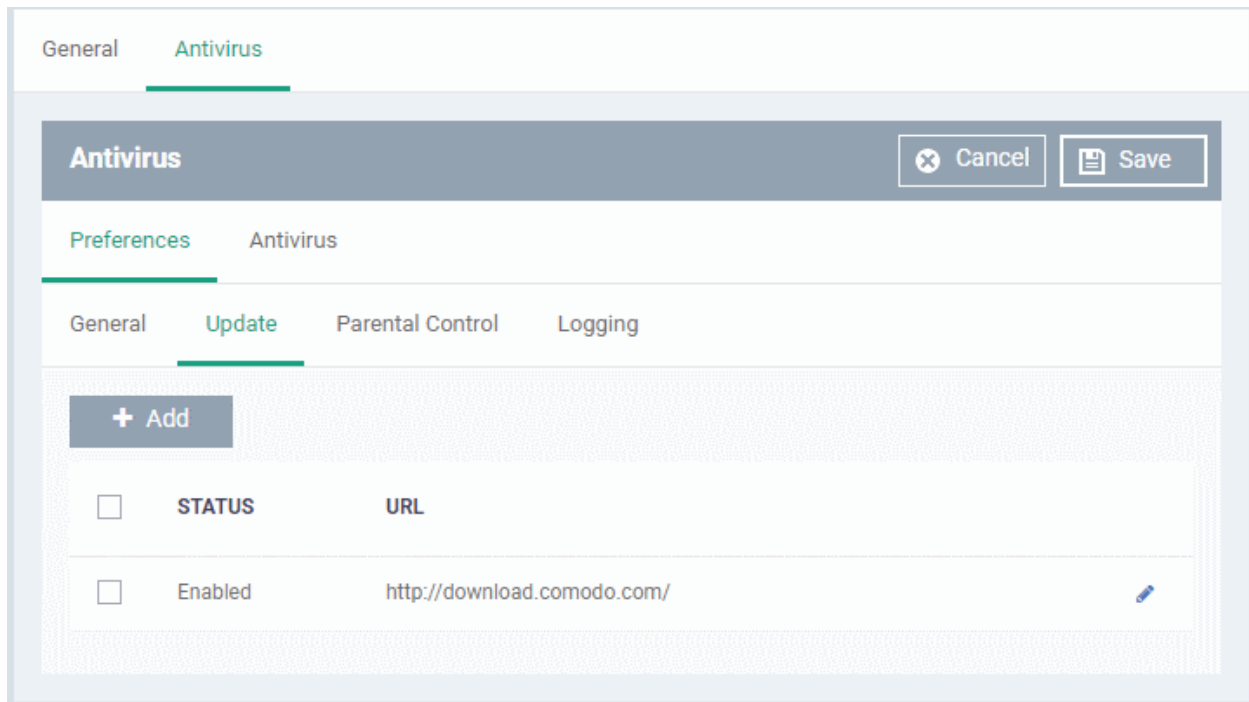
### General

- **Automatically check for program updates** - Choose whether CCS should periodically contact Comodo servers for new product versions and patches. If enabled, CCS checks for updates every 24 hours AND every time users start their computers. If updates are found, they are automatically downloaded and installed. (**Default = Enabled**).
- **Show balloon messages** - If enabled, notifications from CCS will appear in the bottom-right hand corner of the computer screen - just above the tray icons. Balloon messages are usually generated when CCS is learning the activity of previously unknown components of trusted applications. (**Default = Disabled**).

### Update Settings

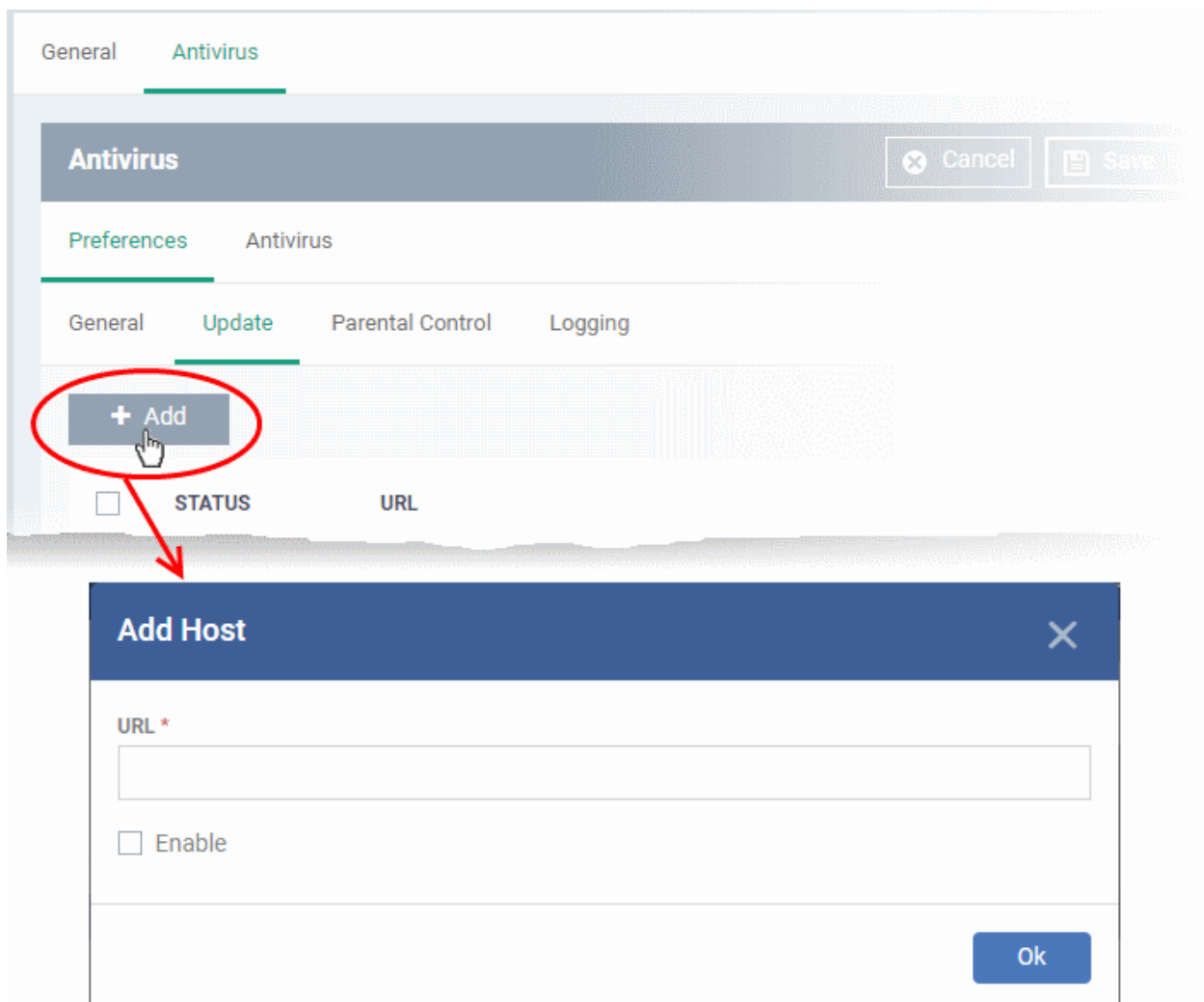
The 'Update' tab lets you specify an alternative host from which endpoints should download updates. By default, updates are downloaded from <https://download.comodo.com>

- Click 'Preferences' > 'Update'




You can add the URL of an alternative download host if required. For example, you may want to distribute the updates from a local server to conserve bandwidth.

- To add a host in the local network, click 'Add'





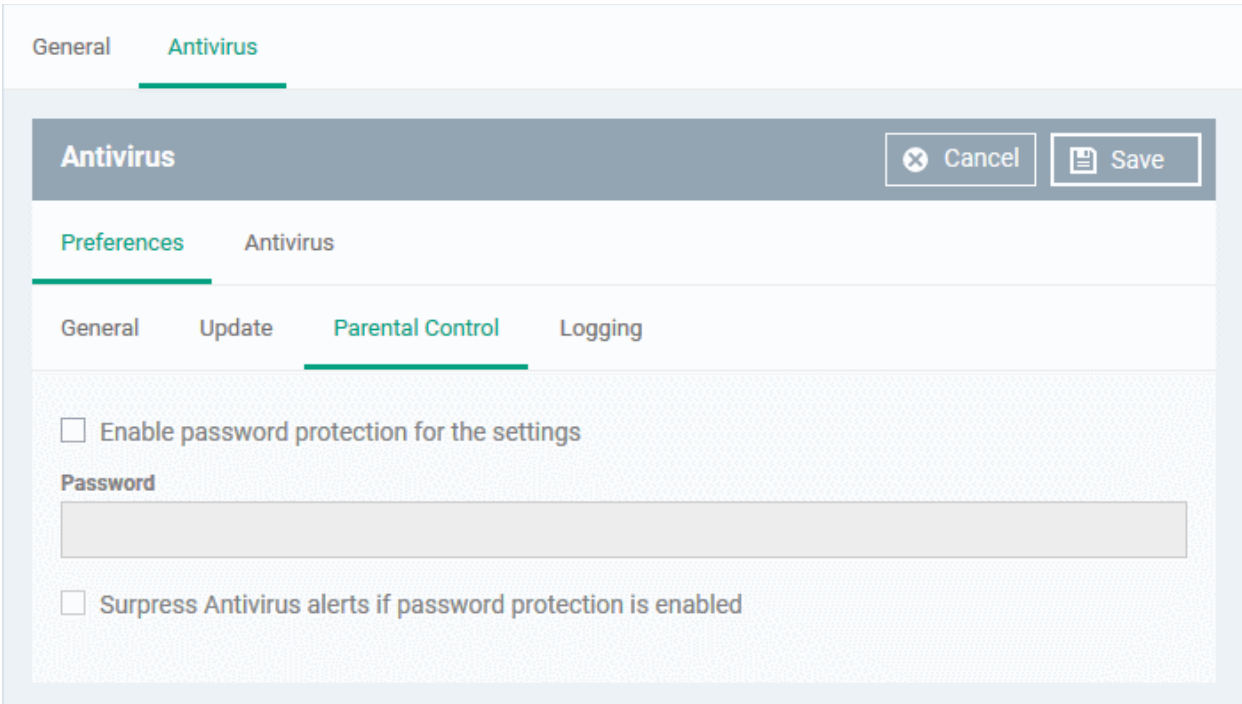
The 'Add Host' dialog will appear.

- Enter the URL or IP of the host from which updates should be downloaded in the 'URL' field
- Select the 'Enable' to activate the host
- Click 'OK' to apply your changes
- Repeat the process to add multiple hosts.
- To edit a host, click the pencil icon  beside the host name in the list

## Parental Control Settings

Parental controls let you password protect access to CCS settings. This helps prevent unauthorized personnel from making changes which could compromise the endpoint.

- Click the 'Parental Control' tab under 'Preferences'



The screenshot shows a dialog box titled 'Antivirus' with 'Antivirus' selected in the top navigation bar. Below the title bar, there are two sub-tabs: 'Preferences' (selected) and 'Antivirus'. Under 'Preferences', there are four sub-tabs: 'General', 'Update', 'Parental Control' (selected), and 'Logging'. The 'Parental Control' section contains the following options:

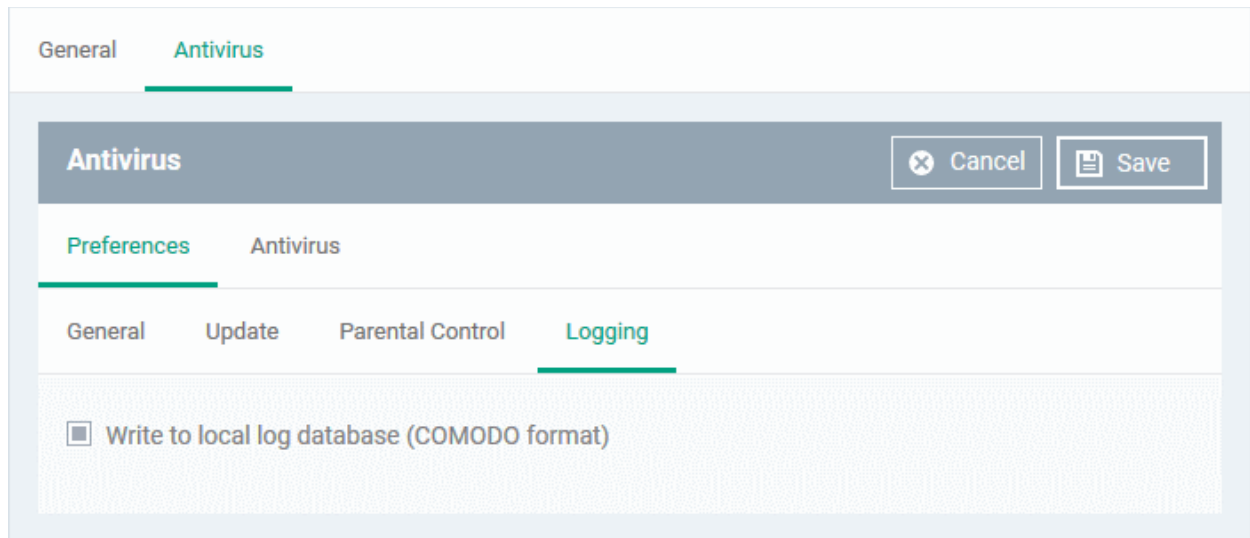
- Enable password protection for the settings
- Password**
- Suppress Antivirus alerts if password protection is enabled

Buttons for 'Cancel' and 'Save' are located in the top right corner of the dialog box.

- **Enable password protection for the settings** - Activates password protection for all important CCS settings against unauthorized changes by the user. Users will be asked to provide a password if they attempt to change CCS settings at the endpoint.  
  
Enter the password in the 'Password' field.
- **Suppress Antivirus alerts if password protection is enabled** - If selected, threats on the device are automatically blocked but no alert is shown to the end-user. This avoids the situation where a user might click 'Allow' just to make an alert go away.

## Log Settings

- Click the 'Logging' tab under 'Preferences'



By default, CCS maintains a log of all antivirus (AV) events locally in the device. Users can view the logs by clicking 'View Antivirus Events' in the 'Antivirus Tasks' interface.

- Write to local log database (COMODO format) - Deselect if you don't want the CCS installation to store logs locally.

## Configure Antivirus Settings

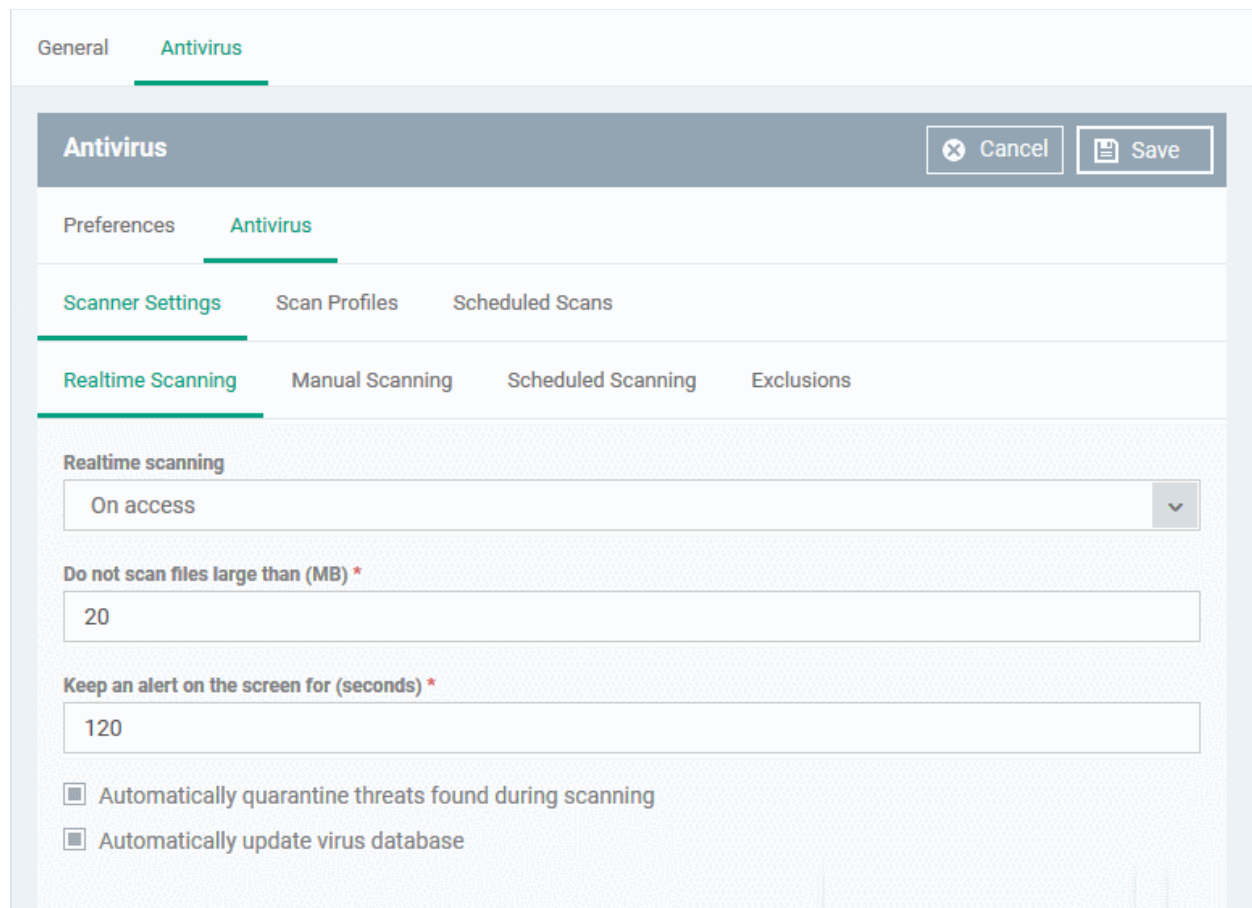
The 'Antivirus' tab lets you configure settings for the three types of scan, view/create scan profiles, and to schedule scans.

It contains three sub-tabs:

- **Scanner Settings**
- **Scan Profiles**
- **Scheduled Scans**

## Scanner Settings

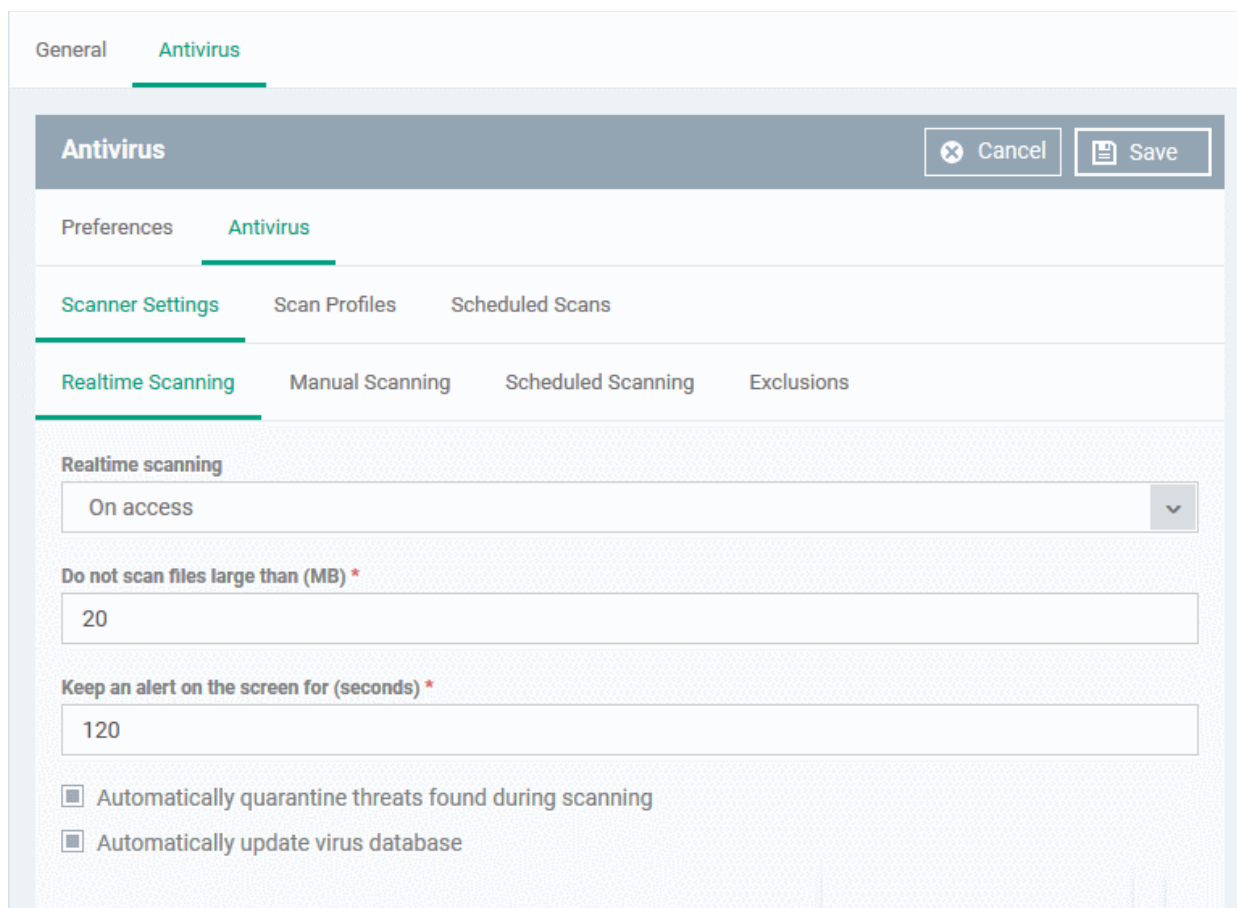
- Click the 'Scanner Settings' tab under Antivirus



You can configure the following from the 'Scanner Settings' interface:

- **Realtime Scanning**
- **Manual Scanning**
- **Scheduled Scanning**
- **Exclusions**

## **Realtime Scanning**



Real Time Scanning Settings - Table of Parameters		
Form Element	Type	Description
Real time scanning	Drop-down	Enable or disable realtime scanning. <ul style="list-style-type: none"> <li>On Access - Any file opened is scanned before it is allowed to run. Threats are detected before they get a chance to execute</li> <li>Disabled - Real-time protection is switched off. Files are allowed to run without first being checked for threats.</li> </ul>
Do not scan files larger than (MB)	Text box	Files larger than the size specified here, will not be scanned <b>(Default = 20MB)</b> .
Keep an alert on the screen for (seconds)	Text box	How long threat notifications should stay on-screen if not dismissed by the end-user. <b>(Default = 120 seconds)</b>
Automatically quarantine threats found during scanning	Checkbox	Threats will be encrypted and moved to a secure holding area where they can cause no harm. You can review quarantined items and delete, ignore or restore them. <ul style="list-style-type: none"> <li>Disable this option if you do not want threats to be moved to quarantine.</li> </ul> <b>(Default = Enabled)</b>
Automatically update virus database	Checkbox	CCS will check for and download the latest virus database updates on system start-up, and subsequently at regular

Real Time Scanning Settings - Table of Parameters		
		intervals. <ul style="list-style-type: none"> <li>Disable this option if you do not want CCS to automatically check for updates.</li> </ul> ( <b>Default = Enabled</b> ).

## Manual Scanning

- A manual scan is one you run 'on-demand' on selected files, folder or drives. Manual scans can be launched from 'Security Sub-Systems' > 'Antivirus'.
- For more details on running on-demand scans on selected devices, see [Run Antivirus and/or File Rating Scans on Devices](#).

The screenshot shows the 'Antivirus' configuration window with the 'Manual Scanning' tab selected. The 'Do not scan files large than (MB)' field is set to 20. Three checkboxes are checked: 'Scan archives files (e.g. \*.zip, \*.rar)', 'Automatically quarantine threats found during scanning', and 'Automatically update virus database before scanning'.

Manual Scanning Settings - Table of Parameters		
Form Element	Type	Description
Do not scan files large than (MB)	Text box	Files larger than the size specified here, will not be scanned ( <b>Default = 20MB</b> ).
Scan archive files	Checkbox	CCS scans archive files such as .ZIP and .RAR files. <ul style="list-style-type: none"> <li>Disable this option if you don't want archive files to be scanned.</li> </ul> ( <b>Default = Enabled</b> ).
Automatically quarantine threats	Checkbox	Threats will be encrypted and moved to a secure holding area

Manual Scanning Settings - Table of Parameters		
found during scanning		<p>where they can cause no harm. You can review quarantined items and delete, ignore or restore them.</p> <ul style="list-style-type: none"> <li>Disable this option if you do not want threats to be moved to quarantine.</li> </ul> <p><b>(Default = Enabled)</b></p>
Automatically update virus database before scanning	Checkbox	<p>CCS will check for and download the latest virus database updates on system start-up, and subsequently at regular intervals.</p> <ul style="list-style-type: none"> <li>Disable this option if you do not want CCS to automatically check for updates.</li> </ul> <p><b>(Default = Enabled).</b></p>

## Scheduled Scanning

- Specify general settings which will apply to all scheduled scans you create
  - Note. You actually create schedules in the 'Scheduled Scans' area. See [create a scheduled scan](#) if you need help with this.

The screenshot shows the 'Antivirus' configuration window. The 'Antivirus' tab is selected, and the 'Scheduled Scanning' sub-tab is active. A text input field is set to '20' for 'Do not scan files large than (MB) \*'. Below it are four checked checkboxes: 'Scan archives files (e.g. \*.zip, \*.rar)', 'Automatically quarantine threats found during scanning', 'Automatically update virus database before scanning', and 'Show scanning progress'.

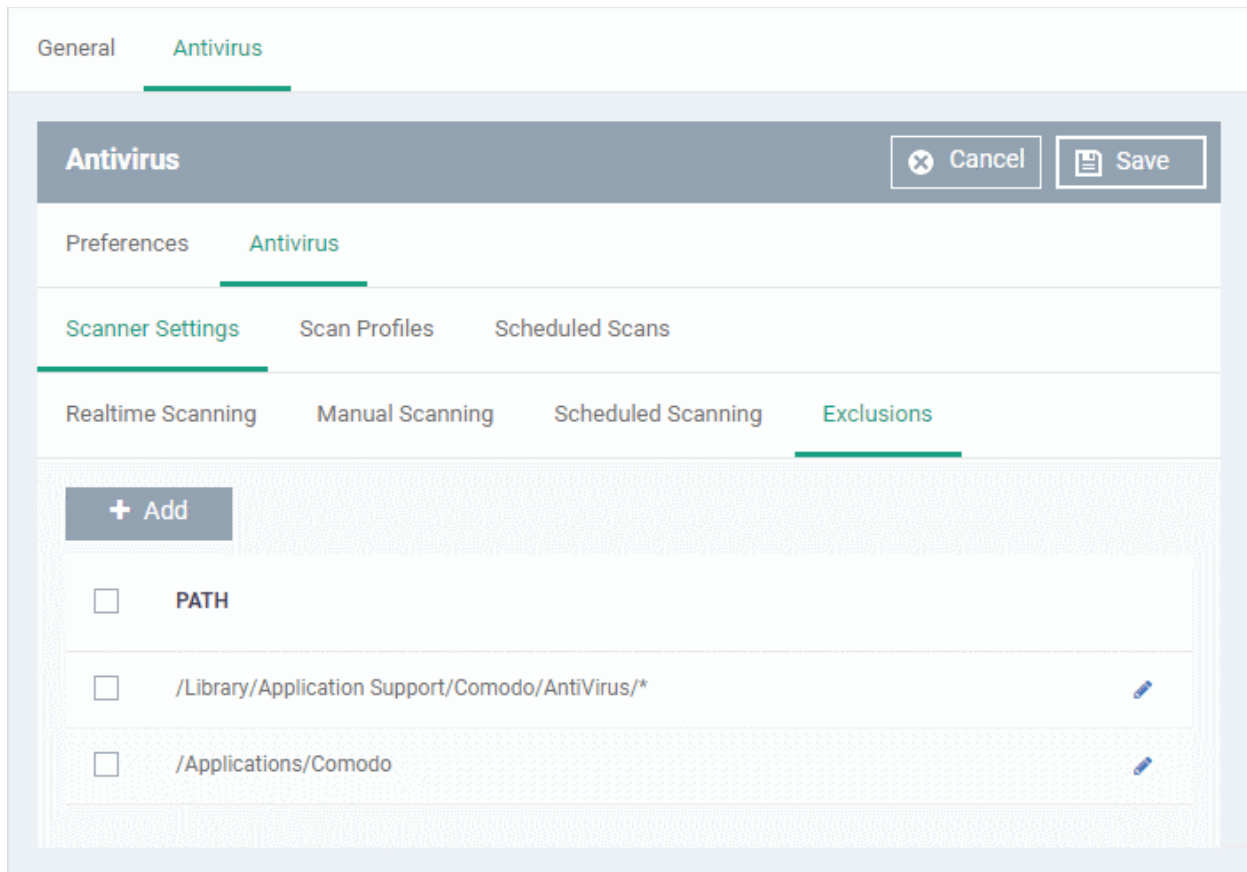
Scheduled Scanning Settings - Table of Parameters		
Form Element	Type	Description
Do not scan files large than (MB)	Text box	Files larger than the size specified here will not be scanned.

Scheduled Scanning Settings - Table of Parameters		
		<b>(Default = 20MB).</b>
Scan archives files	Checkbox	CCS scans archive files such as .ZIP and .RAR files. <ul style="list-style-type: none"> <li>• Disable this option if you don't want to scan archive files.</li> </ul> <b>(Default = Enabled).</b>
Automatically quarantine threats found during scanning	Checkbox	Threats will be encrypted and moved to a secure holding area where they can cause no harm. You can review quarantined items and delete, ignore or restore them. <ul style="list-style-type: none"> <li>• Disable this option if you do not want threats to be moved to quarantine.</li> </ul> <b>(Default = Enabled)</b>
Automatically update virus database before scanning	Checkbox	CCS will check for and download the latest virus database updates on system start-up, and subsequently at regular intervals. <ul style="list-style-type: none"> <li>• Disable this option if you do not want CCS to automatically check for updates.</li> </ul> <b>(Default = Enabled).</b>
Show scanning progress	Checkbox	Enabled - End-users will see a scan progress bar when the scan is running. Disable this option if you don't want CCS to show the progress bar. <b>(Default = Enabled)</b>

## Exclusions

Note. Any item you exclude will be skipped by ALL types of scan - real-time, on-demand and scheduled.

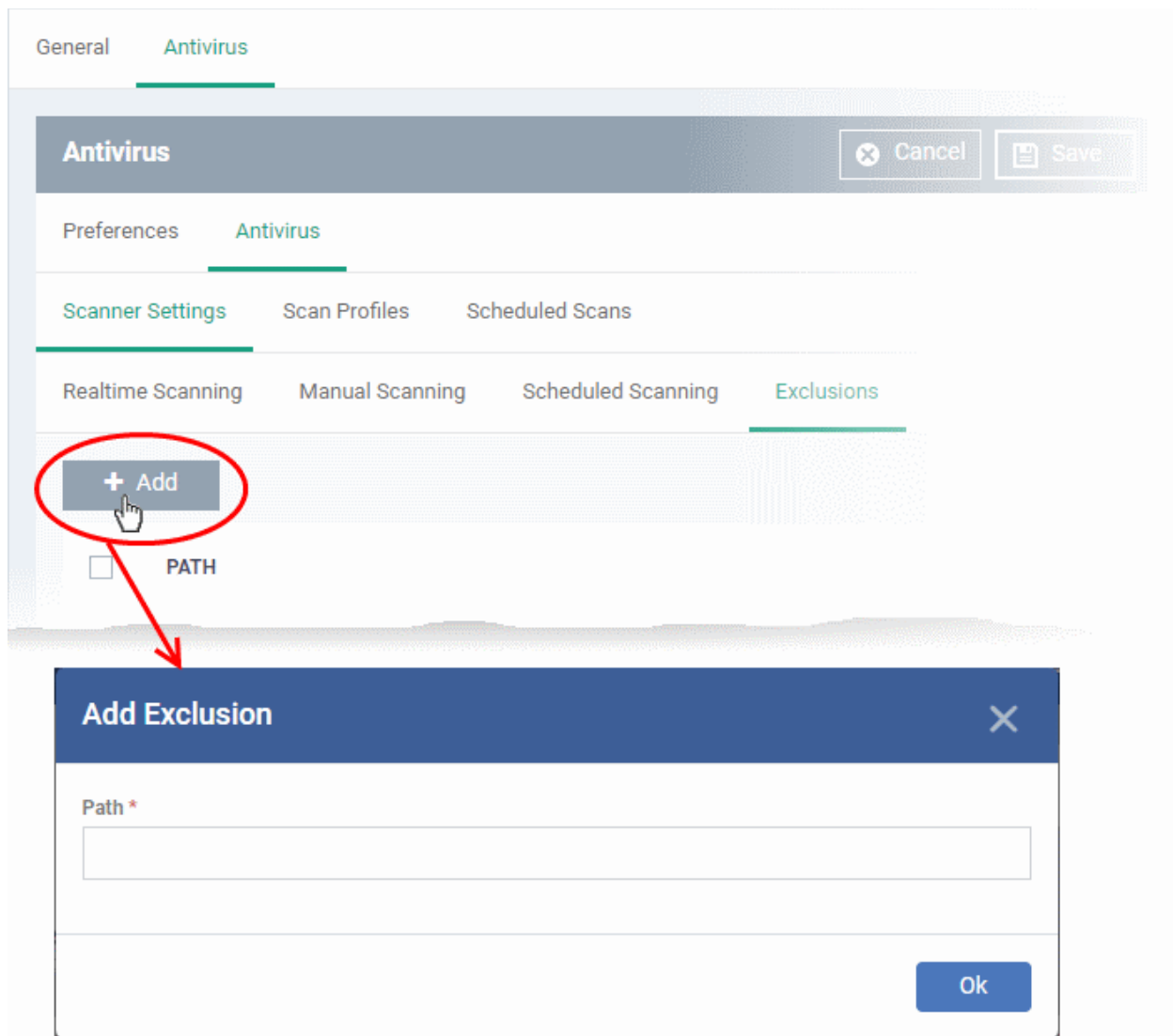





A list of excluded items will be displayed.

**To add an item to the 'Exclusions' list**

- Click 'Add'



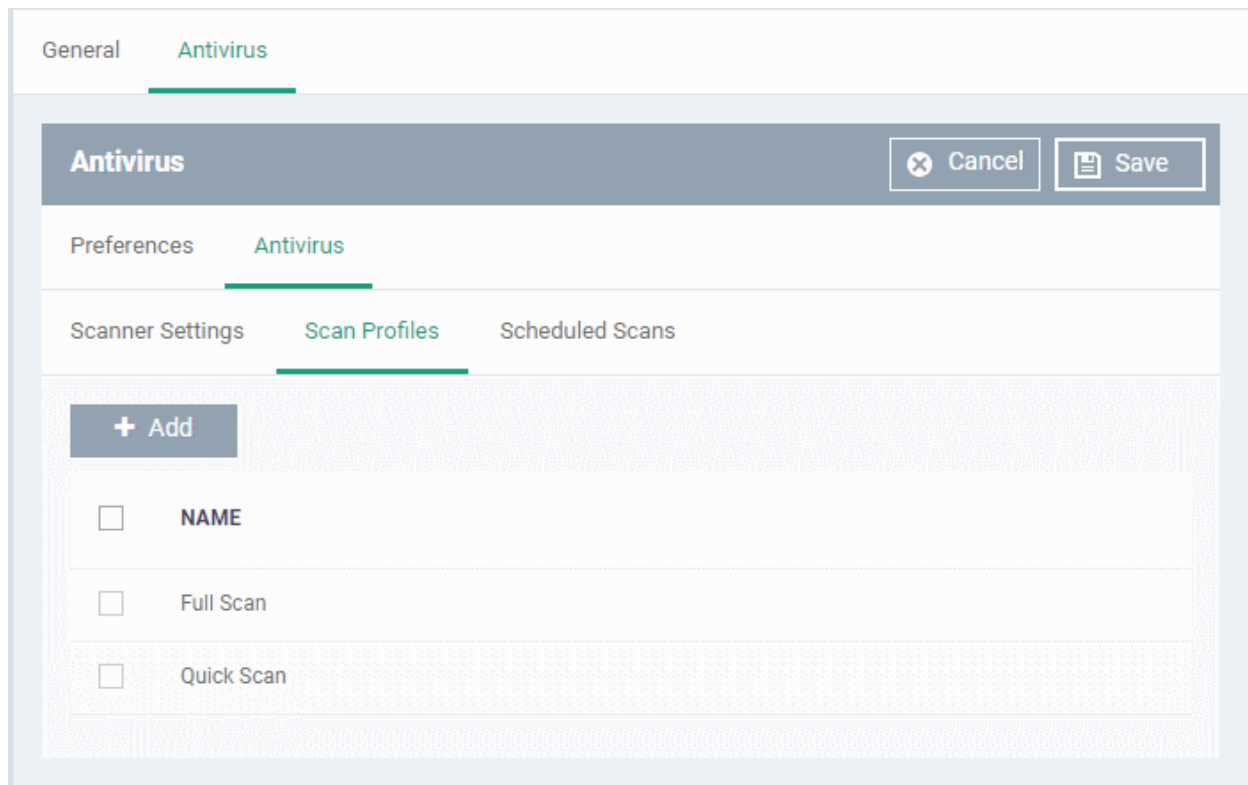
- Enter the location of the item to be excluded in the 'Path' field and click 'Ok'
- Repeat the process to add more items
- To edit the path of an item, click the pencil icon  beside it

## Scan Profiles

- Scan profiles instruct CCS to scan selected areas, folders or drives on a the device.
- You can add a scan profile to:
  - A scheduled scan
  - An on-demand scan

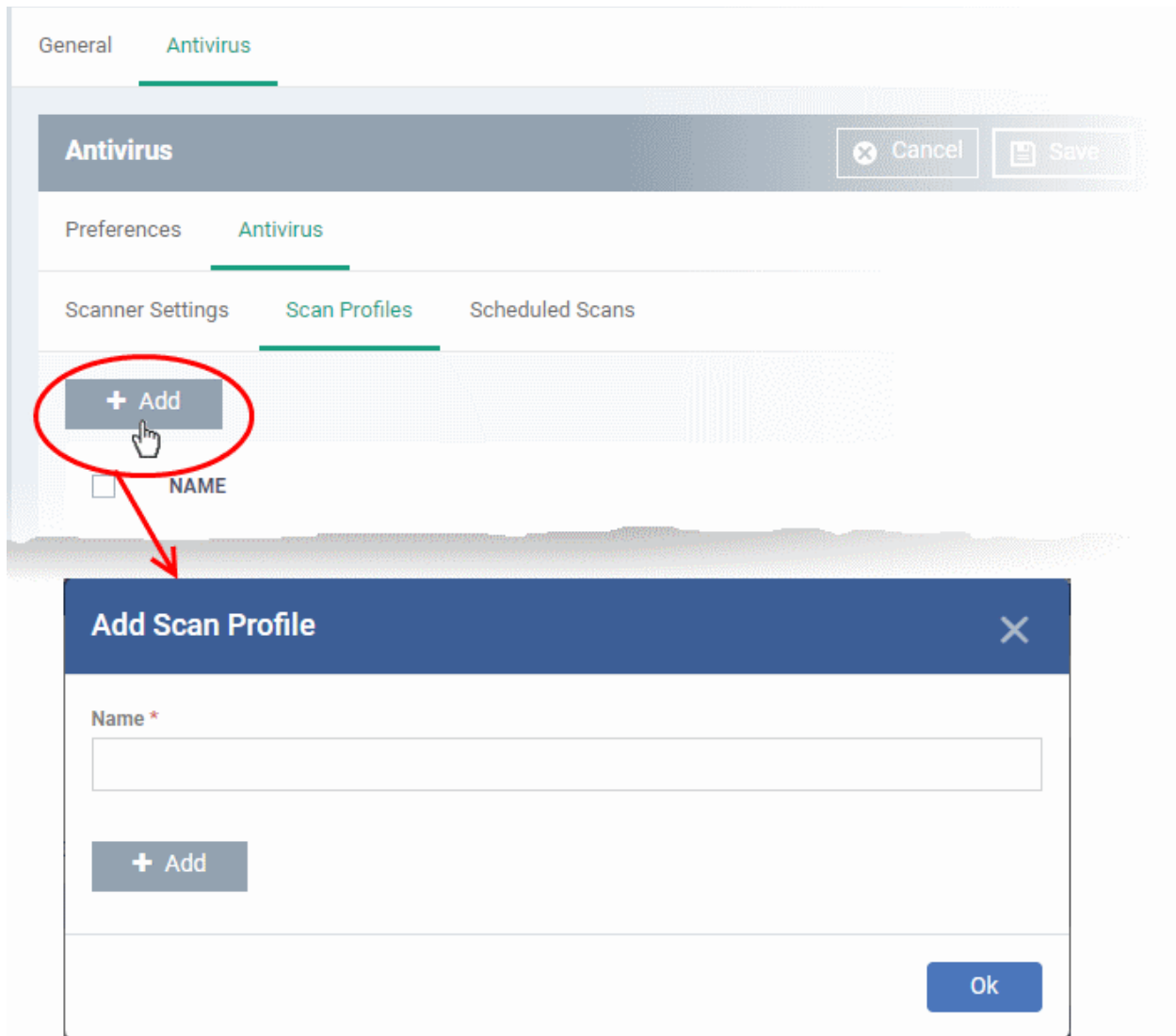
### To create a scan profile

- Click the 'Scan Profiles' tab under 'Antivirus'

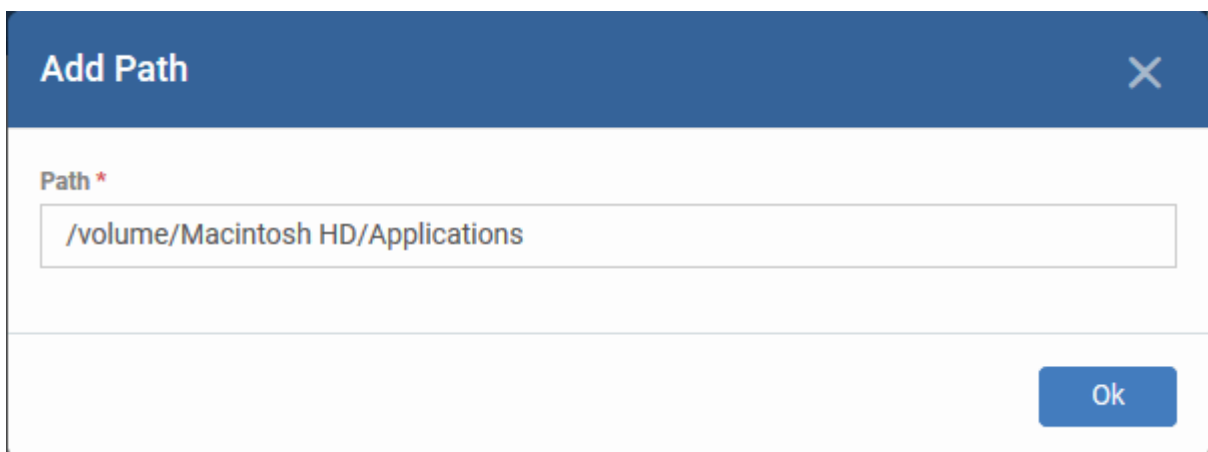


The list of pre-defined scan profiles will be displayed.

- Click 'Add'



- Enter a name for the scan profile
- Click 'Add' to add the locations to be scanned as per the custom profile



- Enter the path of the location to be scanned as per the custom profile and click 'Ok'

The path will be added to the profile.

**Add Scan Profile** [X]

Name \*

Custom Profile for Apps

+ Add

PATH

/volume/Machintosh HD/Applications [Pencil]

Ok

- To add more paths, click 'Add' and repeat the process
- To edit the path, click the pencil icon [Pencil] beside it
- Click 'Ok' in the 'Add Scan Profile' dialog.
- The profile will be added to the list of 'Scan Profiles'.

General **Antivirus**

**Antivirus** [Cancel] [Save]

Preferences **Antivirus**

Scanner Settings **Scan Profiles** Scheduled Scans

+ Add - Remove


NAME

Full Scan

Quick Scan

Custom Profile for Apps [Pencil]

The custom profile will be added to the list.

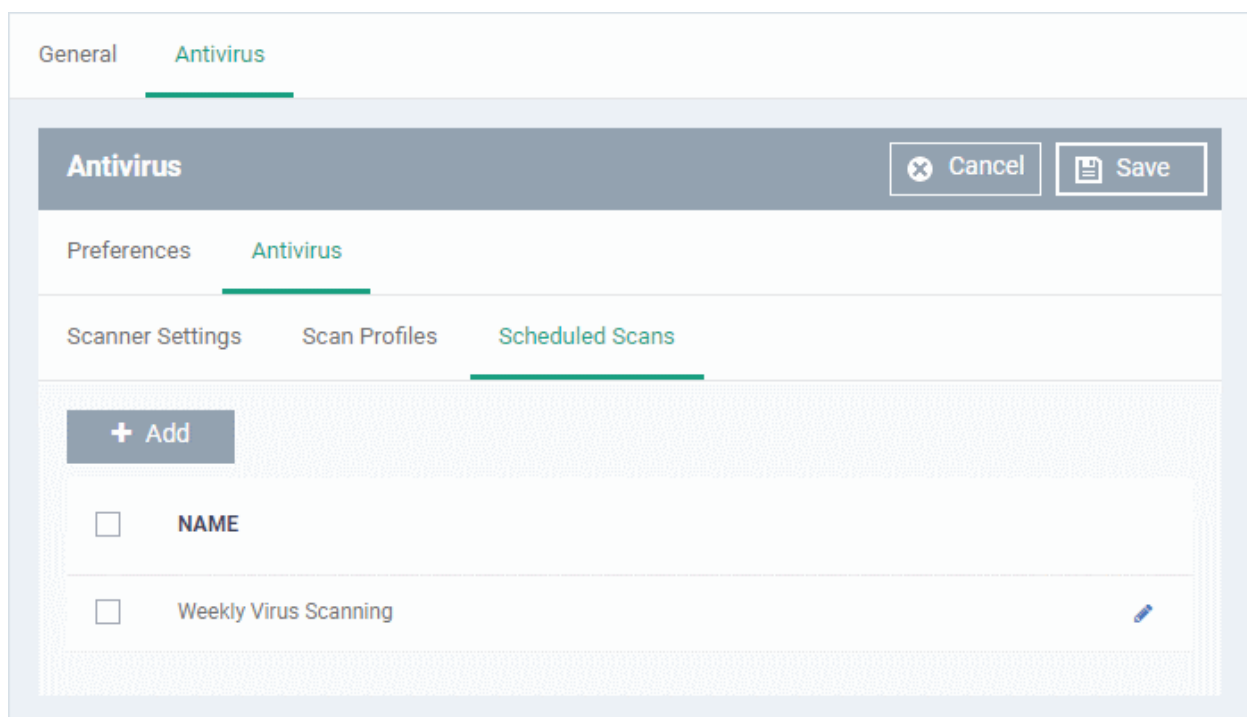
- To add more custom scan profiles, click 'Add' and repeat the process
- To edit a custom scan profile, click the pencil icon  beside it
- To remove a custom scan profile, select it and click 'Remove'.

## Scheduled Scans

- The highly customizable scan scheduler lets you timetable scans to be run on managed devices according to your preferences. CCS automatically starts scanning the entire system or the disks or folders contained in the profile selected for that scan.
- You can add any number of scheduled scans for a profile to run at a time that suits your preference. A scheduled scan may contain any scan profile of your choice.

### To create a scan schedule

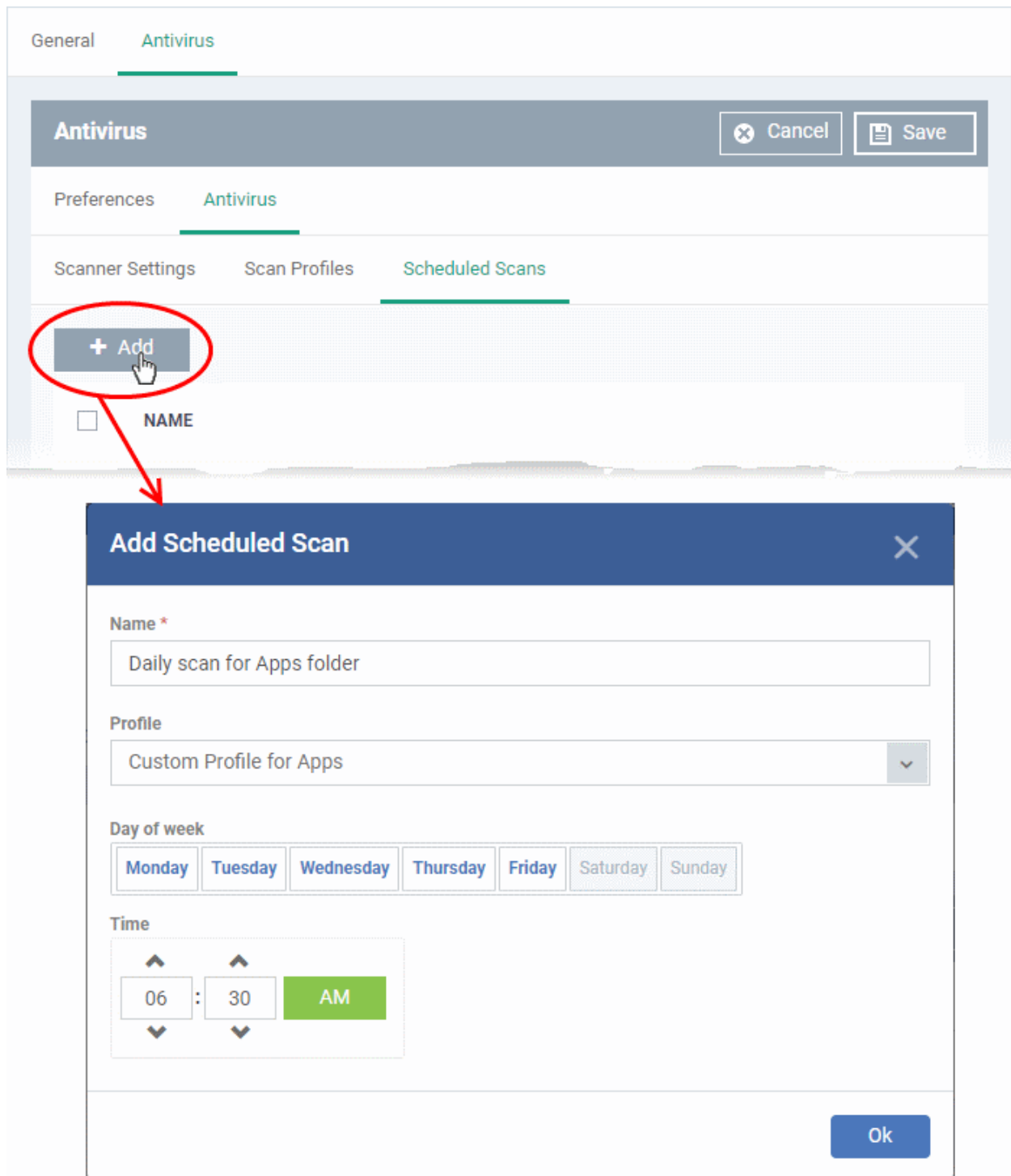
- Click the 'Scheduled Scans' tab under 'Antivirus'



A list of pre-configured scheduled scans will be displayed.

### To add a new scheduled scan

- Click 'Add'



**Add Scheduled Scan - Table of Parameters**

Form Element	Type	Description
Name	Text box	Label for the scheduled scan
Profile	Drop-down	Choose the pre-defined or custom scan profile to be applied for the scheduled scan. The scan profiles included under the 'Scan Profiles' tab will be available in the drop-down.
Day of the Week	Buttons	Select the day(s) of the week on which the scan has to run




Add Scheduled Scan - Table of Parameters		
Time	HH:MM drop-down combo boxes	Set the time at which the scans are to run on the selected days.

- Click 'OK'

The scheduled scan will be added to the list.

The screenshot shows the 'Antivirus' configuration window. At the top, there are 'Cancel' and 'Save' buttons. Below the 'Antivirus' header, there are tabs for 'Scanner Settings', 'Scan Profiles', and 'Scheduled Scans'. Under 'Scheduled Scans', there are '+ Add' and '- Remove' buttons. A list of scans is shown with checkboxes and pencil icons for editing. The list includes 'Weekly Virus Scanning' and 'Daily scan for Apps folder'.

- To add more scheduled scans to the configuration profile, click 'Add' and repeat the process
- To edit the settings of a scheduled scan, click the pencil icon  beside it
- To remove a scheduled scan, select it and click 'Remove'
- Click 'Save' for your settings to take effect for the profile.

The settings will be saved and displayed under the 'Antivirus' tab. You can edit the settings or remove the section at anytime. See [Edit Configuration Profiles](#) for more details.

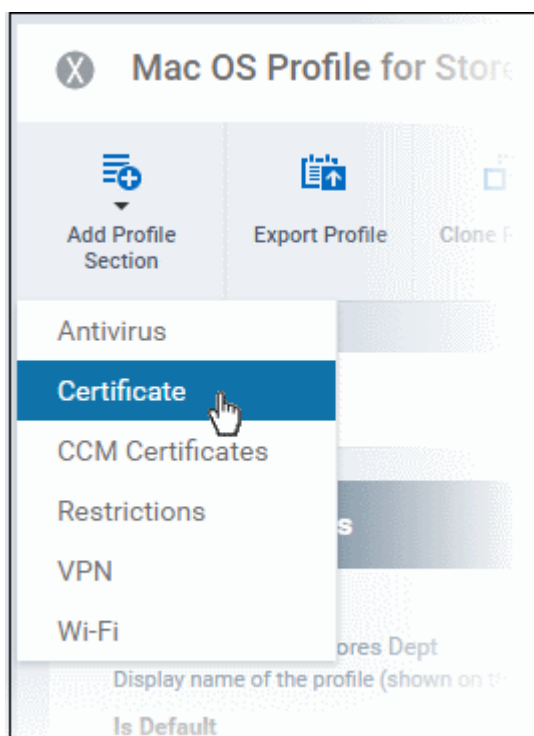
#### 6.1.4.1.2. Certificate Settings for Mac OS Profile

- The 'Certificate Settings' section lets you upload certificates for use in 'Wi-Fi', 'Exchange Active Sync', 'VPN' and other areas of EM.
- You can also enroll user or device certificates from Sectigo Certificate Manager (SCM). You first need to activate your SCM account under Settings > Portal Set-Up > Certificates Activation. See [Integrate with Sectigo Certificate Manager](#) for more details.

**Note** - Sectigo Certificate Manager is the new name for Comodo Certificate Manager. We are in the process of updating the Endpoint Manager UI to reflect this name change. [Click here](#) if you want to read more about the Comodo CA/Sectigo rebrand.

### Configure certificate settings for Mac OS profile

- Click 'Configuration Templates' > 'Profiles'
- Open the Mac OS profile you want to configure
- Click 'Add Profile Section' > 'Certificate'



The 'Certificate' settings screen will be displayed.

General **Certificate**

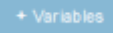



**Certificate** Cancel Save

**Name \***  
 + Variables

**Description**

**Data \***  
Select certificate Browse

**Password**  
 + Variables  
Password for .p12 certificate.

Certificate Settings - Table of Parameters		
Form Element	Type	Description
Name	Text Field	Enter the label of the certificate. You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .
Description	Text Field	Enter an appropriate description for the certificate.
Data	Browse button	Browse and upload the required certificate. Only certificate files with extensions 'pub', 'crt', 'key' or 'p12' can be uploaded.
Password	Text Field	Enter the password used for exporting a .p12 certificate.  You can also add variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a> .

- Click the 'Save' button.

The certificate will be added to the certificate store.



General <span style="float: right;">Certificate</span>	
 	
NAME	DESCRIPTION
<input type="checkbox"/> Wifi auth cert	Not Set

- To add more certificates, click 'Add Certificate' and repeat the process.
- To view the certificate key and edit the name, click on the name of the certificate
- To remove an unwanted certificate, select it and click 'Delete Certificate'

You can add any number of certificates to the profile and remove certificates at anytime. See [Edit Configuration Profiles](#) for more details.

### 6.1.4.1.3. SCM Certificate Settings for Mac OS Profile

- The 'CCM Certificates' profile section lets you request client and device authentication certificates from Sectigo Certificate Manager (SCM).

**Note** - Sectigo Certificate Manager is the new name for Comodo Certificate Manager. We are in the process of updating the Endpoint Manager UI to reflect this name change. [Click here](#) if you want to read more about the Comodo CA/Sectigo rebrand.

- The certificate request is forwarded to SCM after you apply the profile to a device,
- After issuance, the certificate is sent to EM which in turn pushes it to the device for installation.
- You can add any number of certificates to a single profile. Appropriate certificate requests are generated on each device to which the profile is applied.

In addition to user authentication, client certificates can be used for email signing and encryption.

**Prerequisite:** Your SCM account should have been integrated with Endpoint Manager. See [Integrate with Sectigo Certificate Manager](#) for more details.

## Configure SCM Certificate settings

- Click 'Configuration Templates' > 'Profiles'
- Click the name of the Mac OS profile you want to configure
- Click 'Add Profile Section' > 'CCM Certificates'

**Mac OS Profile for Stores Dept**

Add Profile Section   Export Profile   Clone Profile   Delete Profile   Make Default

General   **CCM Certificates**

Add Certificate   Delete Certificate

<input type="checkbox"/>	NAME	COUNTRY NAME	TYPE	STATE OR PROVINCE NAME	LOCALITY NAME (EG. CITY)	ORGANIZATION NAME	ORGANIZATIONAL UNIT
--------------------------	------	--------------	------	------------------------	--------------------------	-------------------	---------------------

- Click 'Add Certificate' to add a certificate request to the profile:

**Add Certificate**
✕

**Name \***

**Type**

S/MIME certificate
▼

**Identifier \***

%u.username%
+ Variables

**Country name \***

Albania
▼

**State or province name**

**Locality name (eg. city)**



**Organization name**

**Organizational unit**

Add

- Complete the certificate request form:

Add Certificate - Table of Parameters		
Form Element	Type	Description
Name	Text Field	Create a label for the certificate
Type	Drop-down	Select the kind of certificate you want to add. The options are: <ul style="list-style-type: none"> <li>S/MIME Certificate (Client Certificate)</li> <li>Device Certificate</li> </ul>
Identifier	Text Field	The 'Identifier' field will be auto-populated with mandatory variables

Add Certificate - Table of Parameters		
		<p>depending on the chosen certificate type.</p> <ul style="list-style-type: none"> <li>For client certificate, %username% will be added for fetching the username to be included as subject in the certificate request.</li> <li>For device certificate, %d.uuid% will be added for fetching the device name to be included as subject in the certificate request.</li> </ul> <p>You can add more variables by clicking the 'Variables' button  and clicking  beside the variable you want to add. For more details on variables, see <a href="#">Create and Manage Custom Variables</a>.</p>
Country Name	Text Field	Address details of the user/organization.
State or Province Name		
Locality Name (eg. City)		
Organization Name	Text Field	<p>The customer company to whom the user/device belongs.</p> <p><b>Prerequisite:</b> The organization should have been added to your SCM account.</p>
Organizational Unit	Text Field	<p>The department to company to whom the user/device belongs.</p> <p><b>Prerequisite:</b> The department should have been defined under the organization in your SCM account.</p>

- After completing the form, click 'Add' to include the certificate request in the profile.
- Repeat the process to add more certificate requests

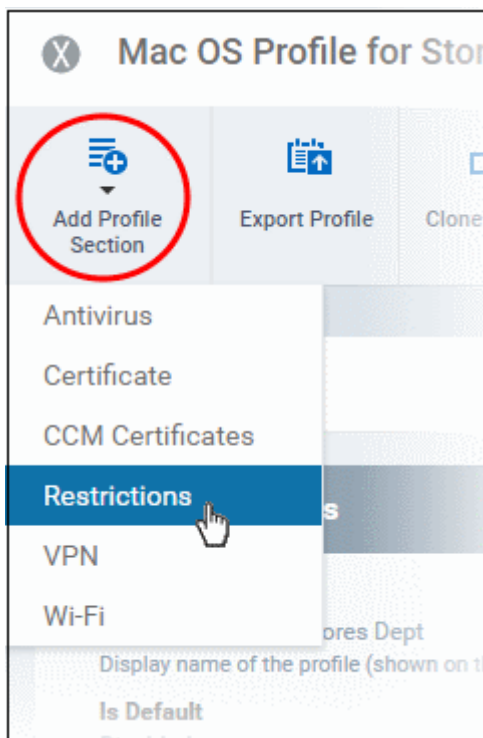
Certificate requests will be generated on the devices once the profile is applied to them.

#### 6.1.4.1.4. Restrictions Settings for Mac OS Profile

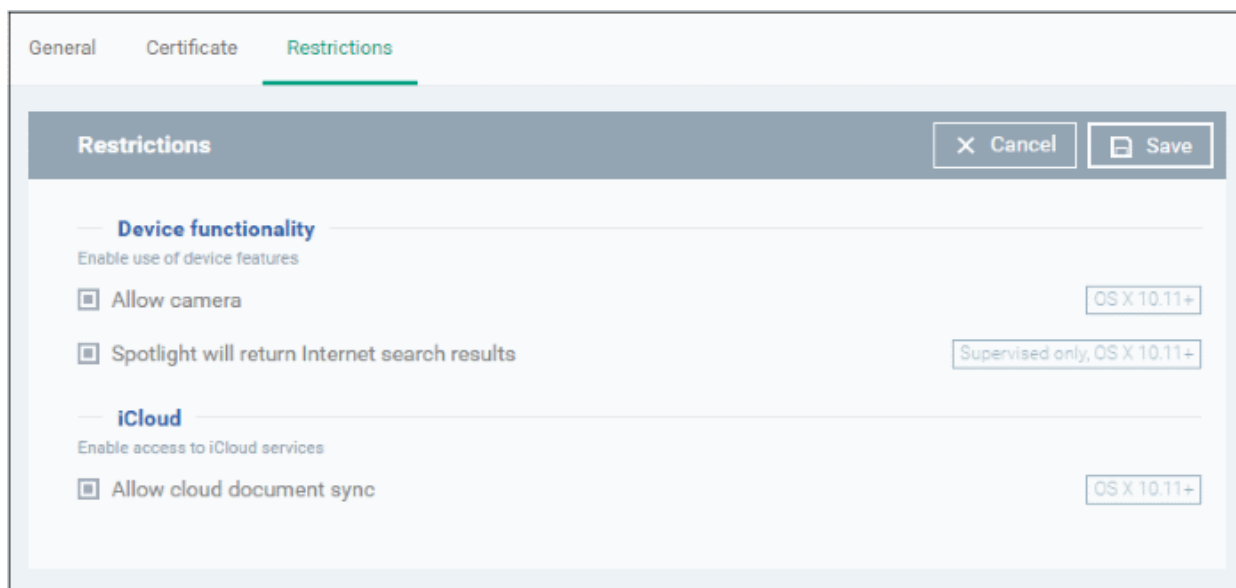
The 'Restrictions' section allows you to modify the profile to enable or disable selected device features:

#### To configure Restrictions settings

- Click 'Restrictions' from the 'Add Profile Section' drop-down



The 'Restrictions' settings screen will be displayed.



Restrictions Settings - Table of Parameters		
Form Element	Type	Description
Device Functionality		
Allow Camera	Checkbox	Allows the user to take photos or videos (if enabled). If left unchecked, the camera icon is removed from the device and camera is disabled. Note: This feature is applicable only for OS X 10.11 and later versions.
Spotlight will return Internet search results	Checkbox	If enabled, the spotlight features will provide suggestions from the Internet, iTunes, and the App Store for the user to quickly find any file, documents, emails, apps contacts and more on the device.



Restrictions Settings - Table of Parameters		
		Note: This feature is applicable only for Supervised devices with OS X 10.11 and later versions.
iCloud		
Allow cloud document sync	Checkbox	If enabled, users can synchronize documents on their device with iCloud. Note: This feature is applicable only for OS X 10.11 and later versions.

- Click the 'Save' button.

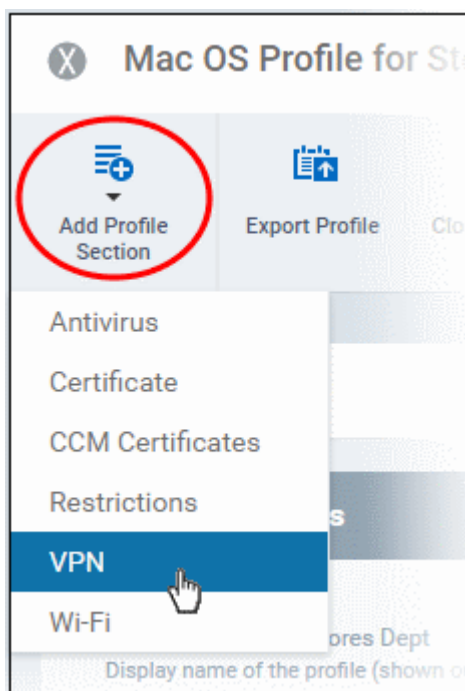
The saved 'Restrictions Settings' screen will be displayed with options to edit the settings or delete the section. See [Edit Configuration Profiles](#) for more details.

### 6.1.4.1.5. VPN Settings for Mac OS Profile

The 'VPN' section allows you to configure the VPN connection settings for the profile.

#### To configure VPN settings

- Click 'VPN' from the 'Add Profile Section' drop-down



The settings screen for VPN will be displayed.

General **VPN**

**VPN** Cancel Save

**Username**  
 + Variables

Display name of the connection (displayed on the device).

**Connection type \***  
L2TP ▼

The type of connection enabled by this policy.

**Override primary**

**Server \***  
 + Variables

**Account**  
 + Variables

User account for authenticating the connection.

**User authentication protocol \***

Password  
 RSA SecurID

Authentication type for connection.

**Password**  
 + Variables

Password for authenticating the connection.

**Token card**

**Authentication EAP plugins**  
 + Variables

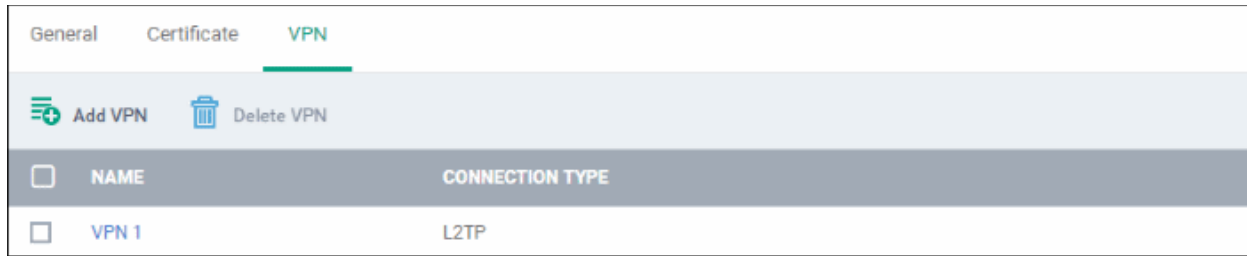
**Shared secret**  
 + Variables

**Proxy**  
Choose proxy ▼ Add New

The connection setting parameters are similar to the VPN settings for an iOS profile. See **VPN settings** section for an iOS profile for details.

- Click the 'Save' button after configuring the settings.

The VPN connection will be added to the profile.



You can add several VPN connection accounts to the profile.

- To add another VPN connection, click 'Add VPN' and repeat the process
- To view and edit the settings of a VPN connection, click its name
- To remove VPN connection, select it and click 'Delete VPN'

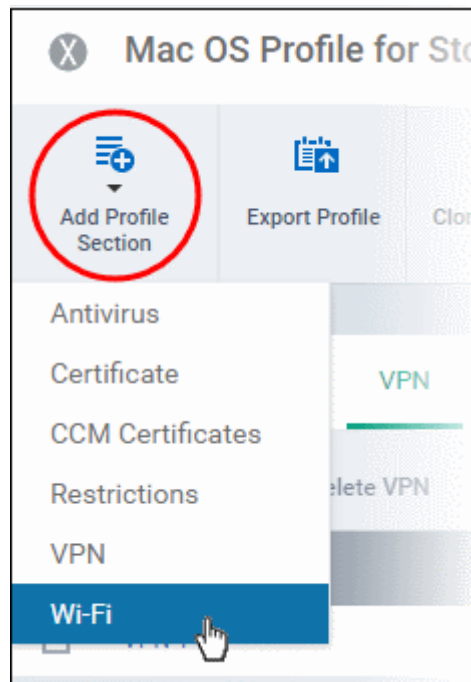
The settings will be saved and displayed under the VPN tab. You can edit the settings or remove the section from the profile at anytime. See [Edit Configuration Profiles](#) for more details.

#### 6.1.4.1.6. Wi-Fi Settings for Mac OS Profile

The 'Wi-Fi' section allows you to configure Wi-Fi connection settings for the profile.

##### To configure Wi-Fi settings

- Click 'Wi-Fi' from the 'Add Profile Section' drop-down



The 'Wi-Fi' settings screen will be displayed.

The connection setting parameters are similar to the Wi-Fi settings for an iOS profile. See the **Wi-Fi settings** section for an iOS profile for details.

- Click the 'Save' button after configuring the settings.

The Wi-Fi network will be added to the list.

SSID	ENCRYPTION TYPE
<input type="checkbox"/> Purchase_Wifi	None

You can add multiple Wi-Fi networks to the profile.

- To add another Wi-Fi network, click 'Add Wi-Fi' and repeat the process
- To view and edit the settings of a Wi-Fi network, click on the SSID of it
- To remove a Wi-Fi network, select it and click 'Delete Wi-Fi'

The settings will be saved and displayed under the Wi-Fi tab. You can edit the settings, add or remove Wi-Fi networks or remove the Wi-Fi networks at anytime. See **Edit Configuration Profiles** for more details.

### 6.1.4.1.7. Remote control Settings for Mac OS Profile

- 'Remote Control' settings let you configure protocol used during remote control sessions.
- You can also customize the message which is shown to Mac OS end-users when you make a remote

connection to their computer.

- See [Remote Management of Windows and Mac OS Devices](#) if you need help to setup the remote control service.

## To configure Remote Control Settings for MAC OS

- Click 'Configuration Templates' > 'Profiles'
- Select a Mac OS profile that you want to configure
- Click 'Add Profile Section' at the top and choose 'Remote Control' from the drop-down.
  - Note: If 'Remote Control' is not in the 'Add...' menu then it has already been added to the profile.
- The 'Remote Control' tab will open:

General    **Remote Control**

---

**Remote Control** Cancel Save

**Remote Control Options**

- Silent remote control  
*Remote control endpoint without asking permission*
- Ask permission then allow after (seconds)  
  
*If user is logged in: ask for permission and connect if user allows or does not respond in given time.  
If user is not logged in: proceed remote control*
- Ask permission then deny after (seconds)  
  
*If user is logged in: ask for permission and connect only if user approves in given time.  
If user is not logged in: proceed remote control*
- Do not allow remote control  
*Use this option to completely disable remote control*

**Remote Control Message**


Your IT administrator would like to view and control your desktop. Please click "Allow" to start remote session.

**Client Notification Options**

- Show notification to device user about who connected to his/her workstation and allow terminating the connection
  - Allow endpoint user to terminate the connection

**Protocol Options**

*Ports that will be applied are UDP ports only, please make sure your firewall configurations are compatible with the UDP settings*

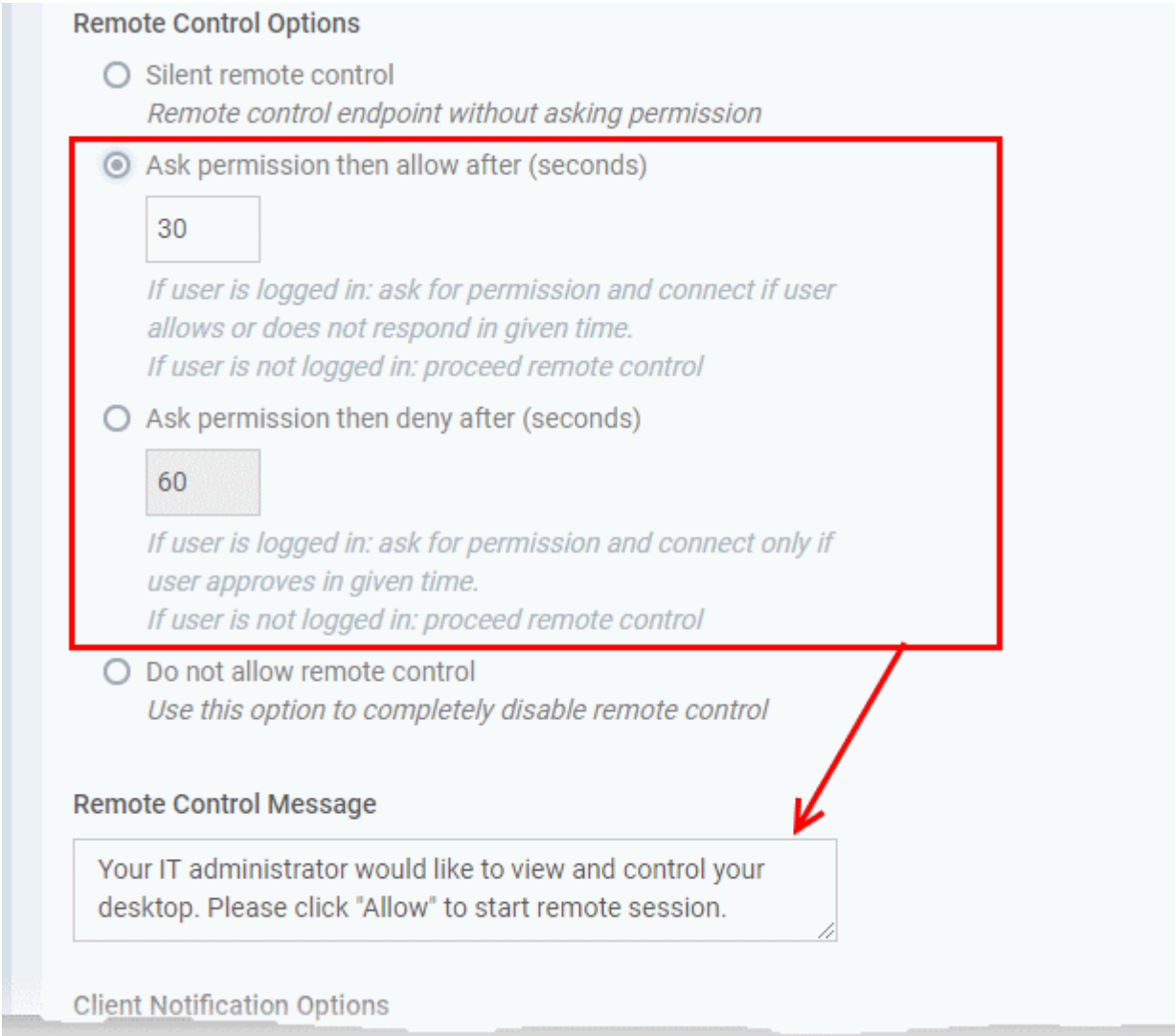
- Use Chromoting  from CCC 6.17  
*Set at least 4 ports*  
Ports   
*49152 - 65535 range by default*

## Remote Control Options:

- Silent remote control -The remote connection will start without requesting permission from the user.
- Ask permission then allow after NN seconds:
  - A message will be shown to the user which requests them to accept the connection. The connection will be automatically established if the user does not respond within the specified time.
  - Specify the timeout period (in seconds) in the text box
- Ask permission then deny after NN seconds:
  - A message will be shown to the user which requests them to accept the connection. The connection attempt will be terminated automatically if the user does not respond within the specified time.
  - Specify the timeout period (in seconds) in the text box.
- Do not allow remote control: Disable the ability to take remote control of the endpoint.

## Remote Control Message

- Enter the text of the request message. For example, 'Your administrator would like to take control of your desktop. Click 'Allow' to accept the connection request.'
  - Please note that you can enter the message only if you choose the second or third notification options.



**Remote Control Options**

Silent remote control  
*Remote control endpoint without asking permission*

Ask permission then allow after (seconds)  
  
*If user is logged in: ask for permission and connect if user allows or does not respond in given time.*  
*If user is not logged in: proceed remote control*

Ask permission then deny after (seconds)  
  
*If user is logged in: ask for permission and connect only if user approves in given time.*  
*If user is not logged in: proceed remote control*

Do not allow remote control  
*Use this option to completely disable remote control*

**Remote Control Message**

Your IT administrator would like to view and control your desktop. Please click "Allow" to start remote session.

**Client Notification Options**

## Client Notification Options

This area lets you configure the notification box which is shown on the endpoint when a remote session is active:

- Show notification to device user about who connected to his/her workstation and allow terminating the



connection - Let the end user know which EM admin/technician is connected to their machine.

- Allow endpoint user to terminate the connection - Choose whether the 'End Session' button should be shown in the notification box or not. If enabled, the end-user will be able to close the connection.

## Protocol Options

These settings let you choose the protocol used to connect to Mac OS devices.

- These settings apply to RC version 6.17 and above.
- You can also specify custom ports to be used by the protocol for an additional layer of safety. This allows you to keep only the specified ports open and block other ports for security.

**Note:** Please make sure you do not assign well-known special ports. We recommend the following port range for custom use: 49152-65535.

- Use Chromoting - RC uses Chromoting protocol to connect to the device. This option is mandatory and cannot be deselected.
- Ports - Select the port type to be used by Chromoting protocol and specify the ports. The available options are:
  - Default - Chromoting will use the port range 49152 - 65535
  - Custom Range - Allows you to specify a port range to be used by Chromoting. Enter a range covering at least 4 ports.

**Note:** Chromoting is supported by Windows 7 and later versions. If RC is installed on a Windows XP admin machine, it will not be able to connect to a Mac OS device.

- Click 'Save' to apply your changes to the profile.

## 6.1.5. Profiles for Linux Devices

Linux profiles let you configure CCS for Linux endpoints.

There are two ways you can add a new Linux profile to Endpoint Manager:

- Create a new Linux profile. See [Create Linux a Profile](#) for more details.
- Clone an existing profile and modify its settings to your requirements. See [Clone a Profile](#), for more details.

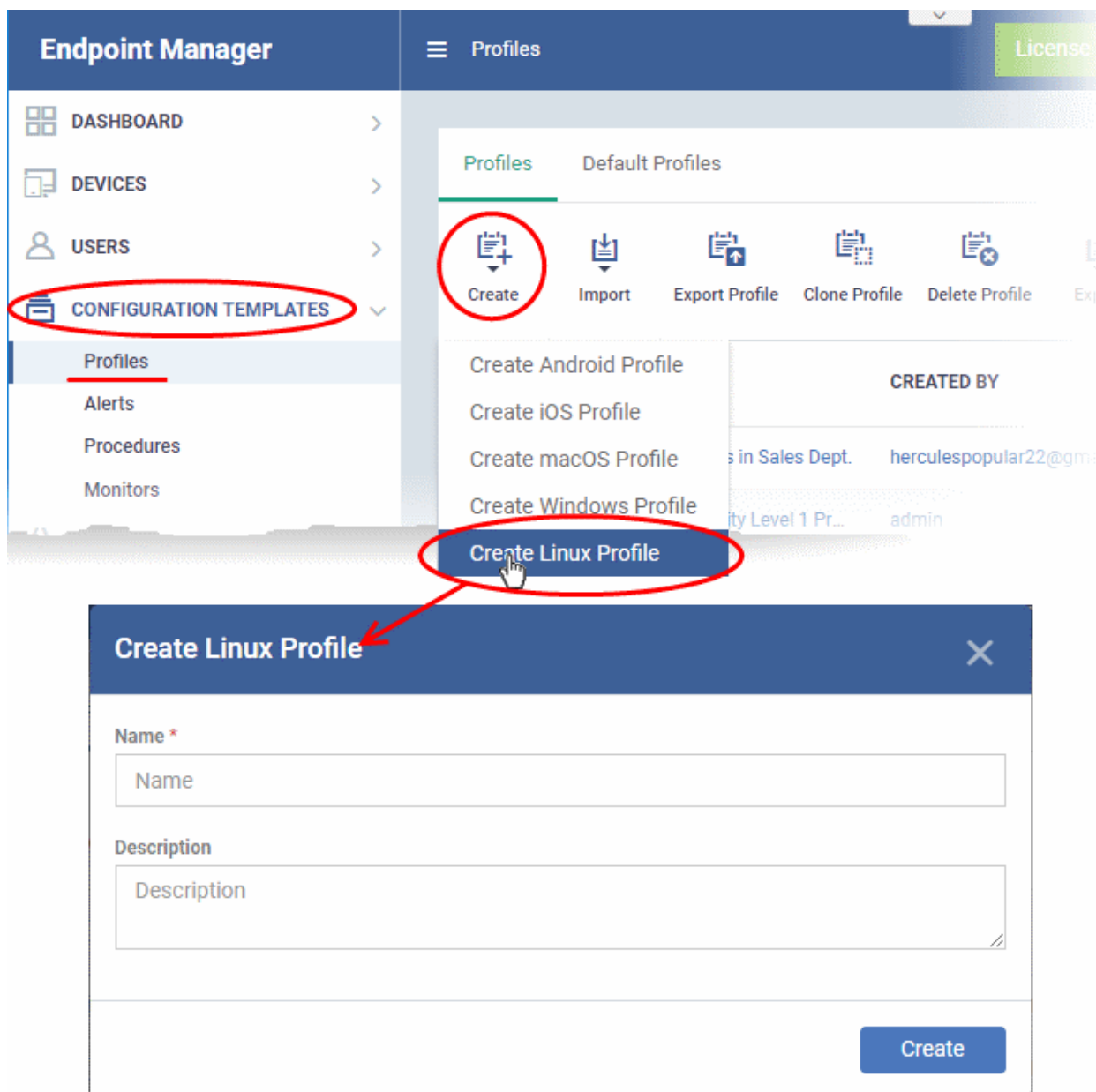
### 6.1.5.1. Create a Linux Profile

Process in brief:

- Click 'Configuration Templates' > 'Profiles'
- Click 'Create' > 'Create Linux Profile'
- Type a name and description for your profile then click the 'Create' button. The profile will now appear in 'Configuration Templates' > 'Profiles'.
- New profiles have only one section - 'General'. Click 'Add Profile Section' to add settings for various security and management features. Each section you add will appear as a new tab.
- Once configured, you can apply your profile to devices and device groups.
- You also have the option to make it a 'Default' profile. A 'default' profile is one that is automatically applied to any device which matches its operating system.
- This part of the guide explains the processes above in more detail, and includes descriptions of each profile section.

#### To create a new profile

- Click 'Configuration Templates' > 'Profiles' > 'Create' > 'Create Linux Profile'



- Enter a name and description for the profile
- Click the 'Create' button

The profile will open at the 'General Settings' section:

**Linux Profile for Stores Dept**

Add Profile Section   Export Profile   Clone Profile   Delete Profile   Make Default

**General**

**General Settings** Edit

**Name**  
Linux Profile for Stores Dept

**Is default**  
Disabled

**Description**  
profile for Linux machines in the Stores department

- 'Make Default' - A 'default' profile is one that is applied automatically to any device which matches its operating system. Click this button if you want this profile to be applied to every Linux device.
- Click 'Save'.

The next step is to add profile sections.

- Each profile section contains a range of settings for a specific security or management feature.
- For example, there are profile sections for 'Antivirus', 'Logging', 'UI' and so on.
- You can add as many different sections as you want when building your profile.
- To get started:
  - Click 'Add Profile Section'
  - Select the section that you want to add to the profile:

**Linux Profile for Stores Dept**

Add Profile Section   Export Profile   Clone Profile   Delete Profile   Make Default

**Antivirus**

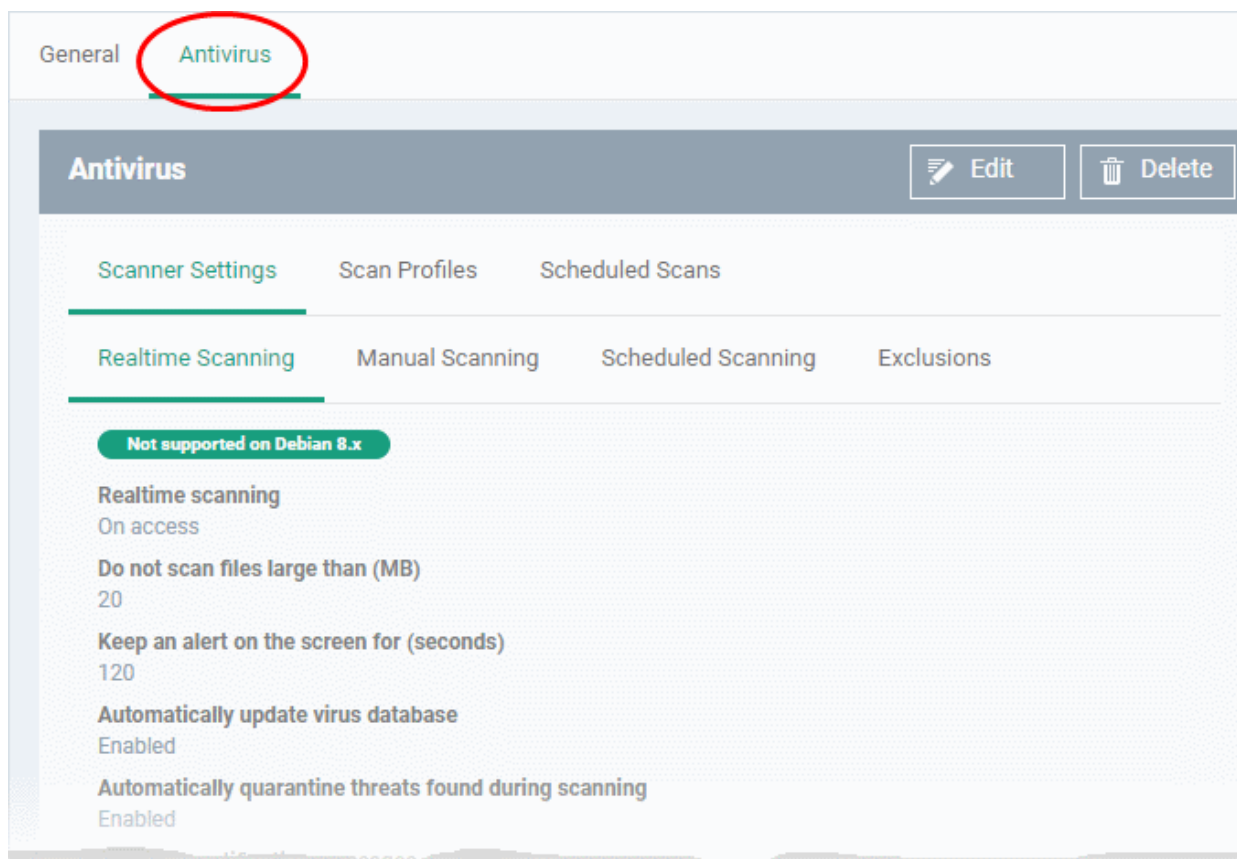
Updates

UI Settings

Logging Settings

Client Access Control

This will open the settings screen of the component:



Click the following links to find out more about each section:

- [Antivirus](#)
- [Updates](#)
- [UI Settings](#)
- [Logging Settings](#)
- [Client Access Control](#)

#### 6.1.5.1.1. Antivirus Settings for Linux Profile

The antivirus section lets you configure real-time monitoring, custom scans, scan schedules, exclusions and more.

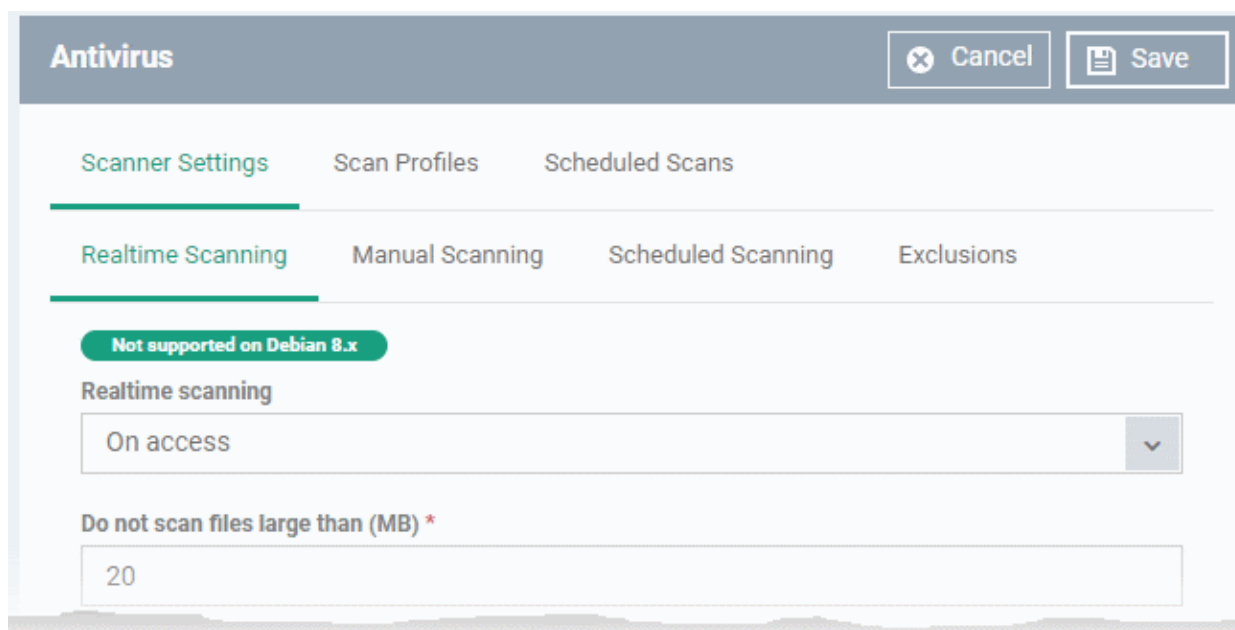
##### **Configure antivirus settings in a Linux profile**

- Click 'Configuration Templates' > 'Profiles'
- Click on the name of a Linux profile
- Click 'Add Profile Section' then 'Antivirus' (if you haven't yet added the AV section)

OR

- Open the 'Antivirus' tab and click 'Edit' if it was already added

The antivirus settings screen will open:



It contains three tabs:

- **Scanner Settings** - Configure real-time scans, manual scans, scheduled scans and exclusions.
- **Scan Profiles** - Create antivirus scan profiles that define specific folders, drives or areas to scan. Once saved, you can apply a scan profile to scheduled scans.
- **Scheduled Scans** - Timetable scans to be run on managed devices according to a selected scan profile.

## Configure Scanner Settings for CCS for Linux

The 'Scanner Settings' area contains four sub-tabs:

- **Realtime Scanning** - Set parameters for the 'always-on' virus monitor
- **Manual Scanning** - Set parameters for on-demand scans
- **Scheduled Scanning** - Set parameters for scheduled scans
- **Exclusions** - View and manage items which will be skipped by virus scans.

## Realtime Scanning

- Click the 'Realtime Scanning' sub-tab under 'Scanner Settings'

**Please note:** The real-time virus scanner is not supported on Debian. The settings in this screen do not apply to Debian devices.

**Antivirus** Cancel Save

Scanner Settings    Scan Profiles    Scheduled Scans

---

Realtime Scanning    Manual Scanning    Scheduled Scanning    Exclusions

---

Not supported on Debian 8.x

**Realtime scanning**

On access ▼

**Do not scan files large than (MB) \***

20

**Keep an alert on the screen for (seconds) \***

120

Automatically update virus database

Automatically quarantine threats found during scanning

Show notification messages

Enable heuristic

**Heuristics scanning level**

Low ▼

Real Time Scanning Settings - Table of Parameters		
Form Element	Type	Description
Real time scanning	Drop-down	Enable or disable the background virus monitor. <ul style="list-style-type: none"> <li>On Access - Files are scanned before they are allowed to run. Threats are detected before they get a chance to execute (<b>Default</b>)</li> <li>Disabled - Real-time protection is switched off. Files are allowed to run without first being checked for threats.</li> </ul>
Do not scan files larger than (MB)	Text box	Maximum file size that the antivirus should attempt to scan. Files larger than the size specified here are not scanned. ( <b>Default = 20 MB</b> ).
Keep an alert on the screen for (seconds)	Text box	How long threat notifications should stay on-screen if not dismissed by the end-user. ( <b>Default = 120 seconds</b> )
Automatically update virus database	Checkbox	CCS will check for and download the latest virus database updates on system start-up, and subsequently at regular

Real Time Scanning Settings - Table of Parameters		
		<p>intervals.</p> <ul style="list-style-type: none"> <li>Disable this option if you do not want CCS to automatically check for updates.</li> </ul> <p><b>(Default = Enabled)</b>.</p>
Automatically quarantine threats found during scanning	Checkbox	<p>Threats will be encrypted and moved to a secure holding area where they can cause no harm. You can review quarantined items and delete, ignore or restore them.</p> <ul style="list-style-type: none"> <li>Disable this option if you do not want threats to be moved to quarantine.</li> </ul> <p><b>(Default = Enabled)</b></p>
Show notification messages	Checkbox	<p>Choose whether or not a notification is to be shown to the end-user, whenever CCS identifies a threat and moves it to quarantine.</p> <p><b>(Default = Disabled)</b></p>
Enable heuristic scanning	Checkbox	<p>Enable or disable heuristics scanning and define the scan level.</p> <p>The scan level determines how likely the scanner is to classify an unknown file as a threat.</p> <ul style="list-style-type: none"> <li>Low - Lowest sensitivity to detecting unknown threats / generates fewest false positives. The 'low' setting combines an extremely high level of security and protection with a low rate of false positives. Comodo recommends this setting for most users. <b>(Default)</b></li> <li>Medium - Detects unknown threats with greater sensitivity than the 'Low' setting but with a corresponding rise in the possibility of false positives.</li> <li>High- Highest sensitivity to detecting unknown threats / increased possibility of false positives.</li> </ul> <p><b>(Default = Enabled with 'Low' option)</b></p> <p><b>Background Note:</b> Background. Heuristics identify previously unknown malware by checking whether it contains code typical of a virus. If it is found to do so then the application deletes the file or recommends it for quarantine.</p> <p>Heuristics is about detecting 'virus-like' attributes rather than looking for a virus signature which exactly matches a signature on the blacklist. This allows the engine to detect new viruses even if they are not in the current database.</p>

## Manual Scanning

- Click the 'Manual Scanning' sub-tab under 'Scanner Settings'
- The options you set here will apply to manual scans on the endpoints on which the profile is active.
- A manual scan is one you run 'on-demand' on selected files, folder or drives. Manual scans can be launched from 'Security Sub-Systems' > 'Antivirus'.



- For more details on running on-demand scans on selected devices, see [Run Antivirus and/or File Rating Scans on Devices](#).

The screenshot shows the 'Antivirus' configuration window. At the top, there are 'Cancel' and 'Save' buttons. Below that, the 'Antivirus' title is followed by three sub-tabs: 'Scanner Settings', 'Scan Profiles', and 'Scheduled Scans'. Under 'Scanner Settings', there are four sub-sections: 'Realtime Scanning', 'Manual Scanning' (which is selected), 'Scheduled Scanning', and 'Exclusions'. In the 'Manual Scanning' section, there is a text input field for 'Do not scan files large than (MB) \*' with the value '20'. Below this are four checkboxes: 'Scan archives files (e.g. \*.zip, \*.rar)', 'Automatically update virus database before scanning', 'Enable cloud scanning', and 'Enable heuristic'. At the bottom, there is a dropdown menu for 'Heuristics scanning level' set to 'Low'.

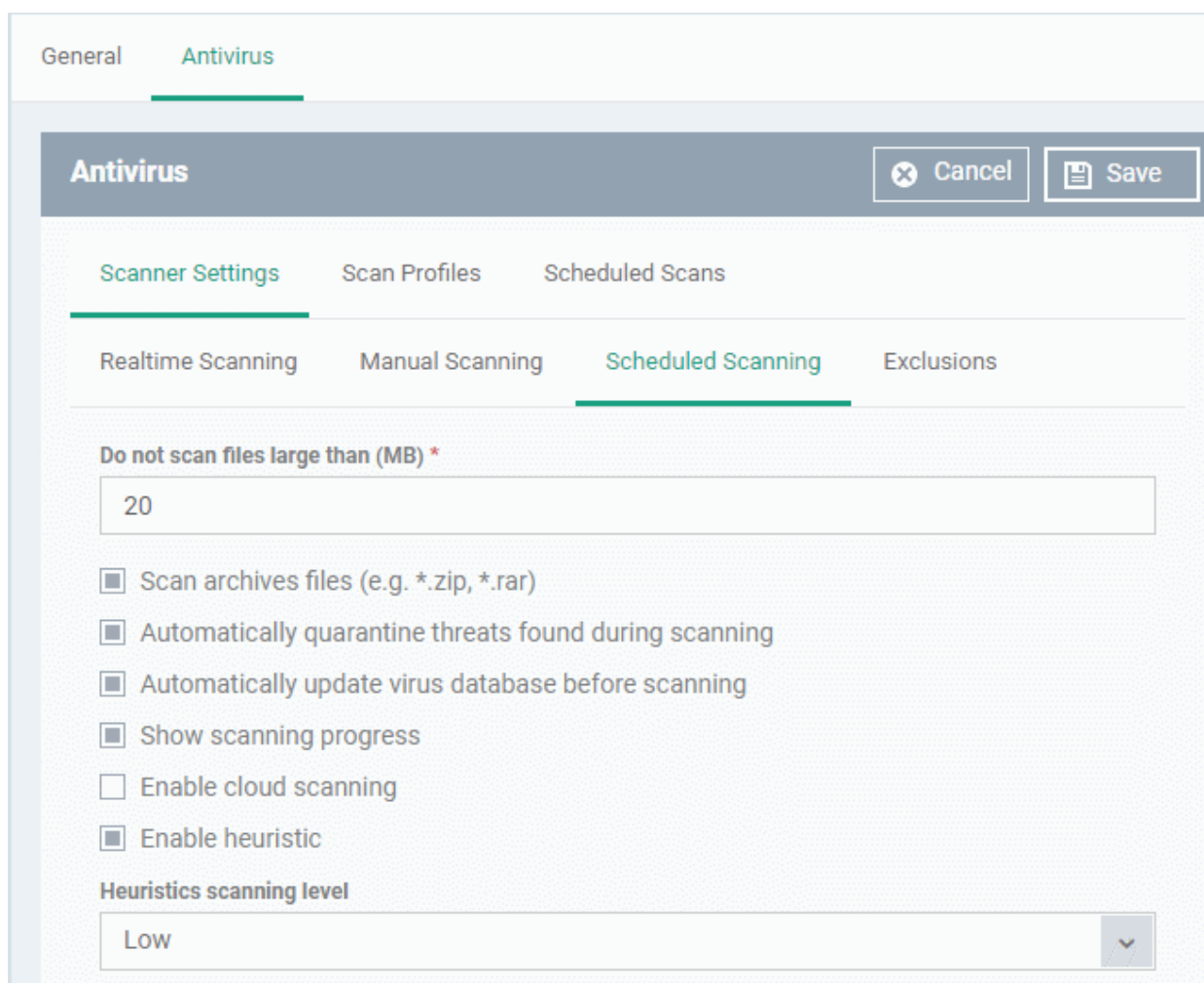
**Manual Scanning Settings - Table of Parameters**

Form Element	Type	Description
Do not scan files large than (MB)	Text box	Maximum file size that the antivirus should attempt to scan. Files larger than the size specified here are not scanned. <b>(Default = 20 MB).</b>
Scan archive files	Checkbox	CCS scans archive files such as .ZIP and .RAR files. <ul style="list-style-type: none"> <li>• Disable this option if you don't want archive files to be scanned.</li> </ul> <b>(Default = Enabled).</b>
Automatically update virus database before scanning	Checkbox	CCS will check for and download the latest virus database before starting an on-demand scan <ul style="list-style-type: none"> <li>• Disable this option if you do not want CCS to automatically check for updates.</li> </ul> <b>(Default = Enabled).</b>
Enable cloud scanning	Checkbox	CCS detects the very latest viruses more accurately because the local scan is augmented with a real-time look-up of Comodo's online signature database. This makes it possible to detect zero-day malware even if your local virus database is outdated. <b>(Default = Disabled).</b>
Enable heuristic scanning	Checkbox	Enable or disable heuristics scanning and define the scan

Manual Scanning Settings - Table of Parameters	
	<p>level.</p> <p>The scan level determines how likely the scanner is to classify an unknown file as a threat.</p> <ul style="list-style-type: none"> <li>• Low - Lowest sensitivity to detecting unknown threats / generates fewest false positives. The 'low' setting combines an extremely high level of security and protection with a low rate of false positives. Comodo recommends this setting for most users. <b>(Default)</b></li> <li>• Medium - Detects unknown threats with greater sensitivity than the 'Low' setting but with a corresponding rise in the possibility of false positives.</li> <li>• High- Highest sensitivity to detecting unknown threats / increased possibility of false positives.</li> </ul> <p><b>(Default = Enabled with 'Low ' option)</b></p> <p><b>Background Note:</b> Background. Heuristics identify previously unknown malware by checking whether it contains code typical of a virus. If it is found to do so then the application deletes the file or recommends it for quarantine.</p> <p>Heuristics is about detecting 'virus-like' attributes rather than looking for a virus signature which exactly matches a signature on the blacklist. This allows the engine to detect new viruses even if they are not in the current database.</p>

## Scheduled Scanning

- Click the 'Scheduled Scanning' sub-tab under 'Scanner Settings'
- The options you set will apply to scheduled scans created for the profile. See **Create and Manage Scheduled Scans for the Profile** if you need help with this.



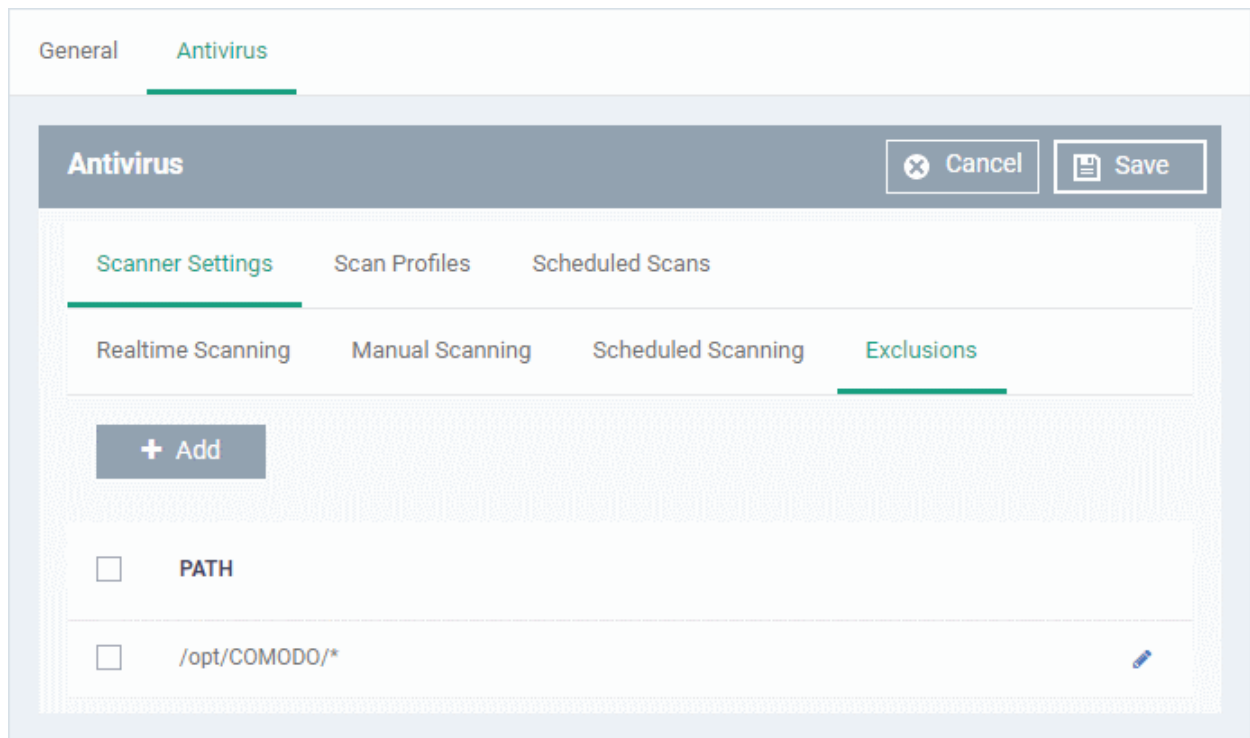
**Scheduled Scanning Settings - Table of Parameters**

Form Element	Type	Description
Do not scan files large than (MB)	Text box	Maximum file size that the antivirus should attempt to scan. Files larger than the size specified here are not scanned. <b>(Default = 20 MB).</b>
Scan archives files	Checkbox	CCS scans archive files such as .ZIP and .RAR files. <ul style="list-style-type: none"> <li>Disable this option if you don't want to scan archive files.</li> </ul> <b>(Default = Enabled).</b>
Automatically quarantine threats found during scanning	Checkbox	Threats identified by scheduled scans will be encrypted and moved to a secure holding area where they can cause no harm. You can review quarantined items and delete, ignore or restore them. <ul style="list-style-type: none"> <li>Disable this option if you do not want threats to be moved to quarantine.</li> </ul> <b>(Default = Enabled)</b>
Automatically update virus	Checkbox	CCS will check for and download the latest virus database

Scheduled Scanning Settings - Table of Parameters		
database before scanning		<p>updates on system start-up, and subsequently at regular intervals.</p> <ul style="list-style-type: none"> <li>Disable this option if you do not want CCS to automatically check for updates.</li> </ul> <p><b>(Default = Enabled).</b></p>
Show scanning progress	Checkbox	<p>End-users will see a scan progress bar when the scan is running.</p> <ul style="list-style-type: none"> <li>Disable this option if you don't want CCS to show the progress bar.</li> </ul> <p><b>(Default = Enabled)</b></p>
Enable cloud scanning	Checkbox	<p>CCS detects the very latest viruses more accurately because the local scan is augmented with a real-time look-up of Comodo's online signature database. This makes it possible to detect zero-day malware even if your local virus database is outdated. <b>(Default = Disabled).</b></p>
Enable heuristic scanning	Checkbox	<p>Enable or disable heuristics scanning and define the scan level.</p> <p>The scan level determines how likely the scanner is to classify an unknown file as a threat.</p> <ul style="list-style-type: none"> <li>Low - Lowest sensitivity to detecting unknown threats / generates fewest false positives. The 'low' setting combines an extremely high level of security and protection with a low rate of false positives. Comodo recommends this setting for most users. <b>(Default)</b></li> <li>Medium - Detects unknown threats with greater sensitivity than the 'Low' setting but with a corresponding rise in the possibility of false positives.</li> <li>High- Highest sensitivity to detecting unknown threats / increased possibility of false positives.</li> </ul> <p><b>(Default = Enabled with 'Low' option)</b></p> <p><b>Background Note:</b> Background. Heuristics identify previously unknown malware by checking whether it contains code typical of a virus. If it is found to do so then the application deletes the file or recommends it for quarantine.</p> <p>Heuristics is about detecting 'virus-like' attributes rather than looking for a virus signature which exactly matches a signature on the blacklist. This allows the engine to detect new viruses even if they are not in the current database.</p>

## Exclusions

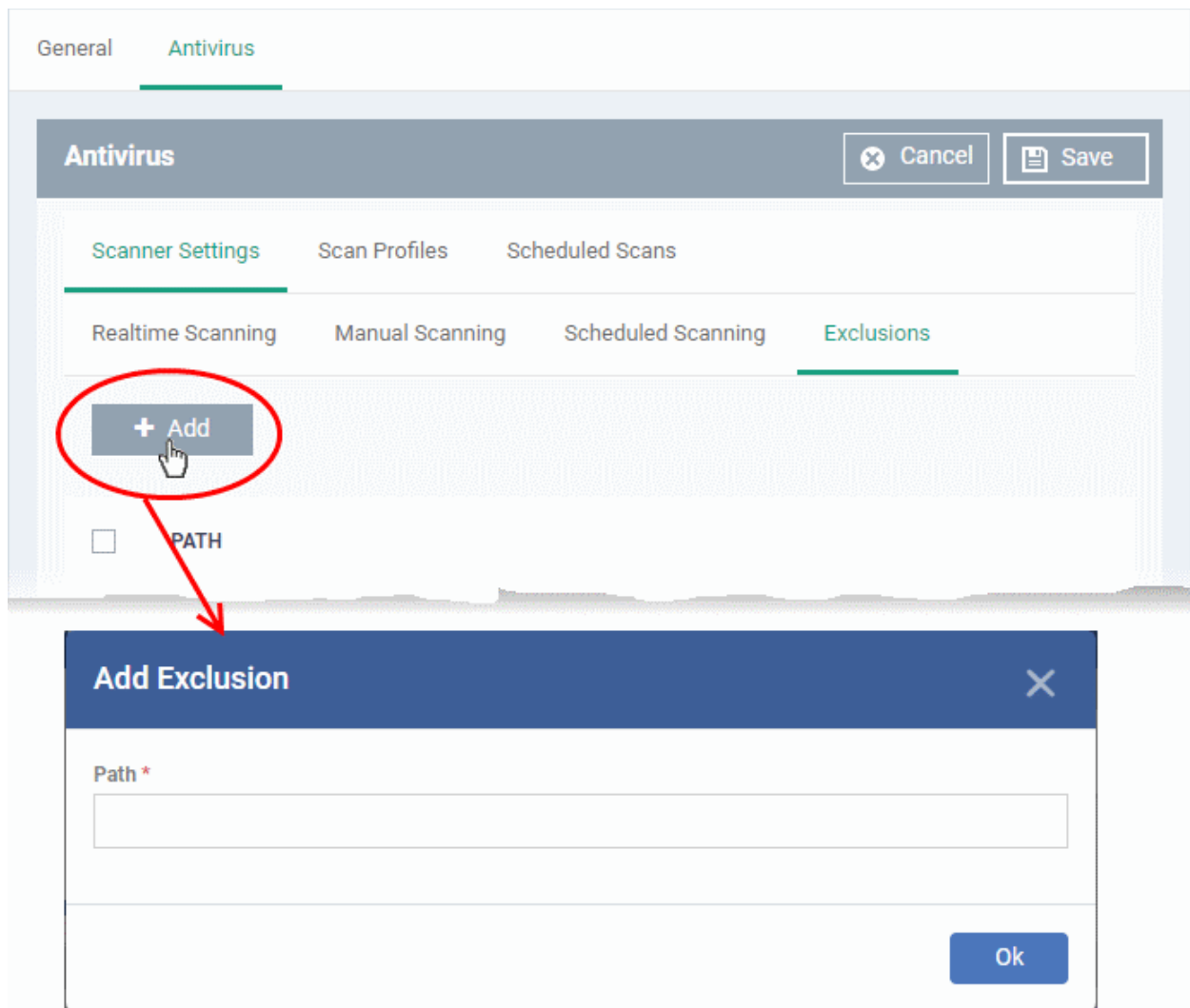
- Click the 'Exclusions' sub-tab under 'Scanner Settings'
- You can add files to be ignored by CCS during virus scans.
- Note. Any item you exclude will be skipped by ALL types of scan - real-time, on-demand and scheduled.




A list of excluded items will be displayed.

**To add an item to the 'Exclusions' list**

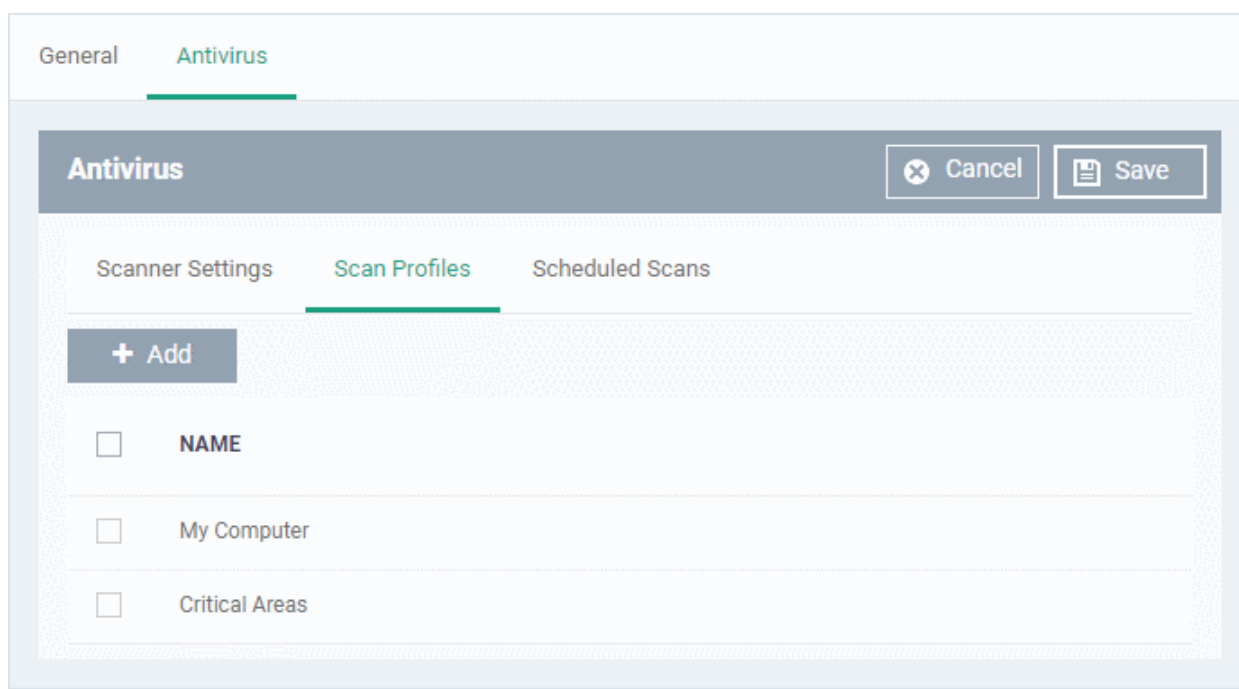
- Click 'Add'



- Enter the location of the item to be excluded in the 'Path' field and click 'Ok'
- Repeat the process to add more items
- To edit the path of an item, click the pencil icon  beside it

## Create and Manage Scan Profiles for the Profile

- Click the 'Scan Profiles' tab under 'Antivirus'
- Scan profiles instruct CCS to scan selected areas, folders or drives on a the device.
- The scan profiles you create here will be available when you configure a scheduled scan.

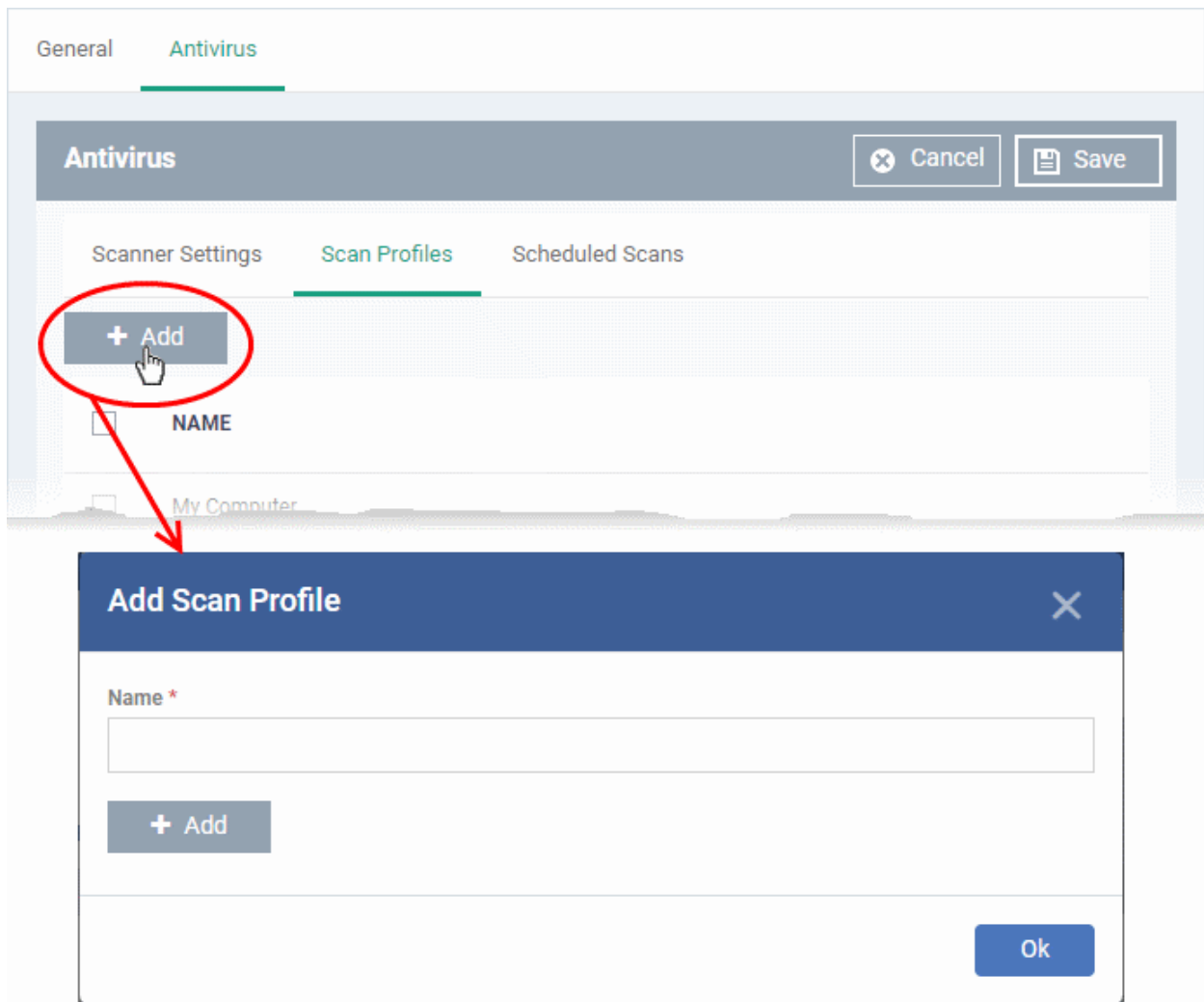


The list of pre-defined scan profiles will be displayed.

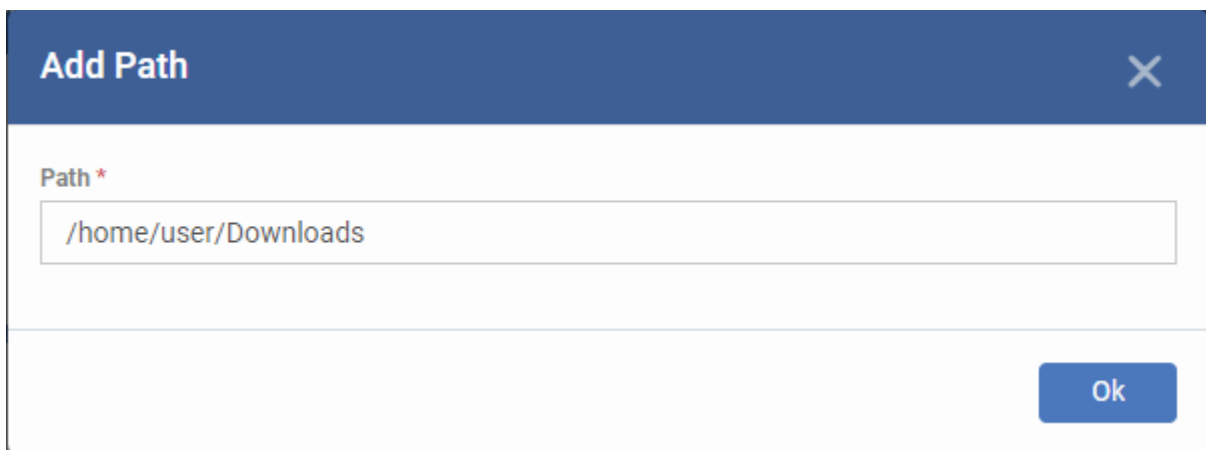
#### To add a new scan profile

- Click 'Add'





- Enter a name for the scan profile
- Click 'Add' to specify the locations to be scanned as per the custom profile



- Enter the path of the location to be scanned as per the custom profile and click 'Ok'

The path will be added to the profile.

**Add Scan Profile**

Name \*


Custom profile for Weekly Scan

+ Add

PATH

/home/user/Downloads

Ok

- To add more paths, click 'Add Path' and repeat the process
- To edit the path, click the pencil icon  beside it
- Click 'Ok' in the 'Add Scan Profile' dialog.
- The profile will be added to the list of 'Scan Profiles'.

General **Antivirus**

Antivirus Cancel Save

Scanner Settings **Scan Profiles** Scheduled Scans

+ Add - Remove


NAME

My Computer

Critical Areas

Custom profile for Weekly Scan

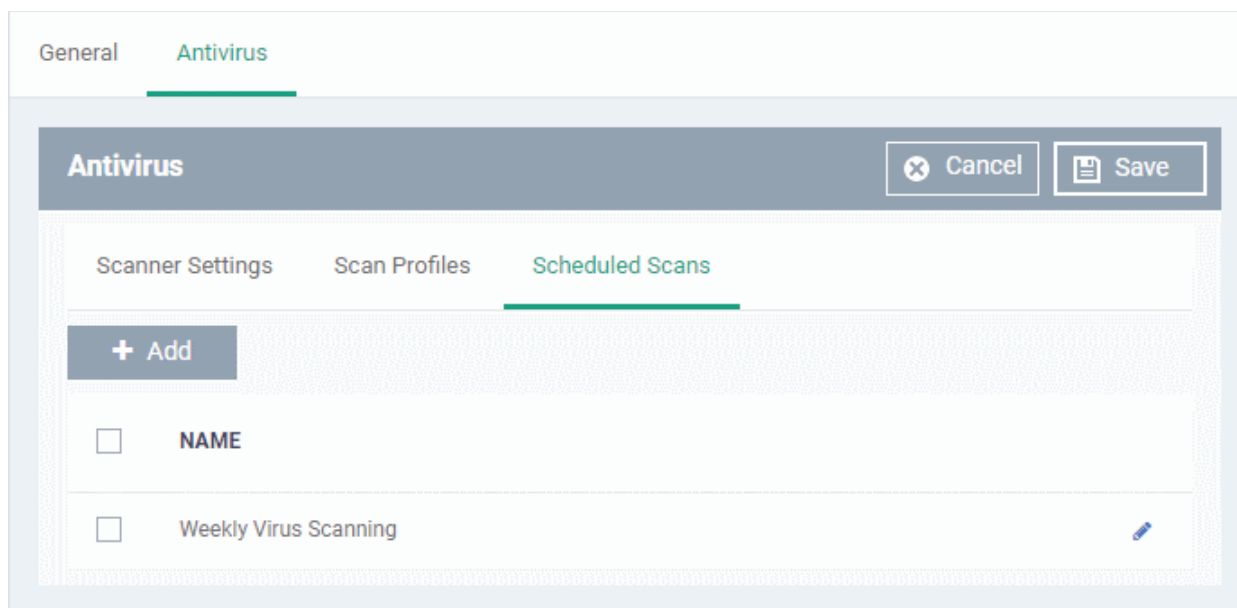
The custom profile will be added to the list.

- To add more custom scan profiles, click 'Add' and repeat the process
- To edit a custom scan profile, click the pencil icon  beside it

- To remove a custom scan profile, select it and click 'Remove'

## Create and Manage Scheduled Scans for the Profile

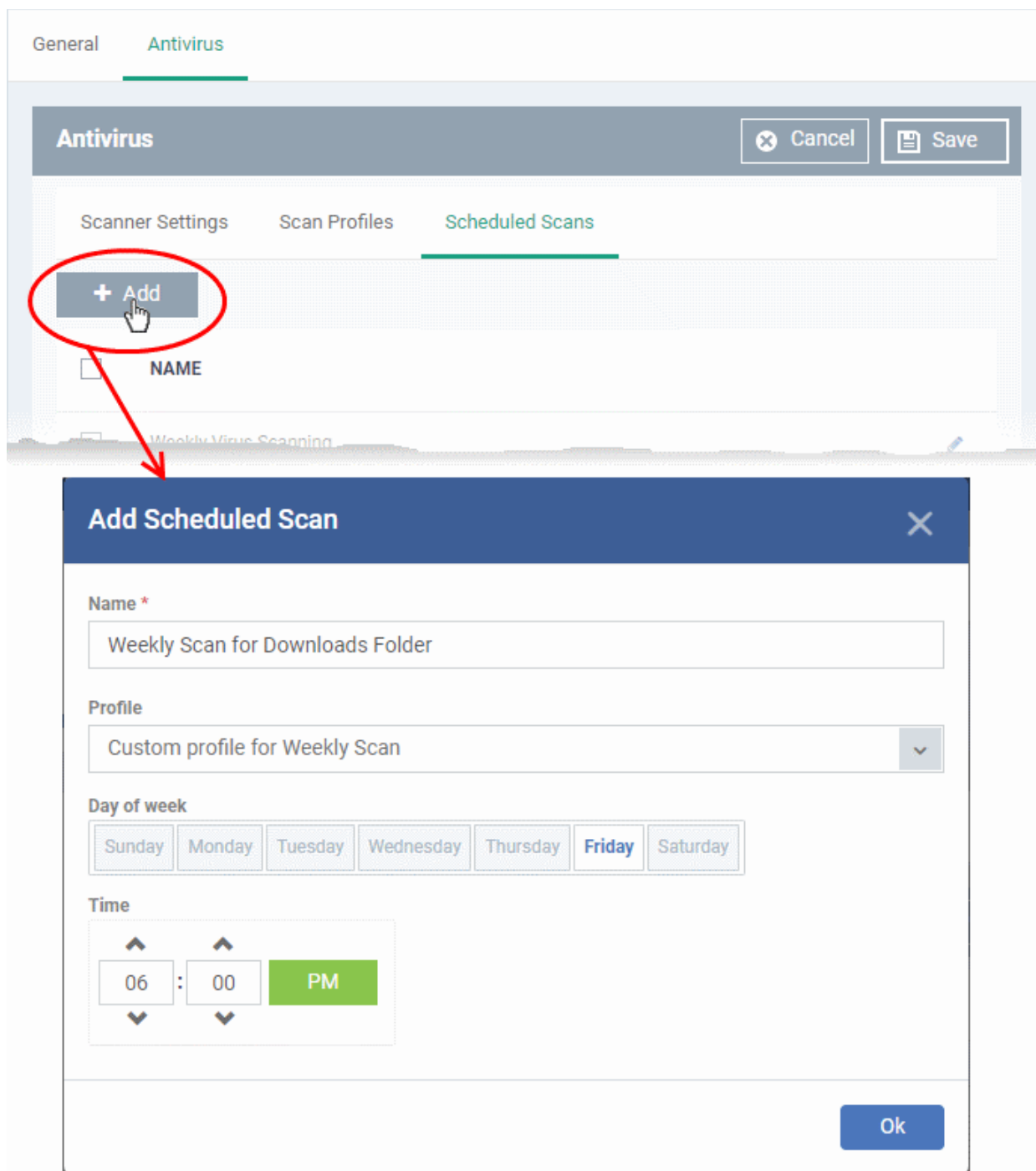
- Click the 'Scheduled Scans' tab under 'Antivirus'
- The highly customizable scan scheduler lets you timetable scans to be run on managed devices according to your preferences. CCS automatically starts scanning the entire system or the disks or folders contained in the scan profile selected for that scan.
- You can add any number of scheduled scans for a profile to run at a time that suits your preference. A scheduled scan may contain any scan profile of your choice.



A list of pre-configured scheduled scans will be displayed.

### To add a new scheduled scan

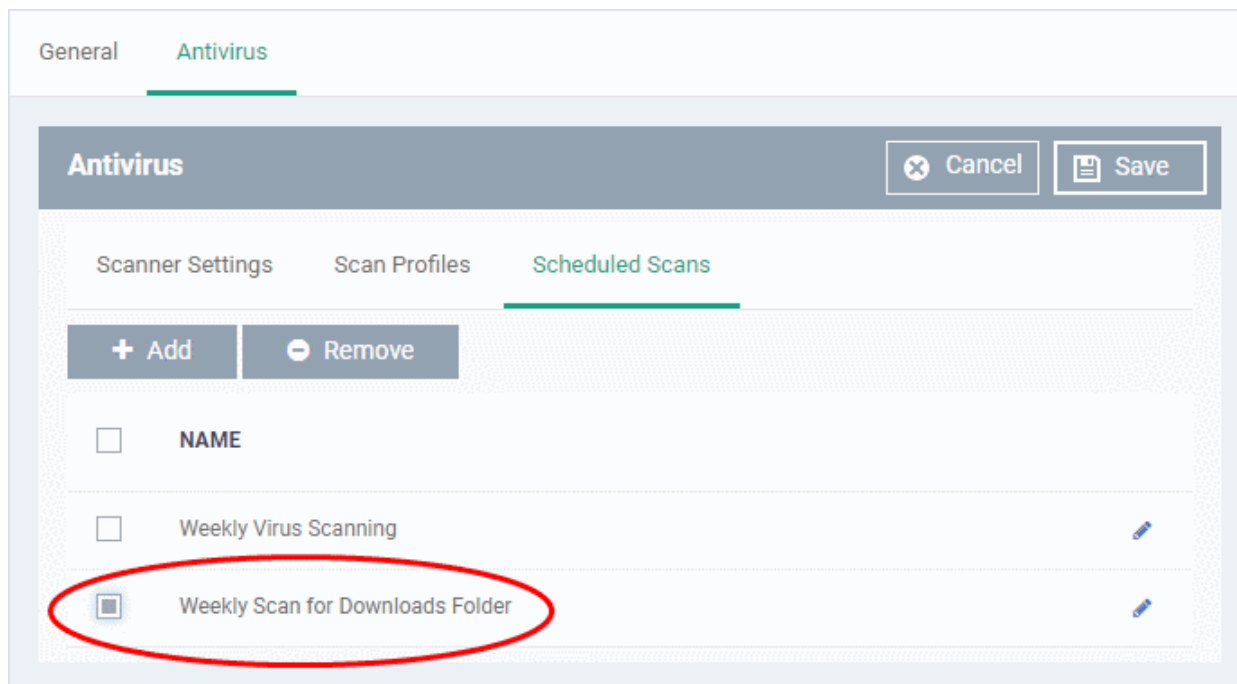
- Click 'Add'



Add Scheduled Scan - Table of Parameters		
Form Element	Type	Description
Name	Text box	Label for the scheduled scan
Profile	Drop-down	Choose the pre-defined or custom scan profile to be applied for the scheduled scan. The scan profiles included under the 'Scan Profiles' tab will be available in the drop-down.
Day of the Week	Buttons	Select the day(s) of the week on which the scan has to run
Time	HH:MM drop-down combo boxes	Set the time at which the scans are to run on the selected days.

- Click 'Ok'

The scheduled scan will be added to the list.



- To add more scheduled scans to the configuration profile, click 'Add' and repeat the process
- To edit the settings of a scheduled scan, click the pencil icon beside it
- To remove a scheduled scan, select it and click 'Remove'
- Click 'Save' on the top right for your settings to take effect for the profile.

The settings will be saved and displayed under the 'Antivirus' tab. You can edit the settings or remove the section at anytime. See **Edit Configuration Profiles** for more details.

### 6.1.5.1.2. Communication Client and Comodo Client - Security Application Update Settings for Linux Profile

This section lets you enable or disable automatic updates and specify an alternate host from which endpoints should collect updates. By default, updates are downloaded from <https://download.comodo.com>.

#### Configure updates settings in a Linux profile

- Click 'Configuration Templates' > 'Profiles'
- Click on the name of a Linux profile
- Click 'Add Profile Section' then 'Updates' (if you haven't yet added the 'Updates' section)

OR

- Open the 'Updates' tab and click 'Edit' if it was already added

The 'Updates' settings screen will open:

The screenshot shows the 'Linux Profile for Stores Dept' configuration page. At the top, there are five action buttons: 'Add Profile Section', 'Export Profile', 'Clone Profile', 'Delete Profile', and 'Make Default'. Below these is a tabbed interface with 'General', 'Antivirus', and 'Updates' tabs. The 'Updates' tab is active. A modal window titled 'Updates' is open, showing a table with columns for 'STATUS' and 'URL'. The table contains one row with 'Enabled' status and the URL 'http://download.comodo.com/'. There are 'Cancel' and 'Save' buttons in the top right of the modal, and an 'Add' button in the top left.

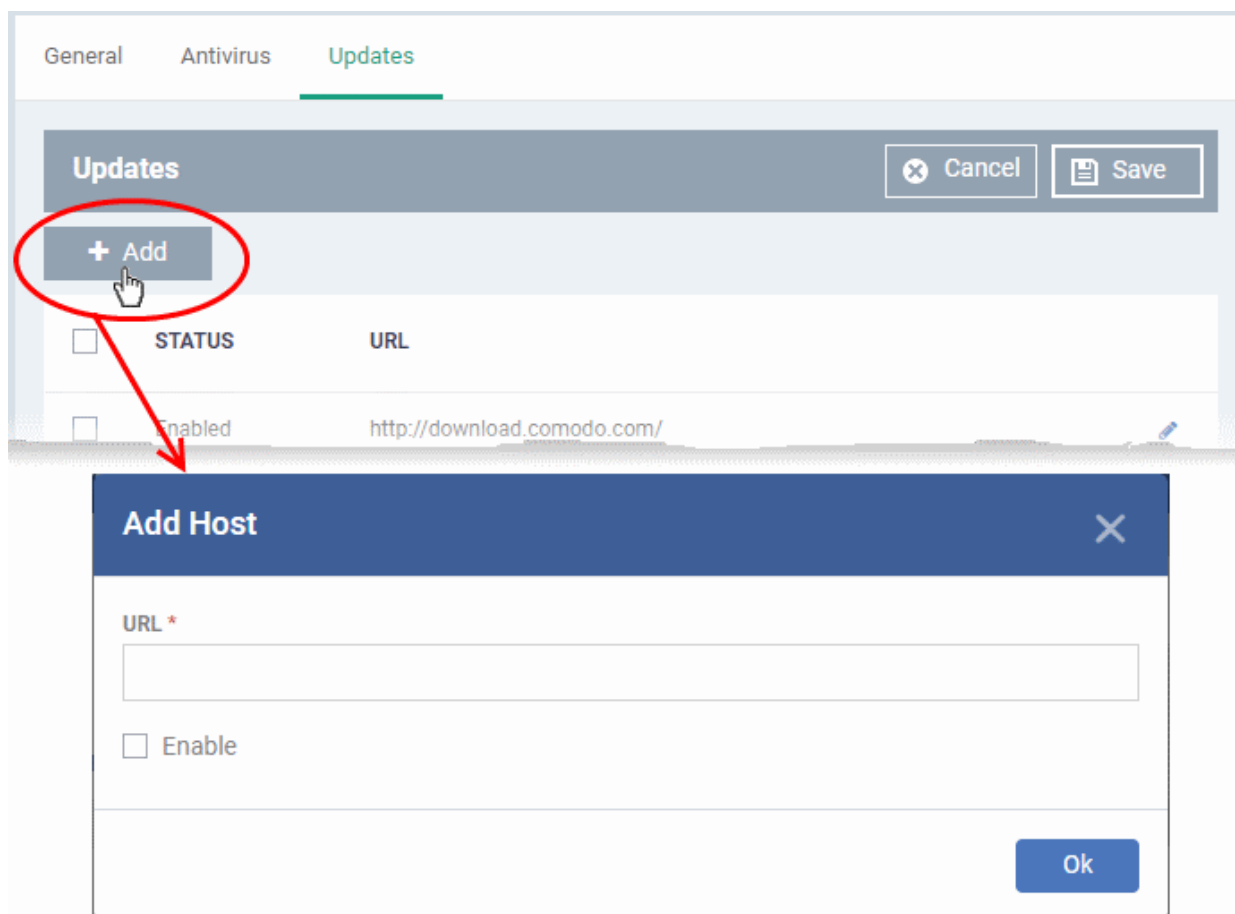
STATUS	URL
<input type="checkbox"/> Enabled	http://download.comodo.com/


- Use the checkbox beside 'Enabled' to enable or disable downloading updates from the URL specified beside it.

You can add the URL of an alternative download host if required. For example, you may want to distribute the updates from a local server to conserve bandwidth.

#### To add a host in the local network

- Click 'Add'



- Enter the URL or IP of the host from which updates should be downloaded in the 'URL' field
- Select the 'Enable' to activate the host
- Click 'Ok' to apply your changes
- Repeat the process to add multiple hosts.
- To edit a host, click the pencil icon  beside the host name in the list
- Click 'Save' for your settings to take effect in the profile

#### 6.1.5.1.3. User Interface Settings for Linux Profile

The 'UI Settings' section lets you choose the interface language for the CCS application on the endpoint.

#### Configure Language Settings in a Linux Profile

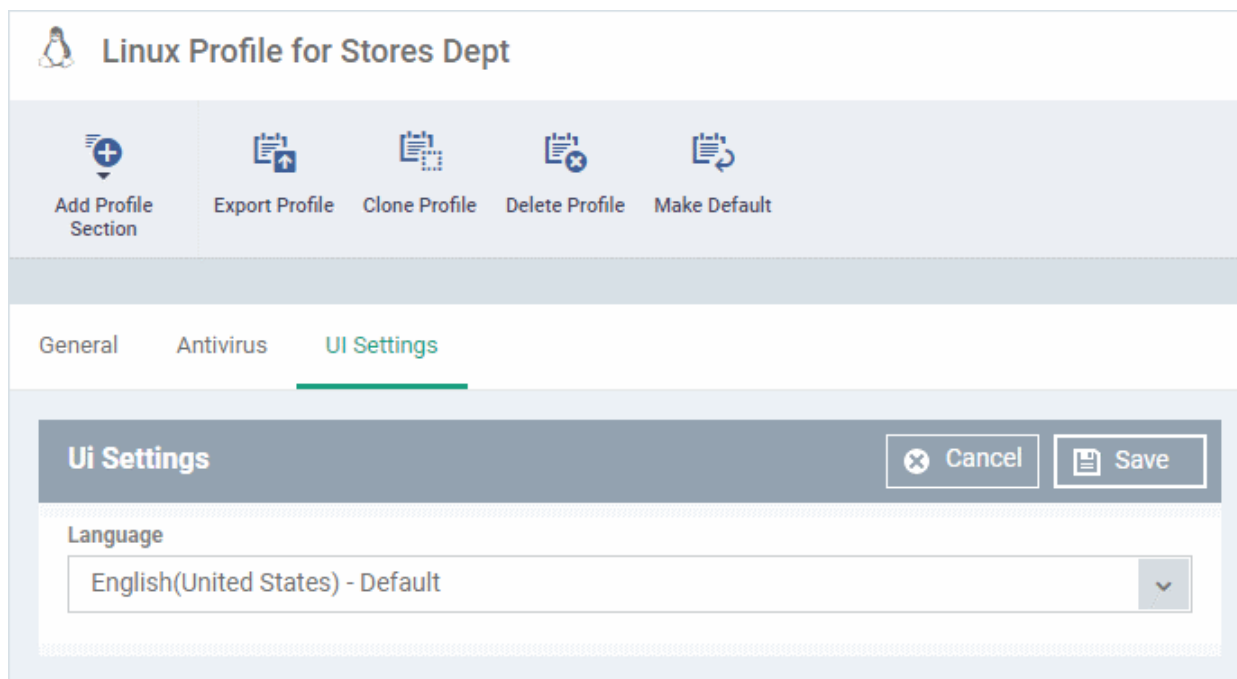
- Click 'Configuration Templates' > 'Profiles'
- Click on the name of a Linux profile
- Click 'Add Profile Section' then 'UI Settings' (if you haven't yet added the 'UI Settings' section)

OR

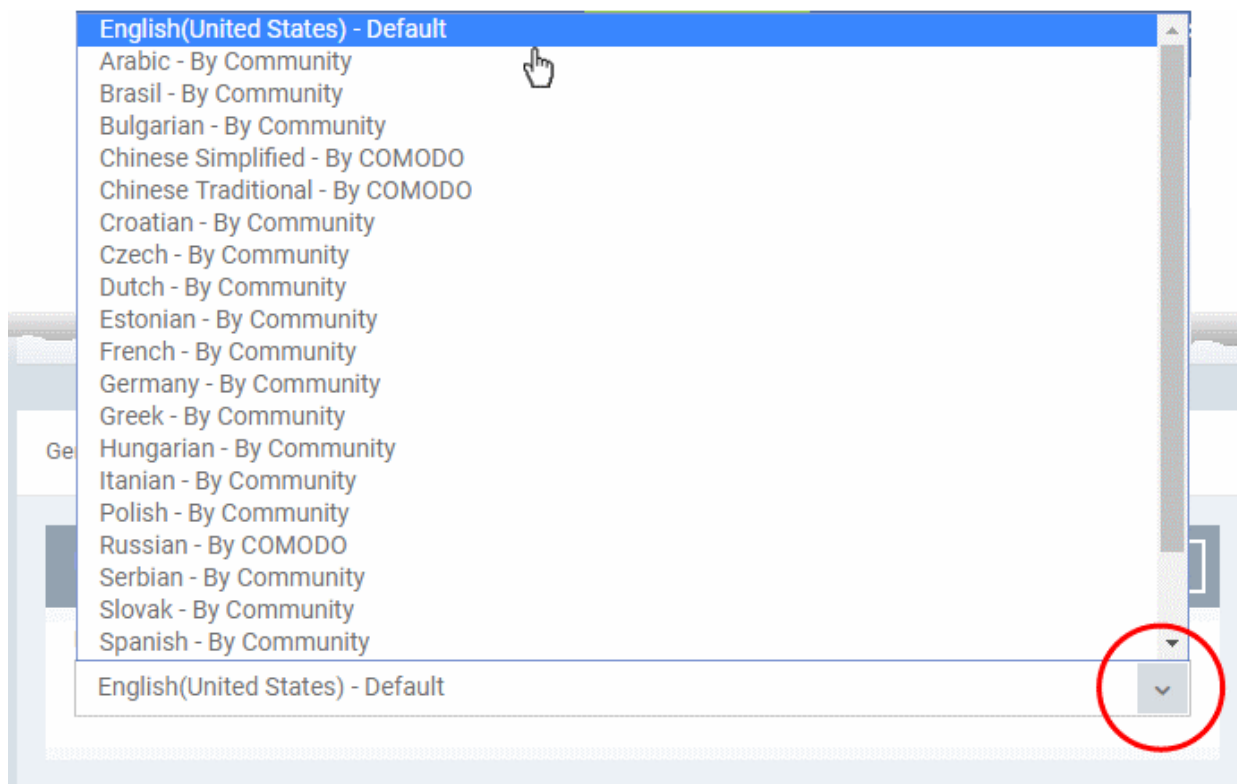
- Open the 'UI Settings' tab and click 'Edit' if it was already added

The 'UI Settings' screen will open:





- Select the language which should be used in the Comodo Client Security interface from the Language drop-down. (**Default = English (United States)**)



- Click 'Save' to apply your changes to the profile.

#### 6.1.5.1.4. Logging Settings for Linux Profile

- The 'Logging' area lets you specify how logs should be collected in CCS
- For example, you can choose max. log size, log format and location, and extended log options.

### Configure 'Logging' Settings in a Linux Profile

- Click 'Configuration Templates' > 'Profiles'
- Click on the name of a Linux profile
- Click 'Add Profile Section' then 'Logging Settings' (if you haven't yet added the 'Logging' section)

OR

- Open the 'Logging' tab and click 'Edit' if it was already added

The 'Logging' settings screen will open:

The screenshot shows the 'Linux Profile for Stores Dept' configuration page. At the top, there is a header with a penguin icon and the title. Below the header is a toolbar with five icons: 'Add Profile Section', 'Export Profile', 'Clone Profile', 'Delete Profile', and 'Make Default'. The main content area has three tabs: 'General', 'Antivirus', and 'Logging', with 'Logging' being the active tab. The 'Logging' section is highlighted with a dark grey header containing 'Logging' text, a 'Cancel' button, and a 'Save' button. The settings include: a checked checkbox for 'Write to local log database (COMODO format)', an unchecked checkbox for 'Write to Syslog Server (CEF format)', a 'Host' text input field, a 'Port' text input field containing '514', an unchecked checkbox for 'Write to Log File (CEF format)', a 'Path' text input field, a 'Log file size (MB)' text input field containing '100', and a section titled 'Action when file log reaches limit' with two radio button options: 'Keep on updating and remove the oldest one' (selected) and 'Move it to the folder'.

Logging Settings - Form Parameters	
Parameters	Description
Write to Local Log Database (COMODO Format)	The log is saved in native Comodo format on the local endpoint.
Write to Syslog Server	Endpoint Manager log events are written to a remote syslog server. If enabled you have to specify the hostname/IP address and port number settings for the server.
Host *	The host name or IP address of the syslog server.
Port *	The port number of the syslog server.
Write to Log File (CEF Format)	Logs are saved locally on the endpoint in Common Event Format (CEF) file format. If enabled, please specify the location of the CEF file.
Path	Enter the location of the CEF file.
Log file size (MB)	Specify the maximum size of the log file (default = 100 MB).
Action when file log size reaches limit:	Specify behavior when the log file reaches the max. size.
Keep on updating it removing the oldest records	Once the log file reaches the maximum size, the file will be appended with the new log entries and the oldest entries will be deleted.
Move it to	Move and save the log file when it reaches the maximum size.
The path to the folder for old log files *	If 'Move it to' is enabled, type a destination path for the log file.

Fields marked \* are mandatory.

- Click the 'Save' button to apply your changes.

### 6.1.5.1.5. Clients Access Control Settings for Linux Profile

This area lets you password-protect access to Comodo Client Security (CCS) and the communication client (CC) on managed endpoints.

#### Configure 'Clients Access Control' Settings for a Linux Profile

- Click 'Configuration Templates' > 'Profiles'
- Click on the name of a Linux profile
- Click 'Add Profile Section' then 'Client Access Control' (if you haven't yet added the section)

OR

- Open the 'Client Access Control' tab and click 'Edit' if it was already added

The 'Client Access Control' settings screen will open:

The screenshot shows the 'Linux Profile for Stores Dept' configuration page. At the top, there are five action buttons: 'Add Profile Section', 'Export Profile', 'Clone Profile', 'Delete Profile', and 'Make Default'. Below these are three tabs: 'General', 'Antivirus', and 'Client Access control', with the latter being the active tab. The 'Client Access control' section is titled 'Clients access control' and contains the following options:

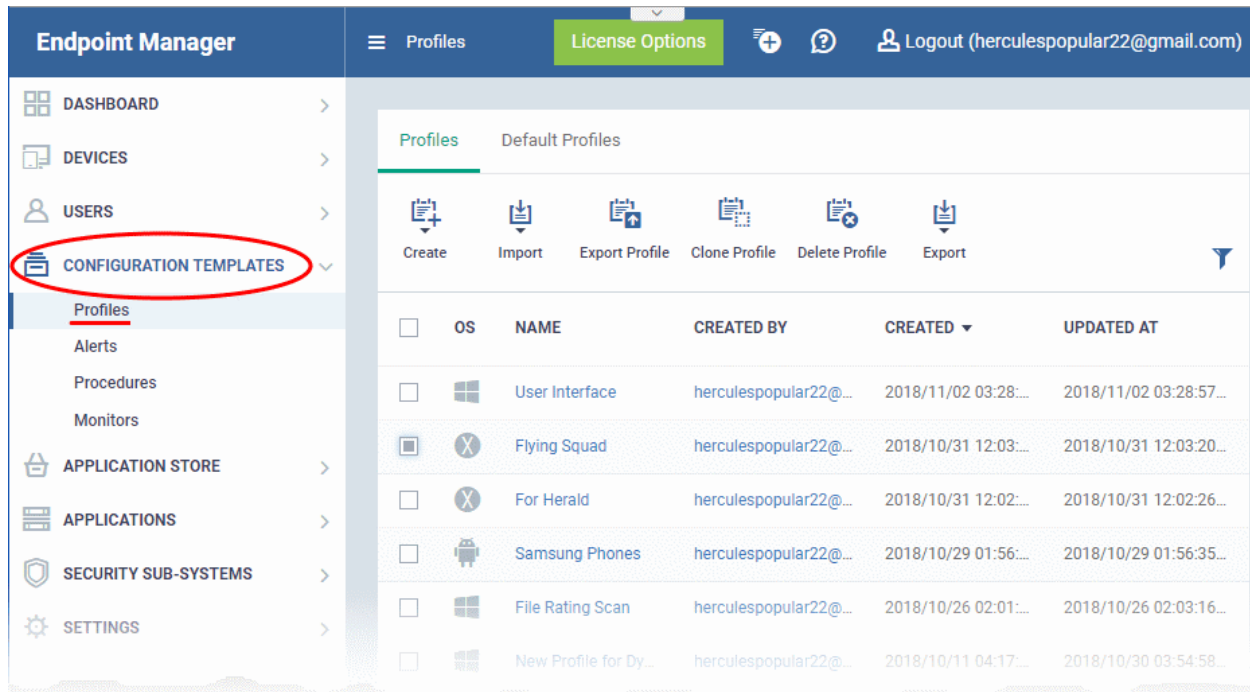
- Enable password protection for the settings
  - Password: [Text input field]
  - Confirm password: [Text input field]
- Suppress Antivirus alerts if password protection is enabled

Buttons for 'Cancel' and 'Save' are located in the top right corner of the settings panel.

- **Enable password protection for the settings** - Activates password protection for all important CCS settings against unauthorized changes by the user. Users will be asked to provide a password if they attempt to change CCS settings at the endpoint.
  - Enter the password in the 'Password' field and re-enter it in the 'Confirm password' field.
- **Suppress Antivirus alerts if password protection is enabled** - If selected, threats on the device are automatically blocked but no alert is shown to the end-user. This avoids the situation where a user might click 'Allow' just to make an alert go away.

## 6.2. View and Manage Profiles

- Click 'Configuration Templates' > 'Profiles' to open this interface
- The 'Profiles' screen shows all available configuration profiles for Android, iOS, Mac OS, Windows and Linux devices.
- You can create, deploy, import/export, and clone profiles from this interface.



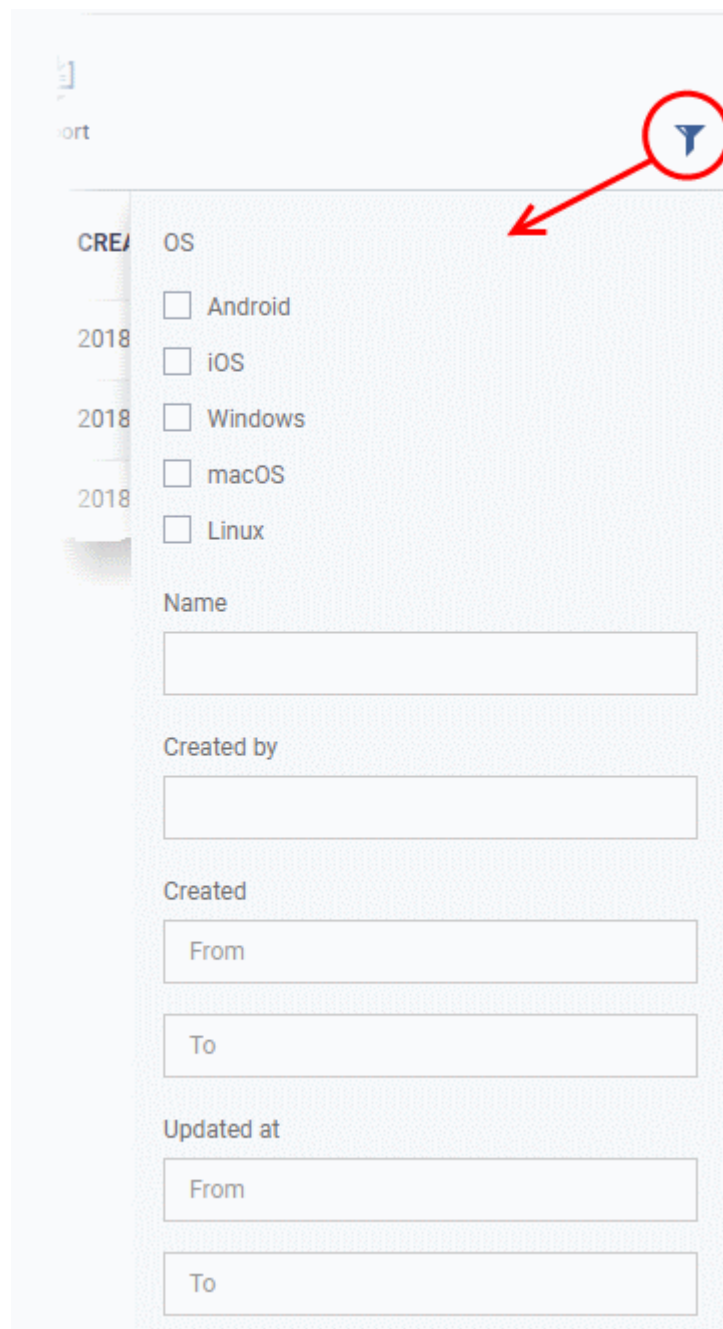
The interface has two tabs:

- Profiles - A list of all profiles added to Endpoint Manager.
- Default Profiles - A default profile is one that is automatically applied to any device that matches its operating system. See [Manage Default Profiles](#) for more details.

The 'Profiles' interface		
Column	Description	
OS	The operating system that the profile supports.	
Name	Label of the profile. <ul style="list-style-type: none"> <li>Click the profile name to open the profile settings and configuration interface. See <b>Edit Configuration Profiles</b> for more details.</li> </ul>	
Created by	The administrator who created the profile. <ul style="list-style-type: none"> <li>Click the name of an administrator to view their user details. See <b>View the details of the User</b> for more details.</li> </ul>	
Created	The date and time at which the profile was created.	
Updated at	The date and time at which the profile was last updated.	
Controls		
Create	Create Android profile	Add a new Android profile. See ' <b>Profiles for Android Devices</b> ' for more details.
	Create iOS profile	Add a new iOS profile. See ' <b>Profiles for iOS Devices</b> ' for more details.
	Create Mac OS profile	Add a new Mac OS profile. See ' <b>Profiles for Mac OS Devices</b> ' for more details.
	Create Windows profile	Add a new Windows profile. See ' <b>Create Windows Profiles</b> ' for more details.
	Create Linux profile	Add a new Linux profile. See ' <b>Profiles for Linux Devices</b> ' for more details.
Import	Import from Comodo Client Security Config file	Import the security configuration of CCS from a .cfg configuration file as a Windows profile. The configuration file will usually have been exported from a managed endpoint with CCS installed. See ' <b>Import Windows Profiles</b> ' for more details.
	Import from Exported Profile	Import a configuration profile from a previously exported and saved profile. See <b>Export and Import Configuration Profiles</b> for more details.
Clone Profile	Create a new profile by cloning an existing profile and modifying its settings as required. See <b>Clone a Profile</b> for more details.	
Export profile	Export the selected configuration as a .cfg file and save it for future implementation. See <b>Export and Import Configuration Profiles</b> for more details. The control will appear only if a single profile is selected from the list.	
Delete profile	Remove selected profile(s). The control will appear only if one or more profiles are selected.	
Export	Save the list of profiles as a comma separated values (CSV) file. See <b>Export the List of Profiles</b> for more details.	

## Sorting, Search and Filter Options

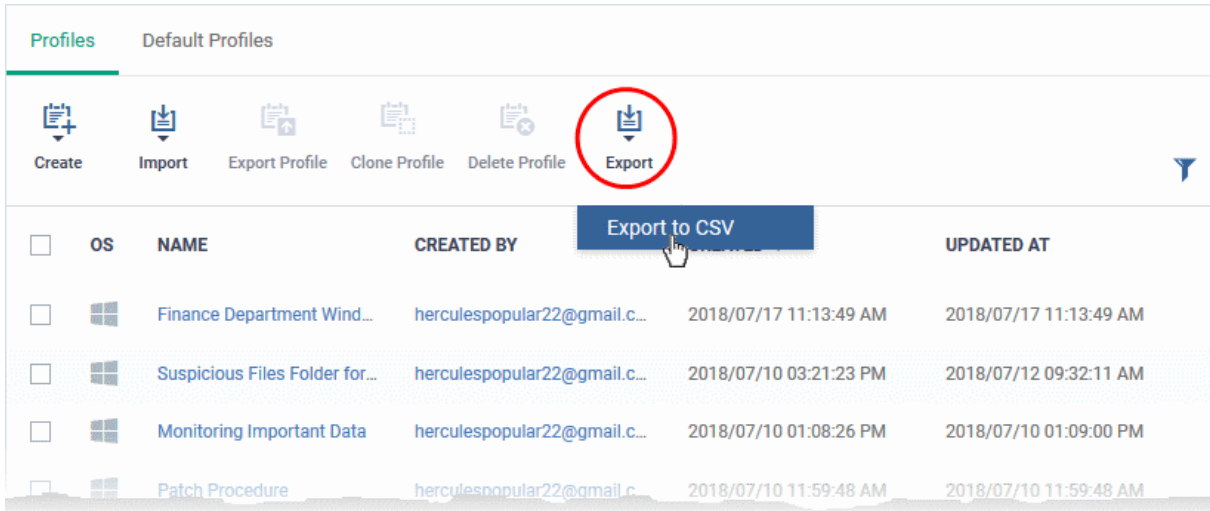
- Click any column header to sort items in ascending/descending order
- Click the funnel icon to filter profiles by various criteria:



## Export the List of Profiles

- Click 'Configuration Templates' > 'Profiles'
- Click the 'Export' button above the table then choose 'Export to CSV':





The screenshot shows the 'Profiles' section of the Endpoint Manager interface. At the top, there are navigation tabs for 'Profiles' and 'Default Profiles'. Below these are several action buttons: 'Create', 'Import', 'Export Profile', 'Clone Profile', 'Delete Profile', and 'Export'. The 'Export' button is circled in red. Below the buttons is a table of profiles. The table has columns for 'OS', 'NAME', 'CREATED BY', 'Export to CSV', and 'UPDATED AT'. The 'Export to CSV' button is highlighted in blue. The table contains five rows of profile data.

<input type="checkbox"/>	OS	NAME	CREATED BY	Export to CSV	UPDATED AT
<input type="checkbox"/>	Windows	Finance Department Wind...	herculespopular22@gmail.c...	2018/07/17 11:13:49 AM	2018/07/17 11:13:49 AM
<input type="checkbox"/>	Windows	Suspicious Files Folder for...	herculespopular22@gmail.c...	2018/07/10 03:21:23 PM	2018/07/12 09:32:11 AM
<input type="checkbox"/>	Windows	Monitoring Important Data	herculespopular22@gmail.c...	2018/07/10 01:08:26 PM	2018/07/10 01:09:00 PM
<input type="checkbox"/>	Windows	Patch Procedure	herculespopular22@gmail.c...	2018/07/10 11:59:48 AM	2018/07/10 11:59:48 AM

- The CSV file will be available in 'Dashboard' > 'Reports'
- See **Reports** in **The Dashboard** for more details.

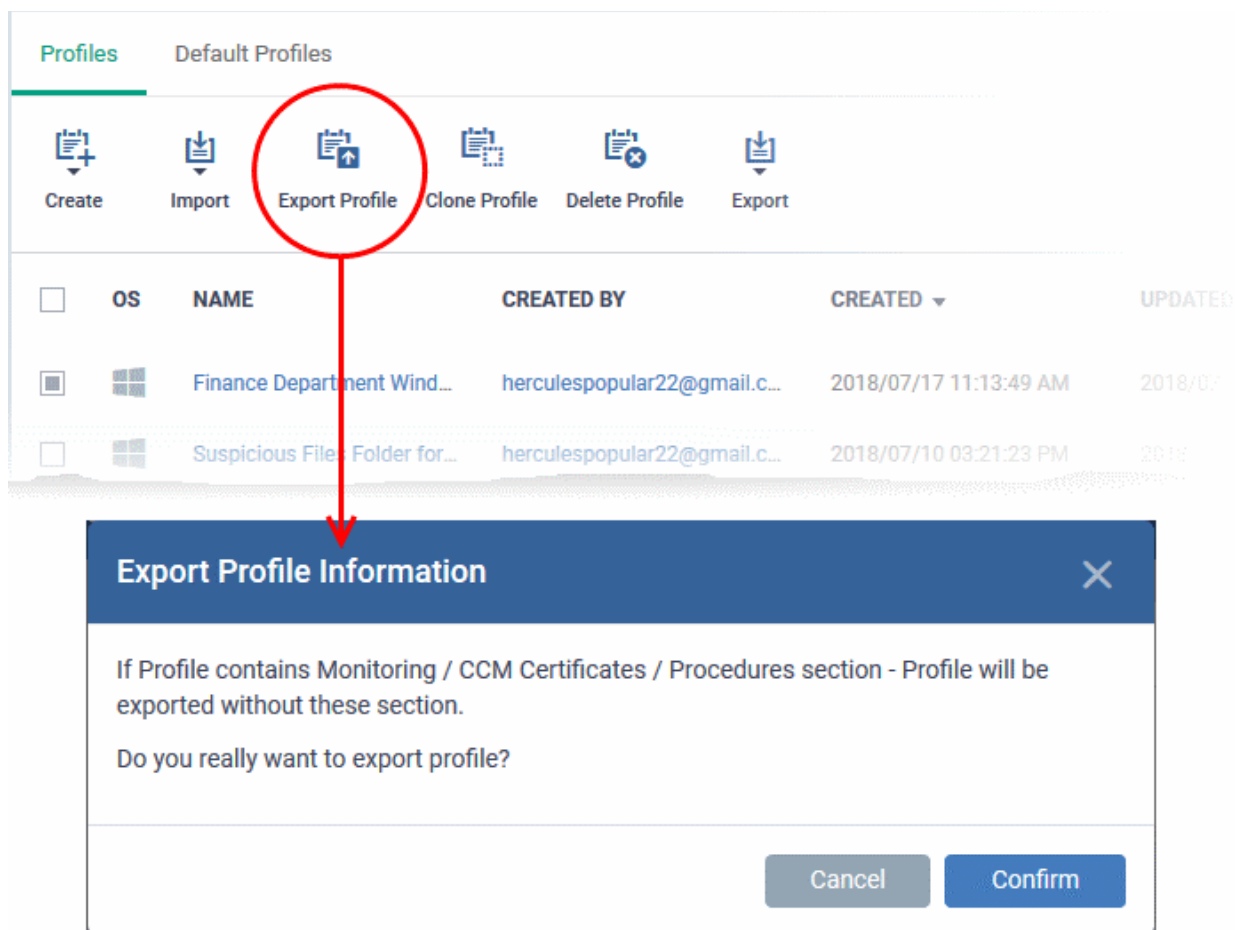
### 6.2.1. Export and Import Configuration Profiles

You can export and import profiles for re-deployment to other devices and groups.

**Note:** 'Monitor Settings', 'CCM Certificate Settings' and 'Procedure Settings' will be excluded from exported profiles. You will need to reconfigure these sections before deploying if they are required in a new profile.

#### To export a profile

- Click 'Configuration Templates' > 'Profiles'
- Select the 'Profiles' tab.
- Select the profile you want to export and click the 'Export profile' button:

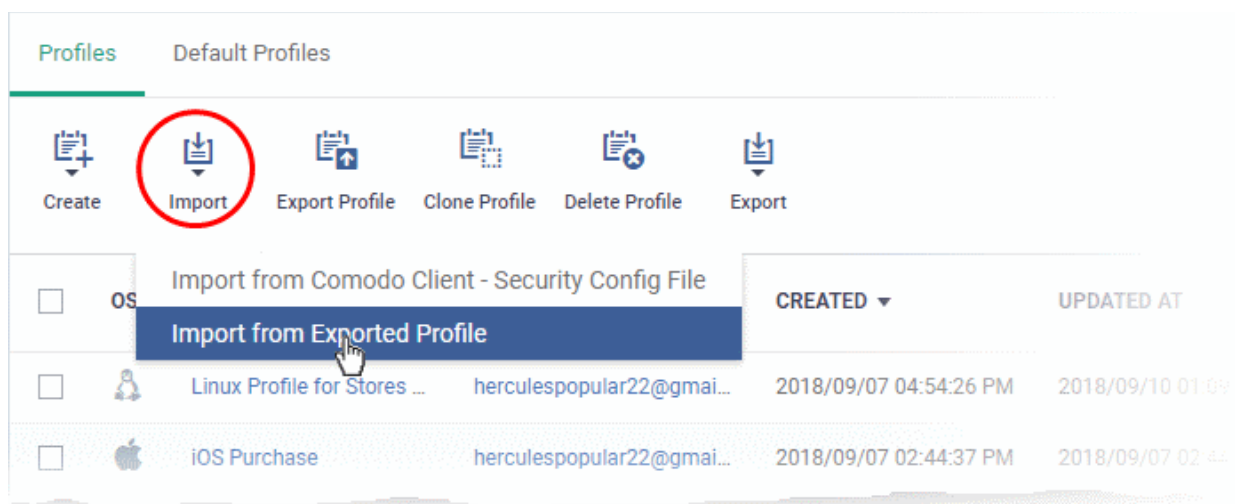


You will see a prompt stating that monitoring, CCM certificate and procedures sections will be omitted from exported profiles.

- Click 'Confirm' to export the profiles to .cfg file
- Exported files can be imported back into Endpoint Manager as a profile at any time.

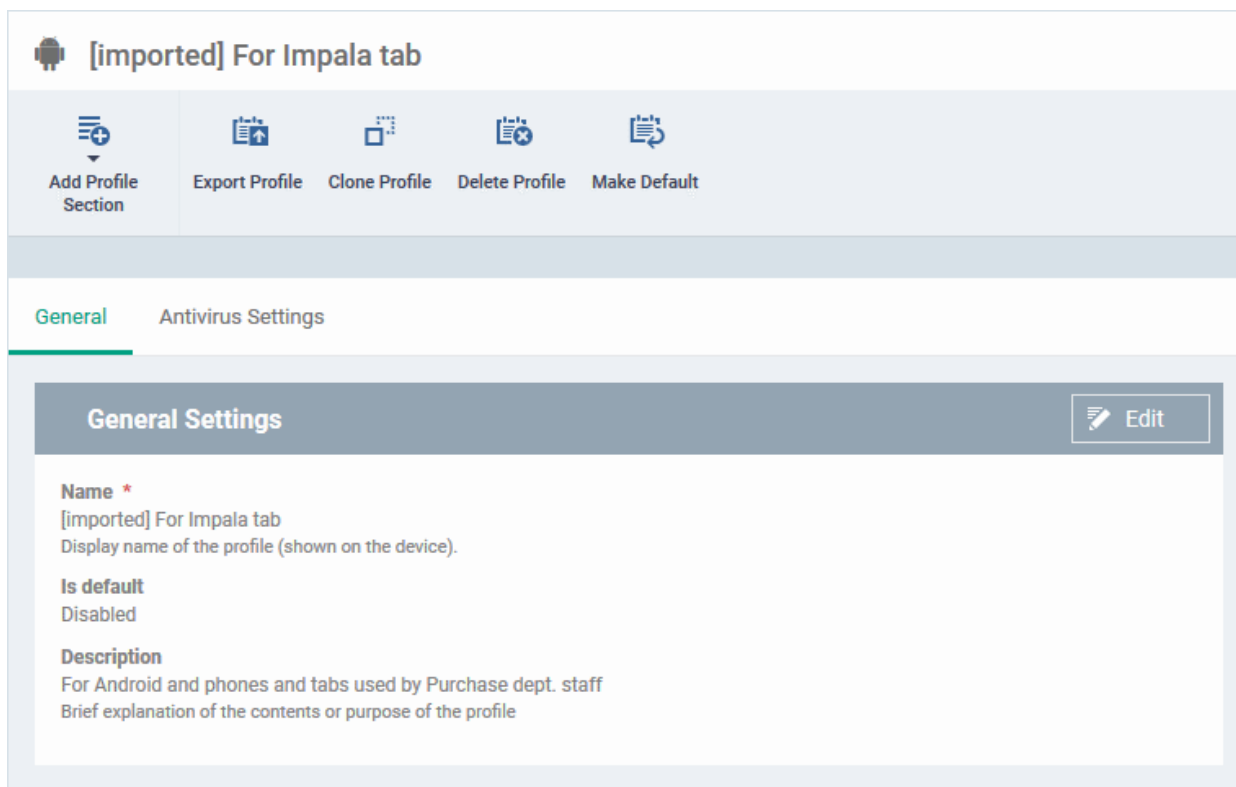
### To import a profile from a saved .cfg file

- Open the 'Profiles' interface by clicking 'Configuration Template' from the left and choosing 'Profiles' from the options.



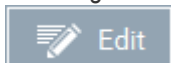
- Click 'Import' > 'Import from Exported Profile'.
- Navigate to the location in your computer where the .cfg file is stored, select the file and click 'Open'.

- The 'Profile' interface will open, with the prefix [Imported] in the file name and security components pre-configured as per the source profile.



The profile details interface of the imported profile will be displayed. The imported profile will not be enabled as a 'Default Profile' by default.

- To change the name of the profile and/or to enable it as a default profile, click the 'Edit' button



at the top right of the 'General' settings screen.

- Click 'Add Profile Section' to add a new component
- Click the name of an existing component name to view and edit its settings
- For more details on the options available under each component, see the following sections for more details:
  - [Profiles for Android Devices](#)
  - [Profiles for iOS Devices](#)
  - [Profiles for Mac OS Devices](#)
  - [Profiles for Windows Devices.](#)
  - [Profiles for Linux Devices](#)

## 6.2.2. Clone a Profile

- Cloning then modifying a profile is an easy way to set up a new profile with custom settings.
- You can edit the cloned profile according to the requirements of your target devices or group.

### To clone a profile

- Click 'Configuration Templates' > 'Profiles'
- Select the 'Profiles' tab.

- Click on the name of the profile you want to clone.
- Click 'Clone Profile' in the profile details page
  - Alternatively, select the profile in the 'Profiles' interface and click 'Clone Profile' at the top.

The screenshot shows the 'Profiles' interface with a table of profiles. The 'Clone Profile' button is circled in red, and a red arrow points from it to the 'Clone Windows Profile' dialog box. The dialog box has a title bar 'Clone Windows Profile' and a close button. It contains a 'Name \*' field with the text '[cloned] Finance Department Windows Computers', a 'Description' field with the text 'Description', and a 'Clone' button at the bottom right.

<input type="checkbox"/>	OS	NAME	CREATED BY	CREATED	UPDATED
<input type="checkbox"/>	Windows	Finance Department Wind...	herculespopular22@gmail.c...	2018/07/17 11:13:49 AM	2018/07/17 11:13:49 AM
<input type="checkbox"/>	Windows	Suspicious Files Folder for...	herculespopular22@gmail.c...	2018/07/10 03:21:23 PM	2018/07/10 03:21:23 PM

The name of the new profile is the same as the source profile with the prefix [cloned].

- Enter a new name for the profile (if required) and a short description
- Click 'Clone'.

The new profile has identical settings to the source profile at this stage. To configure the profile:

- Click 'Configuration Templates' > 'Profiles'
- Click on the name of the cloned profile
  - Click 'Add Profile Section' to configure settings that were not included in the original
  - Click a section name then 'Edit' to change existing settings. Each existing section is shown as a tab underneath the profile name
- For more details on the options available under each component, see the following sections for more details:
  - [Profiles for Android Devices](#)
  - [Profiles for iOS Devices](#)
  - [Profiles for Mac OS Devices](#)
  - [Profiles for Windows Devices.](#)

- Profiles for Linux Devices

## 6.3. Edit Configuration Profiles

- You can edit an existing configuration profile to modify settings as required.
- For example, you might want to enable or disable certain security components or add a procedure to the profile.
- The updated profile is automatically deployed to endpoints after you save.

### To edit a profile

- Click 'Configuration Templates' > 'Profiles'
- Select the 'Profiles' tab
- Click on the name of the profile that you want edit.
- This will open the profile details screen:

The screenshot displays the 'Profiles' management interface. At the top, there are navigation tabs for 'Profiles' and 'Default Profiles'. Below this is a toolbar with icons for 'Create', 'Import', 'Export Profile', 'Clone Profile', 'Delete Profile', and 'Export'. A table lists existing profiles with columns for 'OS', 'NAME', 'CREATED BY', 'CREATED', and 'UPDATED AT'. The profile 'Finance Department Windows Computers' is highlighted with a red circle, and a red arrow points from it to the 'General' tab in the profile details view below. The 'General' tab is also circled in red. The details view shows the profile name, 'Is default' status (Disabled), and a description: 'Profile for Windows devices in Finance dept'. An 'Edit' button is visible in the top right corner of the details view.

<input type="checkbox"/>	OS	NAME	CREATED BY	CREATED	UPDATED AT
<input checked="" type="checkbox"/>	Windows	Finance Department Windows Computers	herculespopular22@gmail.c...	2018/07/17 11:13:49 AM	2018/07/17 03:40:32 PM
<input type="checkbox"/>	Windows	Suspicious Files Folder for...	herculespopular22@gmail.c...	2018/07/10 03:21:23 PM	2018/07/12 09:32:11 AM

**Finance Department Windows Computers**

General | Monitoring | Antivirus | File Rating | Firewall | HIPS | Containment | VirusScope | Valkyrie

**General Settings** [Edit]

**Name**  
Finance Department Windows Computers

**Is default**  
Disabled

**Description**  
Profile for Windows devices in Finance dept

The tabs let you configure various Endpoint Manager modules. Click 'Add Profile Section' if you want to add a new module.

- Click the tab of the section you want to edit. For example, 'General', 'Monitoring', 'Antivirus', 'Firewall'.
- Some tabs let you directly edit the parameters. In others, you will need to click the 'Edit' button:



- See the following sections for in-depth help on the settings in a profile:
  - [Profiles for Android Devices](#)
  - [Profiles for iOS Devices](#)
  - [Profiles for Mac OS Devices](#)
  - [Profiles for Windows Devices](#)
  - [Profiles for Linux Devices](#)
- Click 'Save' for your changes to take effect
- Click the 'Delete Profile' button if you want to entirely remove a profile. The profile will be automatically uninstalled from devices on which it is active.

## 6.4. Manage Default Profiles

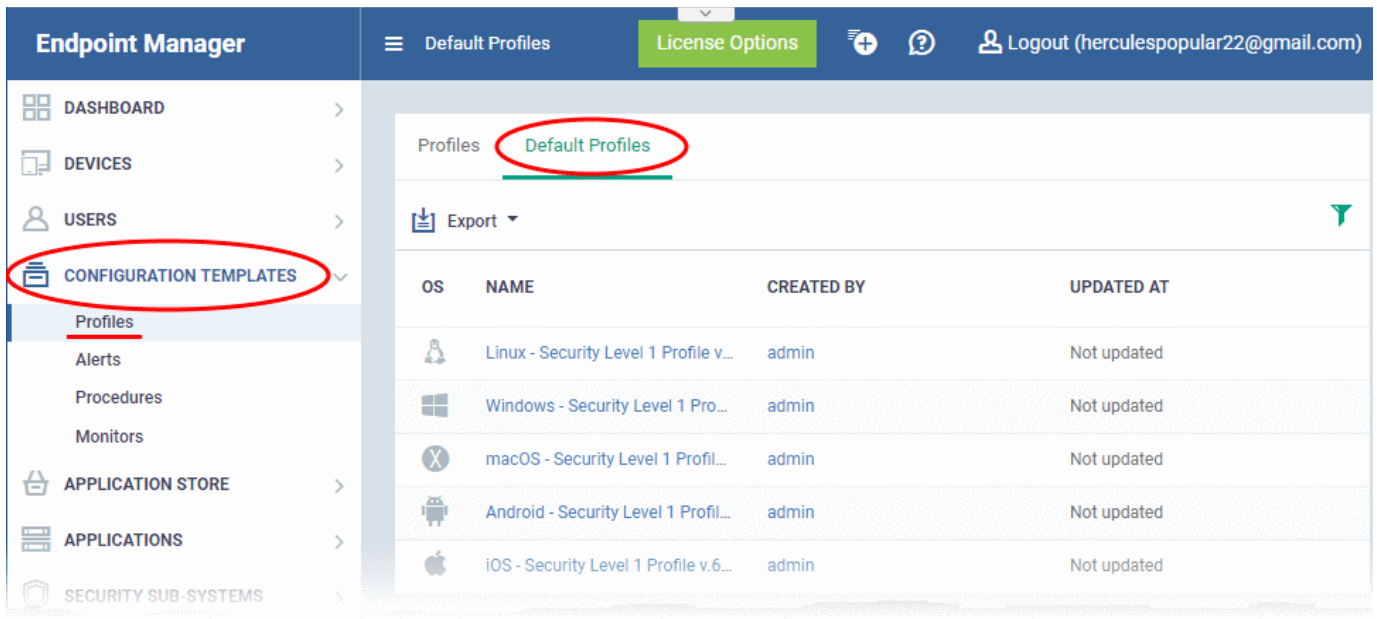
- 'Default' profiles are automatically assigned to new devices which match their operating system IF no user / user-group profile exists for the OS.
  - Default profiles are only applied if no user or user-group profile exists for the operating system.
  - If you remove all user profiles from a device then they will be replaced by the appropriate default profiles.
  - You can mark any profile you want as a 'default' profile. You can also apply multiple default profiles to the same devices.
- Endpoint Manager ships with the following default profiles:
  - Windows - Security Level 1 Profile
  - Mac OS - Security Level 1 Profile
  - Android - Security Level 1 Profile
  - iOS - Security Level 1 Profile
  - Linux - Security Level 1 Profile

Each of the profiles above provides good, baseline security for managed devices. These profiles cannot be modified or deleted, but may be replaced on devices by another profile.

- Endpoint Manager also ships with three, non-default, profiles for Windows:
  - Windows - Security Level 1 Profile [Former Standard Profile]
  - Windows - Security Level 2 Profile
  - Windows - Security Level 3 Profile
- You can remove 'default' status from any profile, including the 'built-in' profiles mentioned above. However, it is mandatory to have at least one default profile per operating system.
- You can turn any profile you want into a default profile. You can also clone a default profile to use as a template for a new profile.

### View and manage default profiles

- Click 'Configuration Templates' > 'Profiles'
- Select the 'Default Profiles' tab at the top.



The image above shows the default profiles shipped with Endpoint Manager.

Click the following links for more help:

- [Create a default profile](#)
- [View and manage default profiles](#)
- [Assign default profiles to devices](#)
- [Remove default profiles](#)
- [Cancel default profiles](#)
- [Export the list of Default Profiles to a CSV file](#)

### Create a default profile

You can turn any profile into a 'default' profile. You can do this when you create a new profile, or by editing an existing profile.

- [Create a new default profile](#)
- [Turn an existing profile into a default profile](#)

### Create a new default profile

- Click 'Configuration Templates' > 'Profiles'
- Click the 'Profiles' tab
- Click 'Create' and choose the OS of the profile:



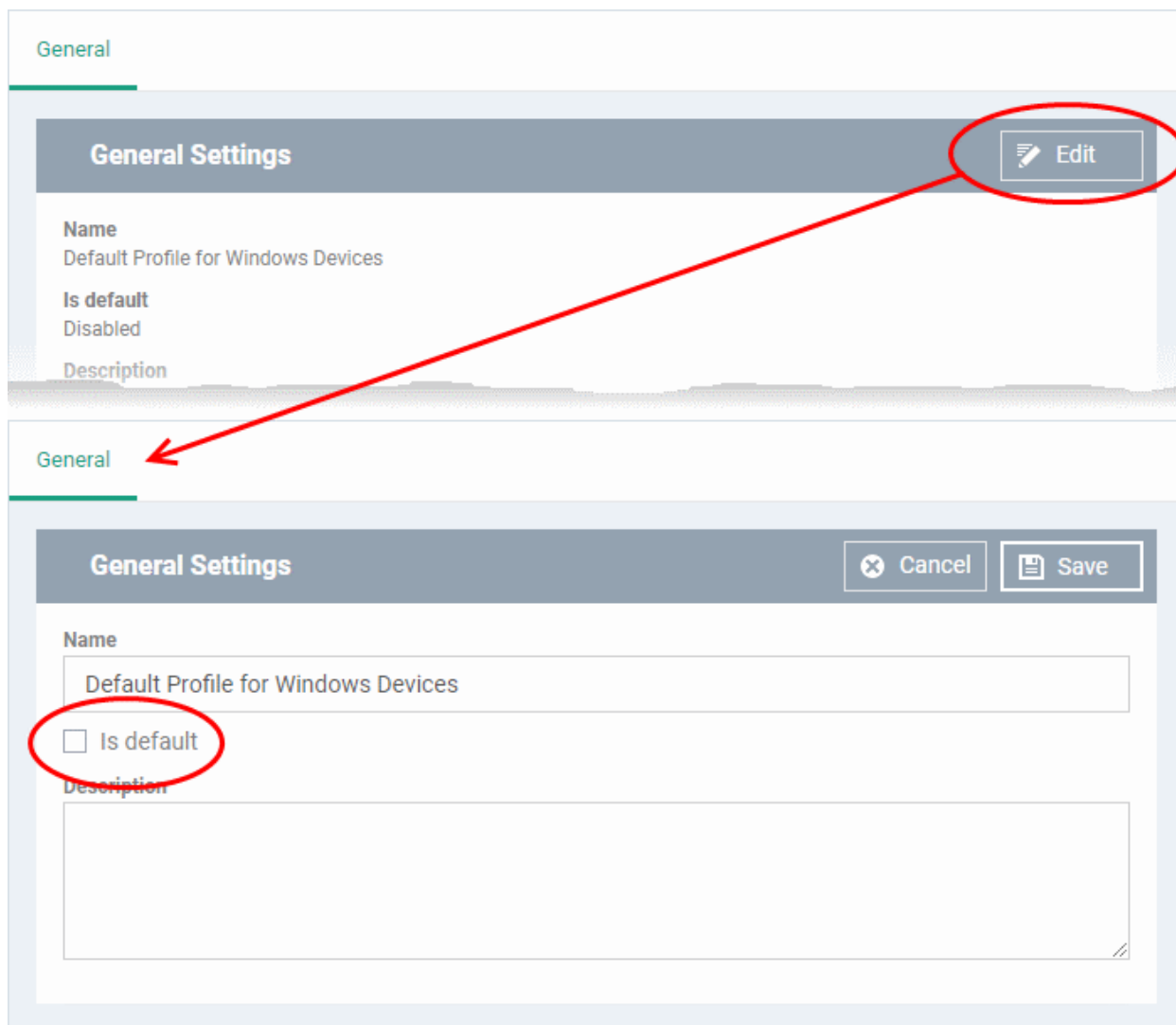
The screenshot shows the 'Profiles' section of the Endpoint Manager interface. The 'Create' button is circled in red. A dropdown menu is open, showing options for creating profiles for various operating systems. 'Create Windows Profile' is highlighted with a blue bar and a red circle. A red arrow points from this option to a modal dialog box titled 'Create Windows Profile'. The dialog box contains two text input fields: 'Name \*' with the value 'Default Profile for Windows Devices' and 'Description' with the value 'Description'. A blue 'Create' button is located at the bottom right of the dialog box.

CREATED BY	CREATED	UPDATED AT
Stores ...	herculespopular22@gmai...	2018/09/07 04:54:26 PM
		2018/09/10 10:...

- Enter a name and description for the profile
- Click the 'Create' button







The profile will open at the 'General Settings' screen.

- Click 'Edit' at the top right and enable 'Is Default':



- Click 'Save'.

The new profile will be listed in the 'Default Profiles' area:

OS	NAME	CREATED BY	UPDATED AT
	Default Profile for Windows Devices	herculespopular22@gmail.com	2018/09/11 01:05:28 PM
	Linux - Security Level 1 Profile for I...	Dyanora	Not updated
	Windows - Security Level 1 Profile ...	admin	Not updated
	macOS - Security Level 1 Profile fo...	admin	Not updated
	Android - Security Level 1 Profile f...	admin	Not updated
	iOS - Security Level 1 Profile for IT...	admin	Not updated

You can edit the profile and add profile components (sections) as required. See [Edit Configuration Profiles](#) for more details.

## Turn an existing profile into a default profile

- Click 'Configuration Templates' > 'Profiles'
- Click the 'Profiles' tab
- Click the name of the profile that you want to set as a default:

The screenshot shows the 'Profiles' management interface. At the top, there are tabs for 'Profiles' and 'Default Profiles'. Below the tabs is a toolbar with icons for 'Create', 'Import', 'Export Profile', 'Clone Profile', 'Delete Profile', and 'Export'. A table lists several profiles with columns for 'OS', 'NAME', 'CREATED BY', 'CREATED', and 'UPDATED AT'. The profile 'Profile for New Linux De...' is highlighted with a red circle, and a red arrow points from it to the 'Make Default' button in the profile details view below. The 'Make Default' button is also circled in red. The profile details view shows tabs for 'General', 'Antivirus', and 'Client Access control'. Under the 'General' tab, there is a 'General Settings' section with an 'Edit' button. The settings include 'Name' (Profile for New Linux Devices), 'Is default' (Disabled), and 'Description'.

<input type="checkbox"/>	OS	NAME	CREATED BY	CREATED	UPDATED AT
<input checked="" type="checkbox"/>	Linux	Profile for New Linux De...	herculespopular22@gmail...	2018/09/11 01:40:53 PM	2018/09/11 01:40:53 PM
<input type="checkbox"/>	Windows	Default Profile for Wind...	herculespopular22@gmail...	2018/09/11 12:59:06 PM	2018/09/11 12:59:06 PM
<input type="checkbox"/>	Linux	Linux Profile for Stores ...	herculespopular22@gmail...	2018/09/07 04:54:26 PM	2018/09/07 04:54:26 PM

- Click the 'Make Default' button in the profile details screen.
- Or
- Click the 'Edit' button then enable 'Is Default'
- Click 'Save'.

The profile will be listed in the 'Default Profiles' screen:

OS	NAME	CREATED BY	UPDATED AT
Linux	Profile for New Linux Devices	herculespopular22@gmail.com	2018/09/11 02:02:04 PM
Windows	Default Profile for Windows Devices	herculespopular22@gmail.com	2018/09/11 01:05:28 PM
Linux	Linux - Security Level 1 Profile for IT...	Dyanora	Not updated
Windows	Windows - Security Level 1 Profile fo...	admin	Not updated
macOS	macOS - Security Level 1 Profile for I...	admin	Not updated

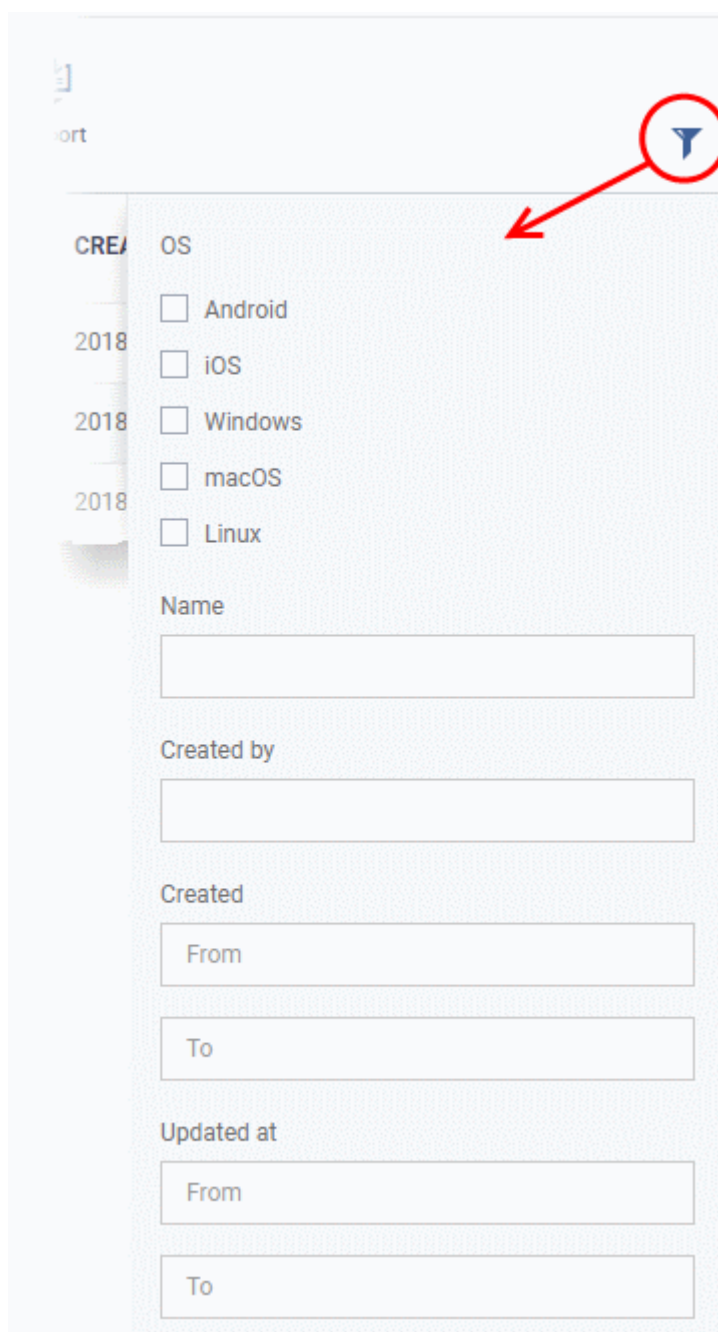
## The 'Default Profiles' interface

OS	NAME	CREATED BY	UPDATED AT
Linux	Linux - Security Level 1 Profile v...	admin	Not updated
Windows	Windows - Security Level 1 Pro...	admin	Not updated
macOS	macOS - Security Level 1 Profil...	admin	Not updated
Android	Android - Security Level 1 Profil...	admin	Not updated
iOS	iOS - Security Level 1 Profile v.6...	admin	Not updated

Default Profiles - Column Descriptions	
Column Heading	Description
OS	The operating system of the devices to which the profile is applied.
Name	The label of the profile <ul style="list-style-type: none"> <li>Click the profile name to open its details interface. This area lets you view and edit profile settings.</li> <li>See <b>Edit Configuration Profiles</b> for help with this.</li> </ul>
Created by	The admin who created the profile.

	<ul style="list-style-type: none"> <li>Click the admin name to view their details. See <b>View the details of the User</b> if you want help with the user details screen.</li> </ul>
Updated at	Date and time the profile was most recently edited.

- Click any column header to sort items in ascending/descending order of the entries in that column.
- Click the funnel icon to filter by OS, profile name, author or date:



### Assign default profiles to devices

- New devices are automatically given the default profiles for their operating system IF there are no user/user group profiles for the device owner.
- Conversely, if you remove all user/user-group profiles from a device, then the default profiles are automatically deployed to take their place.

## Cancel default profiles

- You can cancel the default status of built-in profiles so they are not applied to new devices on enrollment. They will also be removed from any existing devices.
- For devices with no profiles applied, you can carry out on-demand functions such as run antivirus scans, run a procedure and so on. For Windows devices with CCS installed, when there are no profiles applied, the default CCS settings will apply.
- To open the default profiles screen, click 'Configuration Templates' > 'Profiles' on the left then choose the 'Default Profiles' tab.

The screenshot displays the 'Default Profiles' management interface. At the top, there are navigation tabs for 'Profiles' and 'Default Profiles'. Below this is a toolbar with icons for 'Create', 'Import', 'Export Profile', 'Clone Profile', 'Delete Profile', and 'Export'. A table lists the default profiles with columns for 'OS', 'NAME', 'CREATED BY', 'CREATED', and 'UPDATED AT'. The first row is 'Default Profile for Windows' and the second is 'Mac OS Profile for St...'. A red circle highlights the name of the Windows profile, and a red arrow points from it to the 'Cancel Default' button in the profile's action bar. Below the table, the 'Default Profile for Windows' configuration page is shown, featuring an 'Add Profile Section' button and buttons for 'Export Profile', 'Clone Profile', 'Delete Profile', and 'Cancel Default'. The 'Cancel Default' button is circled in red. Underneath, the 'General' settings are displayed, including a 'General Settings' header with an 'Edit' button, and fields for 'Name' (Default Profile for Windows) and 'Is default' (Enabled).

- Click the name of the default profile from the list
  - Click 'Cancel Default' button at the top
- Or
- Click 'Edit' on the right, deselect 'Is Default' check box and click 'Save'

The 'Edit' button is not available for built-in default profiles. You can remove default status only by clicking the 'Cancel Default' button at the top.

### Notes:

- It is mandatory to have at least one default profile for each operating system.

- You cannot cancel a default profile if it is the only default available for an OS.
  - Workaround - Assign a different profile as a default, then go back and cancel the first profile.

## Export the list of Default Profiles to a CSV file

You can export the list of default profiles to a comma-separated values (CSV) file as follows:

- Click the 'Export' button above the table then choose 'Export to CSV':

Profiles		Default Profiles	
<div style="border: 1px solid #ccc; padding: 2px;"> <span>Export</span> </div>			
<div style="background-color: #2c5e8c; color: white; padding: 2px;"> <span>Export to CSV</span> </div>		CREATED BY	UPDATED AT
	Default Profile for Windows	coyoteewile@yahoo.com	2018/07/17 04:48:28 PM
	Windows - Security Level 1 Profil...	admin	2018/07/17 04:34:11 PM
	macOS - Security Level 1 Profile f...	admin	Not updated
	iOS - Security Level 1 Profile for I...	admin	Not updated
	Android - Security Level 1 Profile ...	admin	Not updated

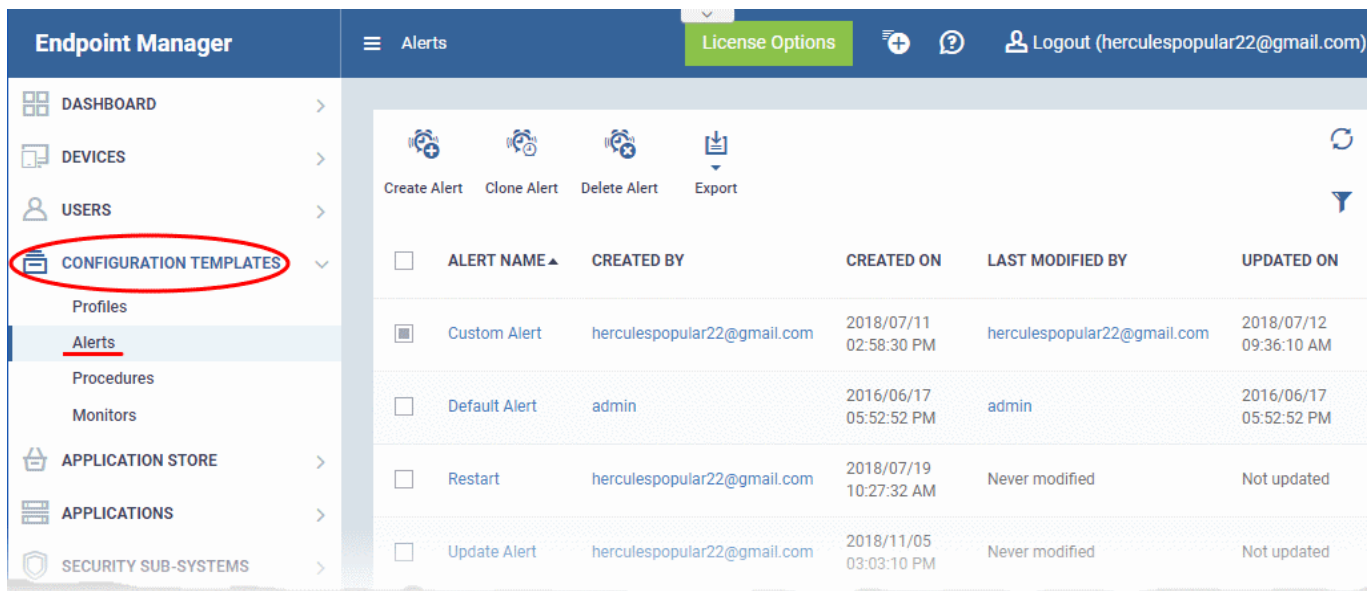
- The CSV file will be available in 'Dashboard' > 'Reports'
- See **Reports** in **The Dashboard** for more details.

## 6.5. Manage Alerts

- Click 'Configuration Templates' > 'Alerts' to view this interface.
- You can set procedures and monitors to generate an alert when their conditions are met. For example, 'Generate an alert if CPU usage exceeds 90%', or 'Alert me when all available Windows patches have been installed.'
- The alerts section contains templates of settings for those alerts. For example 'Send a notification to these recipients...', or 'Create a service desk ticket from this issue'.
- You apply the alert template to a procedure or a monitor. You can have multiple alert templates to address different types of events. For example, you might want the alert for a failed patch deployment to be different to the alert for a system restart.
- In the standard workflow, all procedures have the 'Default Alert' settings applied to them. Click 'Configuration Templates' > 'Alerts' > 'Default Alert' to view these settings.
- If you want different alert settings for a specific event then you must create a new alert in this interface. For example, you may want an alert to be sent to specific recipients, or certain metrics to be included in the alert.
- Example. Click 'Procedures' > 'Predefined Procedures' > 'Monitors' > 'Alert if a new scheduled Task is Created'. You will notice the 'Default Alert' is used if the procedure fails. If you want to implement different alert settings then:
  - Click 'Clone' to make a copy of the procedure. The procedure will be saved in the 'My Procedures' section as '[cloned] Alert if a new scheduled task is created'.



- Go to the alerts section and click 'Create Alert'. Name the alert and configure its settings as required.
- Next, open your cloned procedure and click 'Edit'. Type the name of the alert settings you want to use in the 'Use alert settings...' field. Click 'Save'.
- You can also specify that your new alert settings are used in the 'Monitoring' section of a profile.



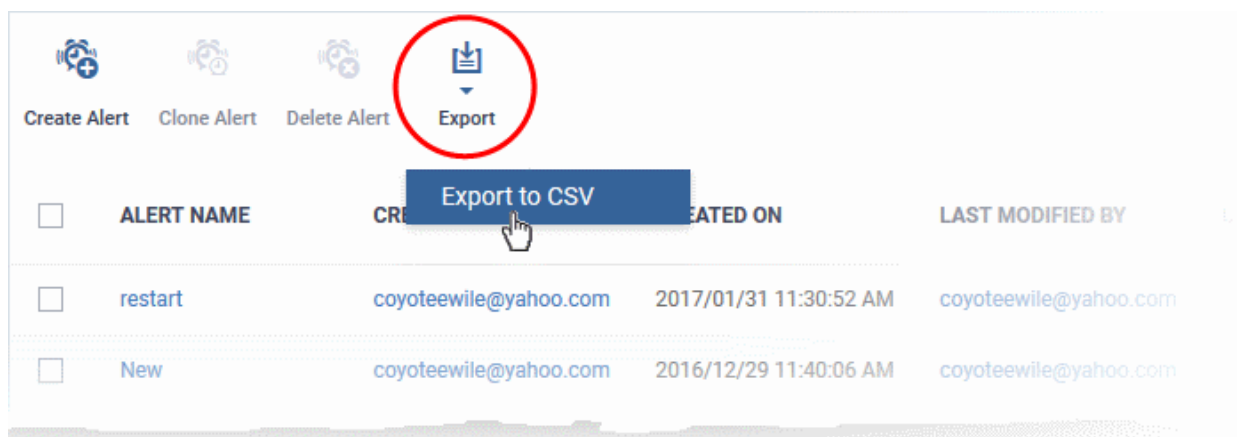
Alerts - Column Descriptions	
Column Heading	Description
Alert Name	Label of the alert. <ul style="list-style-type: none"> <li>• Click the alert name to open the alert configuration interface. See <b>Edit / Delete an Alert</b> for more details.</li> </ul>
Created by	The administrator who created the alert. <ul style="list-style-type: none"> <li>• Click the name of an administrator to view their user details. See <b>View the details of the User</b> for more details.</li> </ul>
Created on	The date and time at which the profile was created.
Last Modified by	The administrator who recently edited the alert. <ul style="list-style-type: none"> <li>• Click the name of an administrator to view their user details. See <b>View the details of the User</b> for more details.</li> </ul>
Updated on	The date and time at which the alert was last updated.
Controls	
Create Alert	Add a new alert. See <b>'Create a New Alert'</b> for more details.
Clone Alert	Create a new alert by cloning an existing alert and modifying its settings as required. See <b>'Create a New Alert'</b> for more details.
Delete Alert	Remove selected alert(s). The control will appear only if one or more alerts are selected. See <b>Edit / Delete an Alert</b> for more details.
Export	Save the list of alerts as a comma separated values (CSV) file. See <b>Export the List of</b>

[Alerts](#) for more details.

## Export the List of Alerts

Export the list of alerts to a .csv file as follows:

- Click 'Configuration Templates' on the left then choose 'Alerts'.
- Click the 'Export' button above the table then choose 'Export to CSV':



- The CSV file will be available in 'Dashboard' > 'Reports'
- See [Reports](#) in [The Dashboard](#) for more details.

## Sorting, Search and Filter Options

- Click on any of the column headers to sort the items in ascending/descending order of entries in that column.
- Click the funnel icon to search for alerts based on the filter parameters

The screenshot shows a filter dialog box with the following fields:

- Alert name:** A text input field.
- Created by:** A text input field.
- Created on:** Two date pickers labeled 'Start' and 'End'.
- Last modified by:** A text input field.
- Updated on:** Two date pickers labeled 'Start' and 'End'.

A red circle highlights a funnel icon in the top right corner, with a red arrow pointing to the 'Alert name' field.

- To filter the alerts based on name, author and admin who last edited the alert, enter the text partially or fully in the respective fields and click the 'Apply' button.
- To filter the alerts based on the period at which they were created or last modified, enter the date range in the specified fields, and click the 'Apply' button.
- You can use these filters in combination to search for specific alert.

Alerts which match the search parameters will be displayed in the screen.

- To display all alerts again, clear all filters and click the 'Apply' button.
- Click the funnel icon again to close filter options

Click the following links for more details:

- [Create a new alert](#)
- [Edit / delete an alert](#)

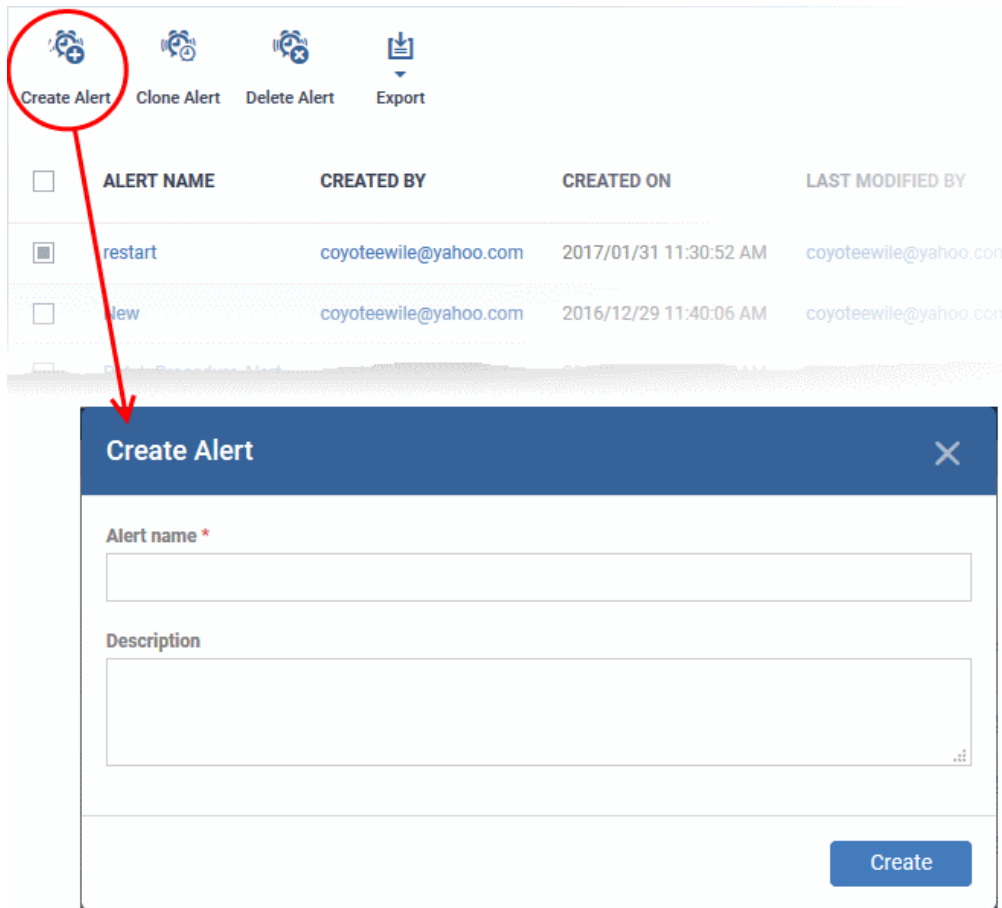
## 6.5.1. Create a New Alert

Alerts can be created in two ways:

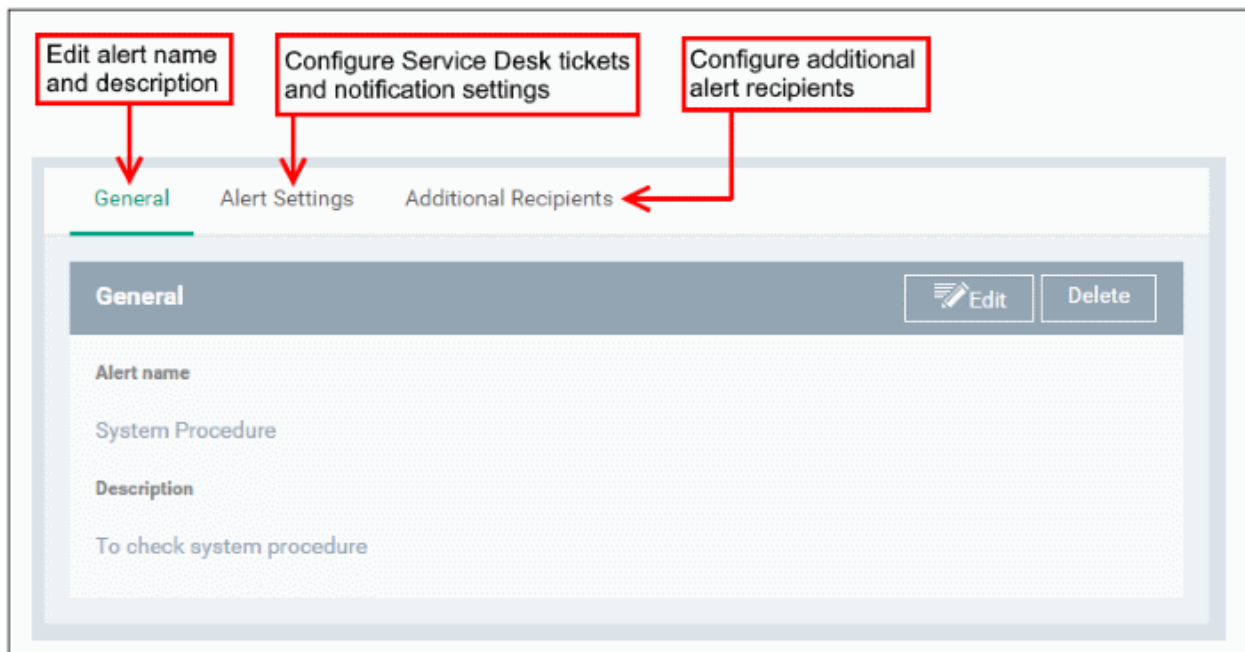
- [Create new alert](#)
- [Clone an existing alert and edit its configuration as required](#)

**To create a new alert**

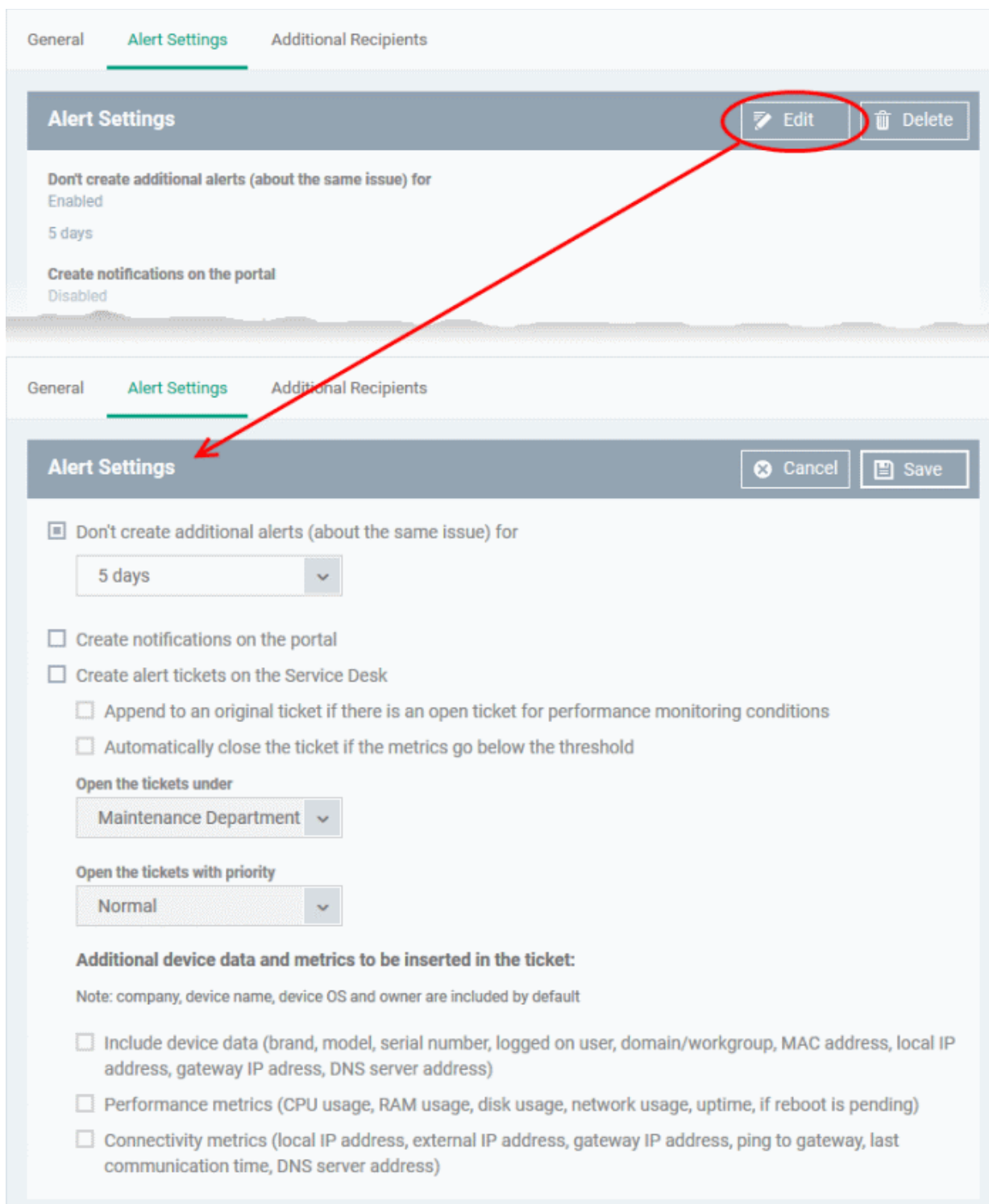
- Click 'Configuration Templates' > 'Alerts'
- Click 'Create Alert'



- Enter a name and description for your alert and click 'Create'
- After saving, you will be taken to the alert configuration screen. The 'General' section allows you to modify basic settings:



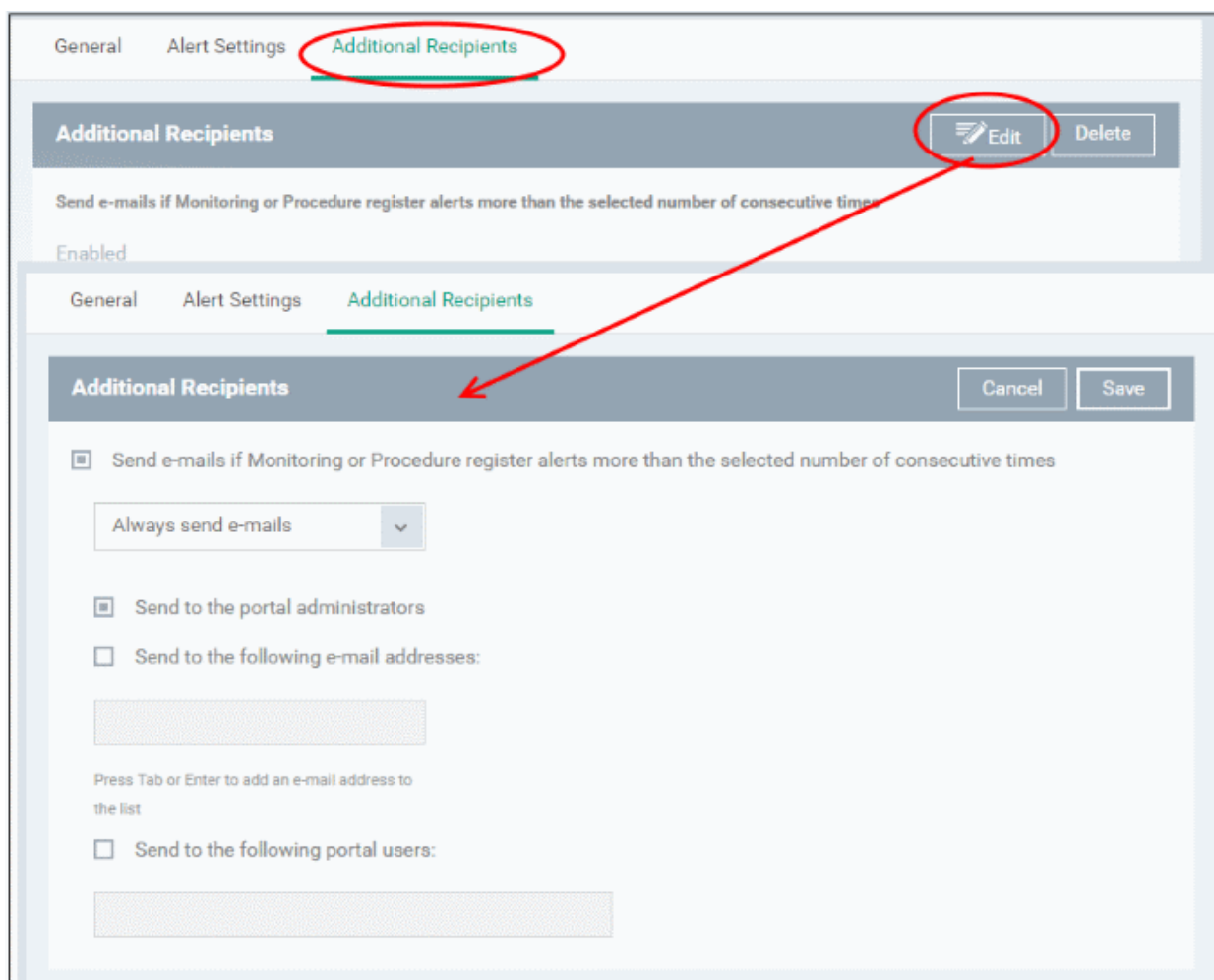
- To configure alert settings, click 'Alert Settings' tab and then 'Edit'



- **Don't create additional alerts (about the same issue) for** - Determines whether additional alerts should be generated if same issue occurs within the specified period. The field below this allows you to select the period which ranges from 5 minutes to 5 days. By default, this is selected with a specified period of 5 days.
- **Create notifications on the portal** - Alerts will be generated and displayed on the **Notifications** screen.
- **Create alert tickets on the Service Desk** - If enabled, tickets will be raised automatically on Service Desk application and allotted to specified departments.
  - **Append to an original ticket if there is an open ticket for performance monitoring conditions** - Determines whether a new ticket should be raised for an issue even if a ticket is open for the

same issue in Service Desk.

- **Automatically close the ticket if the metrics go below the threshold** - Determines whether the open tickets for an issue should be closed automatically if the monitoring parameter goes below the set threshold.
- **Open the tickets under** - Select the the department from the drop-down to which the tickets should be allotted.
- **Open the tickets with priority** - Select the ticket priority, whether normal, high or critical from the drop-down.
- **Additional device data and metrics to be inserted in the ticket** - By default, the name of the company, device type, device OS and the owner information are included in the ticket. To add additional device data and metrics to the ticket, select the respective options.
  - **Device Data** - Adds device information like brand, model. IP address and so on
  - **Performance Metrics** - Adds device performance information like CPU usage, RAM usage, disk usage, network usage and more
  - **Connectivity Metrics** - Adds information on network to which the device is connected, like local IP address, external IP address, gateway IP address and more
- To configure 'Additional Recipients' settings, click 'Additional Recipients' tab and then 'Edit'.



- **Send e-mails if Monitoring or Procedure register alerts more than the selected number of consecutive times** - Determines when email alerts should be sent for an issue. For example, if you select 5 from the drop-down, email alert will be sent only if the same issue is generated 5 consecutive times.

- **Send to the portal administrators** - Emails alerts will be sent to users with 'Administrative' roles.
  - **Send to the following e-mail addresses** - Allows you to add external recipients. Enter the email address and press either 'Tab' or 'Enter' button. You can add multiple recipients. To remove a recipient, click the 'X' beside the recipient.
  - **Send to the following portal users** - Allows you to add users with 'User' roles. Type the username fully or partly and select from the list. You can add multiple users. To remove a user, click the 'X' beside the name.
- Click 'Save' to apply your changes. The alert will be created and displayed in the list. The alerts will be available for selection in the **Procedure** section and while configuring **Monitor Settings** for a Windows profile.

## To create an alert by cloning an existing alert

- Click 'Configuration Templates' > 'Alerts'
- Click on the name of the alert you want to clone.

The alert configuration interface will open

- Click 'Clone Alert' from the top

Alternatively, select the alert from the 'Alerts' interface and click 'Clone Alert' at the top.

The screenshot shows the Alerts management interface. At the top, there are four buttons: 'Create Alert', 'Clone Alert', 'Delete Alert', and 'Export'. The 'Clone Alert' button is circled in red. Below the buttons is a table of alerts. The first row is highlighted, and its 'CPU Monitor' entry is also circled in red. A red arrow points from the 'Clone Alert' button to the 'Clone Alert' dialog box. The dialog box has a title bar 'Clone Alert' with a close button. It contains two input fields: 'Alert name \*' with the text '[cloned] CPU Monitor' and 'Description' which is empty. At the bottom right of the dialog is a blue 'Clone' button.

<input type="checkbox"/>	ALERT NAME	CREATED BY	CREATED ON	LAST MODIFIED BY
<input checked="" type="checkbox"/>	CPU Monitor	coyoteewile@yahoo.com	2018/07/19 12:12:48 PM	Never modified
<input type="checkbox"/>	restart	coyoteewile@yahoo.com	2017/01/31 11:30:52 AM	coyoteewile@yahoo.com

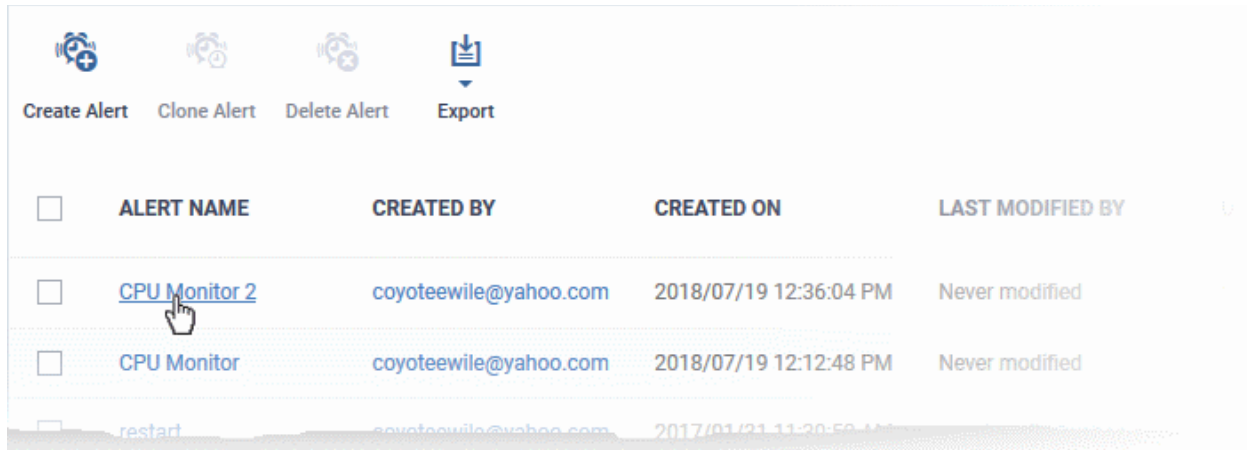
The 'Clone Alert' dialog will open. The name of the new alert will be the same as the source alert with the prefix [cloned].

- If required, enter a new name for the alert and a short description
- Click 'Clone'.



A new alert will be created with configuration parameters identical to the source alert and added to the list.

- Click the name of the alert



<input type="checkbox"/>	ALERT NAME	CREATED BY	CREATED ON	LAST MODIFIED BY	
<input type="checkbox"/>	<a href="#">CPU Monitor 2</a>	coyoteewile@yahoo.com	2018/07/19 12:36:04 PM	Never modified	
<input type="checkbox"/>	CPU Monitor	coyoteewile@yahoo.com	2018/07/19 12:12:48 PM	Never modified	
<input type="checkbox"/>	restart	coyoteewile@yahoo.com	2017/01/21 11:20:59 AM		

The configuration screen for the alert will open with the settings identical to the source alert

- Edit the parameters as required. See the **explanation above** for more details
- Click 'Save' to save your changes

## 6.5.2. Edit / Delete an Alert

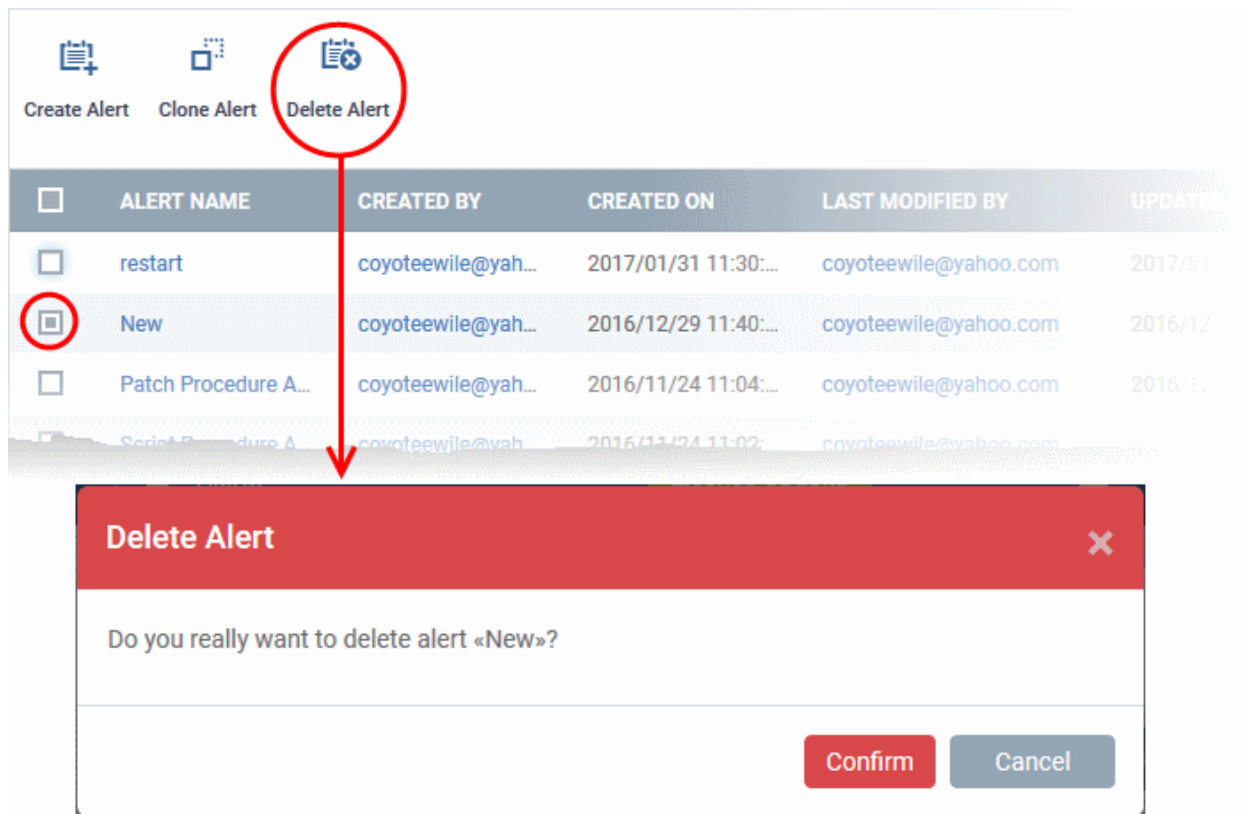
To edit an alert:

- Click 'Configuration Templates' > 'Alerts'
- Click the name of the alert you wish to modify
- Click the 'Edit' button on the right
- You can edit settings in the 'General', 'Alert Settings' and 'Additional Recipients' areas
- See '**Create a New Alert**' for more information on the settings in these areas
- Click 'Save' to apply your changes

Before deleting an alert, please consider whether it is currently being used on any **Procedures** or **Monitor Settings** for a Windows profile. Please also investigate whether the alert could be edited rather than deleted.

**To delete an alert:**

- Click 'Configuration Templates' > 'Alerts'
- Click the name of the alert you wish to delete
- Click the 'Delete' button on the right.
- Click 'Confirm' in the confirmation dialog:



## 6.6. Manage Procedures

- Click 'Configuration Templates' > 'Procedures'

Procedures are standalone instruction scripts and patches for Windows devices. Procedures can be run on an ad-hoc basis or added to a profile. You can create procedures to identify and fix issues, monitor resources, and run patches.

Features include:

- Select a predefined or custom procedure to execute on endpoint
- Easily modify procedure variables.
- Compose script instructions in Python
- Update Windows and third party apps with a patch procedure
- Combine procedures to build broader procedures.
- Show procedure results in the execution log as well as inside a particular device
- Import procedures from JSON.
- Export and clone procedures.
- Run procedures on demand by selecting 'Run Over Device'.
- Add predefined procedures to Windows device profiles and create schedules for them.

Please use the following links to learn more about procedures:

- [View and Manage Procedures](#)
- [Create a Custom Procedure](#)
- [Combine Procedures to Build Broader Procedures](#)
- [Review / Approve / Decline New procedures](#)

- **Add a Procedure to a Profile / Procedure Schedules**
- **Import / Export / Clone Procedures**
- **Change Alert Settings**
- **Directly Apply Procedures to Devices**
- **Edit / Delete Procedures**
- **View Procedure Results**

## 6.6.1. View and Manage Procedures

- Click 'Configuration Templates' > 'Procedures' to open the procedures interface.

There are two categories of procedures:

1. 'Predefined Procedures'- two types: 'Script' and 'Patch' procedures
2. 'My Procedures' - custom procedures that you create.

Predefined procedures cannot be edited. However, you can clone a procedure and modify it to create a custom procedure. See **Create a Custom Procedure** for help with this.

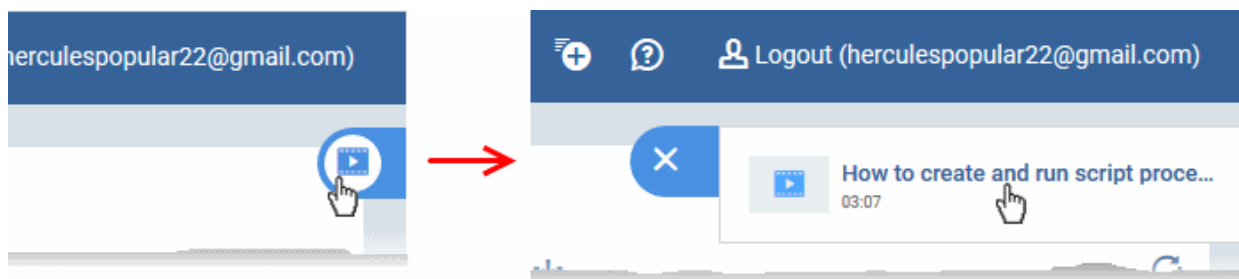
- The following folders contain scripts to execute many useful tasks - 'Application', 'System', 'File Operations', 'Task Scheduler', 'Reports', 'Monitors', 'Network' and 'User Accounts'.
- The 'Patch Deployment' folder contains procedures to install Windows OS patches onto Windows endpoints.

The screenshot shows the Endpoint Manager interface. The left sidebar contains a navigation menu with 'CONFIGURATION TEMPLATES' circled in red. The main content area is titled 'Procedures' and features a search bar, a folder tree, and a table of predefined procedures.

PROCEDURE NAME	TYPE	STATUS	CONTENT TYPE	CREATED BY	CREATED ON
Enroll Comodo Dom...	Predefined	Approved	Script		2018/07/06 0...
Backup and restore ...	Predefined	Approved	Script		2018/06/12 0...
Get customer enviro...	Predefined	Approved	Script		2018/04/27 0...
Generate CCS Virus ...	Predefined	Approved	Script		2018/04/27 0...
Collecting Remote ...	Predefined	Approved	Script		2018/04/27 0...
Install Cdome SSL c...	Predefined	Approved	Script		2018/04/27 0...

Procedures - Column Descriptions	
Column Heading	Description
Procedure Name	The procedure label. <ul style="list-style-type: none"> <li>Click the name of a procedure to view, edit review, schedule or approve/decline it. See <a href="#">Review / Approve / Decline New Procedures</a> and <a href="#">Edit / Delete Procedures</a> for more details.</li> </ul>
Type	Whether the procedure is a custom or a predefined procedure.
Status	The current status of the procedure. The possible statuses are: <ul style="list-style-type: none"> <li>Created</li> <li>Edited</li> <li>Ready to review</li> <li>Approved</li> <li>Declined</li> </ul>
Content Type	Whether the procedure is script procedure or patch procedure.
Created by	The administrator who created the custom procedure. <ul style="list-style-type: none"> <li>Click the admin name to view their details. See <a href="#">View User Details</a> if you need help with this.</li> </ul>
Created On	Date and time the procedure was created.
Last Modified By	The admin who most recently edited the procedure.
Updated On	Date and time the procedure was last edited.
Controls	
Create	Configure a new script or patch procedure. See <a href="#">'Create a Custom Procedure'</a> for help with this.
Import / Export / Clone	Import a saved procedure, export and save a procedure, and clone an existing procedure. Cloned procedures can be modified to create a new, custom procedure. See <a href="#">'Import / Export / Clone Procedure'</a> for more details.
Run	Execute a procedure on target Windows devices. See <a href="#">'Directly Apply Procedures to Devices'</a> for more details.
Delete Procedure	Remove procedures from Endpoint Manager. Use the check-boxes to select the procedures.
Export	Save the list of currently displayed procedures as a comma separated values (CSV) file. The exported .csv is available in 'Dashboard' > 'Reports' See <a href="#">Export the List of Procedures</a> for more details.

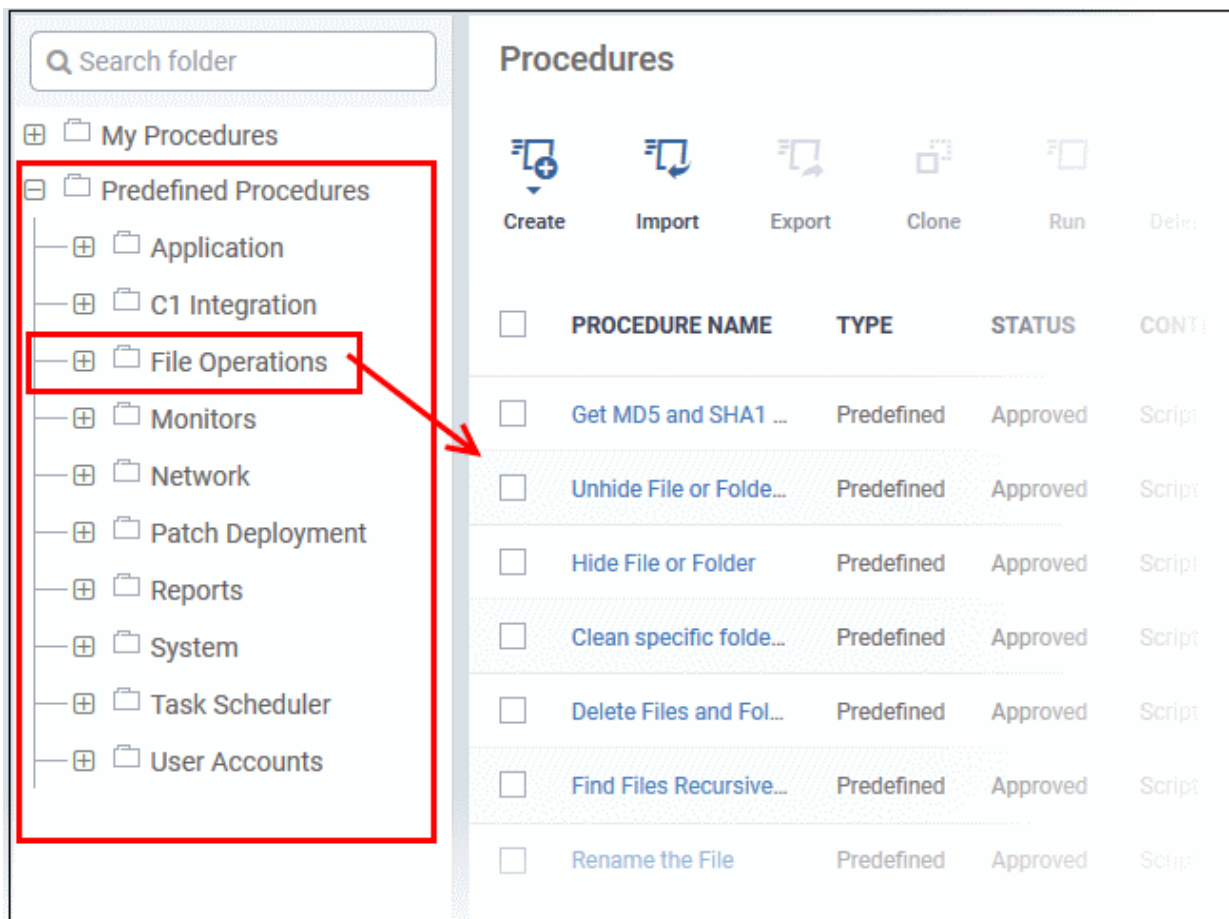
The slider at top-right contains links to help videos on procedures:



- Use the video guide to quickly learn about creating and running procedures.

### View sub-categories of 'Predefined Procedures':

- Click 'Configuration Templates' > 'Predefined Procedures'
- Click the 'Predefined Procedures' folder
- Open a category folder to view related procedures
- Procedures are shown on the right:



The following table lists all predefined categories and procedures:

Category	Procedures
Application	Scripts to run tasks on Comodo and 3rd party applications. Examples include install/uninstall applications, kill running applications, get details on running applications/processes/servers + many other useful scripts.
C1 Integration	Scripts to ensure your C1 or ITarian environment runs smoothly. Examples include generate a patch report, run a backup operation, and restart the

	communication client.
File Operations	Copy, move/delete files/folders, find and remove duplicate files, compress/decompress folders, clean up temporary files and downloaded files and more.
Monitors	Scripts to generate alerts or run specific tasks if a condition is met. For example, 'Alert when USB removable disk is connected to the system'. These can be used in the <b>monitor settings</b> of a Windows profile. See <b>Add Custom Monitoring Conditions</b> for more details.
Network	Scripts to run tasks on, or get information about, your network. For example, view TCP/IP settings, save/restore network configurations, clear DNS cache and more
Patch Deployment	Installation and update of OS patches of different categories.
Reports	Contains procedures for obtaining various system logs.
System	Reboot devices, create restore point, enable/disable USB ports, mapping network drives, running disk defragmentation, fixing disk errors and more.
Task Scheduler	Create new tasks and schedule them, run tasks and more.
User Accounts	Add/remove domain user to a group, enable/disable user access control (UAC), get UAC status and more.

Any predefined procedure can be cloned and edited to create a custom procedure. See the following sections for more details.

- **Import / Export / Clone Procedures**
- **Edit Procedures**
- **Add a Procedure to a Profile / Procedure Schedules**

### To view 'My Procedures':

- Click 'Configuration Templates' > 'Procedures'. Expand the 'My Procedures' folder. Each folder has sub-folders which display procedures under specific categories (for example, 'Ready for review').

The screenshot shows the 'Procedures' management interface. On the left, a navigation pane lists folders under 'My Procedures', with 'Ready for Review' circled in red. The main content area displays a table of procedures with the following data:

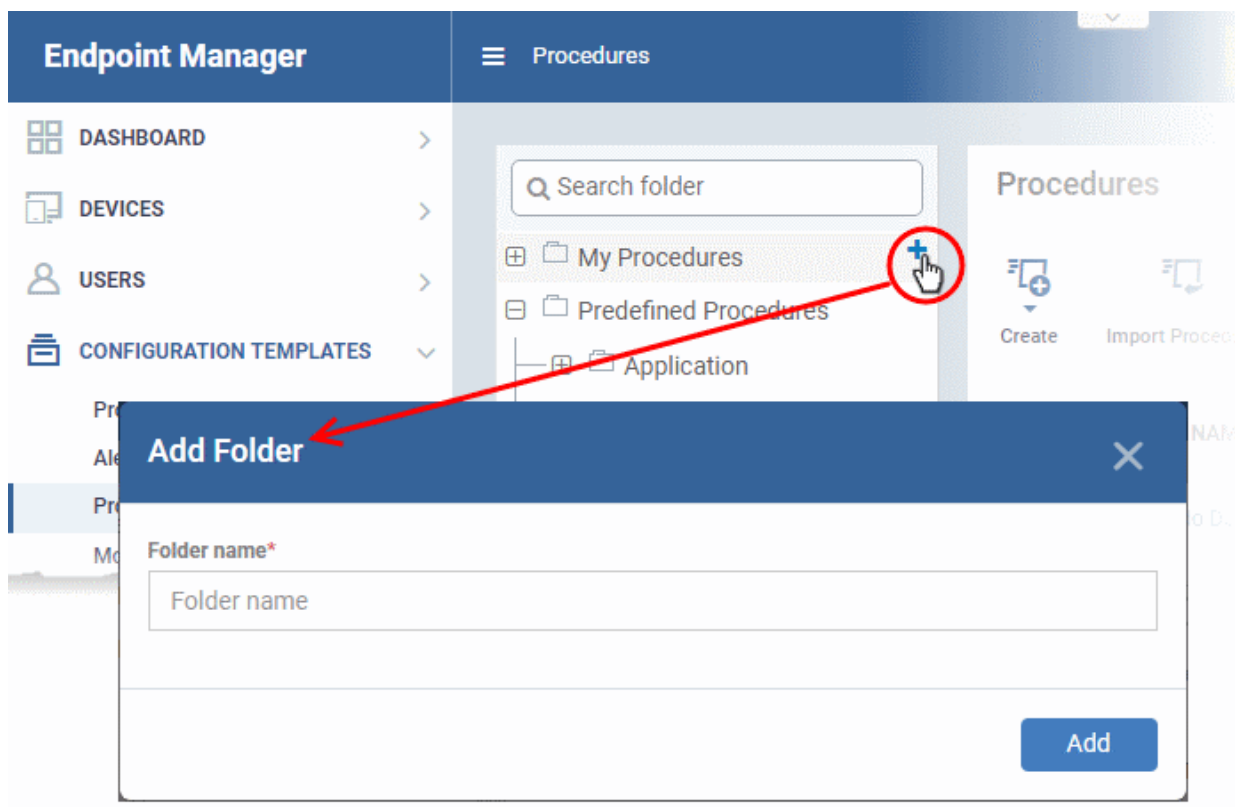
PROCEDURE NAME	TYPE	STATUS	CONTENT TYPE	CREATED BY	CREATED ON	LAST MODIFIED
Finance Dept Script	Custom	Created	Script	coyoteewile...	Feb 8, 2017	User removed
Script Approve teest	Custom	Declined	Script	coyoteewile...	Nov 24, 2016	coyoteewile@y...
New	Custom	Created	Script	coyoteewile...	Aug 24, 2016	User removed
Windows event log viewer	Custom	Edited	Script	coyoteewile...	Aug 24, 2016	coyoteewile@y...
Test2	Custom	Ready to review	Script	coyoteewile...	Aug 23, 2016	coyoteewile@y...

At the bottom of the table, there is a 'Results per page' dropdown set to 20.

### To add a sub folder to the My Procedures folder:

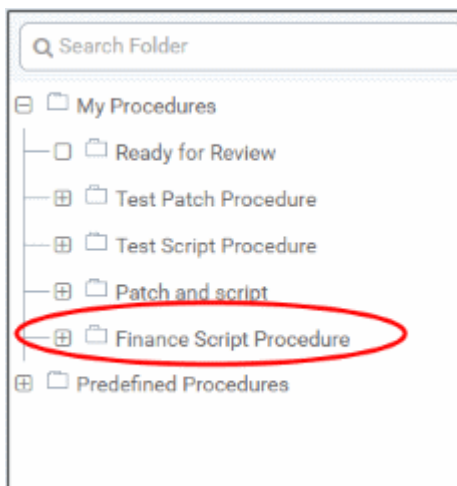


- Place your mouse on the 'My Procedures' folder and click '+' beside it



- Enter a name for the sub-folder to be created in the 'Add Folder' dialog and click 'Add'

The sub-folder will be created and displayed under 'My Procedures'



You can also add sub-folders of a sub-folder. Once sub folders are created, you can create new procedures inside them or import/clone predefined procedures.

See the following sections for more details about:

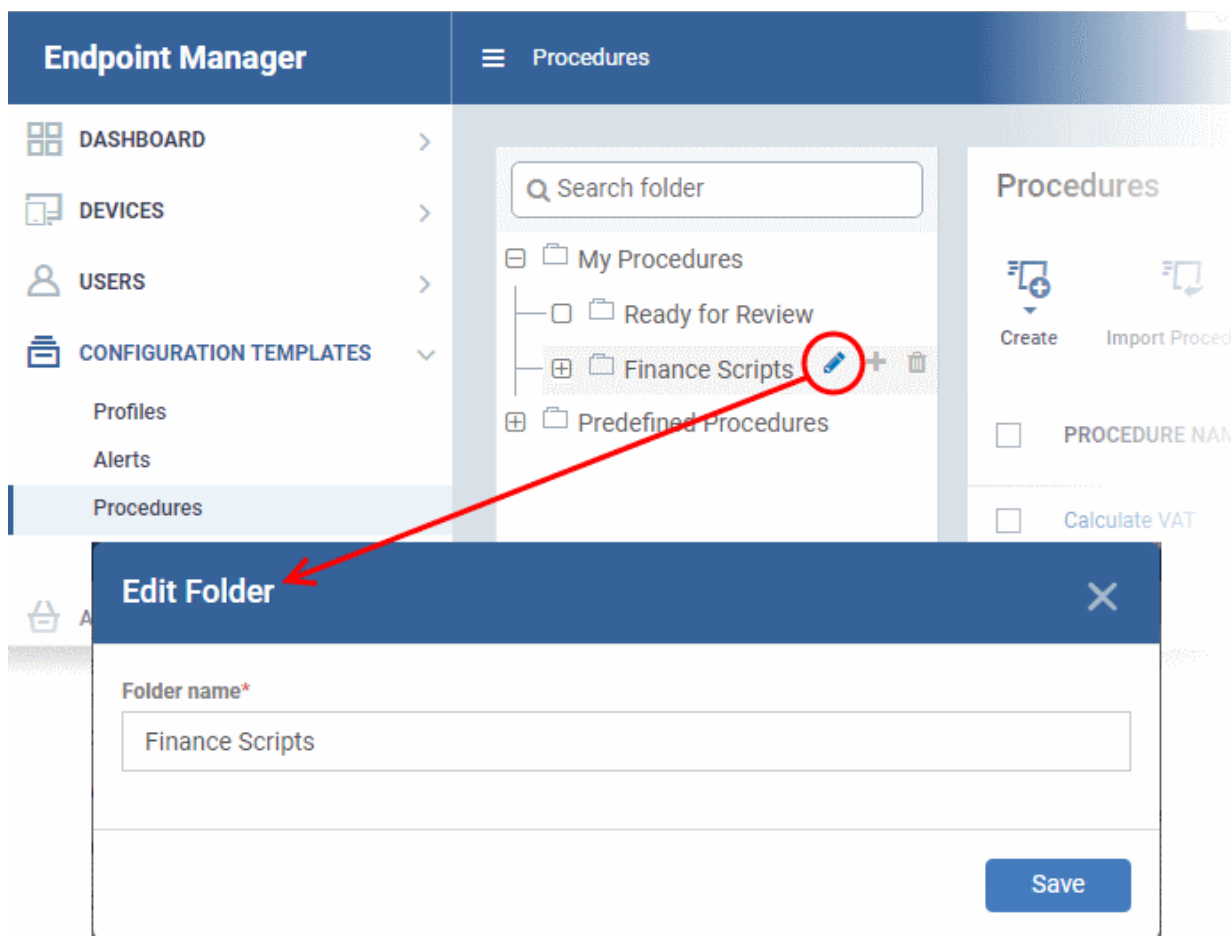
- [Create a new procedure](#)
- [Import / Export / Clone a procedure](#)
- [Edit a Procedures](#)

#### To edit the name of a sub folder under 'My Procedures'

- Place your mouse on the sub folder and click the pencil symbol beside it



- Enter a new name for the sub-folder in the 'Edit Folder' dialog and click 'Save'

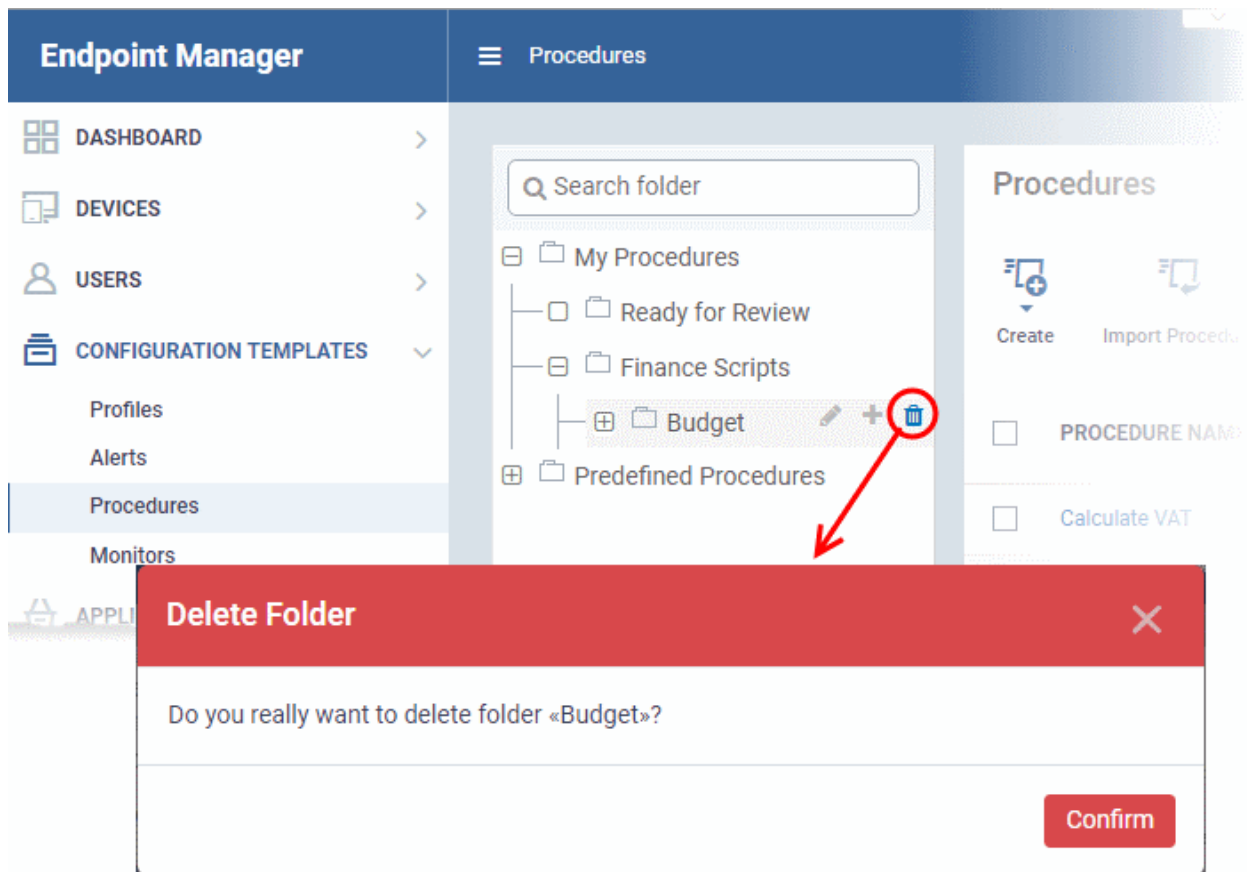


The folder name will be updated in folder tree.

**Note:** You cannot edit or delete the 'Ready for Review' folder.

#### To delete a sub folder under 'My Procedures' folder:

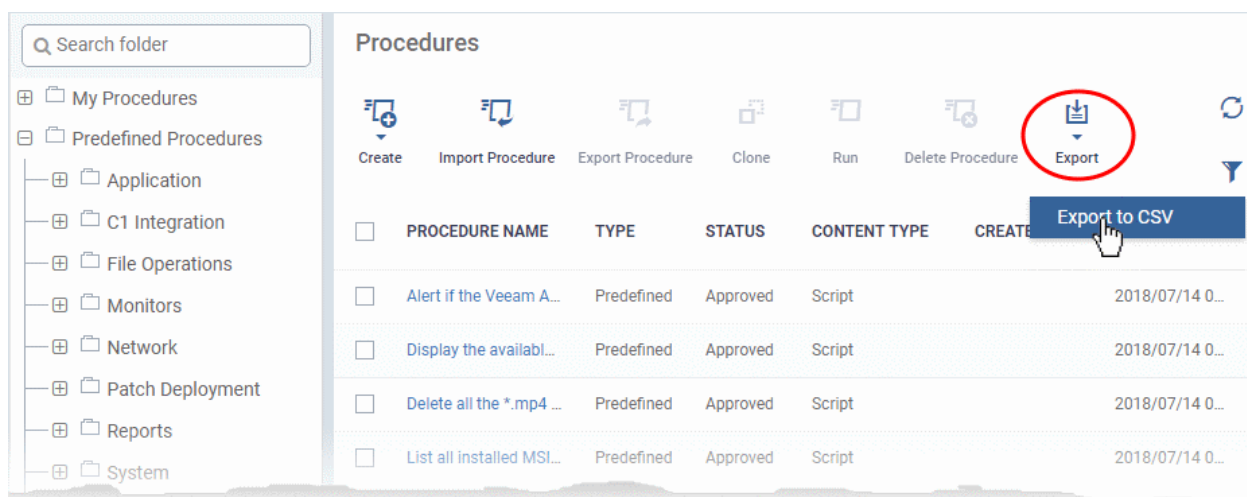
- Place your mouse on the sub folder and click the trash can symbol beside it



- Click 'Confirm' to update the tree.

## Export the Procedure List

- Click 'Configuration Templates' > 'Procedures'.
- Click 'My Procedures' or 'Predefined Procedures'
- Click the 'Export' button then choose 'Export to CSV':



- The CSV file will be available in 'Dashboard' > 'Reports'
- See **Reports** in **The Dashboard** for more details.

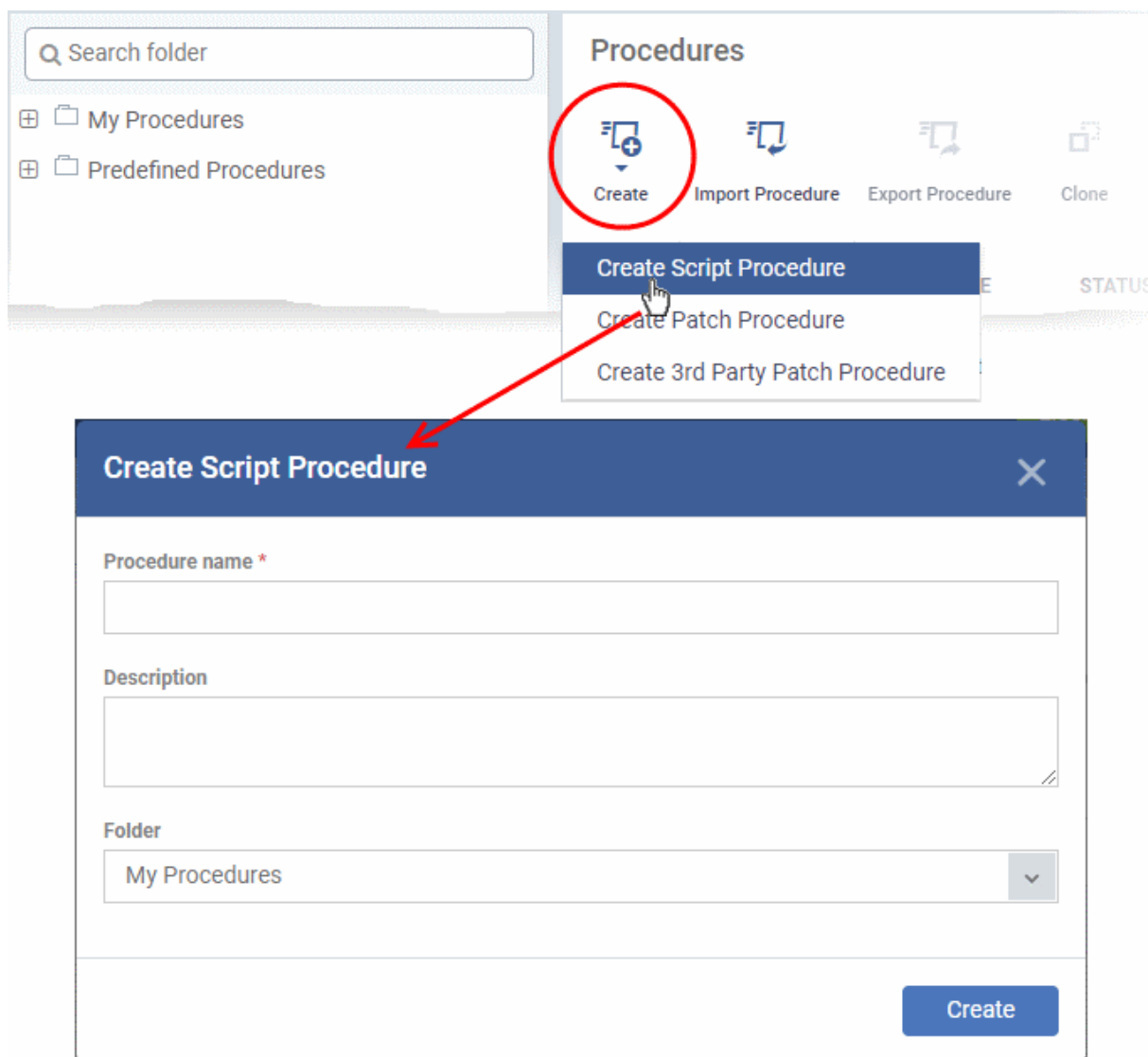
## 6.6.2. Create a Custom Procedure

Endpoint Manager lets you create custom script/patch procedures to achieve specific tasks. Click the following links to find out more:

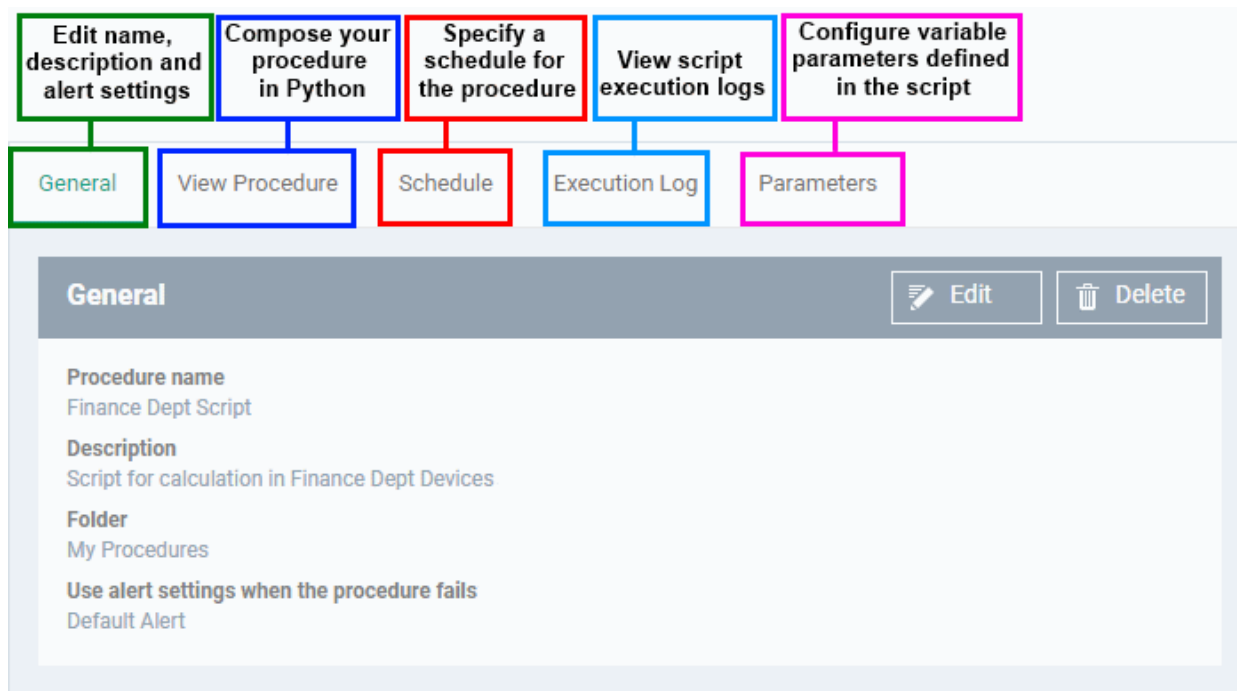
- [Create a custom script procedure](#)
- [Create a custom patch procedure](#)
- [Create a custom 3rd Party application patch procedure](#)

### To create a custom script procedure

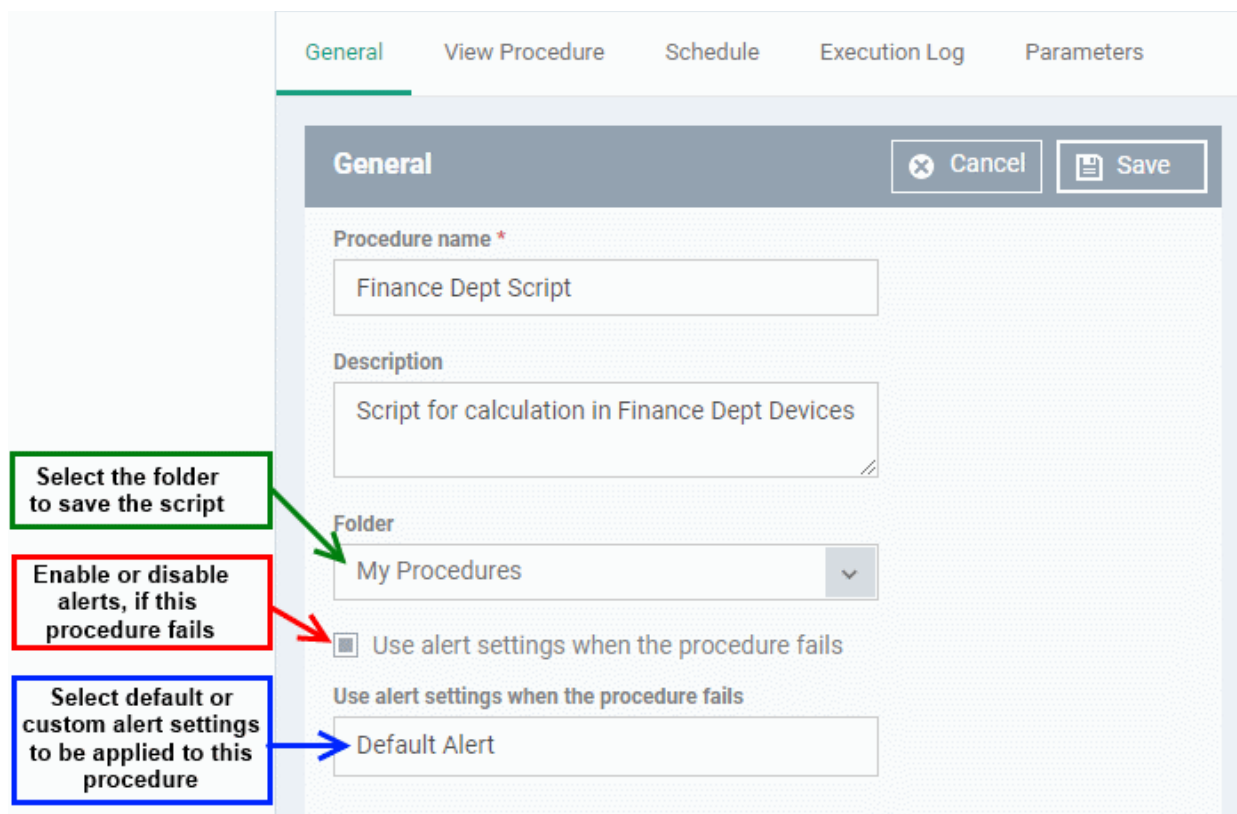
- Click 'Configuration Templates' > 'Procedures' > 'Create' > 'Create Script Procedure'



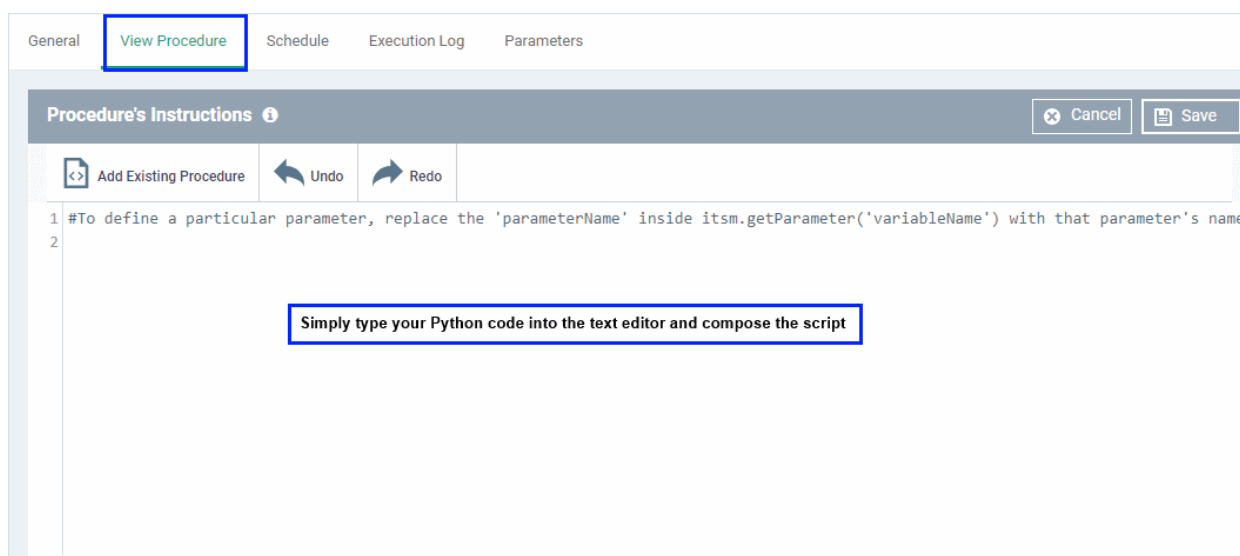
- Enter a name and description and specify the folder where it should be saved. If required, you can create new sub-folders under 'My Procedures' in the 'Procedures' area.
- After saving, you will be taken to the procedure configuration screen:



- Click 'Edit' to modify the basic settings:



- Default Alert - You can view the settings of the default alert in 'Configuration Templates' > 'Alerts'. You can create custom alert settings if required from this interface.
- Click 'Save' to save your settings.
- Click the 'View Procedure' tab followed by 'Edit' to define a Python script for your procedure. The built-in text editor lets you to compose your script:



- You can include variable parameters whose values are populated when the procedure runs.
- To define variable parameters in the script:
  - Click the 'View Procedure' tab followed by 'Edit'
  - In the text editor, type the parameter name and enter the value as `itsm.getParameter('parameter name')`. Examples:
    - `Age = itsm.getParameter('age')`
    - `Year = itsm.getParameter('year')`
  - The specified variables will become available in the 'Parameters' tab. You can define the type, label and default values for them.
  - Click the 'Parameters' tab after completing the script under the 'View Procedure' tab

An example is shown below:

Parameters ⓘ

Cancel Save

**age**

Type \*

Please choose type

This field shouldn't remain empty

EM Label \*

This field shouldn't remain empty

Default Value \*

**year**

Type \*

Please choose type

This field shouldn't remain empty

EM Label \*

This field shouldn't remain empty

Default Value \*

For each parameter you should configure the following:

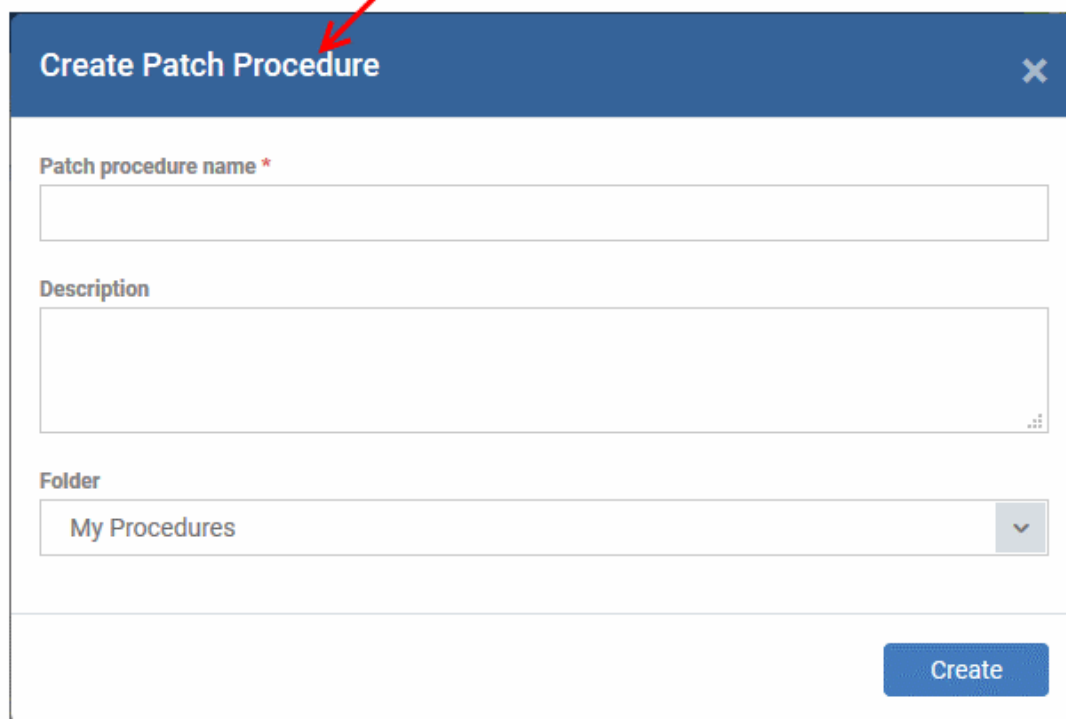
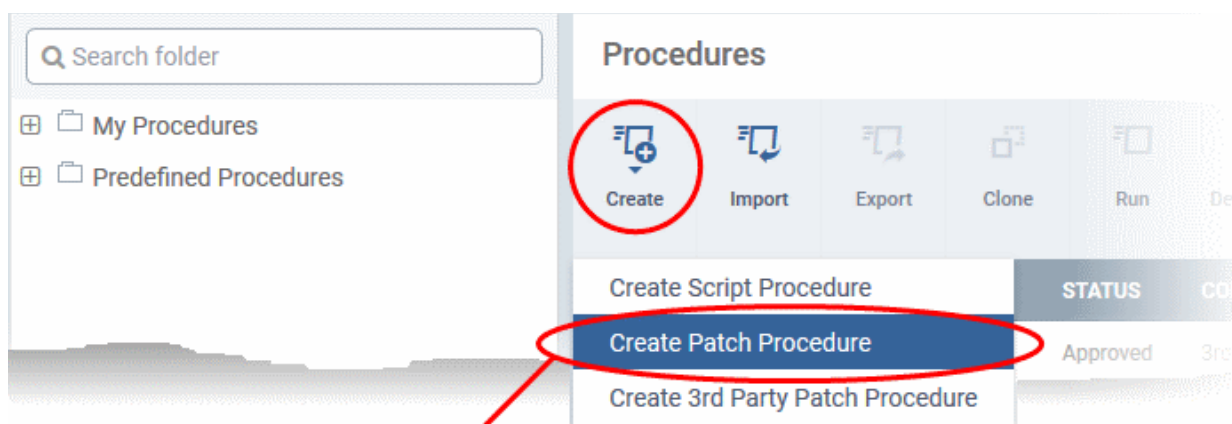
- **Type** - Choose the category of variable. The supported types are:
  - Integer
  - Double
  - String
  - List
- **EM Label** - Enter a name for the variable.
- **Default Value** - Enter a value for the parameter to be taken when no value is input during run-time
- Click 'Save' to save the script.
- After saving your script you need to **approve** it before it can be deployed in a profile.
- The 'Schedule' tab will be auto-populated once you deploy the procedure to a configuration profile and create a schedule for the procedure to run in the profile. Refer to the section **Add a Procedure to a**

**Profile / Procedure Schedules** for more details.

- The 'Execution Log' tab will be populated after the procedure has successfully run on end-points. You can view the history of execution of this procedure at anytime by selecting this procedure from the Procedures interface and clicking the 'Execution Log' tab.
- **Note 1.** Comodo runs a free script library at <https://scripts.comodo.com/> which contains Python scripts covering a wide range of tasks. Feel free to try any script that fits your needs. You can also use this site to request a new script for a particular task you think will be useful. You can contribute your own scripts to the MSP forum at <https://forum.mspconsortium.com/forum/script-library>
- **Note 2.** You can also use the Import and Clone features if you wish to create a new procedure using an existing procedure as a starting point

## To create a custom patch procedure

- Click 'Configuration Templates' > 'Procedures' > 'Create' > 'Create Patch Procedure'

A screenshot of the 'Create Patch Procedure' dialog box. It has a blue header with the title and a close button. Below the header are three input fields: 'Patch procedure name \*' (a text box), 'Description' (a larger text area), and 'Folder' (a dropdown menu currently showing 'My Procedures'). A blue 'Create' button is located at the bottom right of the dialog.

- Enter a name and description and specify the folder where it should be saved. If required, you can create new sub-folders under 'My Procedures' in the 'Procedures' area.
- After saving, you will be taken to the procedure configuration screen:



## Procedure Configuration

The screenshot shows the 'General' tab of the Procedure Configuration interface. At the top, there are five tabs: 'General', 'Execution Options', 'Restart Control', 'Schedule', and 'Execution Log'. The 'General' tab is active. The interface includes a 'Patch procedure name' field with the value 'Patch procedure for Finance Dept Computers', a 'Description' field with the value 'To apply patches to finance dept computers', a 'Folder' dropdown menu with the value '- Test Patch Procedure', a checkbox labeled 'Use alert settings when the procedure fails' which is checked, and a 'Default Alert' field with the value 'Default Alert'. There are 'Cancel' and 'Save' buttons at the top right of the form. Five red callout boxes with arrows point to specific elements: 'Edit the name, description and alert settings' points to the 'Patch procedure name' field; 'Configure patch options for the procedure' points to the 'Folder' dropdown; 'Configure restart options for the endpoint on execution of the procedure' points to the 'Restart Control' tab; 'View the schedule for the procedure to run' points to the 'Schedule' tab; 'View patch execution logs' points to the 'Execution Log' tab. On the left side, three more red callout boxes with arrows point to the 'Folder' dropdown, the 'Use alert settings when the procedure fails' checkbox, and the 'Default Alert' field, with the following text: 'Choose the sub-folder to which the procedure is to be added', 'Enable or disable alerts for failed attempts on running the procedure', and 'Click this field to choose an alert type' respectively.

- To configure patch options for your procedure, click the 'Execution Options' tab followed by the 'Edit' button. You can select the Microsoft software updates required for the procedure from the options.

General **Execution Options** Restart Control Schedule Execution Log

Execution Options Edit Delete

Critical updates

General **Execution Options** Restart Control Schedule Execution Log

Execution Options Cancel Save

**Choose Microsoft software updates to install:**

- Critical updates
- Definition updates
- Feature packs
- Updates
- Security updates

**Choose severity:**

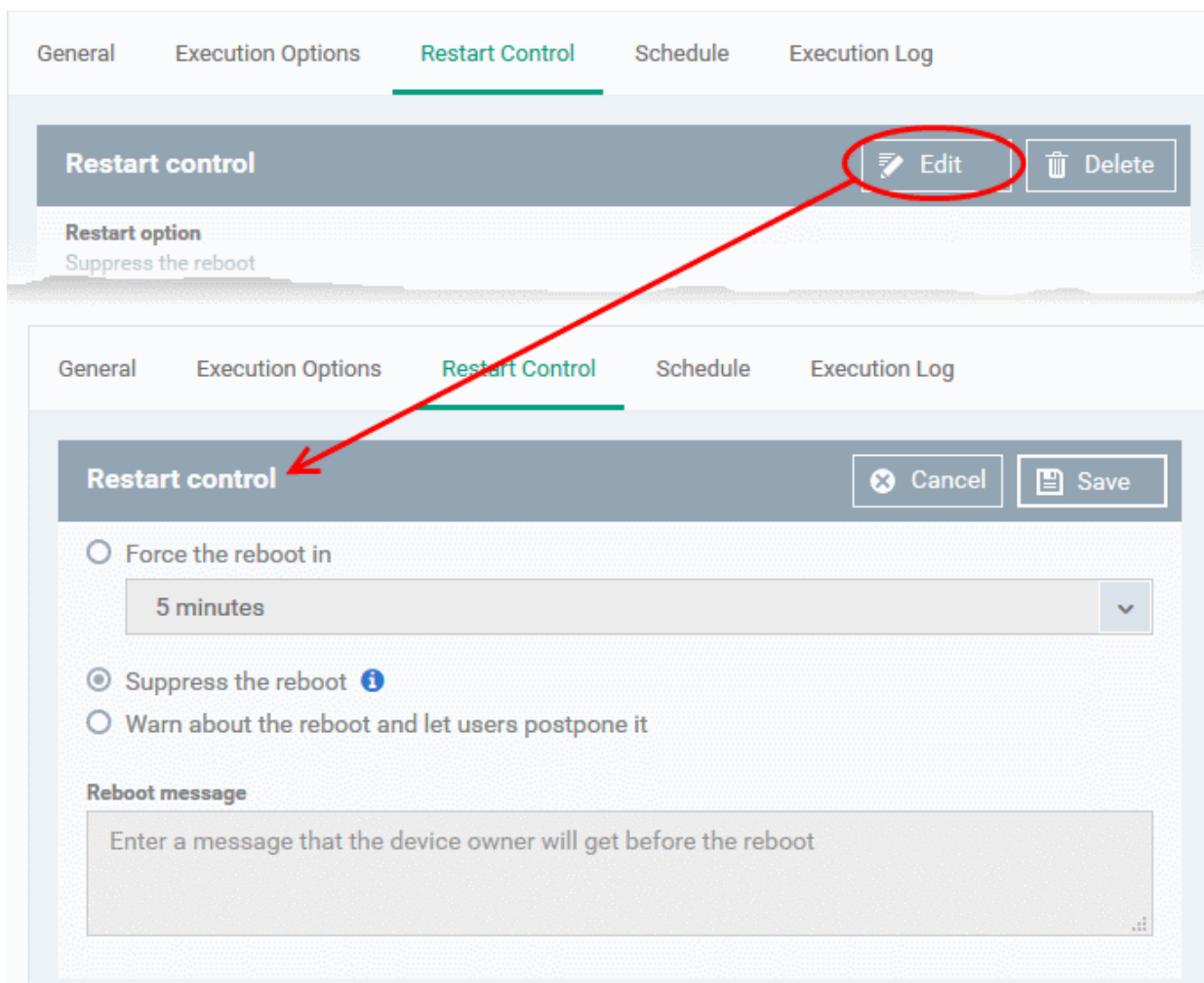
- Critical  Important  Moderate  Low  Unspecified

- Service packs
- Tools
- Update rollups
- Upgrades

[Read the definitions from Microsoft website](#)

Select the patch options for the procedure

- Click the link 'Read the definitions from Microsoft website' link to view patch details.
- Choose which types of patch the procedure should install and click 'Save'
- Click the 'Restart Control' tab followed by the 'Edit' button to configure restart options for the endpoint after the procedure has run successfully.

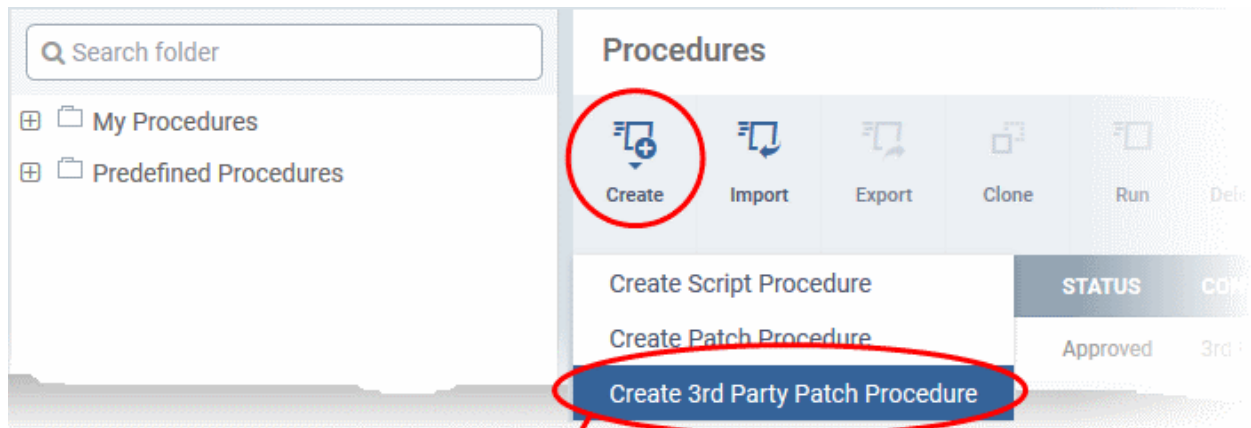


- You can choose to:
  - Continue the operation of the endpoint without restart by selecting 'Suppress the reboot'
  - Force restart the endpoint a certain period of time after the procedure has completed.  
OR
  - Display a warning to the user and let them postpone the restart. Type a message for the user if you choose this option.
- The 'Schedule' tab will be auto-populated once you add the procedure to a configuration profile and schedule its execution. See [Add a Procedure to a Profile / Procedure Schedules](#) for more details.
- The 'Execution Log' will be auto-populated after the procedure has been successful executed as part of a profile. You can view a history of executions at anytime by selecting this procedure in the 'Procedures' interface and clicking the 'Execution Log' tab.
- After saving, your patch procedure will be automatically approved, added to the 'Procedures' list and can be deployed in a profile.

Important Note: Patches that are hidden by administrators will not be executed. Refer to the section '[Installing OS Patches on Windows Endpoints](#)' for more details.

## To create a custom 3rd party patch procedure

- Click 'Configuration Templates' > 'Procedures' > 'Create' > 'Create 3rd Party Patch Procedure'



### Create 3rd Party Patch Procedure

Procedure name \*

Description

Folder

My Procedures

Create

- Enter a name and description for your 3rd party patch procedure and specify the folder in which you want to save it. After saving, you will be taken to the procedure configuration screen with the 'General' section open
- Click 'Edit' if you want to change the general parameters.

General Execution Options Restart Control Schedule Execution Log

**General** [Cancel] [Save]

Procedure name \*  
Forefox Update

Description

Folder  
My Procedures

Use alert settings when the procedure fails

Default Alert

Callout boxes:  
- Edit the name, description and alert settings  
- Configure patch options for the procedure  
- Configure restart options for the endpoint on execution of the procedure  
- View the schedule for the procedure to run  
- View patch execution logs  
- Choose the sub-folder to which the procedure is to be added  
- Enable or disable alerts for failed attempts on running the procedure  
- Click this field to choose an alert type

- To configure patch options for your procedure, click the 'Execution Options' tab followed by the 'Edit' button. You can select the applications to be updated from the options.

General Execution Options Restart Control Schedule Execution Log

**Execution Options** [Cancel] [Save]

Select 3rd party software to update

Update all applications

Update only the selected applications

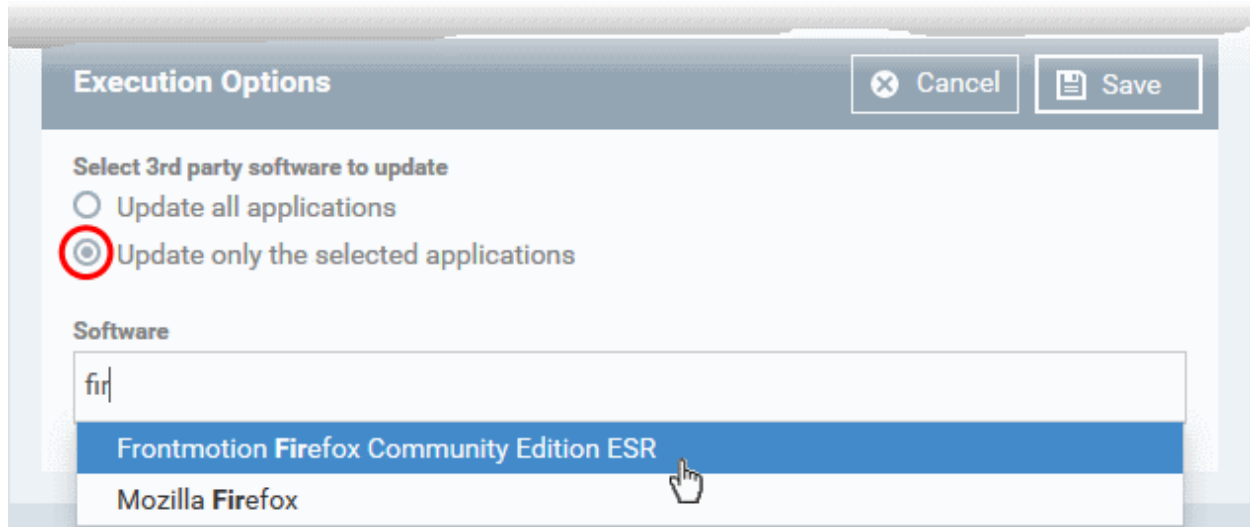
Software

Type software name to search among software...

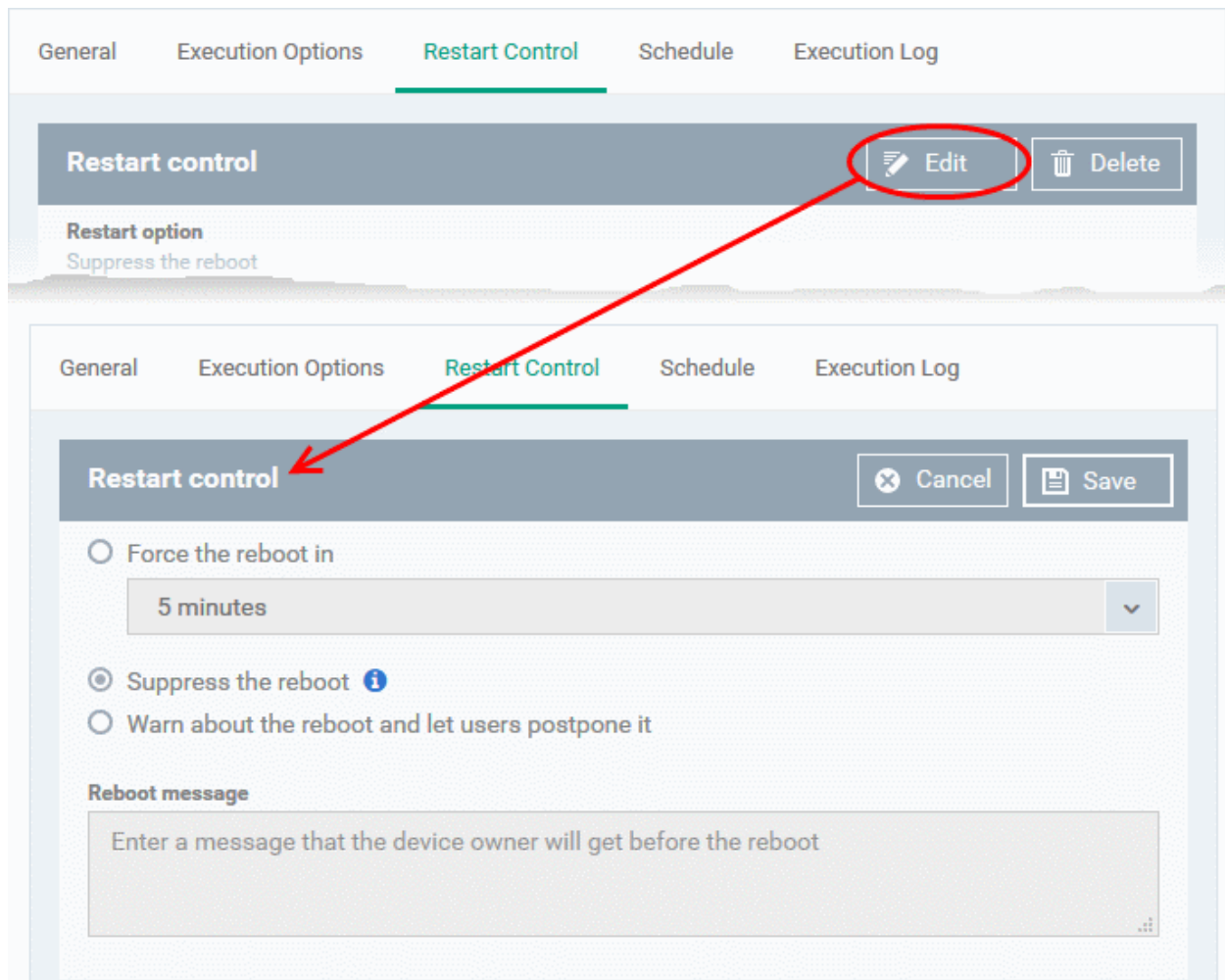
- **Select 3rd party software to update** - Allows you to choose whether all upgradable applications identified at the endpoint to be updated or only specific application(s) is/are to be updated.
  - **Update all applications** - Select this option if you want all outdated applications in the endpoint to be updated on running the procedure
  - **Update only the selected applications** - Select this option if you want only specified applications

are to be updated on the endpoint, then specify the applications to be updated.

- Start entering the first few characters of the application. The upgradable applications identified from all managed endpoints and matching the search criteria will be displayed as options
- Select the application from the list



- Click 'Save'
- Click the 'Restart Control' tab followed by the 'Edit' button to configure restart options for the endpoint after the procedure has run successfully.



- You can choose to:



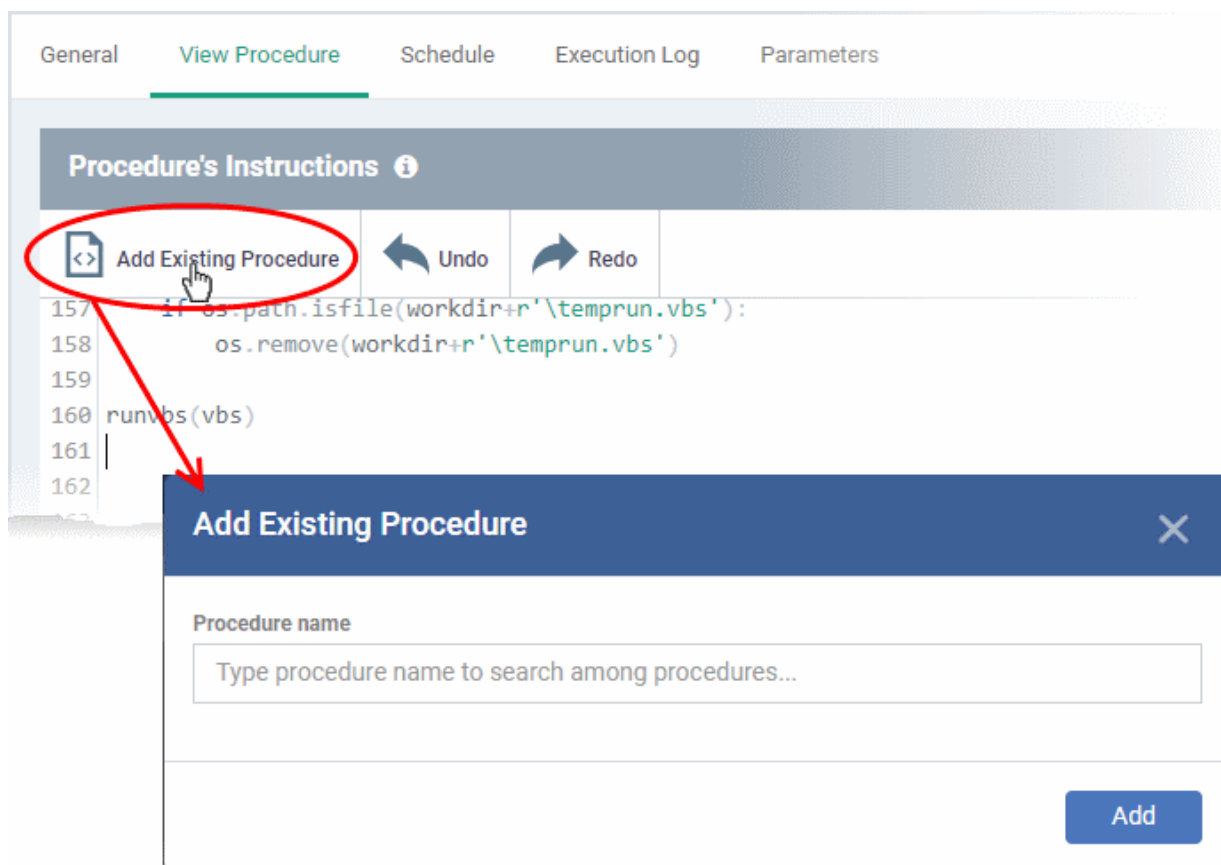
- Continue the operation of the endpoint without restart by selecting 'Suppress the reboot'
- Force restart the endpoint a certain period of time after the procedure has completed.  
OR
- Display a warning to the user and let them postpone the restart. Type a message for the user if you choose this option.
- The 'Schedule' tab will be auto-populated once you add the procedure to a configuration profile and schedule its execution. See **Add a Procedure to a Profile / Procedure Schedules** for more details.
- The 'Execution Log' will be auto-populated after the procedure has been successful executed as part of a profile. You can view a history of executions at anytime by selecting this procedure in the 'Procedures' interface and clicking the 'Execution Log' tab.
- After saving, your patch procedure will be automatically approved, added to the 'Procedures' list and can be deployed in a profile.

## 6.6.3. Combine Procedures to Build Broader Procedures

Note - this section only applies to script procedures, not patch procedures.

To incorporate a script from another procedure:

- Open your **custom procedure** and click the 'View Procedure' tab, then click 'Edit' on the right
- Position your mouse cursor at the place in your script where you wish to add the new code
- Click 'Add Existing Procedure'
- Type the name of the procedure whose script you want to import
- Click 'Add'. The code will be added to your existing script at the place you specified.
- You can, of course, subsequently modify the script as required.





- Click 'Save' for your changes to take effect.

## 6.6.4. Review / Approve / Decline New Procedures

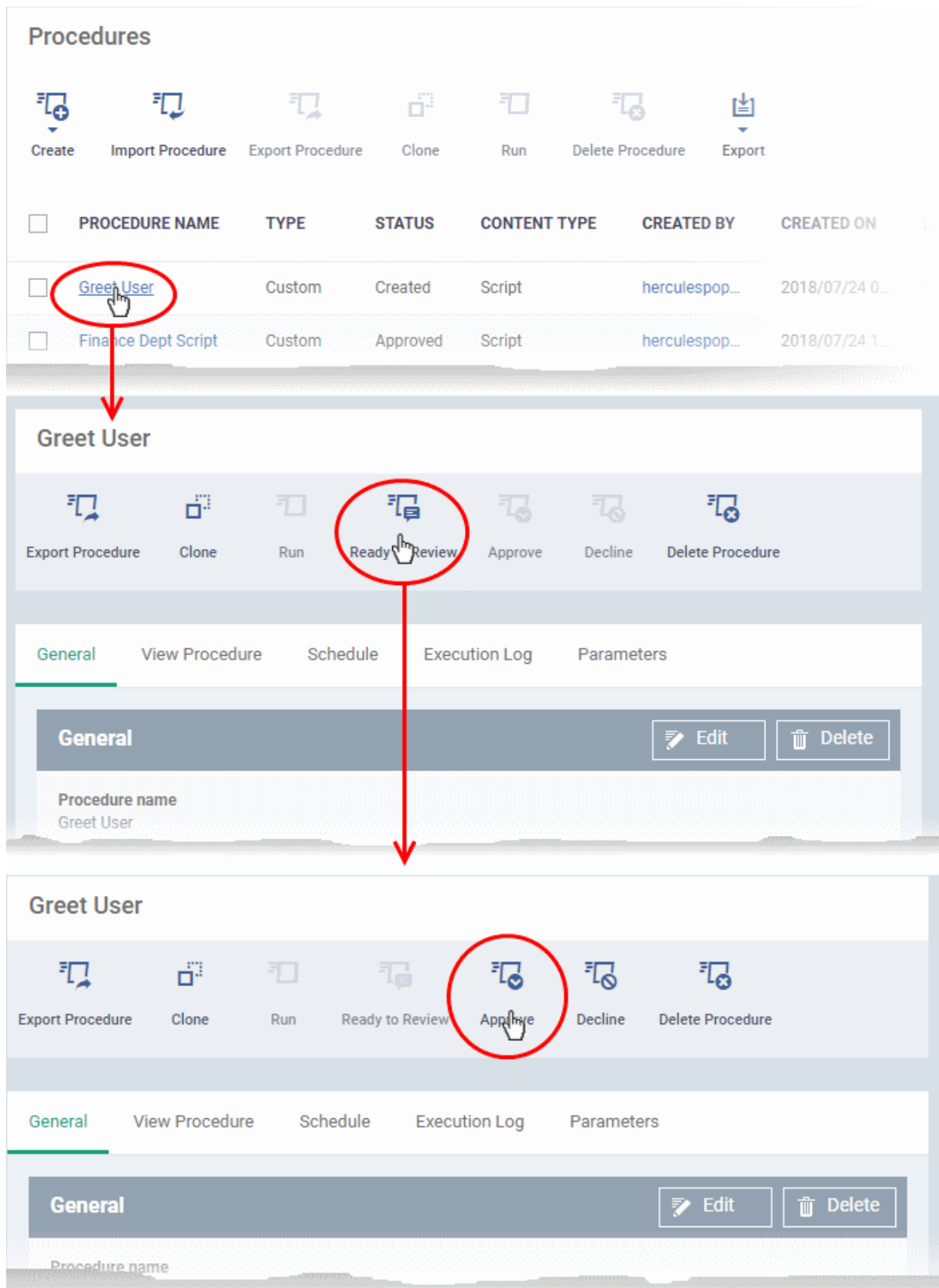
- New custom script procedures are given an initial status of 'Created'.
- Custom script procedures must be approved before they can be added to a profile.
- Custom patch procedures do not require approval.

### The review/approval process:

- **Script writer** -
  - Go to 'Configuration Templates' > 'Procedures' and create a new script procedure.
  - Save the procedure in 'My Procedures' (or a sub-folder).
  - The procedure will have a status of 'Created'.
  - Click the name of the new procedure to open its configuration screen.
  - Click the 'Ready to Review' button
- **Approver** -
  - Receives a notification that a procedure requires approval
  - Goes to 'Configuration Templates' > 'Procedures' and opens the procedure details page
    - Clicks 'Approve' to commit the script and make it available for selection in profiles
    - Clicks 'Decline' to reject the script

### Notes:

- The writer and approver in the example above can be the same person.
- The specific permissions required to approve a procedure are:
  - 'manage.procedures' and 'manage.procedures.manage'
  - Both these permissions are enabled in the 'admin' and 'technician' roles
  - Make sure these permissions are enabled in a custom role if its members are to approve procedures



- Approved procedures can be selected and added to a profile.

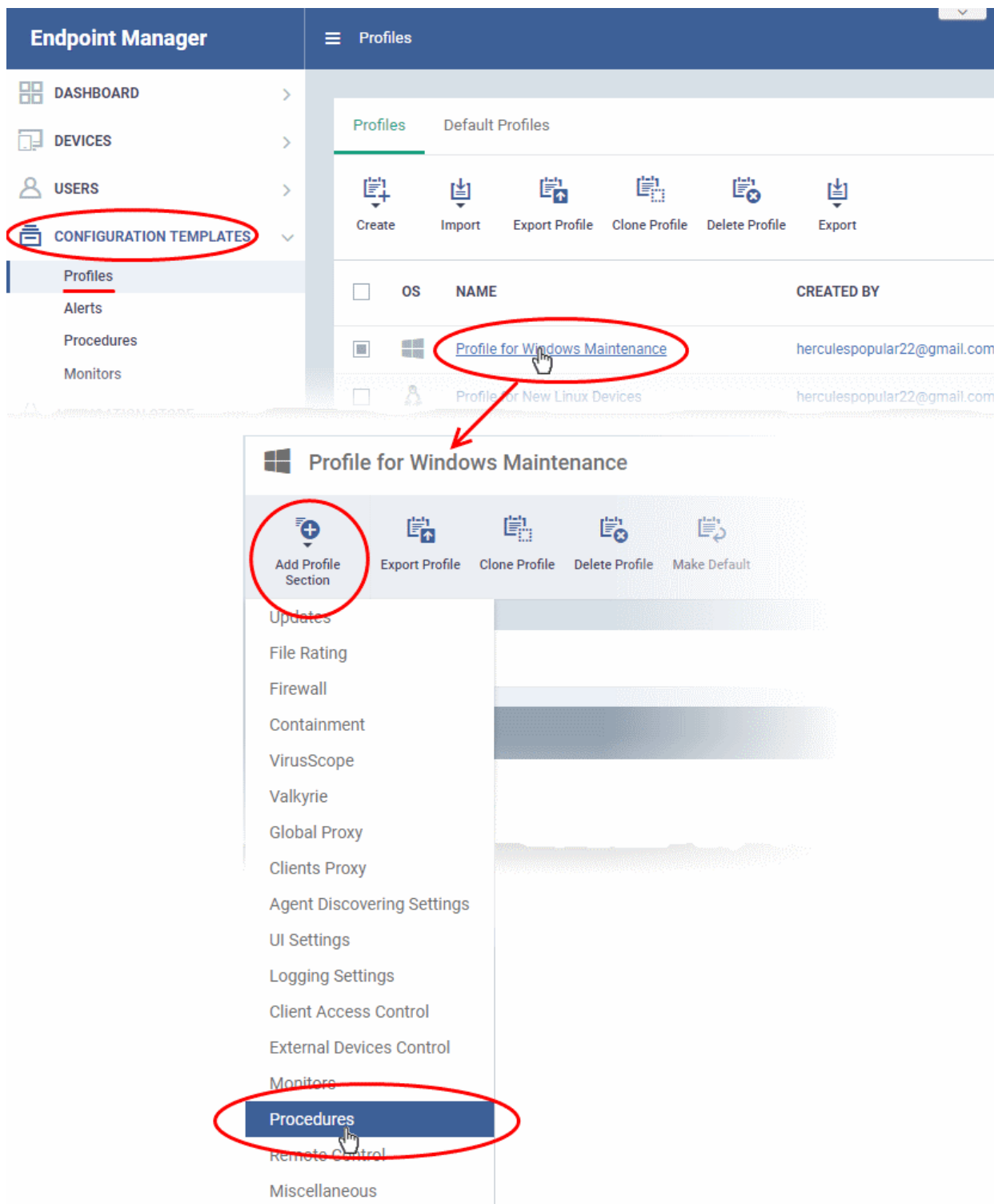
## 6.6.5. Add a Procedure to a Profile / Procedure Schedules

**Note.** Procedure schedules for both script and patch procedures are actually configured in the 'Profiles' area. You

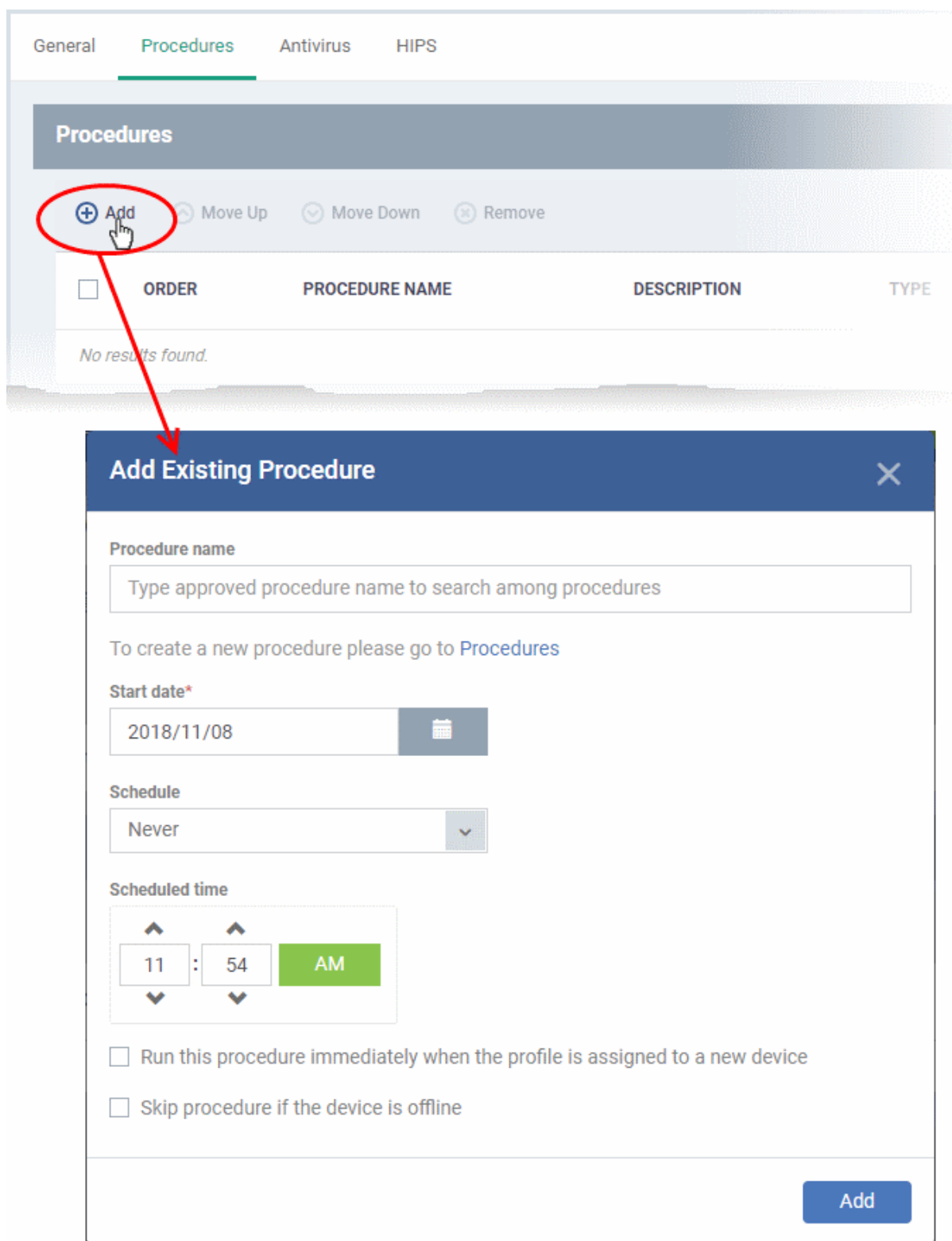
set a schedule for a procedure when you add a procedure to a profile. The 'Schedule' tab in the procedures area essentially allows you to view profiles which are scheduled to use the procedure.

### To add and schedule a procedure:

- Click 'Configuration Templates' > 'Profiles'
- Navigate to the folder containing the procedure to be edited
- Click the profile to which you want to add a procedure
- Click 'Add Profile Section' > 'Procedures':

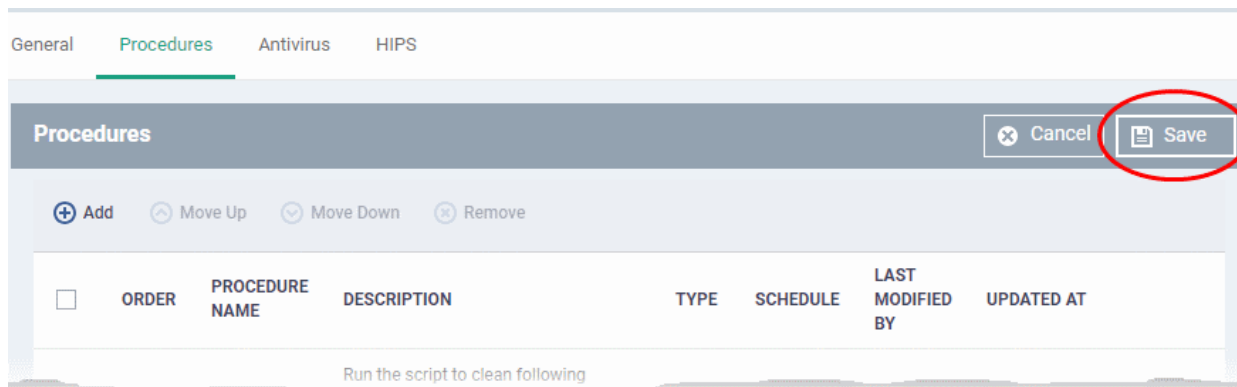


- This adds a 'Procedures' tab to the profile.
- Click the 'Add button' to open the procedure configuration screen

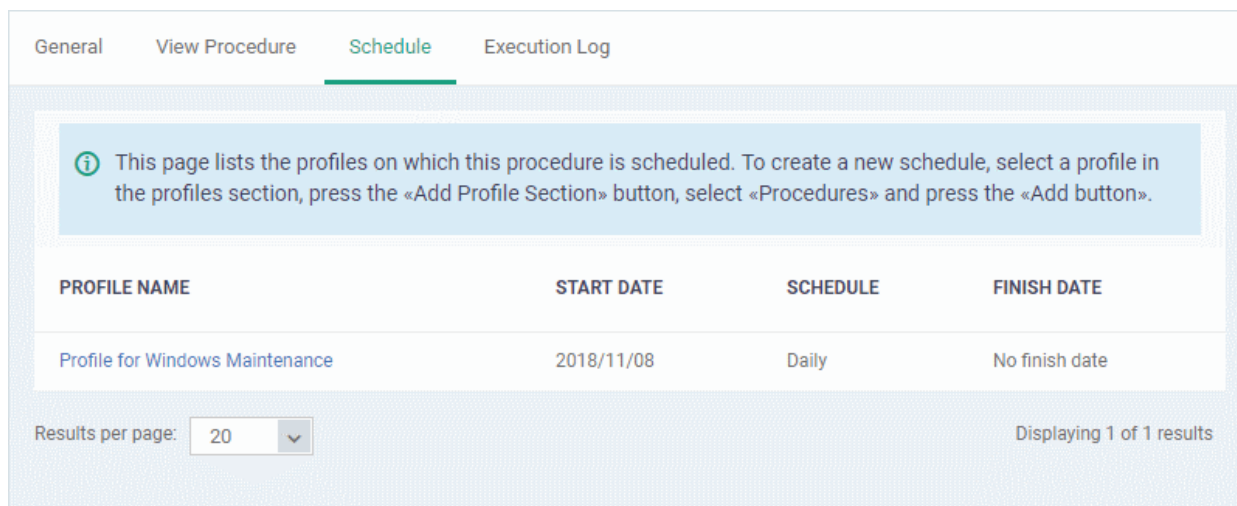


- Type the name of the procedure that you want to add to the profile (make sure you have **approved the procedure**)
- Set the date and time on which you want the procedure to start running.

- Set whether you want the procedure to run daily, weekly or monthly (or never)
- For weekly and monthly schedules, set the day of the week on which you want the procedure to run.
- Choose 'Run as system user' or 'Run as logged in user' based on the access rights required for the procedure to run at the endpoint.
- Click 'Add'.
- Finally, click 'Save' to apply the procedure and the schedule to the profile:



- The 'Schedule' tab of the procedure interface will list all profiles which have this procedure scheduled:



**Important Note:** Patches that are hidden by administrators will not be executed. See [Manage OS Patches on Windows Endpoints](#) for more details.

## 6.6.6. Import / Export / Clone Procedures

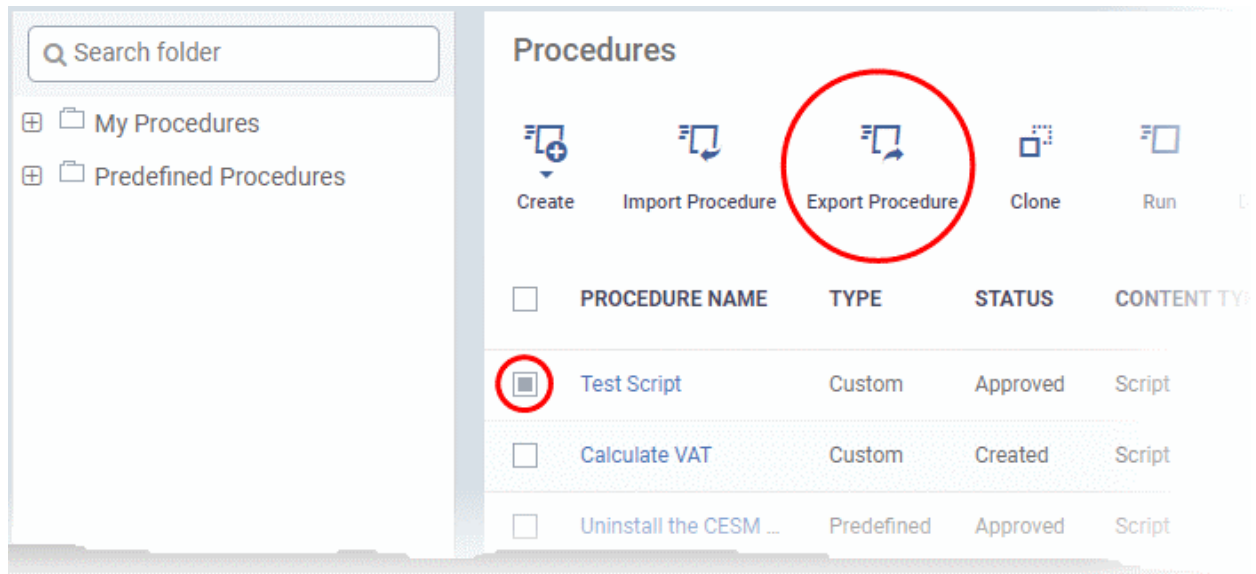
Endpoint Manager allows you to export or import procedures in order to use them in profiles. The procedure files are saved in .json format. You can also clone a procedure and use it as a starting point to create a new procedure according to your requirements. Click the following links to find out more:

- [Export a procedure](#)
- [Import a procedure](#)
- [Clone a procedure](#)

### To export a procedure

- Click 'Configuration Templates' > 'Procedures'

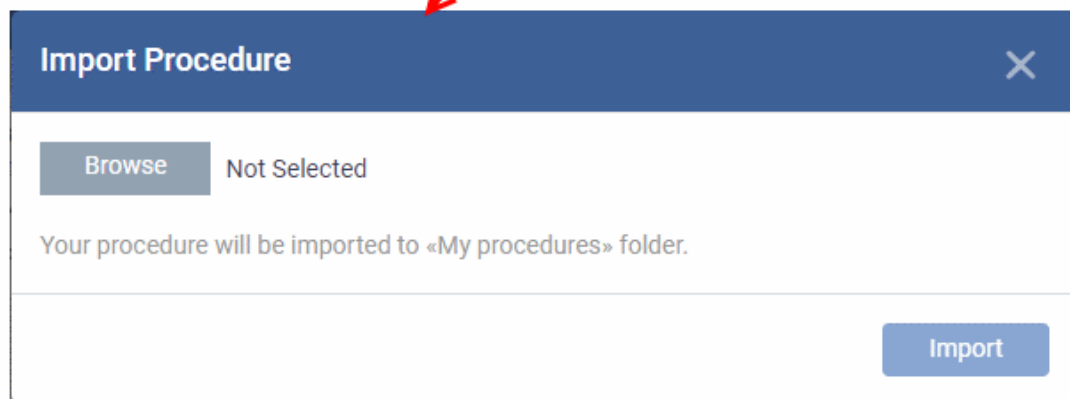
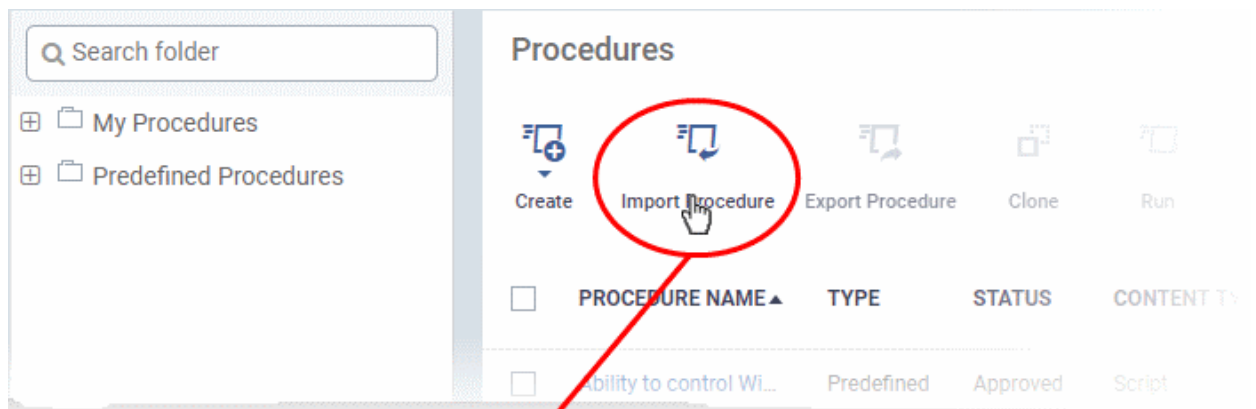
- Navigate to the folder containing the procedure to be exported
- Select the procedure and click 'Export' at the top. Please note you can export only custom procedures.



The selected procedure file will be saved in your default download location.

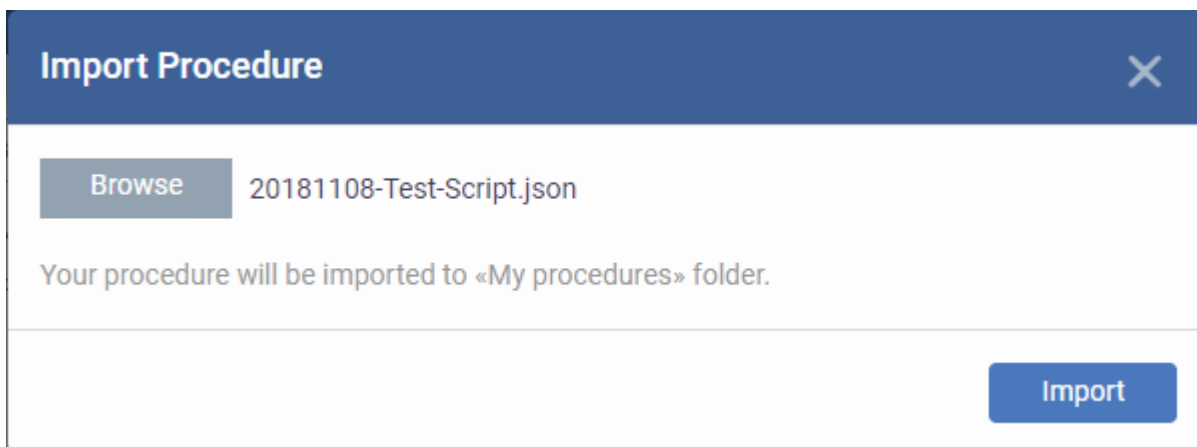
### To import a procedure

- Click 'Configuration Templates' > 'Procedures'
- Click 'Import' at the top



- Click 'Browse', navigate to the location where the procedure file is saved and click 'Open'

The selected file will be displayed on the 'Import Procedure' dialog.



- Click 'Import'

The procedure is imported and placed in the 'My Procedures' folder. The procedure name is prefixed with "Imported" to distinguish it from other procedures.

You can save the procedure in a different folder by editing it. See [Edit / Delete Procedures](#) for guidance on this.

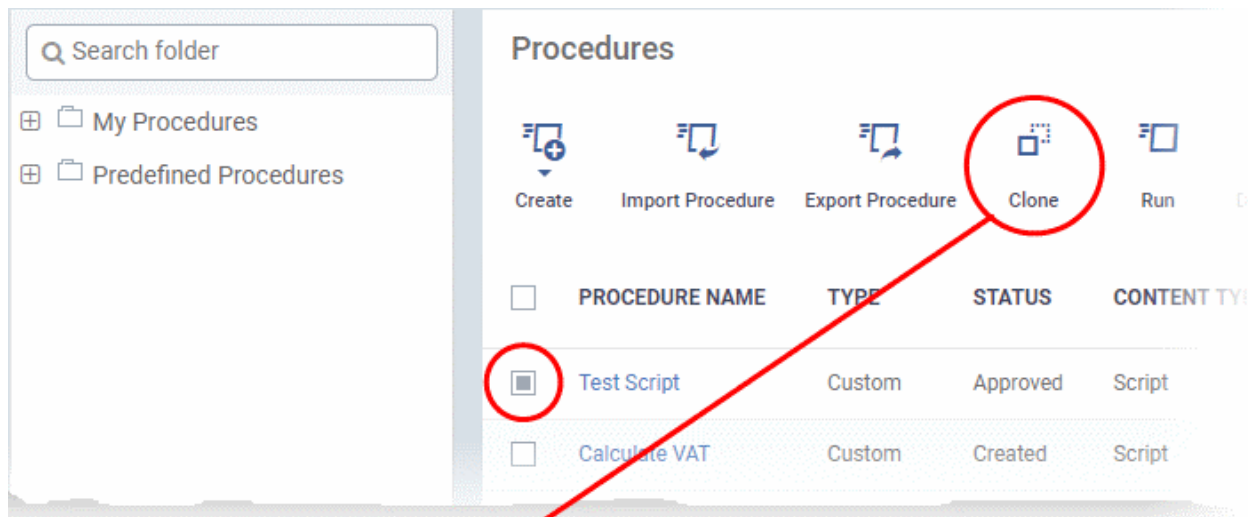
<input type="checkbox"/>	PROCEDURE NAME	TYPE	STATUS	CONTENT TYPE	CREATED BY	CREATED ON
<input type="checkbox"/>	[Imported] Test Script	Custom	Created	Script	herculespop...	2018/11/08 1...
<input type="checkbox"/>	Test Script	Custom	Approved	Script	herculespop...	2018/11/05 0...
<input type="checkbox"/>	Calculate VAT	Custom	Created	Script	herculespop...	2018/11/05 0...

Please note you have to **approve** the imported procedure in order to deploy it in profiles. To change the name and/or edit the script, click on the procedure and then click 'Edit' button on the right. Refer to the section ['Edit / Delete Procedures'](#) for more details.

### To clone a procedure

- Click 'Configuration Templates' > 'Procedures'
- Navigate to the folder containing the procedure to be cloned
- Select the procedure and click 'Clone' at the top.





### Clone Procedure

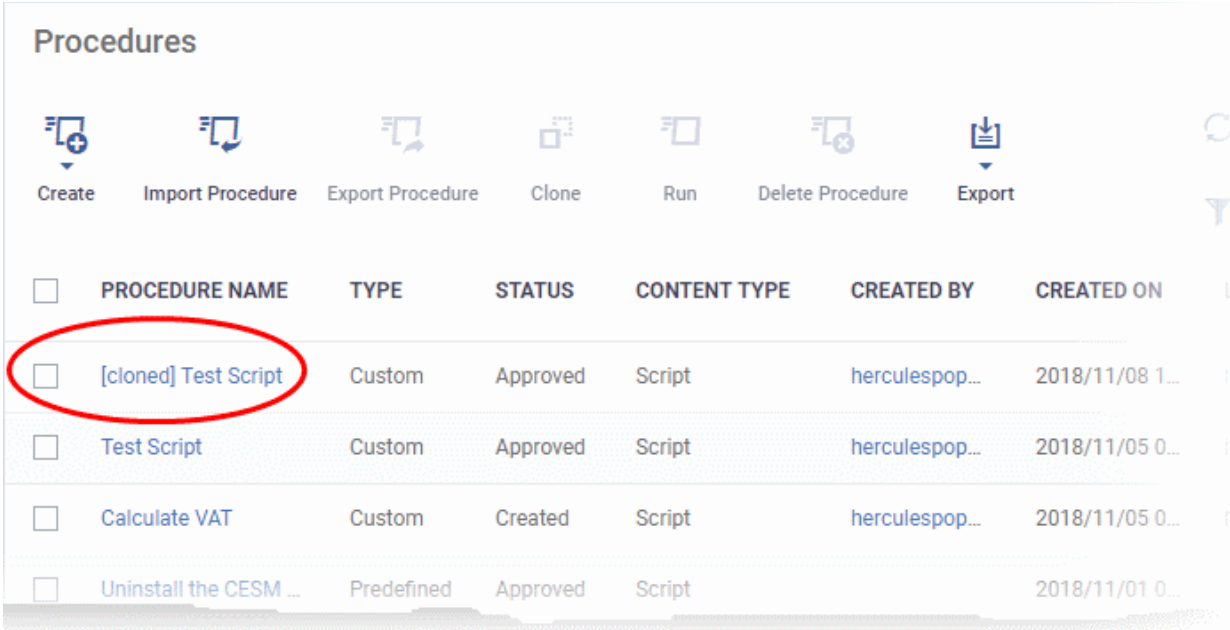
Procedure name \*

Description

Folder

- Change the name, if required, and provide an appropriate description of the profile
- Select the folder in which the cloned procedure is to be placed
- Click 'Clone'

The procedure will be added to the list:



The screenshot shows the 'Procedures' management interface. At the top, there are several action icons: Create, Import Procedure, Export Procedure, Clone, Run, Delete Procedure, and Export. Below these is a table with the following columns: PROCEDURE NAME, TYPE, STATUS, CONTENT TYPE, CREATED BY, and CREATED ON. The first row of the table is circled in red and contains the following data: [cloned] Test Script, Custom, Approved, Script, herculespop..., and 2018/11/08 1... The other rows in the table are: Test Script, Custom, Approved, Script, herculespop..., 2018/11/05 0...; Calculate VAT, Custom, Created, Script, herculespop..., 2018/11/05 0...; and Uninstall the CESM ..., Predefined, Approved, Script, 2018/11/01 0...

<input type="checkbox"/>	PROCEDURE NAME	TYPE	STATUS	CONTENT TYPE	CREATED BY	CREATED ON
<input type="checkbox"/>	[cloned] Test Script	Custom	Approved	Script	herculespop...	2018/11/08 1...
<input type="checkbox"/>	Test Script	Custom	Approved	Script	herculespop...	2018/11/05 0...
<input type="checkbox"/>	Calculate VAT	Custom	Created	Script	herculespop...	2018/11/05 0...
<input type="checkbox"/>	Uninstall the CESM ...	Predefined	Approved	Script		2018/11/01 0...

Please note the status of the cloned procedure will be same as that of the procedure that was cloned. For example, if the status was approved then the cloned procedure will also be of the same status.

## 6.6.7. Change Alert Settings

Endpoint Manager is capable of issuing alerts when procedures fail to execute as intended. You can set the type of alert shown while you are creating a new procedure, or by editing an existing procedure. Please note you can only select alerts that are already created in the 'Alerts' interface ('Configuration Templates' > 'Alerts'). See **Manage Alerts** for more details.

### To change alert settings

- Click 'Configuration Templates' > 'Procedures'
- Navigate to the folder containing the procedure to be configured for alert
- Click the name of the procedure to open its details interface and select the 'General' tab.
- Click 'Edit' on the top right

**Test Script**

Export Procedure Clone Run Ready to Review Approve Decline Delete Procedure

General View Procedure Schedule Execution Log Parameters

**General** [Cancel] [Save]

Procedure name \*  
Test Script

Description

Folder  
- Finance Scripts

Use alert settings when the procedure fails

Use alert settings when the procedure fails  
Default Alert

- Make sure the 'Use alert settings when the procedure fails' check box is selected.
- The current alert name is displayed in the 'Use alert settings when the procedure fails' field.
- Start typing the name of the alert in the field and choose the alert to be used, from the options.
- Click 'Save' at the top right.

## 6.6.8. Directly Apply Procedures to Devices

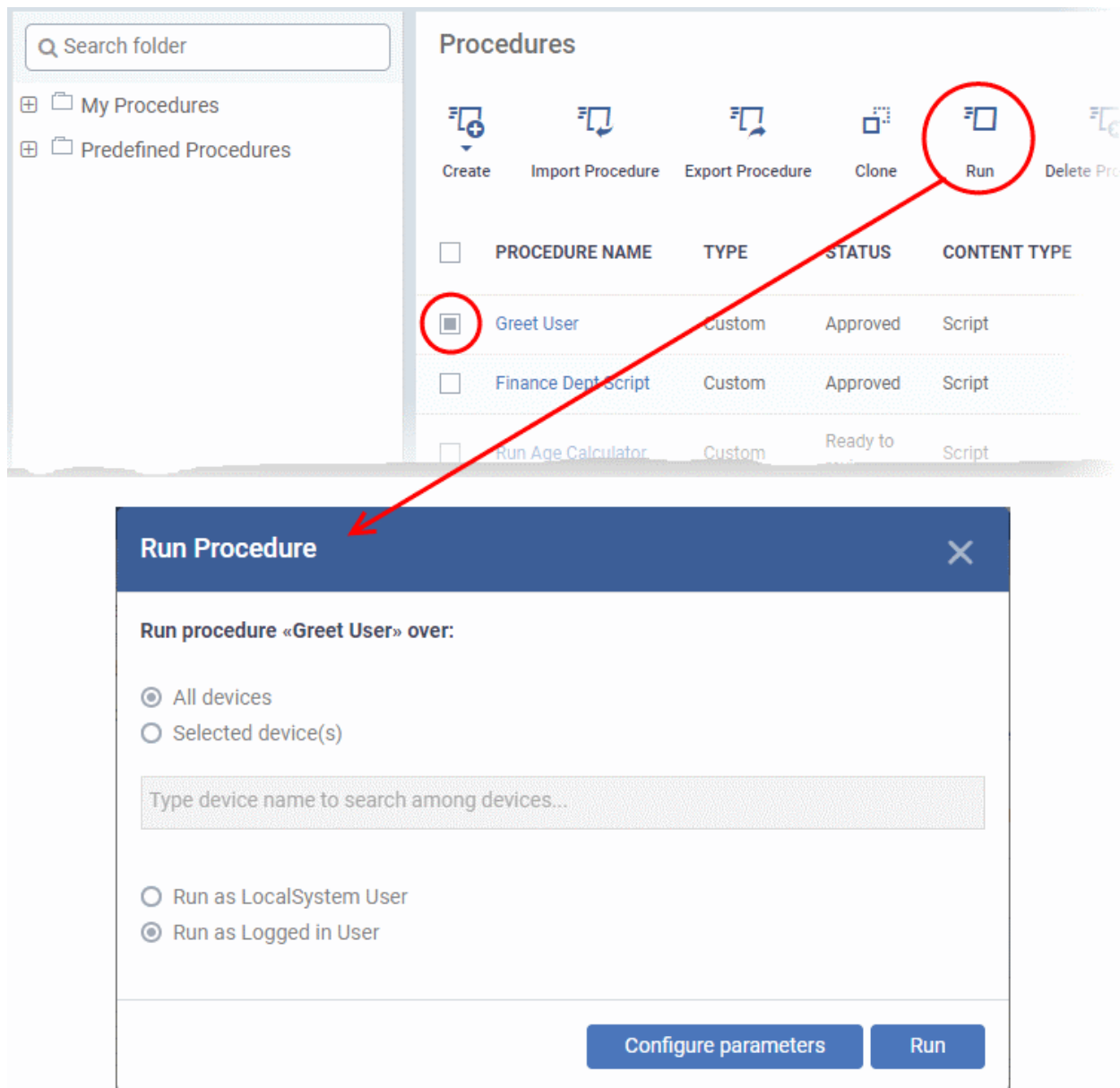
Procedures can be run on devices in three ways:

- From the procedures interface
- **From the device list interface**
- **Via profiles according to a schedule**

The following section describes how to apply procedures to devices from the procedures interface.

### To run a procedure

- Click 'Configuration Templates' > 'Procedures'
- Browse the folder tree to locate the procedure you want to run
- Select the procedure and click 'Run' at the top. Note - only **approved** procedures can be applied. You can also run only one procedure at a time.



- Choose the execution options from the 'Run Procedure' dialog
  - All Devices - The procedure will be applied to all Windows devices.
  - Selected Device(s) - Enter the name of the Windows device partly or fully and select the device from the list. You can also add multiple devices in the field.

**Run Procedure** [Close]

Run procedure «Greet User» over:

All devices  
 Selected device(s)

DESKTOP-TTPO9PR [X] Impala Computer [X]

Run as LocalSystem User  
 Run as Logged in User

[Configure parameters] [Run]

- To remove a device from the list, click 'X' beside it.
- **Run as Local System User / Run as Logged in user** - Choose the user account with which the procedure has to be run on the devices based on the access rights required for the procedure. Please note this option will not be available for a patch procedure.
- **Configure parameters** - Available only for script procedures defined with variable parameters and allows you to enter the values for them.

#### To specify values for variable parameters

- Click 'Configure Parameters'

**Procedure parameters** [Close]

**Message (Data Type: String)**  
 Use default value  
Hi, How are you?

**Title (Data Type: String)**  
 Use default value  
Message from Administrator

[Close] [Apply]

The list of variable parameters will appear with their default values pre-populated in their respective text fields

- Enter the value for each parameter in the respective text box
- Select 'Use default value' if you want the default value to be applied for a parameter,
- Click 'Apply'

**Tip:** You can skip this step if you want to use default values for all parameters. For more info on default values, see [Create a Custom Procedure](#).

- Click the 'Run' button in the 'Run Procedure' dialog.

The procedure is applied to the selected devices. A confirmation dialog is displayed and the process is logged. You can view the details in the **Procedure Logs** screen for script procedures. **Patch procedure logs** will be available in the respective patch procedure itself.

**Important Note:** Patches that are hidden by administrators will not be executed. See [Manage OS Patches on Windows Endpoints](#) for more details.

## 6.6.9. Edit / Delete Procedures

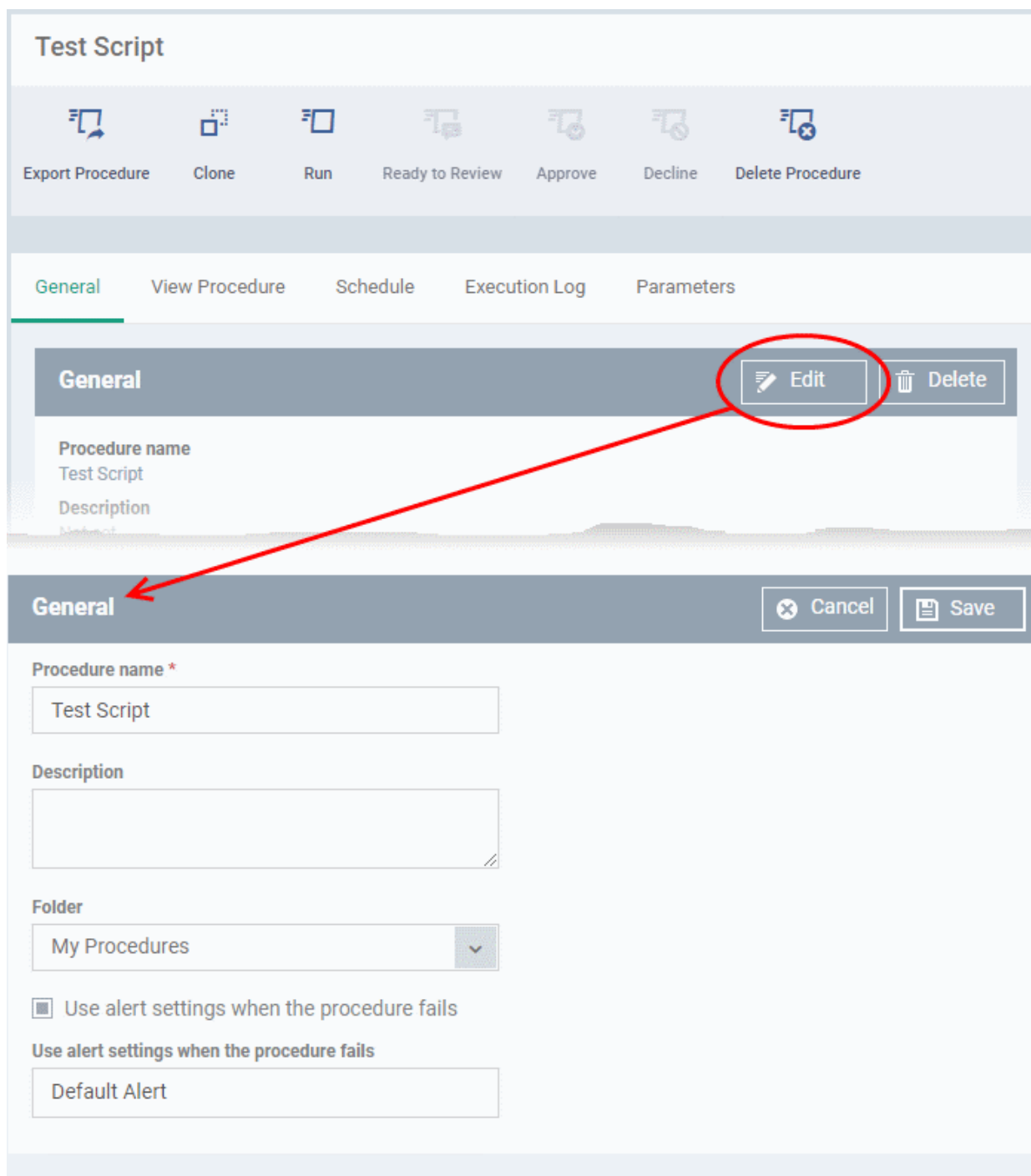
Custom procedures can be edited or deleted according to your requirements. Please note that if you edit a script procedure, it has to be **approved** again. Predefined procedures cannot be edited or deleted. Click the following links for more details:

- [Edit / delete a script procedure](#)
- [Edit / delete a patch procedure](#)

### Edit a Script Procedure

- Click 'Configuration Templates' > 'Procedures'
- Browse the folder tree to locate the procedure you want to edit
- Click on the script procedure to open its details interface
- Select a tab and click 'Edit' to modify its details





## General

- Modify the procedure name, description, the folder in which the procedure is saved and / or alert settings

## View Procedure

- Modify the script and / or add another existing procedure

## Execution Log

- Displays the results of the script procedure that was executed, both manually and scheduled on Windows profiles.

## Schedule

The schedule can be edited only in the profile(s) that the procedure is deployed.

- Click the 'Schedule' tab to view the profile(s) in which the procedure is being used.

General View Procedure **Schedule** Execution Log Parameters

**i** This page lists the profiles on which this procedure is scheduled. To create a new schedule, select a profile in the profiles section, press the «Add Profile Section» button, select «Procedures» and press the «Add button».

PROFILE NAME	START DATE	SCHEDULE	FINISH DATE
<a href="#">New Profile for Dyanora</a>	2018/11/08	Daily	No finish date
<a href="#">Finance Department Windows Computers</a>	2018/11/08	Daily	No finish date

Results per page: 20  Displaying 1-2 of 2 results

- Click the profile for which you want to edit the procedure schedule.

The selected profile is displayed with the 'Procedure' tab opened.

- Click 'Edit' at the top right.

The image shows two screenshots of the Endpoint Manager interface. The top screenshot displays the 'Procedures' tab for 'Finance Department Windows Computers'. The 'Edit' button is circled in red. The bottom screenshot shows the 'Procedures' dialog box with the 'Daily' schedule parameter circled in red.

**Procedures**

ORDER	PROCEDURE NAME	DESCRIPTION	TYPE	SCHEDULE	LAST MODIFIED BY	UPDATE
	Generate the	This script helps you to				

**Procedures**

<input type="checkbox"/>	ORDER	PROCEDURE NAME	DESCRIPTION	TYPE	SCHEDULE	LAST MODIFIED BY	U
<input type="checkbox"/>	1	Generate the third party patch report for all devices from EM as a single report and send an e-mail	This script helps you to get all third party patch report of EM from selected devices or all devices as one report and sends an e-mail	Script	Never		2
<input type="checkbox"/>	2	Test Script		Script	Daily	herculespopular22@gmail.com	2

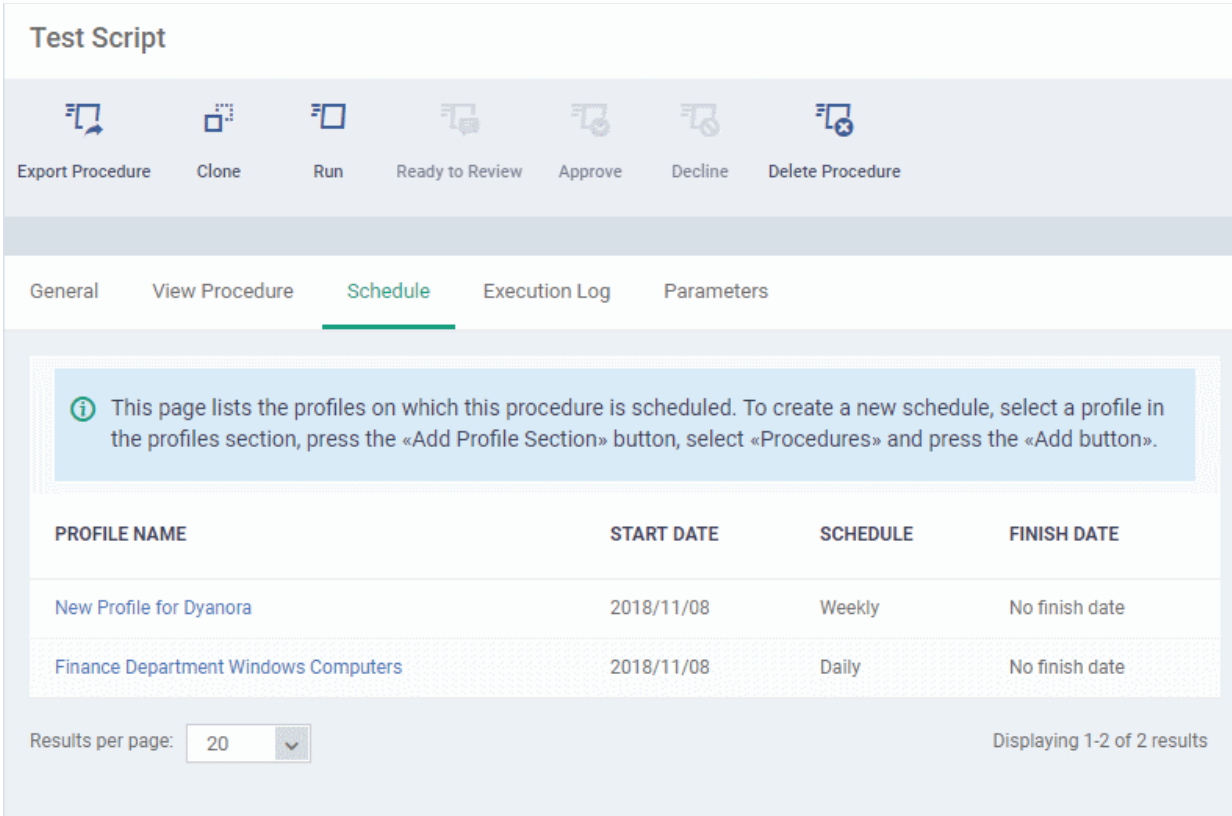
You can find the procedure type, whether script or patch, under the 'Type' column.

- Click the schedule parameter under 'Schedule' column beside the procedure.
- The 'Procedure Schedule' dialog will be displayed. Modify the schedule per your requirement and click 'Set'.
- The schedule will be modified for the profile. Please note the procedure schedule will impact only the profile

that you modify. The schedule for the same procedure deployed onto other profiles will not be affected.

- Click 'Save'

The changes for the procedure will be saved. The following image shows the same procedure having different schedule for different profiles.



**Test Script**

Export Procedure Clone Run Ready to Review Approve Decline Delete Procedure

General View Procedure **Schedule** Execution Log Parameters

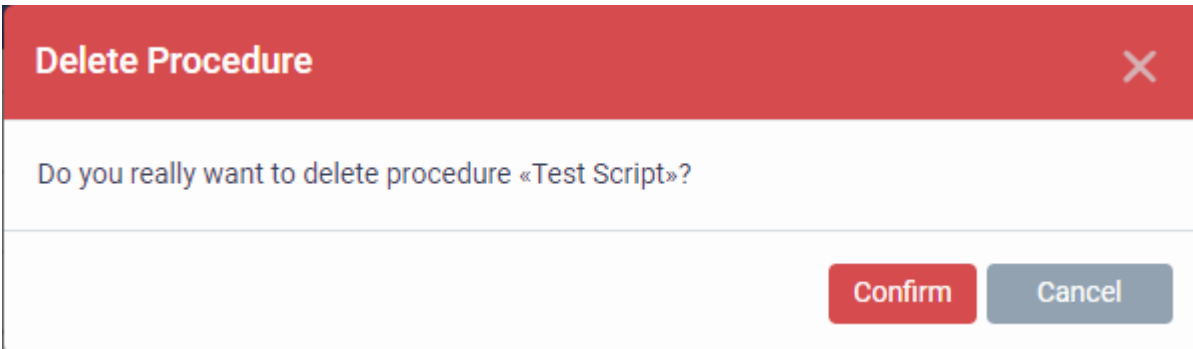
*i* This page lists the profiles on which this procedure is scheduled. To create a new schedule, select a profile in the profiles section, press the «Add Profile Section» button, select «Procedures» and press the «Add button».

PROFILE NAME	START DATE	SCHEDULE	FINISH DATE
<a href="#">New Profile for Dyanora</a>	2018/11/08	Weekly	No finish date
<a href="#">Finance Department Windows Computers</a>	2018/11/08	Daily	No finish date

Results per page: 20  Displaying 1-2 of 2 results

## To delete a script procedure

- Click 'Configuration Templates' > 'Procedures'
- Browse the folder tree to locate the procedure you want to edit
- Select the check box beside the procedure and click 'Delete Procedure' at the top.
- Alternatively, click on the procedure that you want to delete and click 'Delete' on the top right



**Delete Procedure**

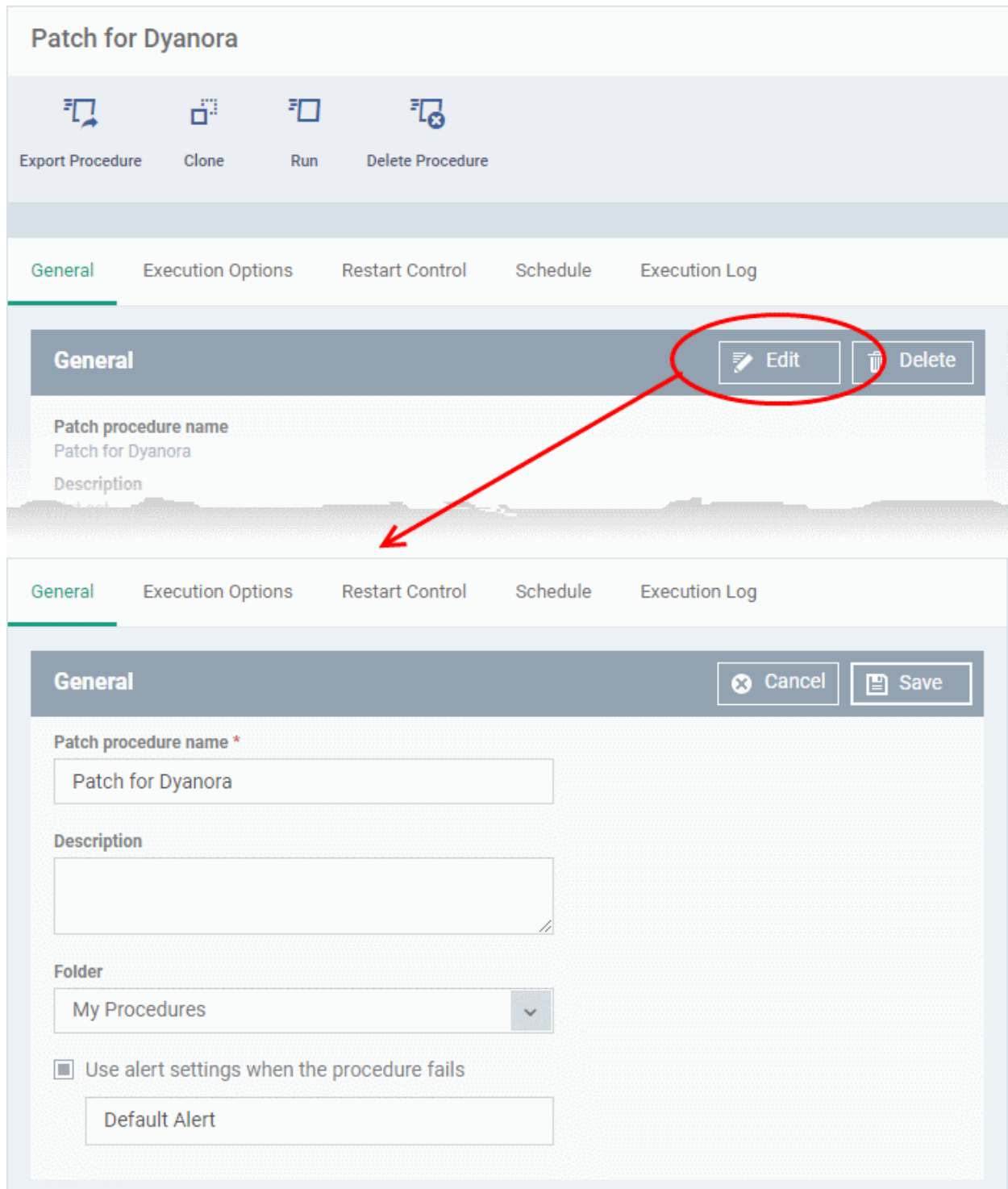
Do you really want to delete procedure «Test Script»?

- Click 'Confirm'. The procedure is removed from the list as well as from the profiles on which it is deployed.

## Edit a patch procedure

- Click 'Configuration Templates' > 'Procedures'

- Browse the folder tree to locate the procedure you want to edit
- Click on the patch procedure to open its details interface
- Select a tab and click 'Edit' to modify its details



## General

- Modify the procedure name, description, the folder in which the procedure is saved and / or alert settings

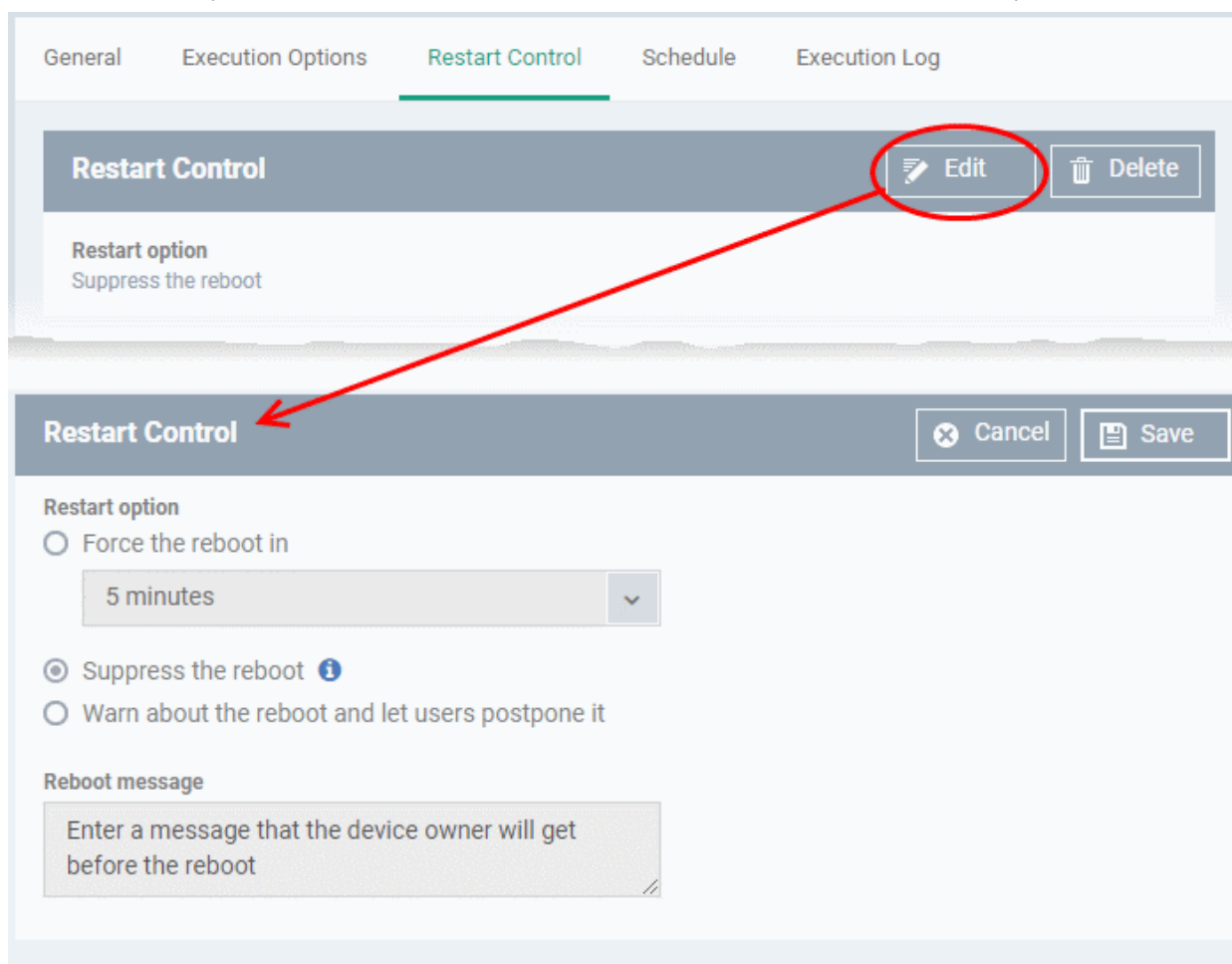
## Execution Options

- Modify the patch options. See the explanation of **Procedure Configuration** in **Create a Custom Procedure** for help on configuring the execution settings.

- Click 'Save' when done

## Restart Control

- Modify the restart options for the endpoint after the procedure has run successfully.



- See the explanation of **Procedure Configuration** in **Create a Custom Procedure** for help on configuring the restart control settings.
- Click 'Save' when done

## Execution Log

- Displays the results of the patch procedure that was executed, both manually and scheduled on Windows profiles.

## Schedule

The schedule can be edited only in the profile(s) that the procedure is deployed.

- Click the 'Schedule' tab to view the profile(s) in which the procedure is being used.

General Execution Options Restart Control **Schedule** Execution Log

**i** This page lists the profiles on which this procedure is scheduled. To create a new schedule, select a profile in the profiles section, press the «Add Profile Section» button, select «Procedures» and press the «Add button».

PROFILE NAME	START DATE	SCHEDULE	FINISH DATE
New Profile for Dyanora	2018/11/08	Weekly	No finish date

Results per page: 20  Displaying 1 of 1 results

- Click the profile for which you want to edit the procedure schedule.

The selected profile is displayed with the 'Procedure' tab opened.

- Click 'Edit' at the top right.



New Profile for Dyanora

Add Profile Section   Export Profile   Clone Profile   Delete Profile   Make Default

General   **Procedures**   Remote Control

**Procedures** Edit

+ Add   ^ Move Up   v Move Down   x Remove

ORDER	PROCEDURE NAME	DESCRIPTION	TYPE	SCHEDULE	LAST MODIFIED BY	UPDATED AT
1	Patch for Dyanora		Patch	Weekly	herculespopular22@gmail.com	2018/11/08 02:46:27
2	Test Script		Script	Weekly	herculespopular22@gmail.com	2018/11/08 02:11:46

**Procedures** Cancel Save

+ Add   ^ Move Up   v Move Down   x Remove

<input type="checkbox"/>	ORDER	PROCEDURE NAME	DESCRIPTION	TYPE	SCHEDULE	LAST MODIFIED BY	UPDATED AT
<input type="checkbox"/>	1	Patch for Dyanora		Patch	Weekly	herculespopular22@gmail.com	2018/11/08 02:46:27
<input type="checkbox"/>	2	Test Script		Script	Weekly	herculespopular22@gmail.com	2018/11/08 02:11:46

You can find the procedure type, whether script or patch, under the 'Type' column.

- Click the schedule parameter under 'Schedule' column beside the patch procedure.
- The 'Procedure Schedule' dialog will be displayed. Modify the schedule per your requirement and click 'Set'.
- The schedule will be modified for the profile. Please note the procedure schedule will be impacted for only the profile that you modify. The schedule for the same procedure deployed onto other profiles will not be affected.
- Click 'Save'

The changes for the patch procedure will be saved.

**Important Note:** Patches that are hidden by administrators will not be executed. See [Manage OS Patches on Windows Endpoints](#) for more details.

## 6.6.10. View Procedure Results

The results of any script or patch procedure can be viewed in the '**Logs**' section of a device. The results can also be found in the 'Procedures' interface.

Click the following links for more details:

- [View script procedure results](#)
- [View patch procedure results](#)

### View Script Procedure Results

Script procedure logs can be viewed in two places - 'Device List' and 'Procedures'.

- Devices > Device List > Open a Windows device > Logs > Script Logs - Shows results for all scripts run on a selected device.
- Configuration Templates > Procedures > Open a script procedure > Execution Log - Shows all devices on which a selected script was run.

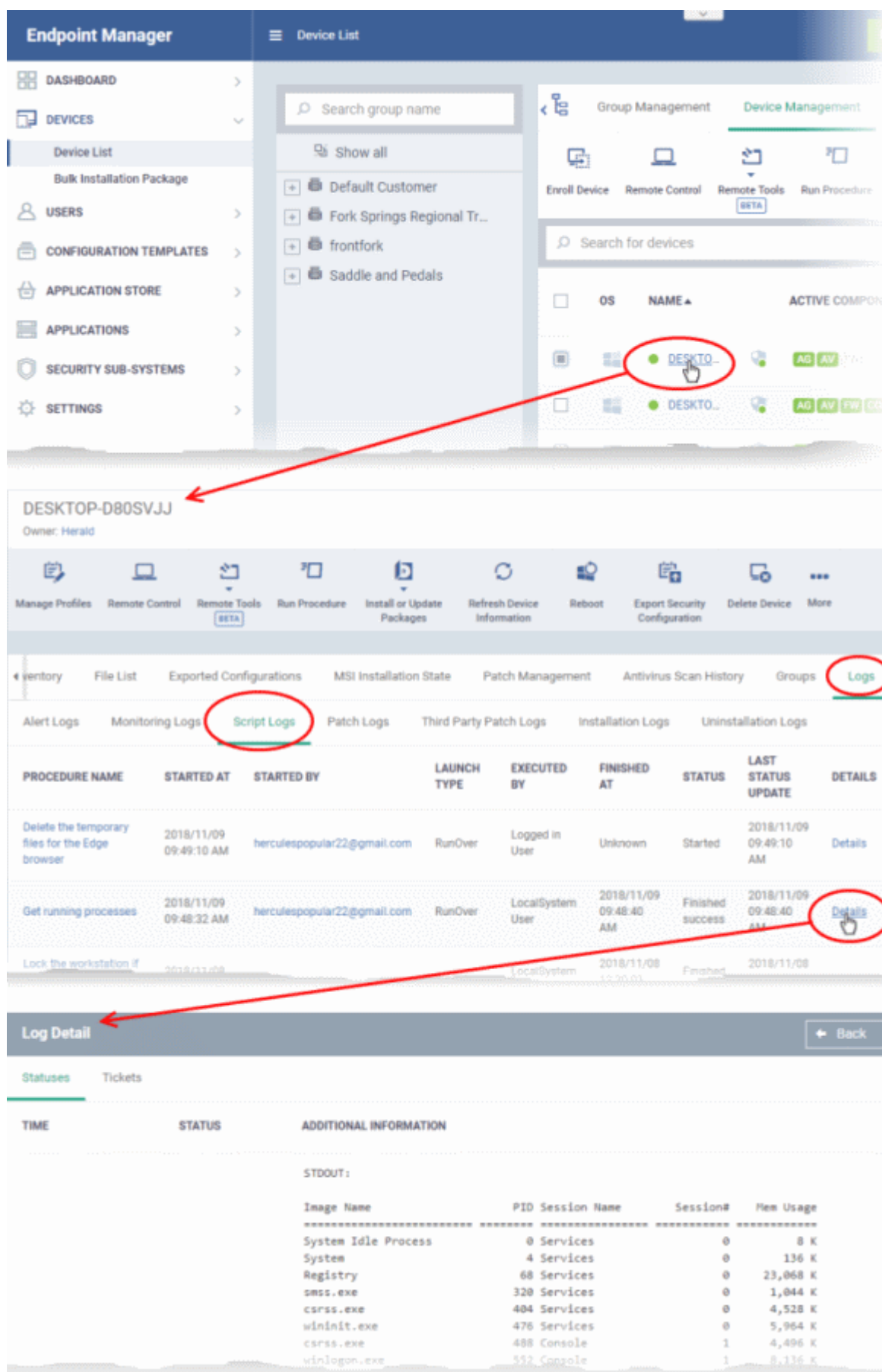
### Script procedures results on a particular device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devicesOr
  - Select 'Show all' to view every device enrolled to EM
- Click on any Windows device then select the 'Logs' tab in the device details interface
- Select the 'Script Logs' sub-tab

This opens the list of all script procedures run on the device. You can also see the scripts start/end time and whether or not it was successful.

- To view the results of a particular procedure, click 'Details' in the row of the procedure name.

For example, the 'Get Running Processes' results show a list of all processes found running on the device, under the 'Statuses' tab:



- The 'Tickets' tab lists tickets which were created as a result of a failed procedure. Clicking the ticket link will open the ticket in service desk.

## Result of a selected script on all devices

- Click 'Configuration Templates' > 'Procedures'.
- Browse the folder tree to locate the procedure for which you want to view results
- Click the name of the script procedure then click 'Execution Log'.
- This will open a list of all devices on which the script was run
- Click 'Details' in the row of a device to view specific results:

The screenshot shows the Endpoint Manager interface. On the left sidebar, 'CONFIGURATION TEMPLATES' and 'Procedures' are circled in red. The main area shows a folder tree with 'Get running process...' selected and circled in red. Below this, the 'Execution Log' tab is selected and circled in red. A table lists execution results for two devices. The 'Details' link for the second device is circled in red. Below the table, the 'Tickets' section is visible, with a 'Back' button and a table of execution details.

DEVICE NAME	STARTED AT	STARTED BY	LAUNCH TYPE	EXECUTED BY	FINISHED AT	STATUS	LAST STATUS UPDATE	DETAILS
DESKTO...	2018/11/09 10:33:51 AM	herculespopular22@gmail.com	Run Over	Logged in User	2018/11/09 10:33:53 AM	Finished success	2018/11/09 10:33:53 AM	Details
DESKTO...	2018/11/09 09:48:32 AM	herculespopular22@gmail.com	Run Over	LocalSystem User	2018/11/09 09:48:40 AM	Finished success	2018/11/09 09:48:40 AM	Details

TIME	STATUS	ADDITIONAL INFORMATION
2018/11/09 10:33:53 AM	Finished success	STDOUT:  Image Name                      PID    Session Name                      Session#    Mem Usage ----- System Idle Process              0    Services                              0            8 K System                              4    Services                              0            136 K Registry                            68    Services                              0            4,584 K smss.exe                            320    Services                              0            832 K csrss.exe                           404    Services                              0            4,152 K wininit.exe                        476    Services                              0            5,408 K csrss.exe                           488    Console                               1            4,180 K winlogon.exe                       552    Console                               1            7,696 K services.exe                       576    Services                              0            9,496 K

- The 'Tickets' section lists tickets which were created as a result of a failed procedure. Click the ticket link to open the ticket in service desk.

## View Patch Procedure Results

Patch procedure results can be viewed from two interfaces - 'Device List' and 'Procedures'.

- Devices > Device List > *Open a Windows device* > Logs > Patch Logs - Displays results for all patch procedures run on a selected device.
- Configuration Templates > Procedures > *Open a patch procedure* > Execution Log - Displays all devices on which the selected patch procedure was run.

### Patch procedure results on a specific device

- Click 'Devices' > 'Device List'
- Click the 'Device Management' tab in the top-menu
  - Select a company or a group to view just their devicesOr
  - Select 'Show all' to view every device enrolled to EM
- Click on any Windows device then select the 'Logs' tab in the device details interface
- Select the 'Patch Logs' sub-tab

This opens a list of all patch procedures run on the device along with their status (success/failure), their start/finish time and time of last status update.

- Click 'Details' in the row of a procedure to view specific results:

The screenshot displays the Endpoint Manager interface. On the left is a navigation menu with 'DEVICES' circled in red. The main area shows a 'Device List' with a search bar and a list of device groups. A red arrow points from a device entry in the list to a detailed view of a device named 'DESKTOP-D80SVJJ'. In this view, the 'Logs' tab is circled in red, and a 'Patch Logs' sub-tab is also circled. A table of patch logs is shown, with a 'Details' link for a specific log entry circled in red. A second red arrow points from this 'Details' link to the 'Log Detail' section below. This section shows a table of log entries with columns for Time, Status, and Additional Information.

PROCEDURE NAME	STARTED AT	STARTED BY	LAUNCH TYPE	FINISHED AT	STATUS	LAST STATUS UPDATE	DETAILS
Patch maintenance	2018/11/08 08:17:05 PM	Patch Procedure	Run Over	2018/11/08 08:21:02 PM	Finished success	2018/11/01 12:35:07 PM	<a href="#">Details</a>
Security patch updates	2018/10/31 12:35:00 PM	Patch Procedure	Scheduled	2018/10/31 12:35:06 PM	Failed	2018/10/31 12:35:06 PM	<a href="#">Details</a>

TIME	STATUS	ADDITIONAL INFORMATION
2018/11/08 08:21:02 PM	Finished success	PROCEDURE operation completed successfully. 1 patch(es) successfully installed.
2018/11/08 08:17:23 PM	In progress	Title: 2018-09 Update for Windows 10 Version 1803 for x64-based Systems (KB4100347), KI
2018/11/08 08:17:05 PM	In progress	Resolving Procedure is completed successfully.
2018/11/08 08:17:05 PM	Started	Resolving Procedure is started.

- The 'Tickets' tab shows tickets which were created as a result of a failed procedure. Click the ticket link to open the ticket in service desk.

## Results of a selected patch procedure run on all devices



- Click 'Configuration Templates' > 'Procedures'.
- Click the name of the patch procedure under 'My Procedures' or 'Predefined Procedures' for which you want to view results, then click 'Execution Log' in the Procedure Details screen.
- This will open a list of all devices on which the script procedure was run along with their status (success/failure), their start/finish time and time of last status update.
- Click 'Details' in the row of a device to view specific results:

The screenshot illustrates the navigation path in the Endpoint Manager interface. It starts with the 'CONFIGURATION TEMPLATES' menu item, which is circled in red. Underneath, 'Procedures' is also circled in red. The 'Procedures' list shows 'Patch maintenance' circled in red. Below this, the 'Execution Log' tab is circled in red. The 'Execution Log' table shows a row for 'DESKTOP\_...' with a 'Details' link circled in red. Finally, the 'Log Detail' screen shows the 'Tickets' tab, which contains a list of log entries.

DEVICE NAME	STARTED AT	STARTED BY	LAUNCH TYPE	FINISHED AT	STATUS	LAST STATUS UPDATE	DETAILS
DESKTOP_...	2018/11/08 08:17:05 PM	herculespopular22@gmail.com	Run Over	2018/11/08 08:21:02 PM	Finished success	2018/11/08 08:21:02 PM	Details

TIME	STATUS	ADDITIONAL INFORMATION
2018/11/08 08:21:02 PM	Finished success	PROCEDURE operation completed successfully. 1 patch(es) successfully installed.
2018/11/08 08:17:23 PM	In progress	Title: 2018-09 Update for Windows 10 Version 1803 for x64-based Systems (KB4100347), KI
2018/11/08 08:17:05 PM	In progress	Resolving Procedure is completed successfully.
2018/11/08 08:17:05 PM	Started	Resolving Procedure is started.

- The 'Tickets' tab displays a list of tickets which were created as a result of a failed procedure. Clicking the ticket link will open the ticket in service desk.

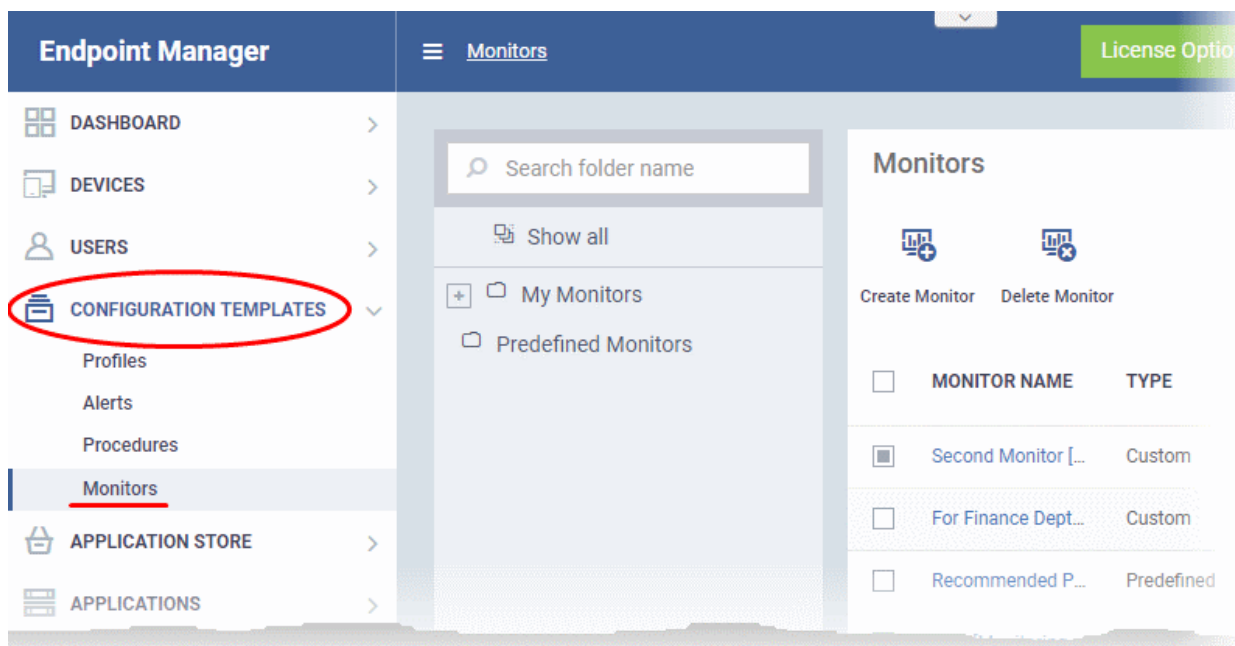


## 6.7. Manage Monitors

- Click 'Configuration Templates' > 'Monitors'
- A monitor is a script which tracks events on your network and takes specific actions if its conditions are met. For example, 'Alert me when a USB removable disk is connected to the system', or 'Create a log entry if CPU usage goes above 75% for a certain length of time'.
- You can also tell a monitor to run a procedure to remediate issues.
- Monitors are added to configuration profiles which are in-turn applied to a devices. To add a monitor to a profile:
  - Click 'Configuration Templates' > 'Profiles'
  - Open an existing profile or create a new profile
  - Click 'Add Profile Section' > 'Monitoring'
- A single monitor can be used in multiple profiles. A single profile can include any number of monitors.
- There are two types of monitors:
  - 'Predefined Monitors' - A collection of monitors from Comodo which perform a range of useful monitoring tasks. These can be used in custom profiles, but cannot be edited.
  - 'My Monitors' - Custom monitors that you create. These monitors are saved in the 'My Monitors' folder. You can add custom sub-folders as required.

### To view and manage monitors

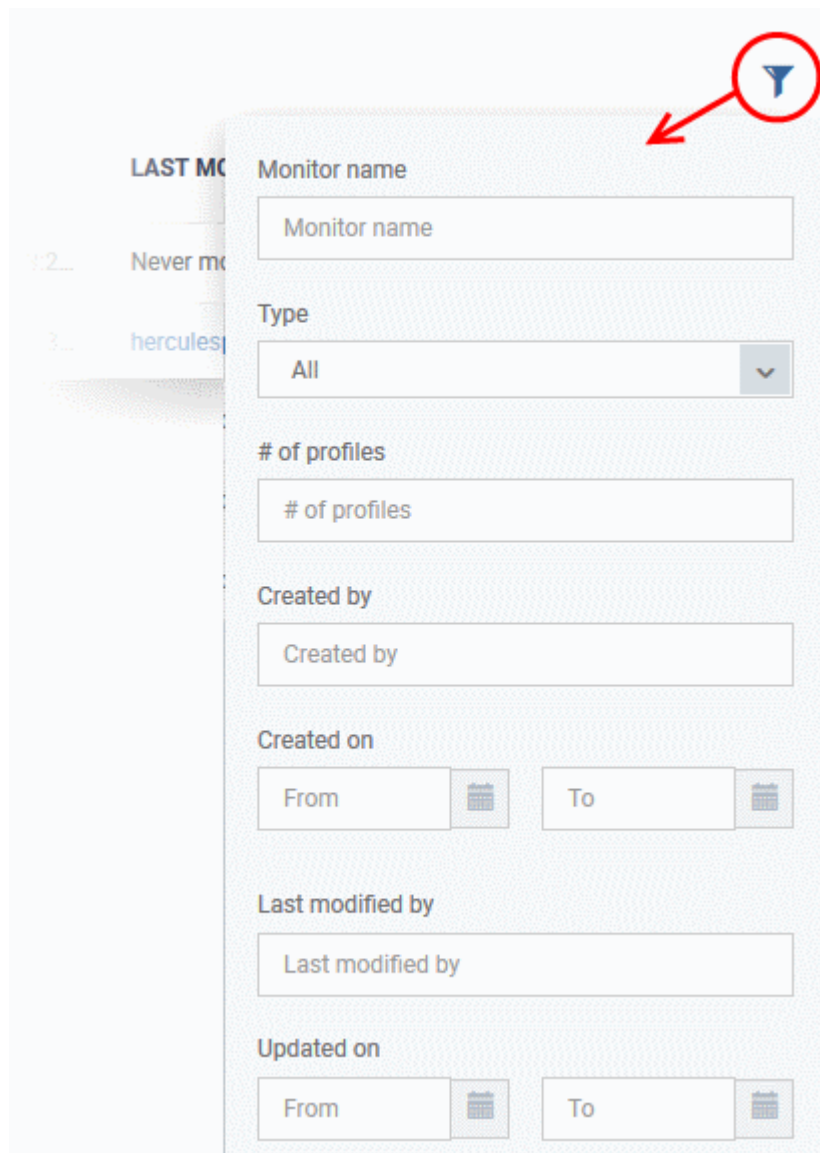
- Click 'Configuration Templates' > 'Monitors'



Monitors - Column Descriptions	
Column Heading	Description
Monitor Name	The monitor label. <ul style="list-style-type: none"> <li>• Click the name of a monitor view and edit it. See <b>View and Edit Monitors</b> for more details.</li> </ul>
Type	Whether the monitor is custom or predefined

Number of profiles	The quantity of profiles on which the monitor is active.
Created by	The administrator who created the custom monitor. <ul style="list-style-type: none"> <li>Click the admin name to view their details. See <b>View User Details</b> if you need help with this.</li> </ul>
Created On	Date and time the monitor was created.
Last Modified By	The admin who most recently edited the monitor.
Updated On	Date and time the monitor was last edited.
<b>Controls</b>	
Create Monitor	Configure a new monitor. See ' <b>Create Monitors and Add them to Profiles</b> ' for help with this.
Delete Monitor	Remove monitors from Endpoint Manager. Use the check-boxes to select the monitors to be removed.

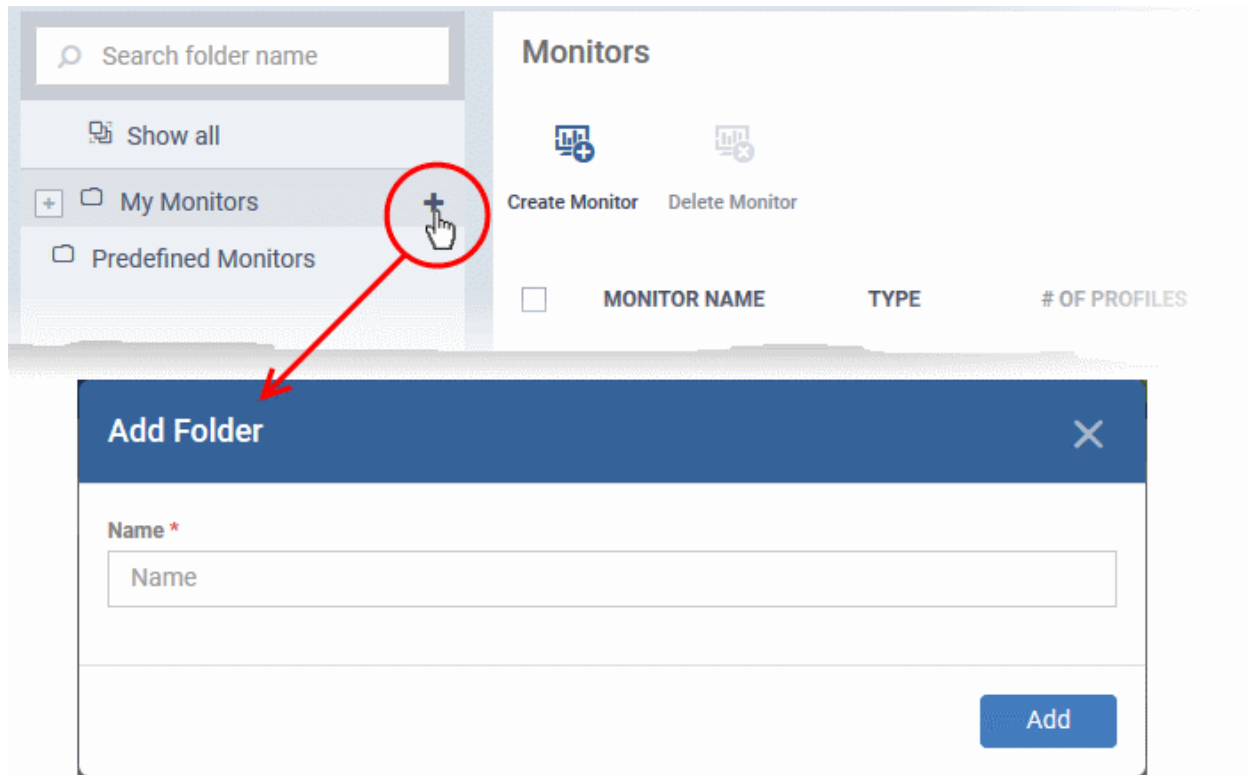
- Click any column header to sort the items in ascending/descending order of entries in that column.



- Click the funnel icon to search for monitors based on the filter parameters

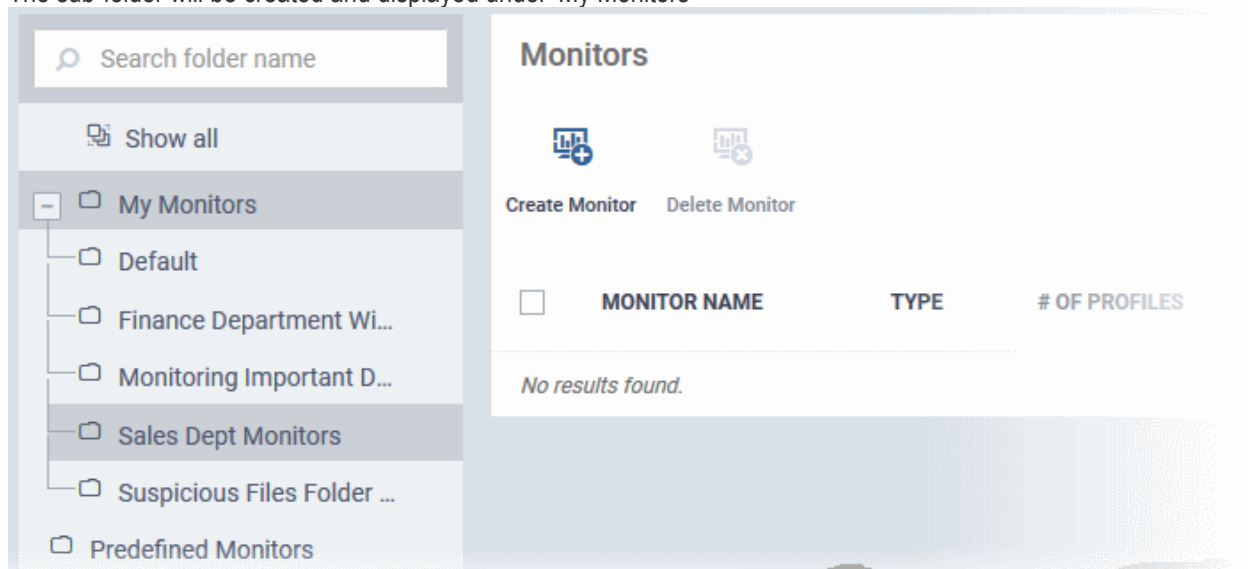
## To add a sub folder to the My Monitors folder

- Click 'Configuration Templates' > 'Monitors'
- Place your mouse on the 'My Monitors' folder and click '+' beside it



- Enter a name for the sub-folder to be created in the 'Add Folder' dialog and click 'Add'

The sub-folder will be created and displayed under 'My Monitors'

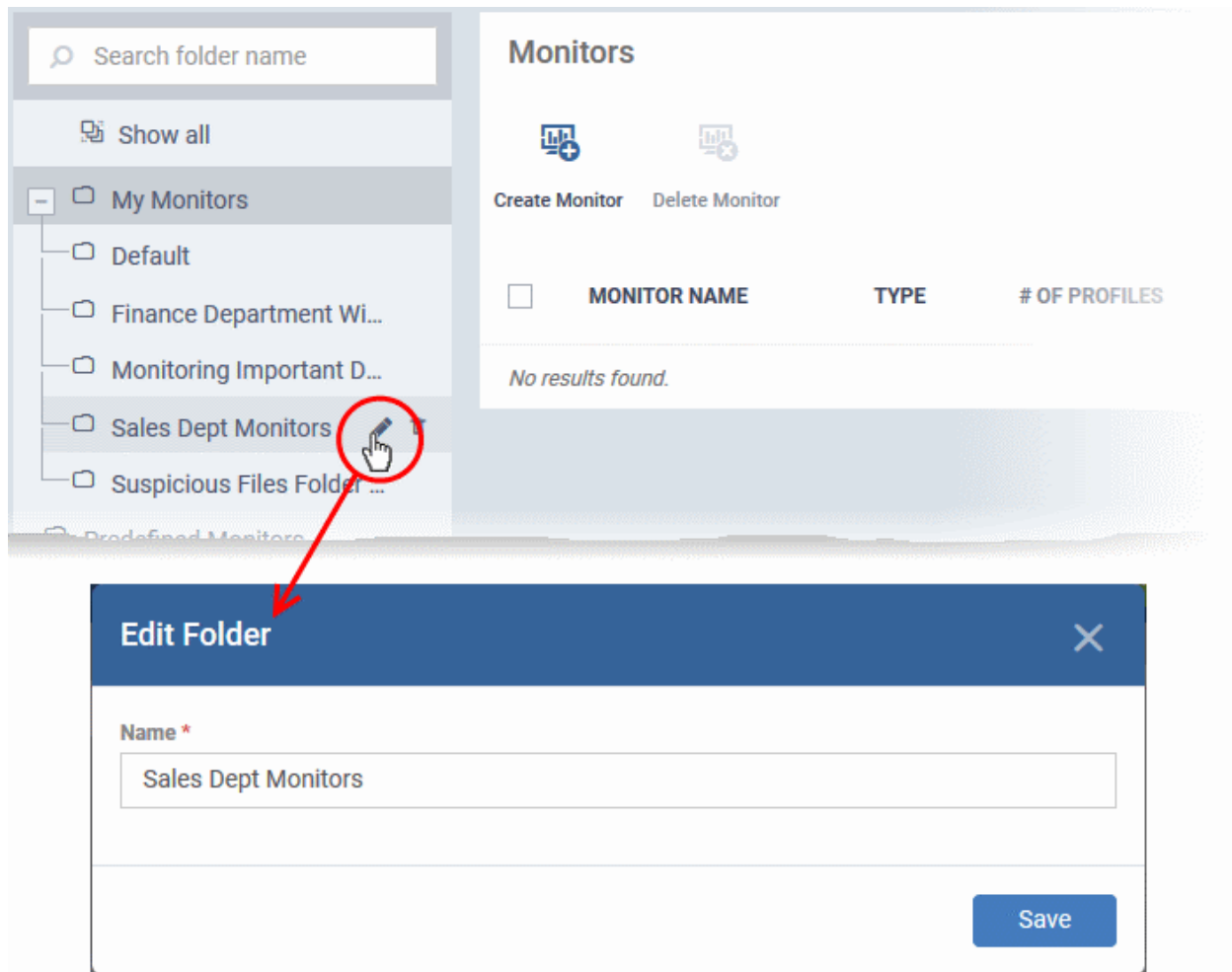


You can also add sub-folders of a sub-folder. Once sub folders are created, you can create new monitors inside them. See [Create Monitors and Add them to Profiles](#) for more details about adding new monitors.

## To edit the name of a sub folder under 'My Monitors'

- Click 'Configuration Templates' > 'Monitors'

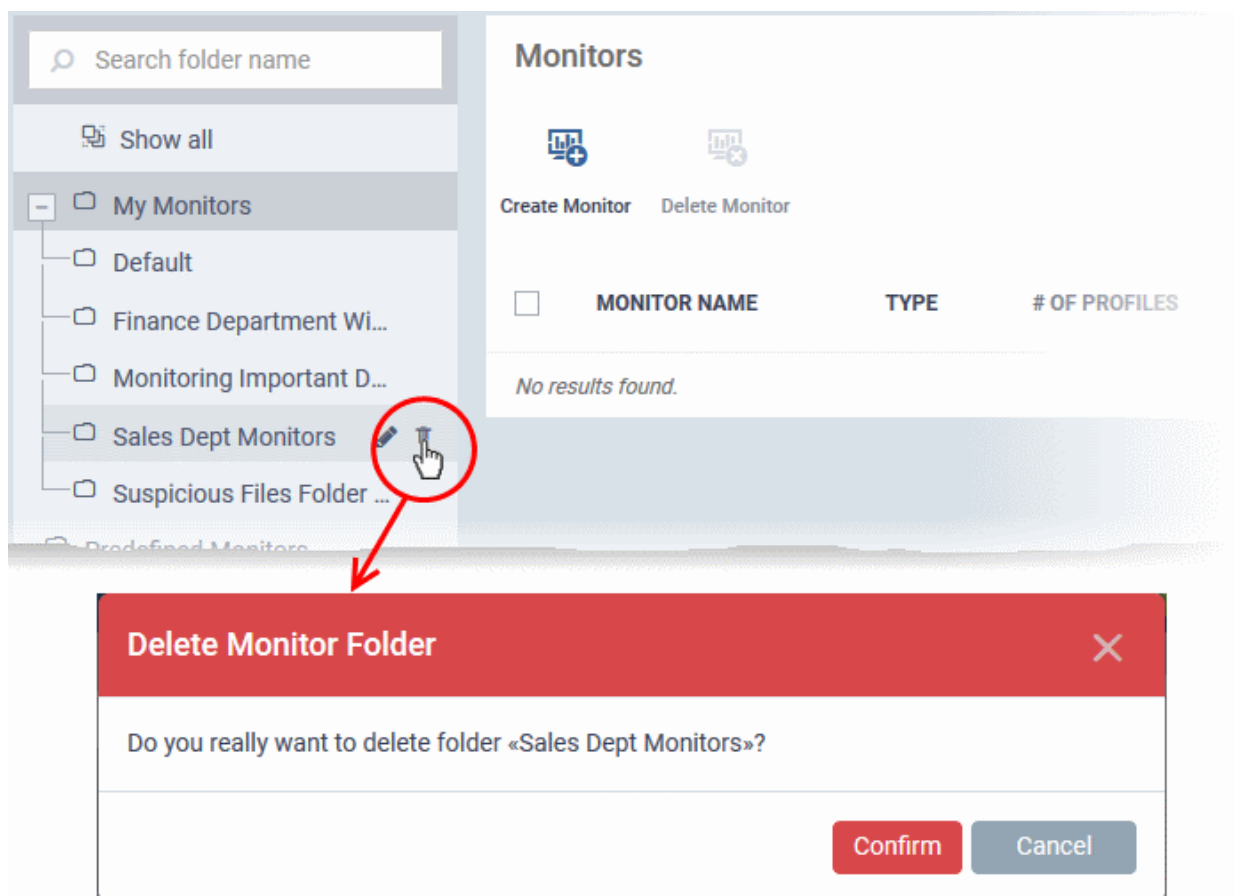
- Expand the 'My Monitors' folder (or the parent folder of the sub-folder)
- Place your mouse on the sub folder and click the pencil symbol beside it
- Enter a new name for the sub folder in the 'Edit Folder' dialog and click 'Save'



The folder name will be updated in folder tree.

### To delete a sub folder under 'My Monitors' folder

- Click 'Configuration Templates' > 'Monitors'
- Expand the 'My Monitors' folder (or the parent folder of the sub-folder)
- Place your mouse on the sub folder and click the trash can symbol beside it



- Click 'Confirm' to remove the folder.

**Note:** You can only remove empty folders. Delete all monitors in a folder before attempting to delete the folder.

Following sections explain more about:

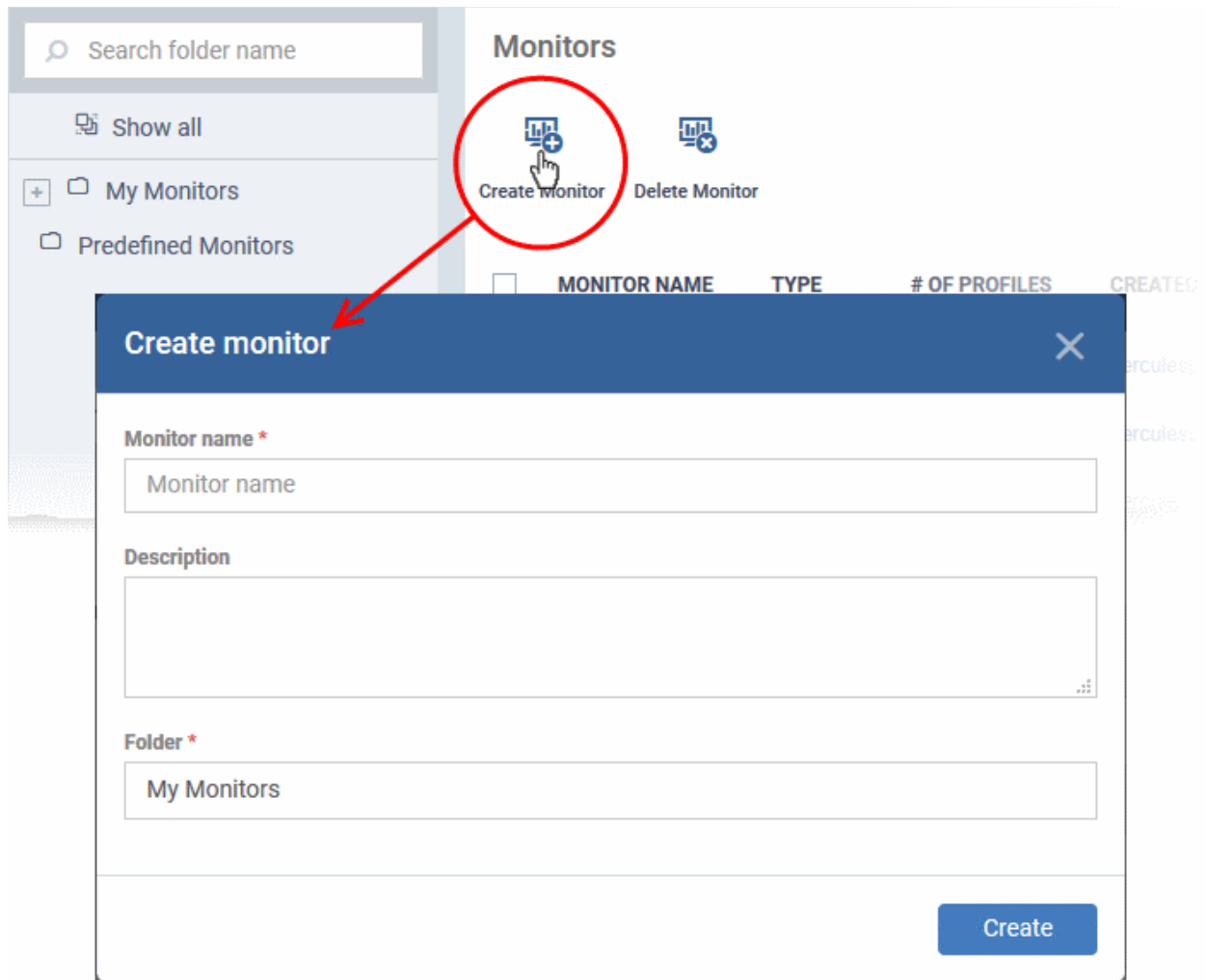
- **Create Monitors and Add them to Profiles**
- **View and Edit Monitors**

## 6.7.1. Create Monitors and Add them to Profiles

- Custom monitors let you track and respond to events of your choice. For example, you may create a monitor to alert you if disk space on a device falls below 10%.
  - You can set a monitor to run a specific procedure if its conditions are met. For example, you could run a disk-defrag procedure when free space falls below a set threshold.
  - You can also configure custom responses by modifying the alert template on the procedure. Click 'Configuration Templates' > 'Alerts' to view alert templates.
- Monitors are assigned to security profiles which are, in-turn, deployed to devices. You need to add a 'Monitors' section to a profile to add your monitor.

### To create a new monitor

- Click 'Configuration Templates' > 'Monitors'
- Click 'Create Monitors'



- Enter a label and description and specify where to save the new monitor. You can create new sub-folders under 'My Monitors' if required.
- Click 'Create'.
- You will be taken to the monitor configuration screen:

**For Finance Dept Computers** [Cancel] [Save]

**General** | **Conditions** | **Profiles** | **Logs**

**Monitor name \***  
For Finance Dept Computers

**Description**  
To observe performance of computers in Finance Dept

**Folder**  
My Monitors

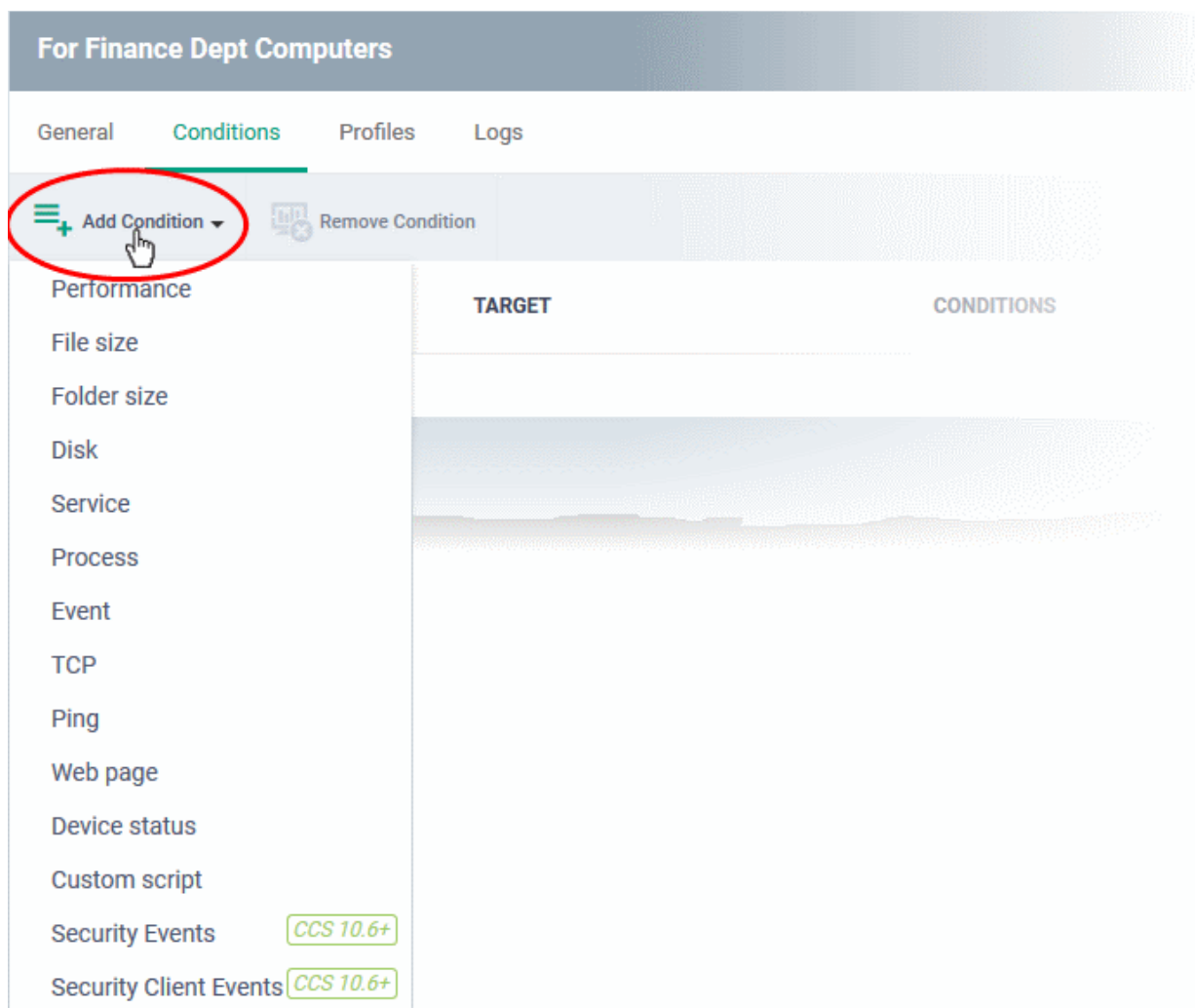
**Trigger an alert if**  
All of the conditions are met

**Use alert settings**  
Default Alert

**Auto remediation on alert**  
 Take no action  
 Run below procedure

- Modify the basic settings if required
  - Trigger an alert if - Select when the alert should be sent to the admins. The options are to send alert when all conditions are met and any of the conditions are met.
  - Use Alert Settings - Select the alert that should be generated. The alert types that are listed here are predefined in the 'Alerts' section. See '**Manage Alerts**' for more details.
  - Auto Remediation on alert - Allows you the choice whether to take automatic remedial action for the alert or not.
    - Taken no action - No remedial action will be taken automatically. You can, of course, manually take appropriate action for the generated alert.
    - Run below procedure - If selected, the 'Procedure' field allows you to select the procedure that should be run automatically for the alert on the affected endpoints. The procedures listed here are predefined in the **Procedures** interface. Type first few characters of the procedure and select an appropriate procedure from the list.
- Click 'Save' to save your settings.
- Click the 'Conditions' tab followed by 'Edit' to define thresholds for various monitoring parameters that when breached will trigger alerts per the setting:
- Click 'Add Condition'





- Choose the parameter to be monitored

Monitoring Conditions	
Parameter	Description
Performance	Checks the usage of CPU, RAM and Network on devices and triggers an alert if the specified conditions are met.
File Size	Checks the disk space used by a specified file on target computers and triggers an alert when the specified conditions are met.
Folder Size	Checks the disk space used by a directory/folder on target computers and triggers an alert when the specified conditions are met.
Disk	Checks for free disk space and free space change and triggers an alert whenever the specified conditions are met.
Service	Checks periodically if the specified services are matching the required status, for example, running, stopped, not started.
Process	Checks if the specified processes are running or not running and triggers an alert if the conditions are met.
Event	Checks Windows Event logs on devices. Alerts are generated when a Windows event with the specified Event Sources, Event IDs or Event level occurs.

TCP	Periodically attempts to connect to a specified host name / IP;port. The monitor can be configured to trigger alerts based on connection status. This allows to check for services that should be running and trigger alerts when ports that should be closed become open.
Ping	Pings a device using its hostname, fully qualified domain name or an IP Address to check the connectivity and triggers an alert depending on the selected option.
Web Page	Checks periodically the web page content of the specified URL and triggers an alert if the specified conditions are met.
Device Status	Checks that the device has sent a message to confirm that it is online and connected. Each device sends its online status message to the EM server every minute and monitoring period is set as 3 minutes. If EM does not receive the online status from a device continuously for 3 minutes, the device's state is set to 'Offline'.
Custom Script	Allows you to create custom monitoring conditions as required. See <b>Add Custom Monitoring Conditions</b> for more details.
Security Events	Monitors events related to malware and unknown applications, including: <ul style="list-style-type: none"> <li>- 'Malware detected and handled'</li> <li>- 'Malware detected and not handled'</li> <li>- 'Unknown application running inside the container'</li> </ul> You can request an alert or run a procedure if the condition is met.
Security Client Events	Comodo Client Security is the end-point application which provides the antivirus, firewall and containment services. This monitor checks for any failure in those processes, including: <ul style="list-style-type: none"> <li>• 'Antivirus scan failed or interrupted'</li> <li>• 'Antivirus database update failed'</li> </ul> You can request an alert or run a procedure if the condition is met.

- Define the thresholds and conditions for the selected parameter. The conditions depend on the type of parameter selected. For example, if you select 'Disk' monitor, you have the option to specify conditions for three values. See the example image below.

**Add Condition for «Disk»**
✕

**Parameter**

Free space left on the system drive

Free space left on all the drives

Free space change on the system drive

**Condition** **Value \***

Less than ▼

10

% ▼

**Note:**  
The monitor checks the amount of free space on the selected drive(s) and triggers an alert if the specified conditions are met.

Create

- Click 'Create' after specifying the conditions.

The monitoring parameters added for the profile will be listed.

## Add Custom Monitoring Conditions

- Endpoint Manager allows you to create custom monitoring conditions per your business requirements.
- You can create custom scripts in python and can define which items should be monitored. You can also define the threshold before an alert is generated.
- Predefined script monitors are available in 'Configuration Templates' > 'Procedures' > 'Predefined Procedures' > 'Monitors'. These are available for selection in the 'Add Existing Procedure' > 'Procedure name' drop-down.

### To add a custom script to the monitoring conditions

- Choose 'Custom script' from the 'Add Condition' drop-down

The 'Add Condition for Custom Script' form will appear.

### Add Condition for «Custom script»

Name \*

Description

Check Period

 min 

Note:

- Please write your code on below box to create your own custom script condition.
- Please use "alert(1)" to turn on the condition (trigger an alert) and alert(0) to turn off the condition (disable an alert)
- Please define the custom alert text inside the code with "Print" function\*

```
1 # The script is a template to check UAC status on device.
2 import os
3 import sys
4 import _winreg
5
6 def alert(arg):
7     sys.stderr.write("%d%d%d" % (arg, arg, arg))
8
9 # Please use "alert(1)" to turn on the monitor(trigger an alert)
10 # Please use "alert(0)" to turn off the monitor(disable an alert)
11 # Please do not change above block and write your script below
12
13 def checkUAC():
14     if 'PROGRAMW6432' in os.environ.keys():
15
```

Add Condition for Custom Script - Table of Parameters	
Form Element	Description
Name	Enter a label for the script, shortly describing its purpose.
Description	Enter a short description for the script.
Check Period	Enter the time interval at which the script should be run on the endpoints to which the profile is applied. <b>Tip:</b> Ensure that the check period is greater than the time taken for the script to run and complete, so that successive executions of the script do not overlap.
Script	<p>Enter your Python script in the text editor.</p> <p><b>Note 1:</b> Keep the following lines intact in the editor and enter your script below these:</p> <pre>import os import sys import _winreg def alert(arg):     sys.stderr.write("%d%d%d" % (arg, arg, arg)) # Please use "alert(1)" to turn on the monitor(trigger an alert) # Please use "alert(0)" to turn off the monitor(disable an alert) # Please do not change above block and write your script below</pre> <p><b>Note 2:</b> If you want an alert to be triggered if the condition is met set the argument to alert parameter to 1, i.e. 'alert(1)'. If you do not want an alert to be triggered even if the condition is met set the argument to alert parameter to 0, i.e. 'alert(0)'.</p> <p><b>Note 3:</b> You can import an existing script procedure in EM if you wish to create a new custom monitor script using an existing procedure as a starting point. To do so, click 'Add Existing Procedure' and choose the existing procedure. Edit the script as per your requirement as per Note 1. For more details on procedures, See <b>Manage Procedures</b>.</p> <p><b>Note 4:</b> In addition to the above, Python script monitors by the Comodo development team are available in the 'Monitors' folder under 'Configuration Templates' &gt; 'Procedures' &gt; 'Predefined Procedures'. You can add these predefined scripts by clicking 'Add Existing Procedure' and select from the 'Procedure name' drop-down and can be used directly without any changes. Feel free to try any script that fits your needs. If you require custom scripts from Comodo, please raise a request at <a href="https://c1forum.comodo.com/forum/script-library/4460-script-requests-comodo-will-write-the-scripts-for-you-for-free">https://c1forum.comodo.com/forum/script-library/4460-script-requests-comodo-will-write-the-scripts-for-you-for-free</a></p>

- Complete the form and click 'Create'

The custom monitor will be added to the list of monitors under the 'Monitors' tab.

- Repeat the process for adding more parameters and monitoring conditions.

For Finance Dept Computers
Cancel Save

General Conditions Profiles Logs

+ Add Condition Remove Condition

	TYPE	TARGET	CONDITIONS
<input type="checkbox"/>	Custom script	Monitor Script	Python script procedure
<input checked="" type="checkbox"/>	Free space left on the system drive		Less than 10%
<input type="checkbox"/>	Folder size	c:\Users	More than 1000MB

- To remove a monitoring condition, select the check box beside it and click 'Remove Condition' at the top.
- Click 'Save' to apply your changes.

The monitor will be available for selection under 'Add Monitor' when configuring the 'Monitors' section of a Windows profile. For more details on adding a monitor to a profile, see [Monitor Settings](#).

## 6.7.2. View and Edit Monitors

The 'Monitors' interface lets you view the details of any monitor and edit custom monitors as required. You can also view profiles on which the monitor is active and log of events where the monitor was triggered.

### To view details of a monitor

- Click 'Configuration Templates' > 'Monitors'
- Click the name of a monitor to open its configuration interface

The screenshot displays the 'Monitors' section of the Endpoint Manager interface. On the left, there is a sidebar with a search bar and a list of folders: 'My Monitors' and 'Predefined Monitors'. The main area shows a table of monitors. The first monitor, 'For Finance Dept Computers', is highlighted with a red circle and a red arrow pointing to its configuration page. The configuration page for this monitor is shown below, with tabs for 'General', 'Conditions', 'Profiles', and 'Logs'. The 'General' tab is active, showing the following details:

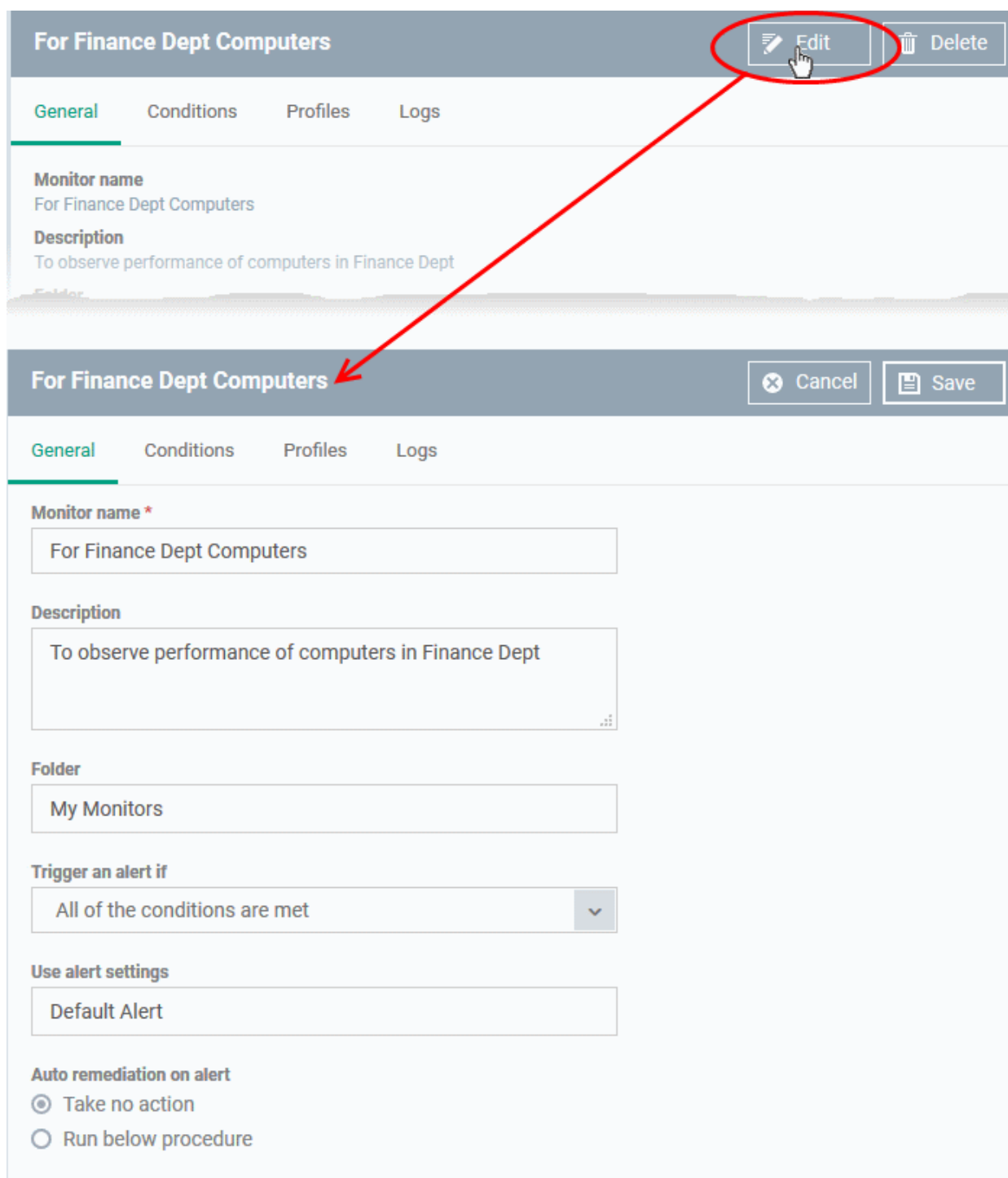
Property	Value
Monitor name	For Finance Dept Computers
Description	To observe performance of computers in Finance Dept
Folder	My Monitors
Trigger an alert if	All of the conditions are met
Use alert settings	Default Alert
Auto remediation on alert	Take no action

The configuration interface allows your to:

- **Edit the general settings and monitoring conditions**
- **View the configuration profiles to which the monitor is applied**
- **View the log of events related to the monitor. from all devices on which profiles with the monitor is applied**

## Edit a Monitor

- Click 'Configuration Templates' > 'Monitors'
- Click the name of a monitor. The configuration interface for the monitor will open at the 'General' tab by default.
- Click the 'Edit' button to modify the details.



- 'General' Tab - Modify the name, description, folder in which the monitor is saved, alert settings and more
- 'Conditions' tab - Modify the monitored parameters and threshold conditions
- See **Create Monitors and Add them to Profiles** for more details on the options that can be configured under 'General' and 'Conditions' tabs
- Click 'Save' for your changes to take effect
- The changes will effect on the profiles to which the monitor is applied.

### View configuration profiles using a monitor

- Click 'Configuration Templates' > 'Monitors'
- Click the name of a monitor to open its configuration interface.



- Click the 'Profiles' tab.

For Finance Dept Computers		Edit	Delete
General	Conditions	<b>Profiles</b>	Logs
PROFILE NAME	OWNER		
Finance Department Windows Computers	herculespopular22@gmail.com		
Suspicious Files Folder for John	herculespopular22@gmail.com		

Monitors - Column Descriptions	
Column Heading	Description
Profile Name	The profile to which the monitor has been applied. <ul style="list-style-type: none"> <li>• Click the profile name to open its configuration screen. See <b>Edit Configuration Profiles</b> for more details.</li> </ul>
Owner	The administrator who created the profile. <ul style="list-style-type: none"> <li>• Click the name to view their user details. See <b>View the details of the User</b> for more details.</li> </ul>

## View Monitor Logs

- Click 'Configuration Templates' > 'Monitors'
- Click the name of a monitor to open its configuration interface.
- Click the 'Logs' tab.

The 'Logs' tab shows the list of monitoring conditions breach events identified from all devices on which the monitor is applied as a part on profile, in effect in the devices.

Second Monitor [Suspicious Files Folder for John]						Edit	Delete
General	Conditions	Profiles	<b>Logs</b>				
DEVICE NAME	STATUS	HIT COUNT	LAST HIT TIME	LAST UPDATE TIME	DETAILS		
● DESKTOP-Q74RLIJ	On	245	2018/07/27 12:15:31 PM	2018/07/27 12:15:31 PM	Details		
Device removed	Off	494	2018/07/20 10:42:18 AM	2018/07/20 10:42:31 AM	Details		

Monitoring Logs - Table of Column Descriptions	
Column Heading	Description
Device Name	The Windows device on which the violation occurred. <ul style="list-style-type: none"> <li>• Click the name of the device to open its device details interface. See <b>Manage</b></li> </ul>

	<b>Windows Devices</b> for more details.
Status	Whether or not the monitor is currently active on the device.
Hit Count	The number of times the monitoring condition was breached during the last 24 hours.
Last Hit Time	Date and time the monitoring rule was last broken.
Last Update Time	Date and time when the information was last refreshed.
Details	<ul style="list-style-type: none"> <li>Click the 'Details' link to view a log of the breach events.</li> <li>See <b>View Details of Monitor Logs</b> (given below) for more information.</li> </ul>

## View Details of Monitor Logs

- Click the 'Details' link to view the details of the violations of the monitoring conditions:

The screenshot shows the 'Second Monitor [Suspicious Files Folder for John]' interface. The 'Logs' tab is selected, displaying a table with columns: DEVICE NAME, STATUS, HIT COUNT, LAST HIT TIME, LAST UPDATE TIME, and DETAILS. A red circle highlights the 'Details' link in the 'DETAILS' column for the device 'DESKTOP-Q74RLIJ'. A red arrow points from this link to the 'Log Detail' page below.

The 'Log Detail' page shows a 'Back' button and two tabs: 'Statuses' and 'Tickets'. The 'Statuses' tab is active, displaying a table with columns: TIME, STATUS, and ADDITIONAL INFORMATION.

TIME	STATUS	ADDITIONAL INFORMATION
2018/07/27 12:15:31 PM	ON	CPU Monitor : Threshold is GREATER THAN 5 % - Usage is 84 %
2018/07/27 12:15:24 PM	OFF	CPU Monitor : Threshold is GREATER THAN 5 % - Usage is 3 %
2018/07/27 12:15:21 PM	ON	CPU Monitor : Threshold is GREATER THAN 5 % - Usage is 22 %

Details are displayed under two tabs:

**Statuses** - Displays the date and time when the breach occurred. Also displays details of the monitoring rule that was broken.

### Monitoring Log Details - 'Statuses' tab - Table of Column Descriptions

Column Heading	Description
Time	Date and time of the breach event.
Status	Displays the status of the device at the time of monitoring.
Additional Information	Provides details on the condition monitored and the breach

**Tickets** - Shows any service desk tickets raised for the alert.

Log Detail
← Back

Statuses
Tickets

LINK	STATUS	CREATED ON
<a href="https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=104">https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=104</a>	Open	2018/07/27 11:44:04 AM
<a href="https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=104">https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=104</a>	Closed	2018/07/27 11:43:58 AM
<a href="https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=103">https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=103</a>	Open	2018/07/27 11:43:46 AM
<a href="https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=103">https://frontfork.staging.servicedesk.comodo.com/scp/tickets.php?id=103</a>	Closed	2018/07/27 11:43:39 AM

Monitoring Log Details - 'Tickets' tab - Table of Column Descriptions	
Column Heading	Description
Link	A link to the support ticket created for the breach event. <ul style="list-style-type: none"> <li>Click the link to open the ticket in service desk.</li> </ul>
Status	Indicates whether the ticket is open or closed
Created On	The date and time at which the ticket was created.

## 7. Applications

- Click 'Applications' in the left-menu to view this section.

Endpoint Manager provides visibility and control over the applications which are installed on user devices.

The 'Applications' tab contains the following areas:

- **Mobile Applications** - View all applications installed on enrolled Android and iOS devices, and block any malicious applications that are identified. Once blacklisted, the application is not allowed to run on any device on which it is installed.
- **Patch Management** - View a constantly updated list of OS and third party application patches available for managed Windows devices. The area lets you install or uninstall patches/updates as required.
- **Global Software Inventory** - View all applications installed on your Windows devices. You can uninstall unwanted applications as required.

<input type="checkbox"/>	OS	NAME	PACKAGE ▲	# OF DEVICES	VERDICT
<input checked="" type="checkbox"/>	Android	Test your Antivirus	avtester.underdog1987...	1	Allowed
<input type="checkbox"/>	Android	Kingsoft Office	cn.wps.moffice_i18n	1	Allowed
<input type="checkbox"/>	Android	AccuWeather	com.accuweather.andr...	1	Allowed
<input type="checkbox"/>	Android	AndroZip	com.agilesoftresource	1	Allowed
<input type="checkbox"/>	Android	Prime Video	com.amazon.avod.third...	0	Allowed
<input type="checkbox"/>	Android	Amazon Kindle	com.amazon.kindle	0	Allowed

Click the following links for more help:

- [View Applications Installed on Android and iOS Devices](#)
  - [Blacklist and Whitelist Applications](#)
- [Patch Management](#)
- [View and Manage Applications Installed on Windows Devices](#)

### 7.1. View Applications Installed on Android and iOS Devices

- Click 'Applications' > 'Mobile Applications'
- The 'Mobile Applications' interface shows all applications identified on enrolled Android and iOS devices. Additional details include the package name and the number of devices on which the app was found.
- You can blacklist application you feel are suspicious or not trustworthy.
- Blacklisted apps are blocked on any devices on which they are installed. EM also prevents them from being installed on other devices in future.


**To access the 'Mobile Applications' interface**

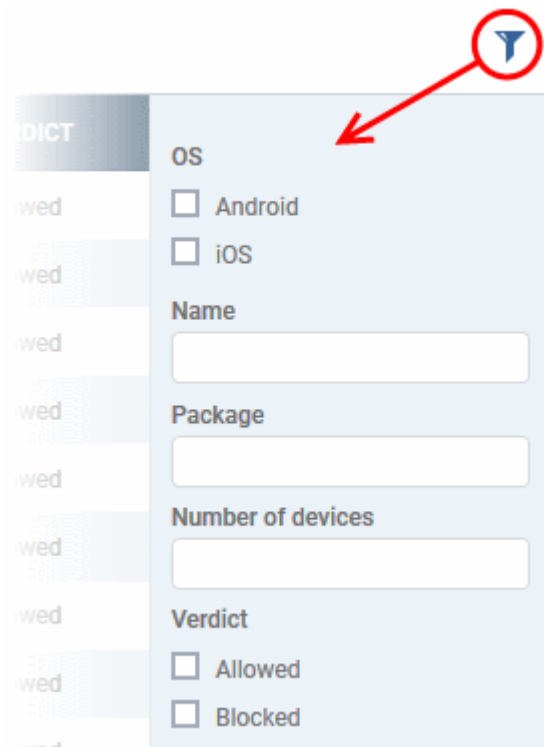
- Click 'Applications' > 'Mobile Applications'.

<input type="checkbox"/>	OS	NAME ▲	PACKAGE	# OF DEVICES ▼	VERDICT
<input checked="" type="checkbox"/>	Android	ES File Explorer	com.estrong.android.pop	2	Allowed
<input type="checkbox"/>	Android	SHAREit	com.lenovo.anyshare.gps	2	Allowed
<input type="checkbox"/>	Android	AccuWeather	com.accuweather.android	1	Allowed
<input type="checkbox"/>	Android	Amazon Shopping	in.amazon.mShop.android.s...	1	Allowed
<input type="checkbox"/>	Android	App Lock	com.comodo.cisme.applock	1	Allowed
<input type="checkbox"/>	Android	Backup	com.comodo.cisme.backup	1	Allowed
<input type="checkbox"/>	Android	...	com.comodo.esa.mobil...	1	...

Mobile Applications - Column Descriptions	
Column Heading	Description
OS	The operating system on which the application runs.
Name	Application label. <ul style="list-style-type: none"> <li>• Click the name of an application to open the 'Devices' interface that shows the list of only those devices on which the app is installed.</li> <li>• This enables you to identify the devices using the application.</li> </ul>
Package	The package name or identifier of the package from which the app was installed.
Number of Devices	The count of devices on which the app is found installed.
Verdict	Whether the application is allowed or blacklisted.
Controls	
Add to Black List	Add selected applications to the global black list. Blacklisted apps are blocked on any devices on which they are installed. EM also prevents them from being installed on other devices in future. See <b>Blacklist and Whitelist Applications</b> the next section for more details.
Remove from Black List	Release an application from the global black list. Released applications are allowed to run on devices on which they are installed. They can also be installed in future on other devices. See <b>Blacklist and Whitelist Applications</b> the next section for more details.
Apply Changes to All Devices	Deploy the new settings to all devices.
Export	Save the list of mobile applications as a comma separated values (CSV) file. See <b>Export the List of Mobile Applications</b> for more details.

## Sorting, Search and Filter Options

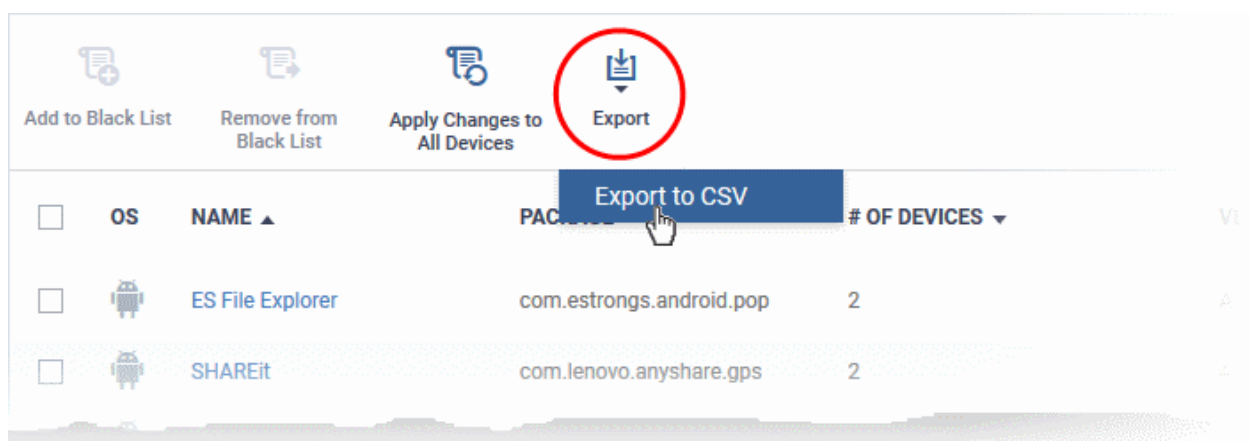
- Click any column header to sort the items based on alphabetical order of entries in that column.
- Click the funnel button  at the right end to open filter options.



## Export the List of Mobile Applications

Export the list of mobile applications to a .csv file as follows:

- Click 'Applications' > 'Mobile Applications'.
- Click the 'Export' button above the table then choose 'Export to CSV':



- The CSV file will be available in 'Dashboard' > 'Reports'
- See **Reports** in **The Dashboard** for more details.

### 7.1.1. Blacklist and Whitelist Applications

- Click 'Applications' > 'Mobile Applications'
- The mobile applications area shows a list of applications installed on all enrolled Android and iOS devices.

- You can review the list and decide which apps should be allowed or blocked.
- If a suspicious or malicious application is identified then it can be moved to the blacklist. This blocks the application on all devices and prevents other devices from installing the application in future.
- Blacklisted files that are subsequently found to be trustworthy can be moved to the whitelist.

### To move selected apps to blacklist

- Click 'Applications' > 'Mobile Applications'.
- Select the apps to be blocked.

**Tip:** You can filter the list or search for a specific app by using the filter options that appear on clicking the funnel icon at the top right.

The screenshot shows the 'Mobile Applications' section of the Endpoint Manager. At the top, there are four buttons: 'Add to Black List' (circled in red), 'Remove from Black List', 'Apply Changes to All Devices', and 'Export'. Below these is a table of applications. The first row, 'Test your Antivirus', has its selection checkbox also circled in red. A red arrow points from this checkbox to a red confirmation dialog box that appears at the bottom. The dialog box has a title bar 'Add to Black List' with a close button (X), a question 'Do you really want to blacklist selected application?', and two buttons: 'Confirm' and 'Cancel'.

<input type="checkbox"/>	OS	NAME	PACKAGE ▲	# OF DEVICES	VERDICT
<input checked="" type="checkbox"/>	Android	Test your Antivirus	avtester.underdog1987...	1	Allowed
<input type="checkbox"/>	Android	Kingsoft Office	cn.wps.moffice_i18n	1	Allowed
<input type="checkbox"/>	Android	AccuWeather	com.accuweather.andr...	1	Allowed
<input type="checkbox"/>	Android	AndroZip	com.agilesoftresource	1	Allowed
<input type="checkbox"/>	Android	Prime Video	com.amazon.avod.third...	0	Allowed

- Click 'Add to Black List' on the top.
- Click 'Confirm' in the confirmation dialog.

The selected apps will be added to the 'Black List' and their status will change to 'Blocked'. The apps will be blocked at the devices on which they are currently installed, during the next polling cycle of the device.

- Click 'Apply Changes to All Devices' to instantly block the apps on the devices on which they are currently installed.

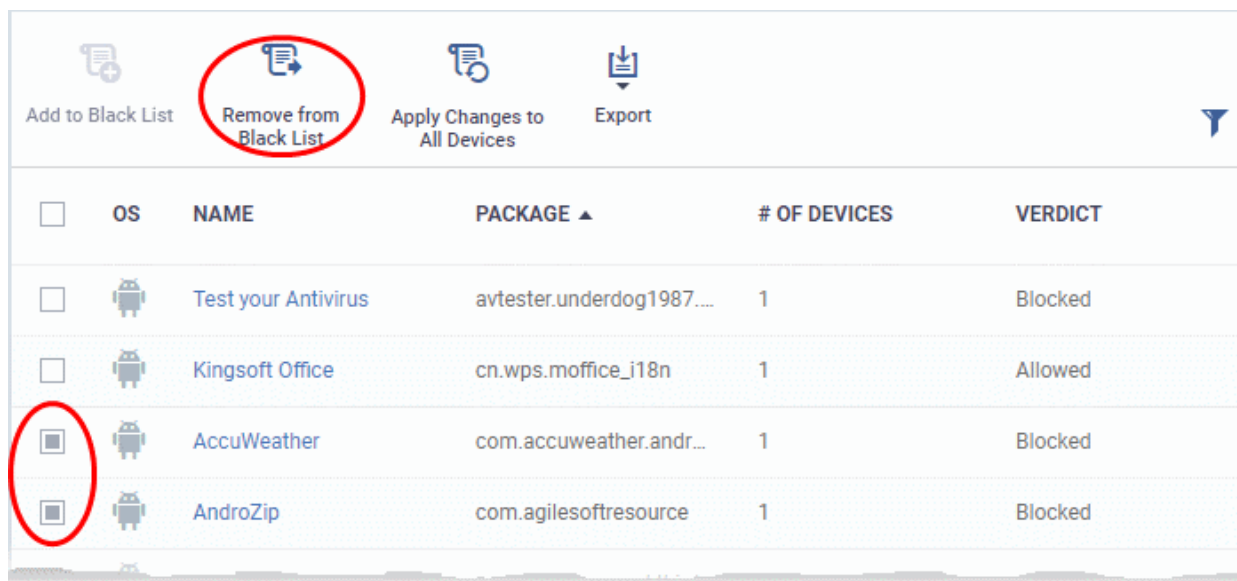
### Unblocking Blacklisted Apps

- Applications that were blocked by mistake can be released from blacklist and allowed to be installed or run on the devices.

### To remove trustworthy apps from blacklist



- Click 'Applications' > 'Mobile Applications'.
- Select the apps with 'Blocked' status, to be whitelisted.



<input type="checkbox"/>	OS	NAME	PACKAGE ▲	# OF DEVICES	VERDICT
<input type="checkbox"/>	Android	Test your Antivirus	avtester.underdog1987....	1	Blocked
<input type="checkbox"/>	Android	Kingsoft Office	cn.wps.moffice_i18n	1	Allowed
<input checked="" type="checkbox"/>	Android	AccuWeather	com.accuweather.andr...	1	Blocked
<input checked="" type="checkbox"/>	Android	AndroZip	com.agilesoftresource	1	Blocked

- Click 'Remove From Black List' at the top.

The status of the apps will change to 'Allowed'. The apps will be allowed to run on the devices on which they are currently installed, during the next polling cycle of the device.

- Click 'Apply Changes to All Devices' to instantly change the status of the apps in the devices and allow them to run.

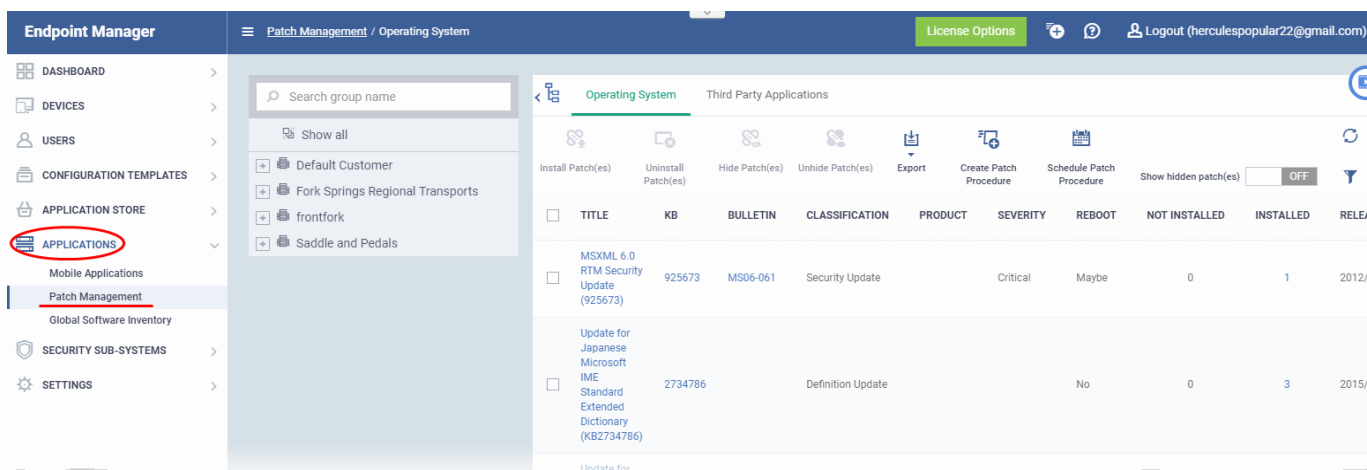
## 7.2. Patch Management

- Click 'Applications' > 'Patch Management' to open this interface
- The patch management area lets you install OS updates and patches for 3rd party applications on managed Windows devices.
- You can also uninstall Windows updates and patches if you want to roll back to the previous version.
- All available patches are displayed by default. You can filter patches by company and device group.

**Tip:** This area lets you manage patches across all devices in your network. As an alternative, you can manage patches on *individual* devices by clicking 'Devices' > 'Device List' > 'Device Management' > *Click on a device* > 'Patch Management'. See **View and Manage Patches for Windows and 3rd Party Application** to find out more.

### To open the 'Patch Management' interface

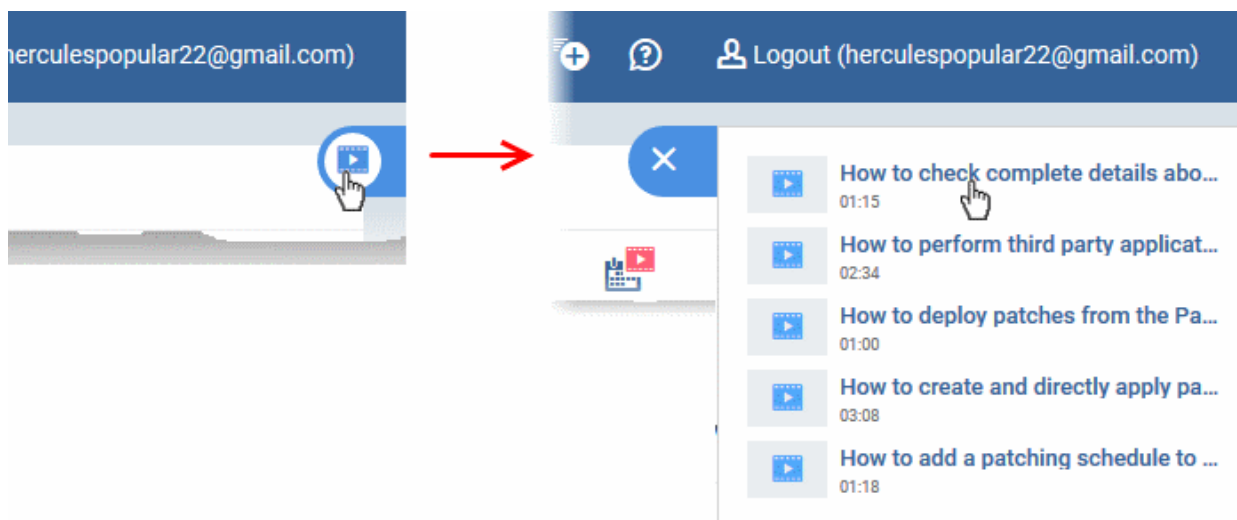
- Open Endpoint Manager
- Click 'Applications' > 'Patch Management':



The interface contains two tabs:

- **Operating System** - All OS patches available for deployment through Endpoint Manager.
  - Each patch has additional details such as classification, the Windows component to which the patch applies, severity, release date, installation status and links to knowledgebase articles.
  - The interface lets you install or uninstall selected patches on multiple devices. You can also generate a report on overall patch status.
  - See [Manage OS Patches on Windows Endpoints](#) for more details.
- **Third Party Applications** - All updates available for 3rd party applications installed on managed Windows endpoints.
  - You can update selected applications on all required endpoints. See [Install 3rd Party Application Patches on Windows Endpoints](#) for more details.
  - See [EM Supported 3rd Party Applications](#) for a list of applications that we support for patching.

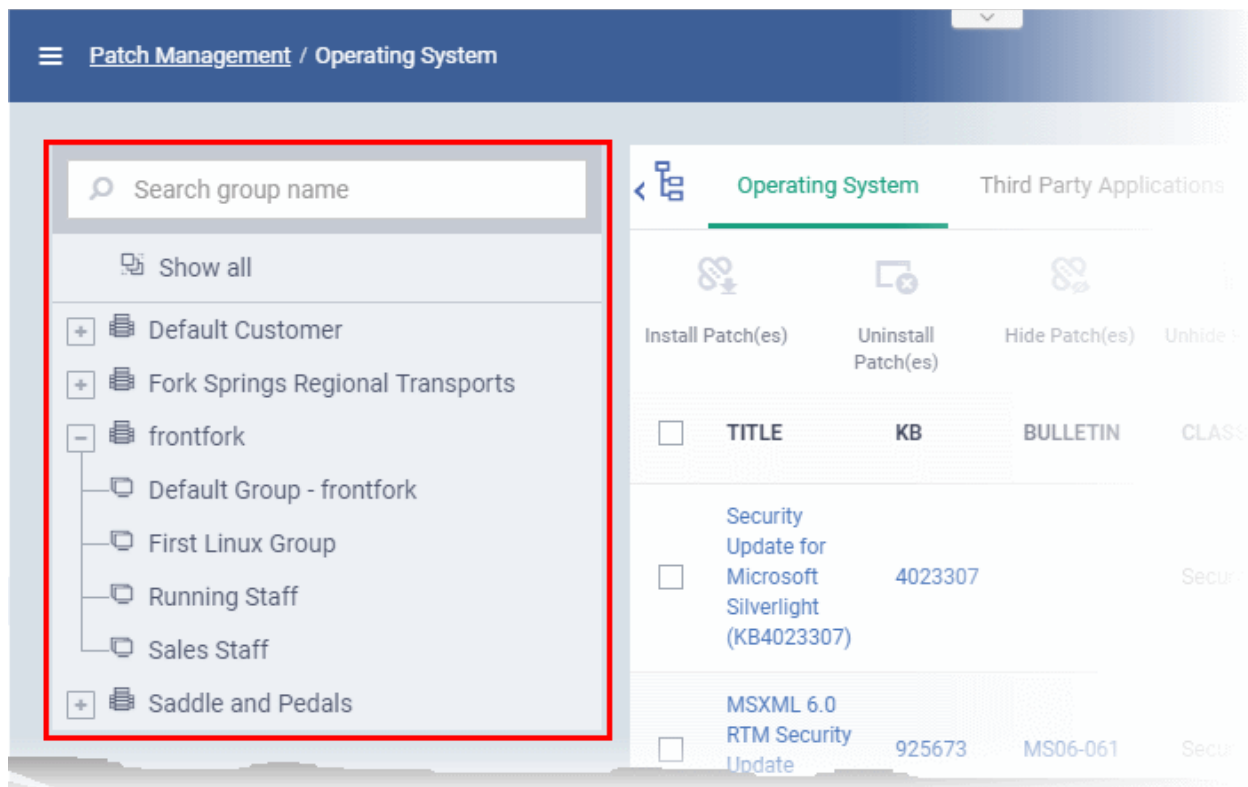
The slider at top-right contains links to help videos on various patch management tasks:



- Use the videos to quickly learn about patch deployment tasks.

## View patches by company / device group

- The tree structure on the left shows all enrolled organizations and device groups:



- Type a company or group name in the search field to look for a specific entity
- Click a company name to view patches for all device groups under it
- Click '+' beside a company to view device groups under it
- Click a device group to view patches for devices belonging to that group
- Click 'Show all' to clear any selections and view all patches

## 7.2.1. Manage OS Patches on Windows Endpoints

- Click 'Applications' > 'Patch Management' > 'Operating System' tab
- The 'Operating System' tab lets you deploy and manage OS updates on Windows devices.
- Endpoint Manager checks Microsoft update servers for available Windows patches and lists them in the interface. You can deploy patches to devices as require. You can also uninstall patches from devices if required.
- The interface shows details about each patch, including patch classification, the Windows component to which it applies, release date, severity, previous versions, Microsoft bulletins and number of endpoints which require the patch.
- You can filter patches by company and device group.
- You can hide patches if you do not want to deploy them. Hidden patches will not be available for deployment in the '**Device Management**' screen and will not be executed if added to a **patch procedure**.
- You can also **generate reports** on the current patch status of your Windows devices.

### Manage operating system patches

- Click 'Applications' > 'Patch Management'
  - Select the 'Operating System' tab
    - Select a company or group to view updates for that entity's devices
- Or

- Select 'Show all' to view every available Windows update

	TITLE	KB	BULLETIN	CLASSIFICATION	PRODUCT	SEVERITY	REBOOT	NOT INSTALLED	INSTALLED	RELEASE DATE
<input checked="" type="checkbox"/>	Update for Japanese Microsoft IME Postal Code Dictionary (KB2734786)	2734786		Definition Update		No	No	0	3	2015/07/10 05:30:00 AM
<input type="checkbox"/>	Microsoft Silverlight (KB4023307)	4023307		Feature Pack		No	No	0	1	2017/06/13 05:30:00 AM

## 'Operating System' Patch Management - Column Descriptions

Column Heading	Description
Title	The descriptive name of the patch. <ul style="list-style-type: none"> <li>• Click the name to view patch details. See <a href="#">View Patch Details</a> for more information on this interface.</li> </ul>
KB	The knowledgebase article number that describes the patch. <ul style="list-style-type: none"> <li>• Click the number to view the Microsoft Knowledgebase article on the patch.</li> </ul>
Bulletin	The Microsoft Bulletin number that contains details about the patch release. <ul style="list-style-type: none"> <li>• Click the number to view the patch bulletin.</li> </ul>
Classification	The category of the patch. The possible values are: <ul style="list-style-type: none"> <li>• <b>Update</b> - Fixes a specific non-critical problem, but not a security-related bug.</li> <li>• <b>Definition update</b> - Contains updates to a product's definition database. For example, an update to the virus signature database for Windows Defender.</li> <li>• <b>Critical Update</b> - Fixes a specific critical problem but not a security-related bug.</li> <li>• <b>Security update</b> - Fixes a version specific, security related vulnerability</li> <li>• <b>Update rollup</b> - Contains a collection of hotfixes, security updates, critical updates, and updates packaged together for easy deployment. These updates generally target a specific Windows component.</li> <li>• <b>Driver</b> - Adds software for controlling peripherals or add-on devices that could be connected to the endpoint</li> <li>• <b>Feature pack</b> - Adds new functionality distributed after an OS release.</li> <li>• <b>Service pack</b> - Contains a collection of hotfixes, security updates, critical updates, updates, and additional fixes.</li> <li>• <b>Tool</b> - Installs a utility or feature for a specific task or a set of tasks.</li> <li>• <b>Upgrades</b> - Updates the Windows OS version on the endpoint to the latest</li> </ul>

	build.
Product	The Windows component to which the patch applies.
Severity	The criticality of the patch. The possible levels are: <ul style="list-style-type: none"> <li>• Critical</li> <li>• Important</li> <li>• Low</li> <li>• Moderate</li> <li>• Unspecified</li> </ul>
Reboot	Whether or not the endpoint requires a restart to complete the patch installation.
Not Installed	The number of managed endpoints on which the patch is yet to be installed. <ul style="list-style-type: none"> <li>• Click the number to view the patch details screen at the 'Device List' tab. See the explanation of <b>View Details of a Patch</b> for more details on the 'Patch Details' screen.</li> <li>• The 'Device List' tab shows devices to which the patch is relevant. You can deploy the patch to those devices which need it.</li> <li>• See <b>Install a patch on selected endpoints</b> for more details.</li> </ul>
Installed	The number of managed endpoints on which the patch has already been installed. <ul style="list-style-type: none"> <li>• Click the number to view the patch details screen at the 'Device List' tab. See <b>View Details of a Patch</b> for more details on the 'Patch Details' screen.</li> <li>• The 'Device List' tab shows devices along with the installation status of the selected patch.</li> <li>• You can select devices on which the patch is required and start the installation process. See the explanation of <b>Install a patch on selected endpoints</b> for more details.</li> </ul>
Release Date	The date on which the patch was released by Microsoft.
<b>Controls</b>	
Install Patch(es)	Deploy selected patches to all devices on which they are yet to be installed.  See <b>Install selected patches on all managed endpoints at once</b> for more details.
Uninstall Patch(es)	Remove selected patches from all devices on which they are installed.  See <b>Uninstall selected patches from all managed endpoints at once</b> for more details.
Hide Patch(es)	Conceal selected patches that you do not want to be deployed onto enrolled endpoints.  Hidden patches will not be visible in the ' <b>Device Management</b> ' screen and will not be executed as well if added to a <b>patch procedure</b> .
Unhide Patch(es)	Reveal all hidden patches.
Export	Generate current patch statuses for the devices. See <b>Generate Patch Statuses Report</b> .

Create Patch Procedure	Takes you to the 'Procedures' interface in Endpoint Manager.  You can use pre-defined or custom procedures to deploy patches onto your endpoints. See <b>Manage Procedures</b> for more details.
Schedule Patch Procedure	Takes you to the 'Profiles' interface in Endpoint Manager.  You can add a procedure to a profile which will install your selected updates onto your endpoints. See <b>Procedure Settings</b> in <b>Profiles for Windows Devices</b> for guidance on this.
Show hidden patch(es)	Reveal all hidden patches so they can be potentially deployed.

- Click any column header to sort the items in ascending/descending order of the entries in that column.

The 'Operating System Patch Management' interface allows you to:

- **View Details of a Patch**
- **Hide Patches**
- **Restore Hidden Patches**
- **Install selected patches on all managed endpoints at once**
- **Install a patch on selected endpoints**
- **Uninstall selected patches from all managed endpoints at once**
- **Search specific patches in the Patch Management interface**
- **Generate Patch Statuses Report**

### View Details of a Patch

- Click 'Applications' > 'Patch Management'
- Select the 'Operating System' tab
  - Select a company or a group to view the list of patches and Windows updates available for its devices
  - Or
  - Select 'Show all' to view a list of all available patches and Windows updates
- Click the name of a patch to open its patch details screen.



The screenshot shows the 'Operating System' section of the Endpoint Manager interface. At the top, there are navigation tabs for 'Operating System' and 'Third Party Applications'. Below these are several action buttons: 'Install Patch(es)', 'Uninstall Patch(es)', 'Hide Patch(es)', 'Unhide Patch(es)', 'Export', 'Create Patch Procedure', and 'Schedule Patch Procedure'. A table lists several patches. The patch '2018-07 Security Update for Adobe Flash Player for Windows 10 Version 1803 for x64-based Systems (KB4338832)' is selected, indicated by a red circle and a mouse cursor. A red arrow points from this patch to a detailed view below. The detailed view shows the following information:

General	Vendor	Supersedes	Bulletin	CVE IDs	Device List
<p><b>File name</b> 2018-07 Security Update for Adobe Flash Player for Windows 10 Version 1803 for x64-based Systems (KB4338832)</p> <p><b>Version</b> Not set</p> <p><b>Vendor severity</b> Critical</p> <p><b>Release date</b> 50491/03/10</p> <p><b>KB</b> 4338832</p> <p><b>Description</b> A security issue has been identified in a Microsoft software product that could affect your system. You can help protect your system by installing this update from Microsoft. For a complete listing of the issues that are included in this update, see the associated Microsoft Knowledge Base article. After you install this update, you may have to restart your system.</p>					

The details of the patch are displayed under six tabs:

- **General** - Shows the name and general description, version number, severity as set by the vendor, release date and a link to the knowledgebase (KB) article for the patch release.
- **Vendor** - Indicates the publisher of the patch, with a link to the support page for the patch from the vendor
- **Security Patch Info** - Contains information on previous patches that are superseded by this patch
- **Bulletin** - Contains the Bulletin ID and a short summary of the bulletin published by the vendor for the patch
- **CVE IDs** - Displays the Common Vulnerabilities and Exposure (CVE) Identity numbers set for the patch by the vendor.
- **Device List** - The list of managed Windows endpoints with the installation status of the patch on them. You can install the patch on selected the endpoints from the list. See **Install a patch on selected endpoints** for more details.

## Hide Patches



- You can hide those patches that you do not want to be rolled out to the endpoints, from the list.
- These patches will also be not available for deployment from the 'Device Management' screen and will not be executed as well if added to a **patch procedure**.
- You can view the hidden patches by using the 'Show hidden patch(es) toggle button and install these patches onto endpoints.

## To hide unwanted patch(es)

- Click 'Applications' > 'Patch Management'
- Select the 'Operating System' tab
  - Select a company or a group to view the list of patches and Windows updates available for its devices
- Or
  - Select 'Show all' to view a list of all available patches and Windows updates
- Select the patch(es) you want to hide and click 'Hide Patch(es)'

The screenshot shows the 'Patch Management' interface. At the top, there are two tabs: 'Operating System' (selected) and 'Third Party Applications'. Below the tabs are several action buttons: 'Install Patch(es)', 'Uninstall Patch(es)', 'Hide Patch(es)' (circled in red), 'Unhide Patch(es)', 'Export', 'Create Patch Procedure', and 'Schedule Patch Procedure'. A green notification banner at the top right says 'Selected patch(es) were successfully hidden.' Below the buttons is a table with columns: 'TITLE', 'KB', 'BULLETIN', 'CLASSIFICATION', and 'PRODU'. The table contains several rows of patch information. Three rows are circled in red, indicating they have been hidden:

<input type="checkbox"/>	TITLE	KB	BULLETIN	CLASSIFICATION	PRODU
<input type="checkbox"/>	MSXML 6.0 RTM Security Update (925673)	925673	MS06-061	Security Update	
<input checked="" type="checkbox"/>	Update for Japanese Microsoft IME Standard Dictionary (KB2734786)	2734786		Definition Update	
<input checked="" type="checkbox"/>	Update for Japanese Microsoft IME Standard Extended Dictionary (KB2734786)	2734786		Definition Update	
<input checked="" type="checkbox"/>	Update for Japanese Microsoft IME Postal Code Dictionary (KB2734786)	2734786		Definition Update	
<input type="checkbox"/>	2018-07 Security Update for Adobe Flash Player for Windows 10 Version 1803 for x64-based Systems (KB4338832)	4338832		Security Update	Windows 10

To view the hidden patches again, you have to **unhide** them.

## Restore Hidden Patches

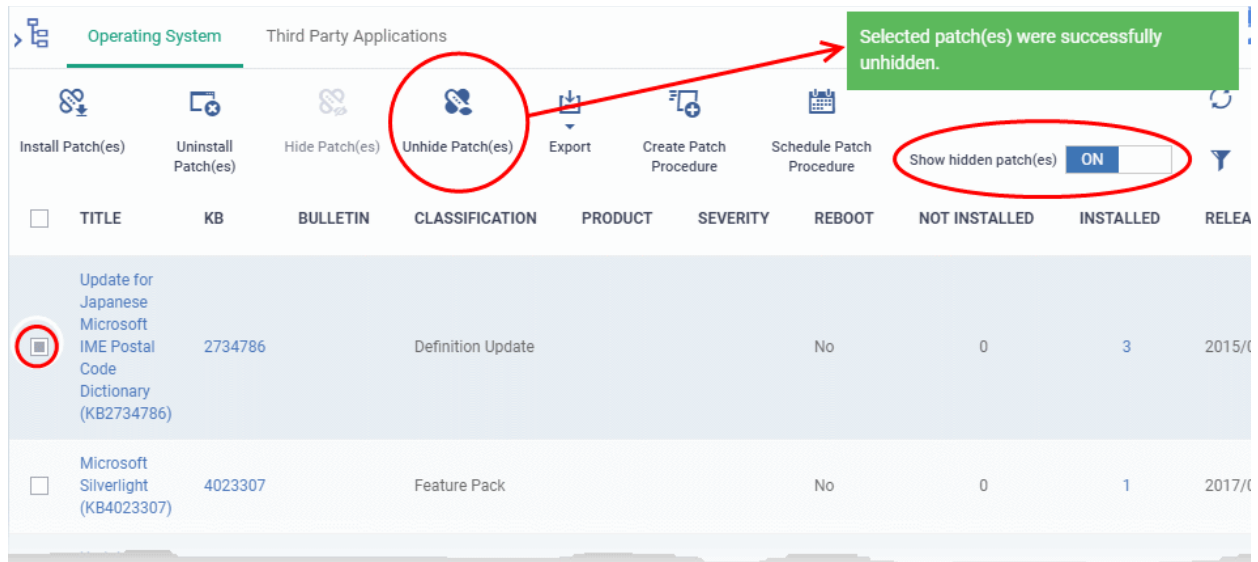
- Restored patches will also be available for installation in the **Device Management** interface and can be added to a **patch procedure**.

## To view hidden patches and restore them

- Click 'Applications' > 'Patch Management'
- Select the 'Operating System' tab
  - Select a company or a group to view the list of patches and Windows updates available for its devices

Or

- Select 'Show all' to view a list of all available patches and Windows updates
- Slide the 'Show hidden patch(es)' button to 'On'  
The hidden patches will be shown with dark gray background stripe.
- Select the hidden patch(es) from the list and click 'Unhide Patch(es)'



A confirmation message will be displayed. The patches will be re-added to the list.

## Install patch(es) on all managed endpoints at-once

- Click 'Applications' > 'Patch Management'
- Select the 'Operating System' tab
  - Select a company or a group to view the list of patches and Windows updates available for its devices
- Or
  - Select 'Show all' to view a list of all available patches and Windows updates
- Select the patch(es) to be installed and click 'Install Patch(es)'

The screenshot shows the 'Patch Management' interface under the 'Operating System' tab. The table below lists available patches:

<input type="checkbox"/>	TITLE ▲	KB	BULLETIN	CLASSIFICATION	PRODU
<input checked="" type="checkbox"/>	2018-09 Update for Windows 10 Version 1803 for x64-based Systems (KB4100347)	4100347		Update	
<input type="checkbox"/>	2018-10 Cumulative Update for Windows 10 Version 1803 for x64-based Systems (KB4462919)	4462919		Security Update	
<input type="checkbox"/>	Microsoft Silverlight (KB4023307)	4023307		Feature Pack	
<input type="checkbox"/>	MSXML 6.0 RTM Security Update (925673)	925673	MS06-061	Security Update	
<input type="checkbox"/>	Update for Adobe Flash Player for Windows 10 Version 32.0.0.323 for x64-based Systems (KB4462930)	4462930		Update	

The 'Patch Install' dialog box contains the following text:

**Patch Install**

Selected patch(es) will be installed , do you agree to install them?

Buttons: Ok, Cancel

- Click 'OK' in the confirmation dialog

The command will be sent and the selected patch(es) will be installed on all endpoint(s) in which the patch is not already installed.

### Install a patch on selected endpoints

- Click 'Applications' > 'Patch Management'
- Select the 'Operating System' tab
  - Select a company or a group to view the list of patches and Windows updates available for its devices
  - Or
  - Select 'Show all' to view a list of all available patches and Windows updates
- Click the number in the 'Not Installed' column of the patch you want to install.

TITLE	KB	BULLETIN	CLASSIFICATION	PRODUCT	SEVERITY	REBOOT	NOT INSTALLED	INSTALLED	RELEASE DATE
Update for Adobe Flash Player for Windows 10 Version 1803 for x64-based Systems (KB4462930)	4462930		Update		Maybe		1	1	2018/10/09 05:30:00 AM
2018-09 Update for Windows 10 Version 1803 for x64-based Systems	4100347		Update		Maybe		1	1	2018/09/13 05:30:00 AM

DEVICE NAME	OWNER NAME	CUSTOMER	INSTALLED
DESKTOP-TTP09PR	Dyanora	Default Customer	No
DESKTOP-D80SVJJ	Avanti	frontfork	Yes

The 'Patch Details' screen will open at the 'Device List' tab. The screen shows all managed devices to which the patch is relevant. The 'Installed' column tells whether the patch is installed on the device.

- Select the device(s) on which the patch is to be installed and click 'Install Patch'.
- A confirmation dialog will appear:

Patch(es) successfully added to install queue.

The command will be sent to the selected device(s) and a schedule will be created for installation of the selected patch(es) on the devices.

## Uninstall selected patches from all managed endpoints at-once

You can remove unwanted patches and Windows updates from the managed devices. This is useful if you want the managed endpoints to be rolled back to the previous build version of Windows component or the OS itself.

- Click 'Applications' > 'Patch Management'
- Select the 'Operating System' tab
  - Select a company or a group to view the list of patches and Windows updates available for its devices

Or


- Select 'Show all' to view a list of all available patches and Windows updates
- Select the patch(es) to be removed from the devices and click 'Uninstall Patch(es)'

The screenshot shows the Patch Management interface. At the top, there are tabs for 'Operating System' and 'Third Party Applications'. Below the tabs are several action buttons: 'Install Patch(es)', 'Uninstall Patch(es)', 'Hide Patch(es)', 'Unhide Patch(es)', 'Export', 'Create Patch Procedure', and 'Schedule Patch Procedure'. The 'Uninstall Patch(es)' button is circled in red. Below the buttons is a table with columns: 'TITLE', 'KB', 'BULLETIN', 'CLASSIFICATION', 'PRODUCT', 'SEVERITY', and 'REBOOT'. The first row of the table is circled in red and contains the following information: '2018-09 Update for Windows 10 Version 1803 for x64-based Systems (KB4100347)', '4100347', 'Update', and 'Maybe'. A red arrow points from the 'Uninstall Patch(es)' button to a confirmation dialog box titled 'Patch Uninstall'. The dialog box contains the text: 'Selected patch(es) will be removed, do you agree to remove them? There may be some patches which are uninstalleable and cannot be removed.' and has 'OK' and 'Cancel' buttons.

- Click 'OK ' in the confirmation dialog
- The command will be sent to the selected device(s) and a schedule will be created for uninstallation of the selected patch(es) on the devices.

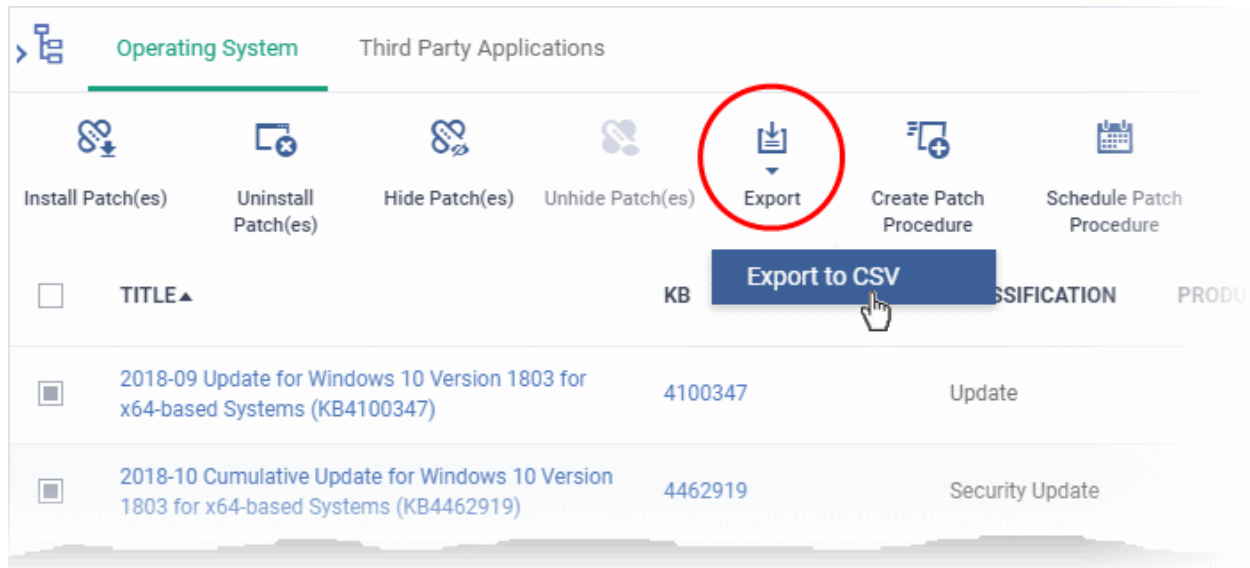
Uninstall command successfully added to uninstall queue. The process may take a while to be completed.

## Search specific patches in the Patch Management interface

- Click the funnel icon  on the right to filter patches by various criteria, including by name, by KB number, by bulletin number, by classification, by severity, and by whether a restart is required for the patches.
- Start typing the name of a patch in the search field to find a particular patch. Select the patch from the search suggestions and click 'Apply'
- To display all items again, clear any filters and search criteria and click 'Apply'.
- EM returns 20 results per page when you perform a search. To increase the number of results displayed per page up to 200, click the arrow next to 'Results per page' drop-down.

## Generate Patch Statuses Report

- Click 'Applications' > 'Patch Management'
- Click 'Export' at the top.



- The CSV file will be available in 'Dashboard' > 'Reports'
- See **'Reports'** in **'Dashboard'** for how to view and download reports.

## 7.2.2. Install 3rd Party Application Patches on Windows Endpoints

- Click 'Applications' > 'Patch Management' > 'Third Party Applications'.
- This area lets you apply patches and updates to 3rd party applications on Windows devices.
- The interface lists all available patches along with details such as patch category, vendor name, and the number of devices which require the patch.
- You can filter patches by company and device group.
- You can hide those applications that you do not want to update.
  - Hidden applications will also not be available for update from the **'Device Management'** screen. They will also be skipped if named in a **patch procedure**.
  - Click 'Show hidden patch(es)' to view hidden items.

### To open the 'Third Party Applications' interface

- Click 'Applications' > 'Patch Management'
- Select the 'Third Party Applications' tab
  - Select a company or a group to view the list of third party application patches and updates available for its devices
  - Or
  - Select 'Show all' to view a list of all available third party application patches and updates




	NAME	VENDOR	CATEGORY	INSTALLED DEVICES	UPGRADABLE DEVICES
<input checked="" type="checkbox"/>	Zoom	Zoom	Other	1	1
<input type="checkbox"/>	Snagit	TechSmith Corporation	Other	1	1
<input type="checkbox"/>	Mozilla Firefox	Mozilla	Web Browsers	1	1

- Each row shows the name of the software that needs to be updated. It also shows you how many devices have the software installed and how many of those require the update.
- You can apply updates to all devices or to individual devices:
  - Patch All - Use the check-boxes on the left to choose the software you want to patch. Click 'Install Patches' to apply the update to all devices which require patching.
  - Patch Individual - Click the number in the 'Upgradable Devices' row > Select the devices you want to update > Click 'Install Patches'

Third Party Applications Table - Column Descriptions	
Column Heading	Description
Name	The label of the software. <ul style="list-style-type: none"> <li>• Click the name to view application details.</li> <li>• See <b>View Details of an Application</b> for more details.</li> </ul>
Vendor	The software publisher.
Category	The type of the application. Possible values include: <ul style="list-style-type: none"> <li>• Comodo Products</li> <li>• Runtime applications</li> <li>• Web Browsers</li> <li>• Utilities</li> <li>• Messaging</li> <li>• File Compression utilities</li> <li>• Developer Tools</li> <li>• Documents</li> <li>• Online Storage</li> <li>• Other</li> </ul>
Installed Devices	Total number of devices on which the application is installed. This figure includes devices with patched and unpatched versions of the software.



Upgradable Devices	Number of devices which need to be patched because they are using an older version of the software.
<b>Controls</b>	
Install Patch(es)	Allows you to install the patches/updates.
Hide Patch(es)	Allows you to hide selected patches that you do not want to update. Hidden patches will not be available for deployment on the 'Device Management' screen and will not be executed as well if added to a <b>patch procedure</b> .
Unhide Patch(es)	Allows you to unlock hidden patches.
Create Patch Procedure	Takes you to the 'Procedures' interface in Endpoint Manager. You can use pre-defined procedures or create custom procedures to deploy patches on to managed Windows endpoints. See <b>Manage Procedures</b> for more details.
Schedule Patch Procedure	Takes you to the 'Profiles' interface in Endpoint Manager. You create new or edit an existing Windows profile and add/edit the 'Procedures' component in it to create a schedule for running a patch installation procedure on endpoints on which the profile is active. See <b>Procedure Settings</b> in <b>Profiles for Windows Devices</b> for guidance on this.
Show hidden patch(es)	Allows you to view hidden patches and, if required, install them on endpoints. Use the toggle button to hide / view hidden applications.

- Click any column header to sort items in ascending/descending order of entries in that column.
- Click the funnel icon  on the right to search for applications by name, vendor and/or category.
- See '**EM Supported 3rd Party Applications**' for a full list of supported 3rd party applications.

The 'Patch Management' > 'Third Party Applications' interface allows you to:

- **View Details of an Application**
- **Hide Applications**
- **Restore Hidden Applications**
- **Update selected applications on all upgradable devices at once**
- **Update an application on selected devices**

### View Details of an Application

- Click 'Applications' > 'Patch Management'
- Select the 'Third Party Applications' tab
  - Select a company or a group to view the list of third party application patches and updates available for its devices
  - Or
  - Select 'Show all' to view a list of all available third party application patches and updates
- Click the name of any application to open its application details screen

The screenshot shows the 'Third Party Applications' management interface. At the top, there are navigation tabs for 'Operating System' and 'Third Party Applications'. Below the tabs are several action buttons: 'Install Patch(es)', 'Hide Patch(es)', 'Unhide Patch(es)', 'Create Patch Procedure', 'Schedule Patch Procedure', and 'Show hidden patch(es)'. A table lists applications with columns for 'NAME', 'VENDOR', 'CATEGORY', 'INSTALLED DEVICES', and 'UPGRADE'. The 'Mozilla Firefox' entry is highlighted with a red circle and a red arrow pointing to the 'Application Info' tab below. The 'Application Info' tab is active, displaying details for Mozilla Firefox: Name (Mozilla Firefox), Vendor (Mozilla), and Category (Web Browsers).

The details of the application are displayed under two tabs:

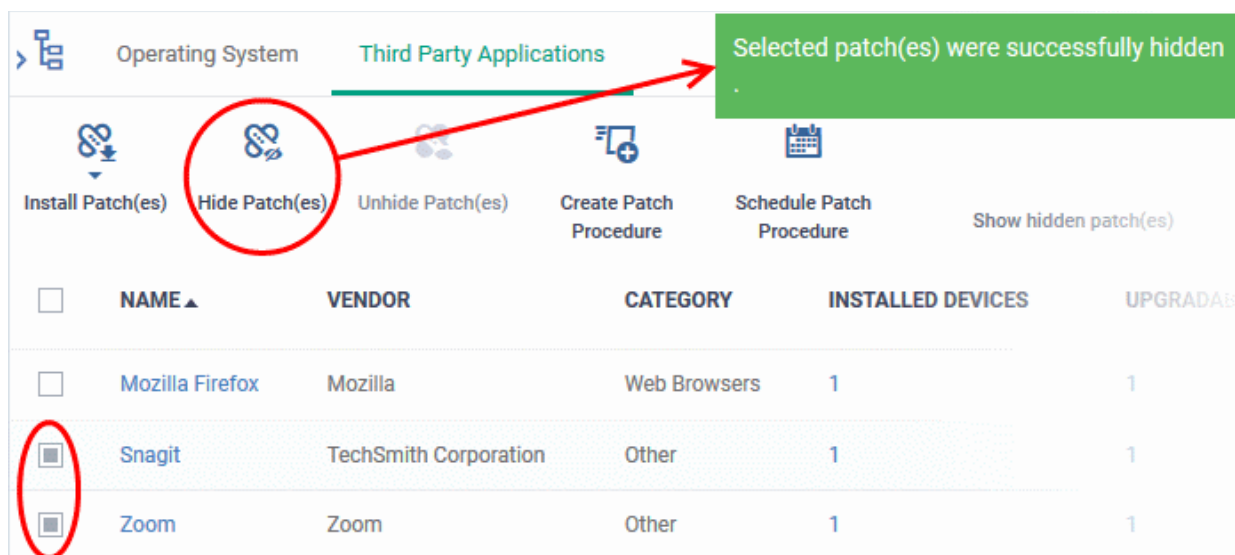
- **General** - Displays the name, software publisher and the category of the application.
- **Device List** - Displays the list of managed devices on which the application is installed, with the details like the installed version, installation path and the device owner. You can update the application on the devices where required from this screen. See [Update an Application On Selected Devices](#) for more details.

## Hide Applications

- You can hide those applications that you do not want to update
- These applications will also be not available for update from the **'Device Management'** screen and will not be executed as well if added to a **patch procedure**.
- You can view the hidden applications by using the 'Show hidden patch(es) toggle button and update these applications on selected on devices.

### To hide upgradable applications

- Click 'Applications' > 'Patch Management'
- Select the 'Third Party Applications' tab
  - Select a company or a group to view the list of third party application patches and updates available for its devices
  - Or
  - Select 'Show all' to view a list of all available third party application patches and updates
- Select the application(s) to be hidden from the list and click 'Hide Patch(es)'



A confirmation is displayed. The selected applications are hidden from the list.

- To view the hidden applications, use the 'Show hidden patch(es)' switch on the top right
- To re-add the hidden applications to the list, you have to **unhide** them.

### Restore Hidden Applications

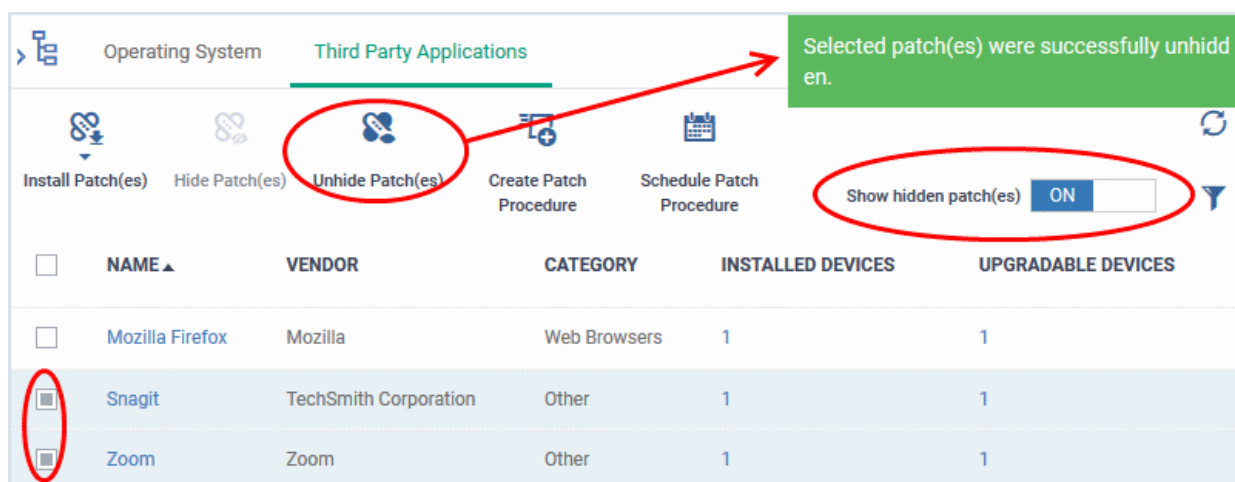
- You can make the hidden applications to be re-added to the 'Third Party Applications' interface.
- Restored applications will also be available for being updated from the **Device Management** interface and can be added to a **patch procedure**.

### To view hidden upgradable applications and restore them

- Click 'Applications' > 'Patch Management'
- Select the 'Third Party Applications' tab
  - Select a company or a group to view the list of third party application patches and updates available for its devices
- Or
  - Select 'Show all' to view a list of all available third party application patches and updates
- Slide the 'Show hidden patch(es)' button to 'On'

The hidden applications will be shown with dark gray background stripe.

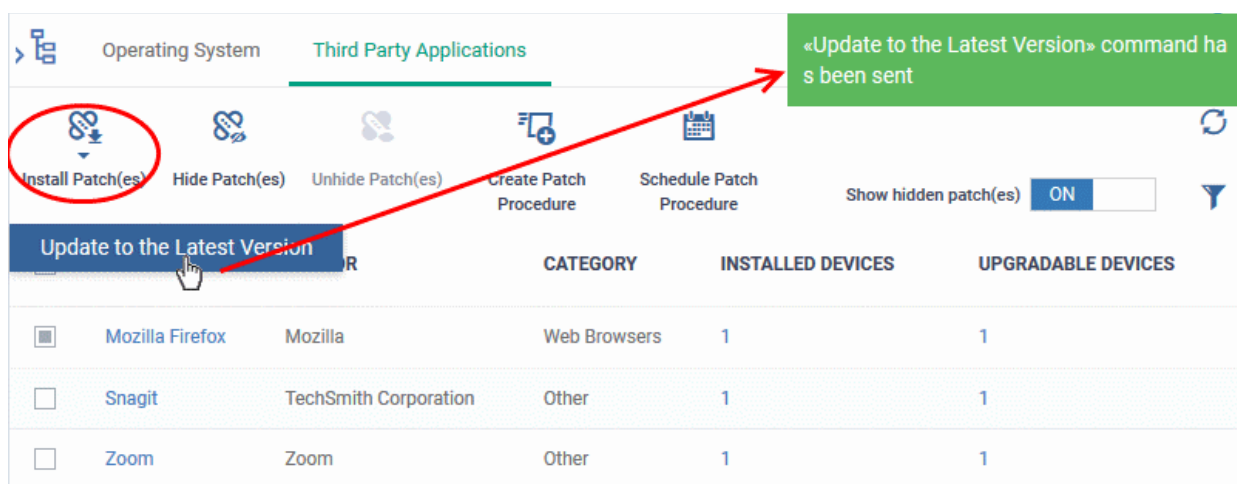
- Select the hidden patch(es) from the list and click 'Unhide Patch(es)'



A confirmation is displayed. The applications are re-added to the list.

## Update Selected Applications on All Upgradable Devices at once

- Click 'Applications' > 'Patch Management'
- Select the 'Third Party Applications' tab
  - Select a company or a group to view the list of third party application patches and updates available for its devices
- Or
  - Select 'Show all' to view a list of all available third party application patches and updates
- Select the application(s) to be updated, click 'Install Patch(es)' and choose 'Update to Latest Version'

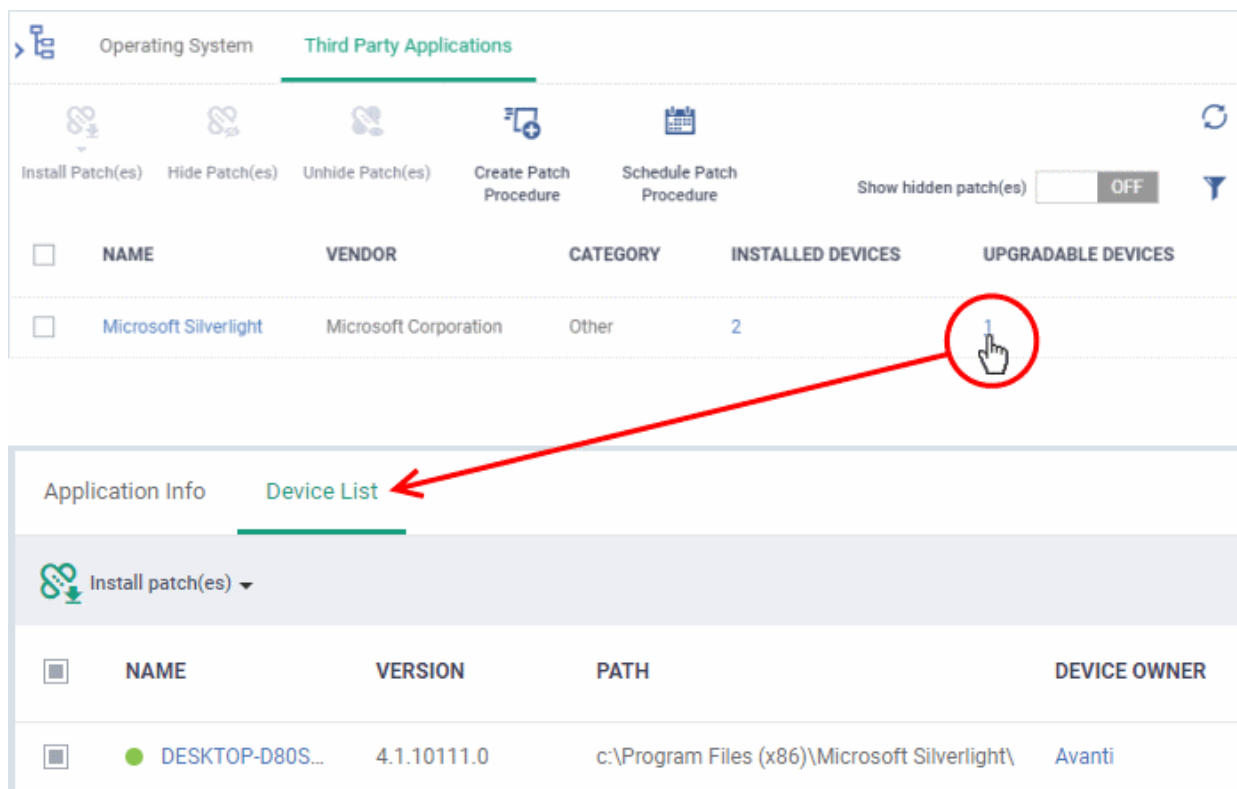


A command is sent to Communication Client (CC) on the devices to commence the update.

- Once the command is received, CC checks whether the update has already been downloaded by other devices in the network.
  - If the update is available, CC establishes a peer-to-peer network with the device and downloads the patch. This reduces bandwidth usage as the update is downloaded from the local network.
  - If the update is not available on any devices in the local network, CC downloads the update from the EM patch portal.

## Update an Application on Selected Devices

- Click 'Applications' > 'Patch Management'
- Select the 'Third Party Applications' tab
  - Select a company or a group to view the list of third party application patches and updates available for its devices
- Or
  - Select 'Show all' to view a list of all available third party application patches and updates
- Click the number in the 'Upgradable Devices' column of the application to be updated



The application details screen will appear with the 'Device List' tab open, with a list of devices on which the application can be updated.

- Select the device(s) on which the application is to be updated
- Click 'Install patch(es)' and choose 'Update to Latest Version'

A command will be sent to the endpoint(s) to schedule installation of the patch/update the application to the latest version.

Command «Update to the Latest Version»  
successfully sent

A command is sent to Communication Client (CC) on the devices to commence the update.

- Once the command is received, CC checks whether the update has already been downloaded by other devices in the network.
  - If the update is available, CC establishes a peer-to-peer network with the device and downloads the patch. This reduces bandwidth usage as the update is downloaded from the local network.
  - If the update is not available on any devices in the local network, CC downloads the update from the EM patch portal.

### 7.2.2.1. EM Supported 3rd Party Applications

The following table provides the names of third party applications that can be updated on enrolled Windows endpoints:

- |                           |                       |                            |
|---------------------------|-----------------------|----------------------------|
| • 7-Zip                   | • Glary Utilities PRO | • PicPick                  |
| • ActivePresenter         | • GlassWire           | • PKZIP for Windows        |
| • ActiveState Komodo Edit | • GlobalMapper        | • Plantronics Hub Software |

- Adblock Plus for IE
- Adobe Acrobat Reader DC
- Adobe AIR
- Adobe Digital Editions
- Adobe Flash Player ActiveX
- Adobe Flash Player NPAPI
- Adobe Flash Player PPAPI
- Adobe Shockwave Player
- Advanced Installer
- Advanced IP Scanner
- AIMP
- AirDroid
- AirParrot
- AirServer Universal
- Ant Movie Catalog
- Ant Renamer
- AnyBurn
- AnyDVD
- AppGate Client
- ApplInventor Setup
- Apple Application Support
- Apple Application Support (64-bit)
- Apple Mobile Device Support
- Apple Software Update
- Audacity
- Aurora Blu-ray Media Player
- Auslogics Browser Care
- Auslogics Disk Defrag
- Auslogics Duplicate File Finder
- Auslogics Registry Cleaner
- Auslogics Registry Defrag
- Autolt
- Avant Browser
- AVS Document Converter
- AVS Image Converter
- GOM Audio
- GOM Player
- GoodSync
- Google Chrome
- Google Drive
- Google Earth
- Google Earth Pro
- GPL Ghostscript
- grepWin
- HardCopy Pro
- HeliosPaint
- HelpNDoc Personal Edition
- HipChat
- Honeycam
- Honeyview
- HttpWatch Basic
- Hugin
- IE7Pro
- IIS
- ImgBurn
- InfoSlips ForMe Viewer
- iReport
- IrfanView
- iTunes
- IZArc
- JabraDirect
- Java(TM) Update
- Java SE Development Kit
- jing
- Jitsi
- JRE
- K-Lite Codec Pack Basic
- K-Lite Codec Pack Full
- K-Lite Codec Pack Standard
- K-Lite Mega Codec Pack
- KeePass Password Safe 1
- KeePass Password Safe 2
- Plex Media Server
- PNotes.NET
- Poedit
- PotPlayer
- PrimoPDF
- PrintKey-Pro
- proCertum CardManager
- Progress Telerik Fiddler
- PSPad editor
- PuTTY release
- qBittorrent
- QTranslate
- QuickBooks Desktop File DoctorQuickTime 7
- RD Tabs
- Recuva
- Reflector
- RenWeb.com
- Revo Uninstaller
- Revo Uninstaller Pro
- R for Windows
- RingCentral for Windows
- RJ TextEd
- RStudio
- Safari
- Sandboxie
- SciTE Text Editor
- ScreenConnect
- Screenpresso
- Scribus
- SeaMonkey
- ShadowCopy
- Silverjuke
- SimplySign Desktop
- Skype
- Slik Subversion
- SmartCam
- Smart Defrag



- AVS Media Player
- AVS Video Editor
- AxCrypt
- AXIS Media Control Embedded Installer
- Bandicut
- Bandizip
- Belarc Advisor
- Beyond Compare
- Bing Desktop
- BitComet
- BitLord
- Blender
- Blio
- Bluebeam Vu
- Blue Jeans
- Bullzip PDF Printer
- Cabos
- calibre
- CCleaner
- CCleanerPro
- CDBurnerXP
- Chilkat ActiveX
- Citrix Group Policy Management
- Citrix Receiver
- Citrix ShareFile Sync
- Classic Shell
- Code42 server
- Collagelt
- Collagerator
- Combined Community Codec Pack
- Comodo IceDragon
- Remote Control by ITarian
- Converber
- CPUID CPU-Z
- CrashPlan
- Kerio Outlook Connector
- Kingsoft Office 2013
- Kobo
- Krita
- LibreOffice
- Lightshot
- Linphone
- Logitech SetPoint
- LogMeIn Client
- LogMeIn Hamachi
- Malwarebytes
- MathType
- McAfee Security Scan Plus
- MedialInfo
- MediaMonkey
- Media Player Classic Home
- MeshLab\_64b 2016
- Microsoft AntiXSS
- Microsoft Baseline Security Analyzer
- Microsoft Power BI Desktop
- Microsoft PowerPoint Viewer
- Microsoft Security Client
- Microsoft Silverlight
- Microsoft SQL Server 2008 R2 Native Client
- Microsoft SQL Server 2017 T-SQL Language Service
- Microsoft Sync Framework Runtime v1.0 SP1
- Microsoft Visio Viewer 2013
- Microsoft Visual C++ 2008 Redistributable
- Microsoft Visual C++ 2012 Redistributable
- Microsoft Visual C++ 2017 x86 Additional Runtime
- Microsoft Visual Studio Code
- Spark
- Speccy
- Spiceworks Desktop
- SplashID Safe
- Splashtop Streamer
- Spybot - Search & Destroy
- Steam
- Sticky Password
- SugarSync
- SumatraPDF
- SyncBackFree
- Synology Surveillance Station Client
- Tableau Reader
- TeamSpeak Client
- TeamViewer
- TED Notepad
- Tekla BIMsight
- TenClips
- TeraCopy
- TestNav
- TextPad
- TIBCO JasperSoft Studio final
- TightVNC
- TomTom HOME
- TortoiseSVN
- TortoiseGit
- TOSHIBA Password Utility
- TreeSize Free
- Trillian
- TSPrint Client
- TSR Watermark Image software version - Free version
- UltraVnc
- UniPDF
- Universal Extractor
- Unlocker



- CryptoPrevent
- CrystalDiskInfo
- CutePDF Writer
- Cyberduck
- D&D Interceptor
- DC++
- Defraggler
- Desktop Restore
- DisplayCAL
- DriveImage XML
- Druva inSync
- Dual Monitor Tools
- DU Meter
- Duplicate Cleaner Pro
- DVD Flick
- DYMO Label
- Easy 7-Zip
- Easy Thumbnails
- EditPad Lite
- eM Client
- eMuleTorrent
- EncryptOnClick
- EPI
- Epic Games Launcher
- EPIM-Outlook Sync
- EssentialPIM
- Evernote
- exacqVision Client
- Exact Audio Copy
- Exsate VideoExpress
- FastStone Capture
- FastStone Image Viewer
- FileZilla Client
- Firebird
- FlashGet
- Foobar
- Fotosizer
- Microsoft Web Deploy
- MimioStudio
- Miranda IM
- MobaXterm
- MongoDB
- Mozilla Firefox en-GB
- Mozilla Firefox en-US
- Mozilla Firefox ESR
- Mozilla Thunderbird
- MozyHome
- MozyPro
- Mp3tag
- MSXML 4.0 SP3 Parser
- Mumble
- MX5
- MyDefrag
- MySQL Connector/C
- MySQL Connector/ODBC
- MySQL Installer - Community
- MySQL Notifier
- MySQL Workbench 6.3 CE
- NeoLoad
- NetBeans IDE
- NetSetMan
- Nextcloud
- Nitro Pro
- Node.js
- NoMachine
- Notepad++
- NoteTab Light
- nPassword
- OCS Inventory NG Agent
- OpenOffice
- Opera Stable
- Oracle VM VirtualBox
- Origin
- ownCloud
- Uplay
- VirtualCloneDrive
- VitalSource Bookshelf
- VLC media player
- VMware Horizon Client
- VMware Player
- VMware vCenter Converter Standalone
- VNC Enterprise Edition
- VNC Server
- VNC Viewer
- VSDC Free Video Editor version
- VulkanSDK
- VyprVPN
- Waterfox
- Wave Editor
- WebStorage
- WildTangent Games App
- Winamp
- WinDjView
- Windows Live Sync
- Windows Movie Maker
- Windows Phone app for desktop
- WinHTTrack Website Copier
- WinMerge
- WinRAR
- WinSCP
- WinSnap
- WinZip
- Wireshark
- Wise AD Cleaner
- Wise Care 365
- Wise Disk Cleaner
- Wise Folder Hider
- Wise Force Deleter
- Wise Memory Optimizer

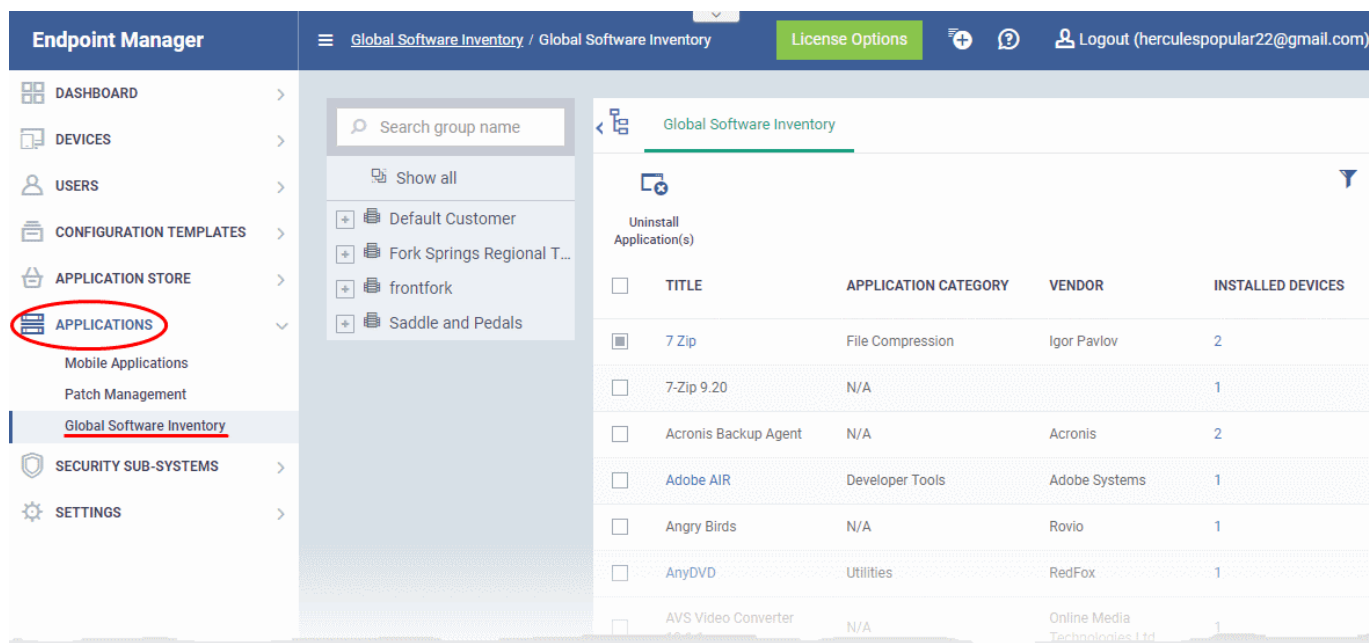
- Foxit Advanced PDF Editor
- Foxit PhantomPDF
- Foxit Reader
- FreeFixer
- Free RAR Extract Frog
- FrontMotion Firefox Community Edition (en-US)
- Frontmotion Firefox Community Edition ESR
- FSASecureBrowser
- GetGo Download Manager
- glImageReader
- GIMP
- Git version
- Glary Utilities
- paint.net
- Pale Moon
- Parallels Client
- pCon.planner STD
- PDF-Viewer
- PDF-XChange Editor
- PDF24 Creator
- PDFCreator
- PDFfill FREE PDF Tools
- PDFsam Basic
- PDFTools Version
- PeaZip
- Personal Backup
- PhotoFilmStrip
- Wise Registry Cleaner
- XAMPP
- XMind
- XnConvert
- XnView
- Xvid Video Codec
- Zimbra Connector for Microsoft Outlook
- Zimbra Desktop
- ZIPI
- Zoiper
- Zoom
- Zoom Player
- Zotero

## 7.3. View and Manage Applications Installed on Windows Devices

- Click 'Applications' > 'Global Software Inventory'
- The global software inventory shows all applications installed on managed Windows devices.
- The interface also shows details about each application. Details include the software vendor and the number of devices on which the app is installed.
- You can have the option to uninstall applications from *all* Windows devices at-once

### To open the 'Global Software Inventory' interface

- Click 'Applications' > 'Global Software Inventory'
  - Select a company or group on the left to view applications installed on devices in it
  - Or
  - Select 'Show all' to view applications on every Windows device enrolled to Endpoint Manager




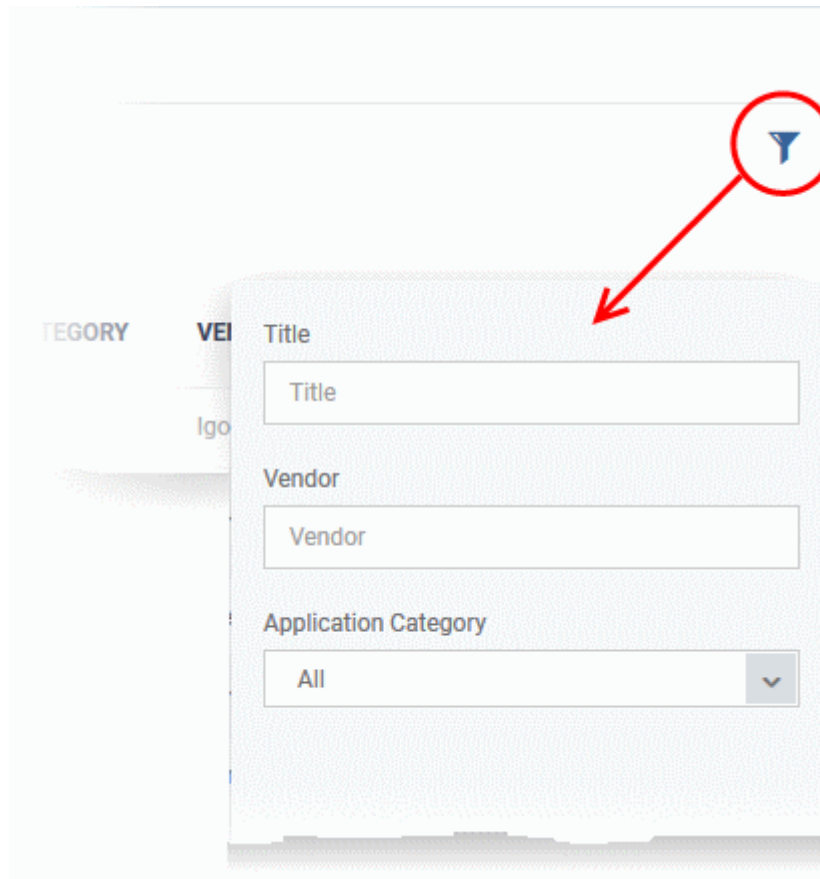
Global Software Inventory - Column Descriptions	
Column Heading	Description
Title	Label of the application. <ul style="list-style-type: none"> <li>Click the name of an application to view its details and a list of endpoints on which it is installed.</li> <li>The app details screens also lets you uninstall the application from devices.</li> <li>See <b>View Details of an Application</b> for more details.</li> </ul>
Application Category	The genre of the application. For example, 'Productivity', 'Security', 'Entertainment' etc.
Vendor	The publisher of the software/application
Installed Devices	The number of devices on which the app is installed currently.
Controls	
Uninstall	Uninstalls the selected application from all Windows devices at-once. See <b>Remotely Uninstall an Application from all Devices</b> for more details.

The global software inventory lets you:

- **View details of an application**
- **Remotely uninstall an application from selected devices**
- **Remotely uninstall an application from all devices**

### Sorting and Filtering Options

- Click any column header to sort the items in ascending or descending order
- Click the funnel button  at the right end to open the filter options.



## View Details of an Application

The 'Global Software Inventory' interface allows you to view the information about an application and the list of devices on which it is found. You can also remove the application from selected devices on which it is not required.

**Note:** The application details is available only for applications supported by EM. See [EM Supported 3rd Party Applications](#) to view the list of supported applications.

### To view the details of an application

- Click 'Applications' > 'Global Software Inventory'
  - Select a company or group on the left to view applications installed on devices in it
  - Or
  - Select 'Show all' to view applications on every Windows device enrolled to EM
- Click on the name of a supported application to view its details

The screenshot shows the 'Global Software Inventory' page. At the top, there is a navigation bar with a back arrow and a list icon. Below that, there is a section for 'Uninstall' with a plus icon. The main part of the page is a table with the following columns: 'TITLE', 'APPLICATION CATEGORY', 'VENDOR', and 'INSTALLED DEVICES'. The table contains several rows of data, with 'Advanced Installer' highlighted by a red circle and a red arrow pointing to the 'Application Info' tab below the table.

<input type="checkbox"/>	TITLE	APPLICATION CATEGORY	VENDOR	INSTALLED DEVICES
<input type="checkbox"/>	7 Zip	File Compression	Igor Pavlov	2
<input type="checkbox"/>	7-Zip 9.20	N/A		1
<input type="checkbox"/>	Acronis Backup Agent	N/A	Acronis	1
<input type="checkbox"/>	Adobe AIR	Developer Tools	Adobe Systems	1
<input type="checkbox"/>	<a href="#">Advanced Installer</a>	Other	Caphyon	1
<input type="checkbox"/>	Angry Birds	N/A	Rovio	1

Below the table, there are two tabs: 'Application Info' (selected) and 'Device List'. The 'Application Info' tab displays the following details:

<b>Name</b> Advanced Installer	<b>Versions(32bit)</b> 15.0 14.9 14.8 14.6 14.5.2
<b>Description</b> Advanced Installer is a setup authoring tool which creates installers and software packages. It has both free and commercial editions. It is primarily used for creating Windows Installer MSI packages for Windows applications	<b>Versions(64bit)</b> 15.0 14.9
<b>Vendor</b> Caphyon	
<b>Category</b> N/A	
<b>Language</b>	
<b>Copyright</b>	

The application details interface contains two tabs:

- **Application Info** - General information about the application. This includes a short description of the application, the vendor, category, the available versions and more.
- **Device List** - The devices on which the application was found installed. You can select the devices and uninstall the application from them.

Application Info		Device List		
 Uninstall				
<input type="checkbox"/>	NAME	VERSION	PATH	DEVICE OWNER
<input checked="" type="checkbox"/>	DESKTOP...	15.0	C:\Program Files (x86)\Caphyon\Advanced Installer 15.0\	Avanti

Device List - Column Descriptions	
Column Heading	Description
Name	The label of the Windows device. <ul style="list-style-type: none"> <li>Click the name of a device to open its device details interface</li> <li>See <b>Manage Windows Devices</b> for more details</li> </ul>
Version	The version number of the application installed in the device
Path	The installation location of the application
Owner	The device user. <ul style="list-style-type: none"> <li>Click the user name to open the 'View User' interface. See <b>View User Information</b> for more details.</li> </ul>
Controls	
Uninstall	Allows your to remotely uninstall the application from selected Windows devices. See <b>Uninstall a Windows Application from Selected Devices</b> for more details.

## 7.3.1. Uninstall a Windows Application from Selected Devices

The global software inventory lets you remotely remove unwanted applications from selected Windows devices.

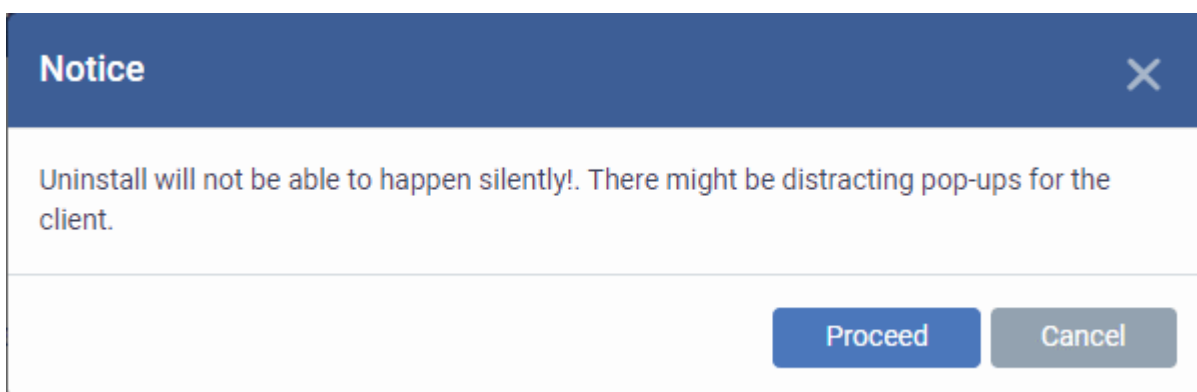
**Note:** You can only remove applications which are supported by EM. See the list at **EM Supported 3rd Party Applications**.

To uninstall an application from selected devices:

- Click 'Applications' > 'Global Software Inventory'
  - Select a company or group on the left
- Or
- Select 'Show all' to view applications on every enrolled device
- Click the name of an application to open its details interface
- Click the 'Device List' tab



- Select the devices and click the 'Uninstall' button at the top
- An uninstall command will be sent to the selected devices.
- You will see the following message if the software cannot be uninstalled without notifying the device user:



- Click 'Proceed' to continue with the uninstall.

The application will be uninstalled from the selected devices.

**Tip:** You can remove apps from an individual device by using the device's details page. See [View and Manage Applications Installed on a Device](#) for more details.

## 7.3.2. Uninstall a Windows Application from All Devices

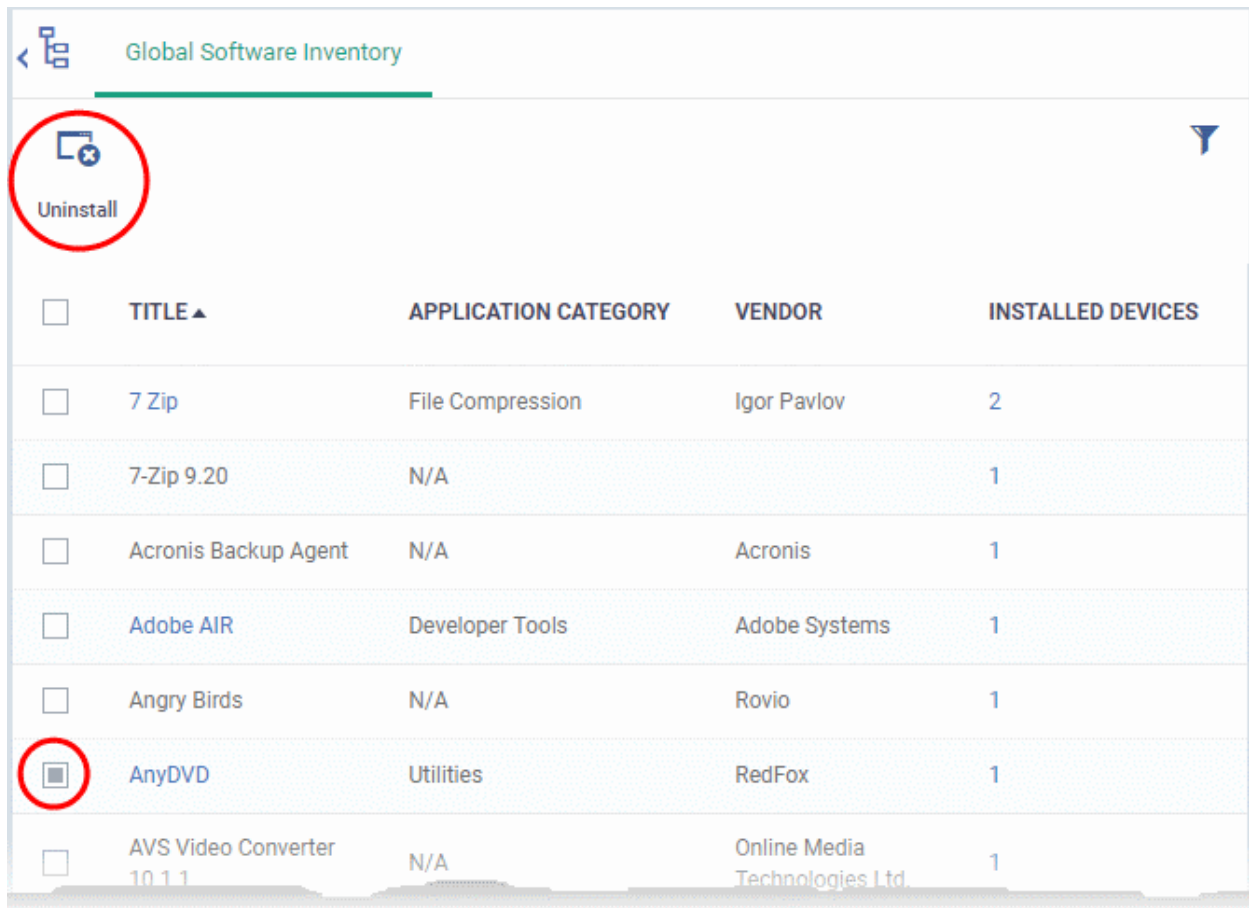
The global software inventory lets you remove unwanted applications from multiple Windows devices.

**Note:** You can only remove applications which are supported by EM. See the list at [EM Supported 3rd Party Applications](#).

### To uninstall an application from all Windows devices

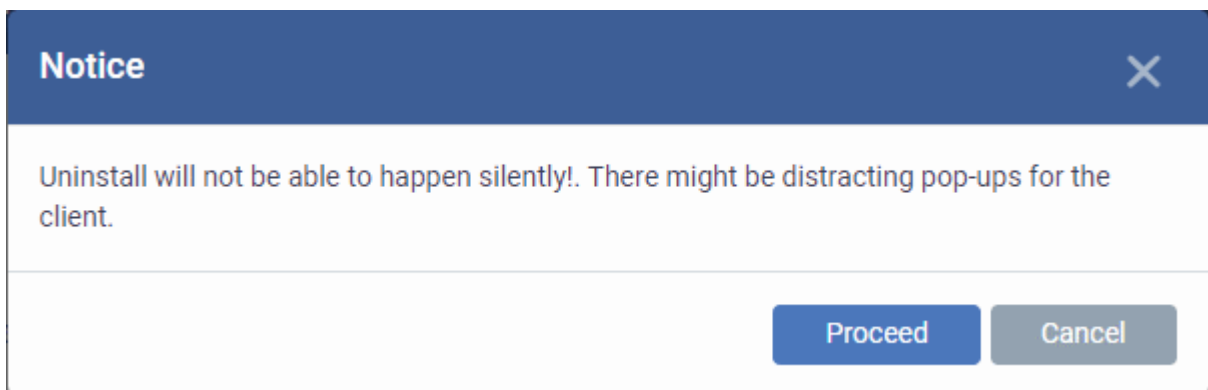
- Click 'Applications' > 'Global Software Inventory'
  - Select a company or group on the left
  - Or
  - Select 'Show all' to view applications on every enrolled device
- Select the application and click the 'Uninstall' button





<input type="checkbox"/>	TITLE ▲	APPLICATION CATEGORY	VENDOR	INSTALLED DEVICES
<input type="checkbox"/>	7 Zip	File Compression	Igor Pavlov	2
<input type="checkbox"/>	7-Zip 9.20	N/A		1
<input type="checkbox"/>	Acronis Backup Agent	N/A	Acronis	1
<input type="checkbox"/>	Adobe AIR	Developer Tools	Adobe Systems	1
<input type="checkbox"/>	Angry Birds	N/A	Rovio	1
<input checked="" type="checkbox"/>	AnyDVD	Utilities	RedFox	1
<input type="checkbox"/>	AVS Video Converter 10.1.1	N/A	Online Media Technologies Ltd.	1

- The uninstall command is sent to all devices which have the application installed.
- You will see the following message if the software cannot be uninstalled without notifying the device user:



- Click 'Proceed' to continue with the uninstall.

The application will be uninstalled from the selected devices.

**Tip:** You can uninstall an application from an individual Windows device from its Device Details interface. See [View and Manage Applications Installed on a Device](#) for more details.

## 8. Application Store

- The 'Application Store' is a repository of useful applications which can be pushed to iOS, Android and Windows devices.

### Android and iOS Applications

- You can add both mandatory and optional apps to the repository. You can update all devices with one-click of the 'Inform Devices Now' button.
  - Google Play and Apple App Store** - Specify the app name or bundle identifier. Endpoint Manager will automatically fetch the app details. The device owner will be taken to the Google Play page/App Store page to install the app.
  - Custom 'Enterprise' applications** - You can also upload your own .apk (Android) or .ipa (iOS) files to the app store. The communication client on the device collects the app from Endpoint Manager and installs it.
- Apps in the repository are automatically synchronized with enrolled devices every 24 hours. Notifications are sent to devices if new apps are ready to be installed. You can also manually sync apps if required. Users will be informed if there are new apps awaiting installation.

### Windows Applications

- Endpoint Manager comes with a built-in list of popular Windows applications.
- Applications can be installed on all managed devices or selected devices.
- You cannot edit or remove applications from the list

The 'Application Store' tab contains three sub tabs, iOS Store, Android Store and Windows Application Store.

NAME	TYPE	APPLICATION ID	SUPPORTED DEVICES	LICENSE TYPE	MANDATORY	ADDED
Frontfork File Browser	iOS Enterprise	filebrowser	Smartphone, Tablet	Enterprise	No	2018/11/09 12:03:00 PM
Dropbox	iOS App Store	com.getdropbox.Dropbox	Smartphone, Tablet	Free	No	2018/11/09 11:55:56 AM
Skype for iPhone	iOS App Store	com.skype.skype	Smartphone, Tablet	Free	No	2018/11/09 11:55:37 AM

The following sections contain more details on each app type:

- iOS Apps**
  - Add iOS Apps and Installing them on Devices
  - Manage iOS Apps
- Android Apps**
  - Add Android Apps and Installing them on Devices
  - Manage Android Apps
- Windows Apps**
  - Install Windows Apps on Devices

## 8.1.iOS Apps

- Click 'Application Store' > 'iOS Store'.
- The iOS store area contains all available iOS apps that have been uploaded to Endpoint Manager. You can deploy selected apps to all managed devices or specific devices.
- You can add new apps from the Apple store or upload your own custom enterprise apps. You can synchronize the app list with managed iOS devices and edit existing app parameters.
- You can specify whether an app is a mandatory install or an optional install.

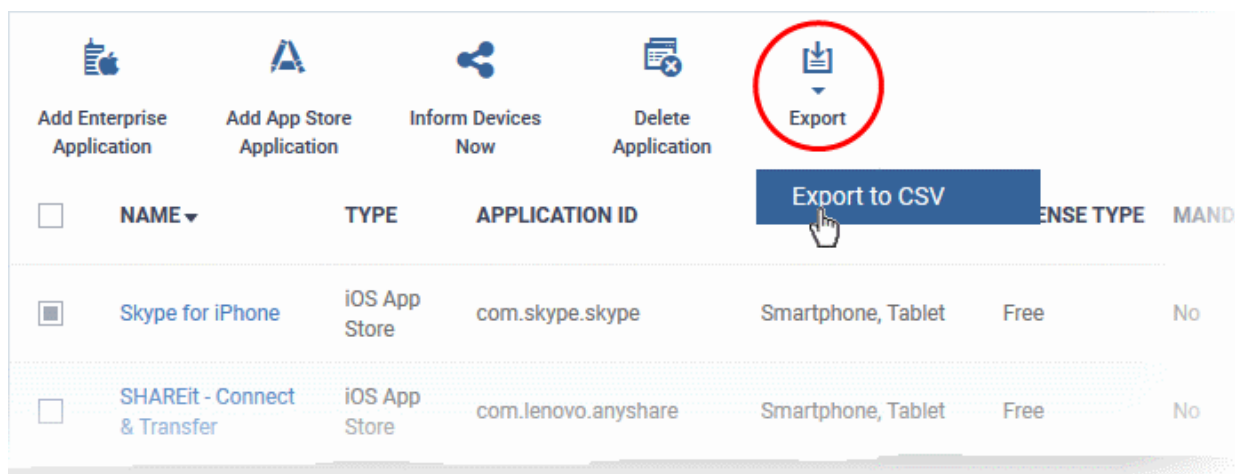
<input type="checkbox"/>	NAME ▾	TYPE	APPLICATION ID	SUPPORTED DEVICES	LICENSE TYPE	MANDATORY	ADDED
<input checked="" type="checkbox"/>	Skype for iPhone	iOS App Store	com.skype.skype	Smartphone, Tablet	Free	No	2018/07/20 11:40:24 AM
<input type="checkbox"/>	SHAREit - Connect & Transfer	iOS App Store	com.lenovo.anyshare	Smartphone, Tablet	Free	No	2018/07/20 11:41:07 AM
<input type="checkbox"/>	K9 Web Protection Browser	iOS App Store	com.bluecoat.K9Browser	Smartphone, Tablet	Free	No	2018/07/20 11:42:11 AM
<input type="checkbox"/>	ITSM	iOS App Store	com.comodo.cmdm.client	Smartphone, Tablet	Free	Yes	2015/04/28 04:36:13 PM
<input type="checkbox"/>	Dropbox	iOS App Store	com.getdropbox.Dropbox	Smartphone, Tablet	Free	No	2018/07/20 11:42:33 AM
<input type="checkbox"/>	CMRI Complaint	iOS App					

'iOS App Catalog' - Column Descriptions	
Column Heading	Description
Name	Application label. <ul style="list-style-type: none"> <li>• Click on the name to view app description, version number, bundle ID, category, supported devices, mandatory/optional setting and download URL.</li> <li>• You can also edit app details from here. See <b>Manage iOS Apps</b> for more details.</li> </ul>
Type	App class as determined by the source of the app. Possible types are: <ul style="list-style-type: none"> <li>• iOS App Store</li> <li>• iOS Enterprise (apps uploaded by an admin)</li> </ul>
Application ID	The bundle identifier of the app. This is a unique id used by Apple to identify an app.
Supported Devices	Types of devices with which the app is compatible.
License Type	Whether the app is a free, paid or enterprise version.
Mandatory	Whether or not it is compulsory for managed devices to install the app. Admins can set if an app should be mandatory. See <b>'Add iOS Apps and Install them on Devices'</b> for more details.

Added	The date and time at which the app was added to repository
<b>Controls</b>	
Add Enterprise Application	Add custom applications to Endpoint Manager by simply uploading the .ipa package files of the apps. See <b>Add iOS Apps and Install them on Devices</b> for more details.
Add App Store Application	Add applications from the Apple store by typing the app name. See <b>Add iOS Apps and Install them on Devices</b> for more details.
Inform Devices Now	Synchronize enrolled Android devices with the latest app list.
Delete Application	Remove an application from the iOS app repository.
Export	Save a copy of the app list as a comma separated values (csv) file. See <b>Export the List of iOS Applications</b> for more details.


## Export the List of iOS Applications

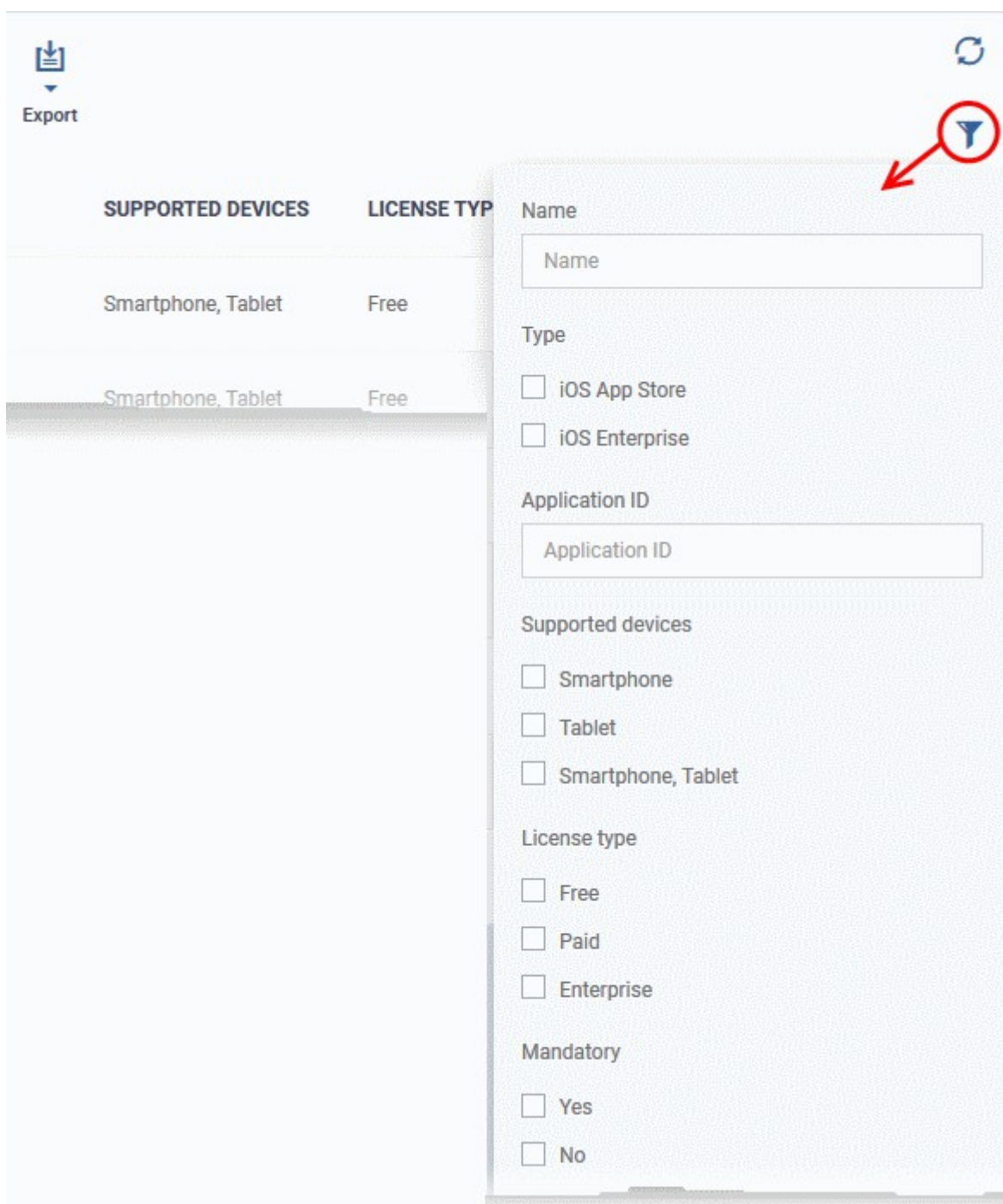
- Click 'Application Store' > 'iOS Store'.
- Click the 'Export' button above the table then choose 'Export to CSV':



- The CSV file will be available in 'Dashboard' > 'Reports'
- See **Reports** in **The Dashboard** for more details.

## Sorting, Search and Filter Options

- Click a column header to sort items in alphabetical order of entries in the column.
- Click the funnel button  to open the filter options.



Click the following links for more help:

- [Add iOS Apps and Install them on Devices](#)
- [Manage iOS Apps](#)

## 8.1.1. Add iOS Apps and Install them on Devices

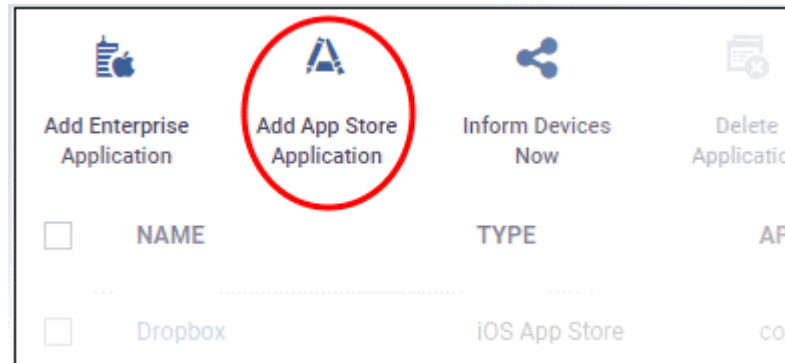
- You can add apps direct from the Apple store or by uploading custom/enterprise apps.
- Apps can be installed on all or selected managed iOS smart phones and tablets.

See the following sections for more details:

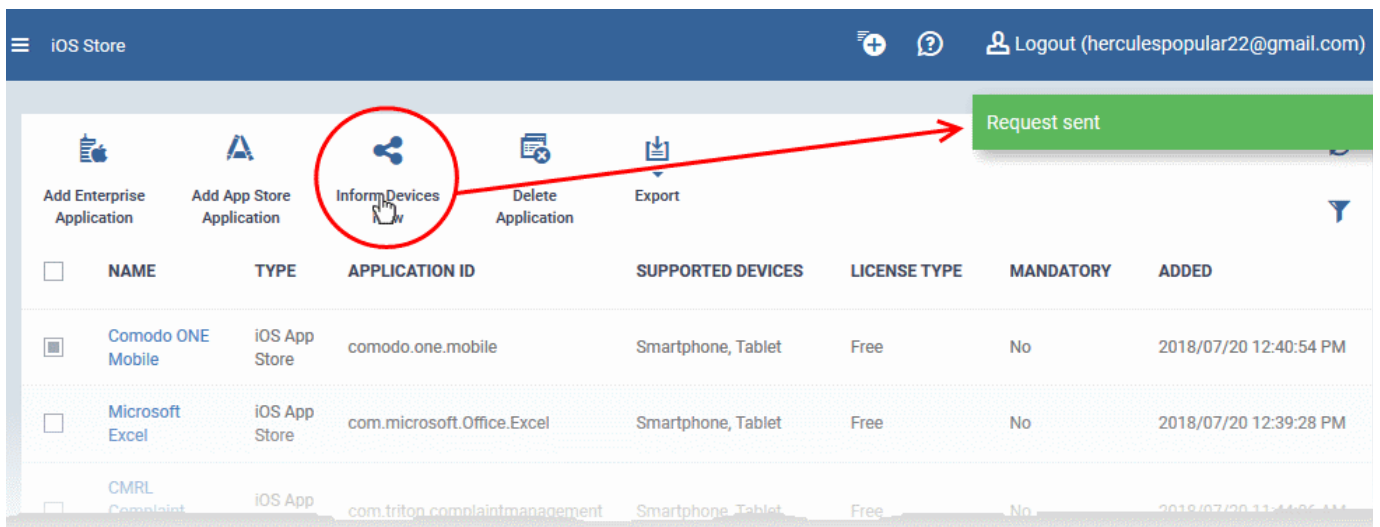
- [Add iOS Apps from the App Store](#)
- [Add Custom/Enterprise iOS Apps](#)

### Add iOS Apps from the App Store

- Click 'Application Store' > 'iOS Store'
- Click the 'Add App Store Application' button:



- Type the first few letters of the app in the 'Name' field on the form. Endpoint Manager will search for matching apps from the store.
- Select the correct app from the list of suggestions. The rest of the form will be auto-populated by the app details.
- Click 'Save' after confirming the details.
- The app will be added to the repository and listed in the 'iOS Store' interface. It will be synced to devices during the next cycle.
- Click 'Inform Devices Now' if you want to immediately notify devices to install the app:





Apple Store Application - Table of Parameters		
Form Element	Type	Description
Name	Text Field	<p>The label of the application.</p> <ul style="list-style-type: none"> <li>Enter the first few letters of the app name.</li> <li>EM searches for matching apps in the app store</li> </ul>
Version	Text Field	The version number of the application. This field is auto-populated after entering the app name.
iTunes Store ID	Text Field	<p>The Apple identification number of the app. This field is auto-populated after entering the app name.</p> <p>Usually, this number will appear after ID in the download URL of the app. For example, in the URL <a href="https://itunes.apple.com/us/app/ITSM/id807480077">https://itunes.apple.com/us/app/ITSM/id807480077</a>, the numbers after ID is the iTunes Store ID for this app.</p>
Application ID	Text Field	<p>The bundle ID of the app. This field is auto-populated after entering the app name.</p> <p>For example, the bundle ID for EM client is com.comodo.ITSM.client</p>



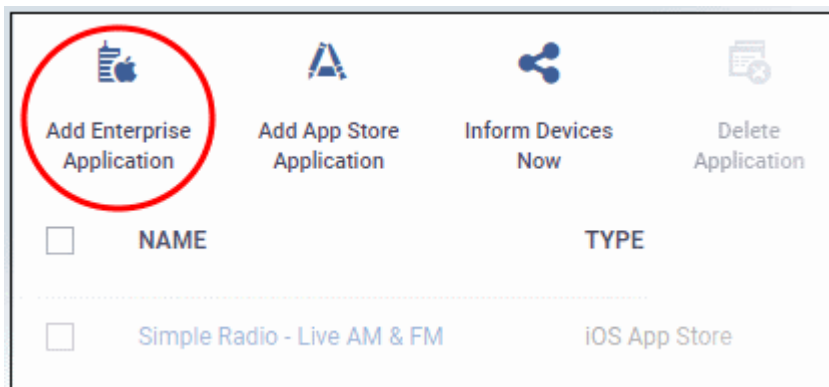
Apple Store Application - Table of Parameters		
Form Element	Type	Description
License Type	Radio Button	Specify whether the app is free or a paid version. This option is pre-populated by the app chosen in the 'Name' field.
Category	Drop-down	The classification of the application. The category field will be auto-populated depending on the app chosen in the 'Name' field The drop-down also enables you to choose the category to which the app belongs.
Supported devices	Drop-down	The category of devices on which the app can run. The device type will be auto-selected depending on the app chosen in the 'Name' field. The drop-down also enables you to choose the device types to which the app is compatible.
Description	Text Field	The 'Description' field will be auto-populated with the description of the selected app, from the App Store page. The text field also enables you to enter your description or edit the existing description.
Mandatory app	Checkbox	Specify whether or not it is compulsory that devices install this app. If enabled, all enrolled devices will get alerts automatically to install the app. See <a href="#">Install Apps on Android/iOS Devices</a> for more details.
Allow backup of the app data	Checkbox	Allows user to backup the application along with its user data to iTunes.
Remove app when device management profile is removed	Checkbox	The app will be deleted from devices if the profile applied to the device is removed.
Remove from device when removed from app catalog	Checkbox	The app will be deleted from devices if it is removed from 'iOS Store'.
Application logo	'Browse' Button	The application logo will be automatically fetched from the App Store for the app chosen in the name field. If you want to change the logo, upload a new logo from the local computer by clicking 'Browse'.
Application screenshots	'Browse' Button	The application screenshots will be automatically fetched from the App Store for the app chosen in the name field. If you want to add new screenshots from the local computer, upload them by clicking 'Browse'.

### Add Custom/Enterprise iOS Apps

- Custom applications can be added to the repository by simply uploading the app .ipa file
- Most app details, such as name, version and ID, will be automatically fetched by parsing the file. You just need to manually enter some remaining details

#### To add Custom/Enterprise iOS Apps

- Click 'Application Store' > 'iOS Store' to open the interface
- Click 'Add Enterprise Application' from the options at the top.



- Click 'Browse' beside 'Source File', select the .ipa file you want to upload and click 'Open'
- The file will be uploaded. Many form field details are auto-populated from the file itself:

**iOS Enterprise Application**
Cancel Save

**Name \***

**Version \***

**Application ID \***

**Category \***

**Supported devices \***

**Description**

**Distribution Options**

Mandatory app

Allow backup of the app data

Remove app when device management profile is removed

**Source file \***

**Application logo \***

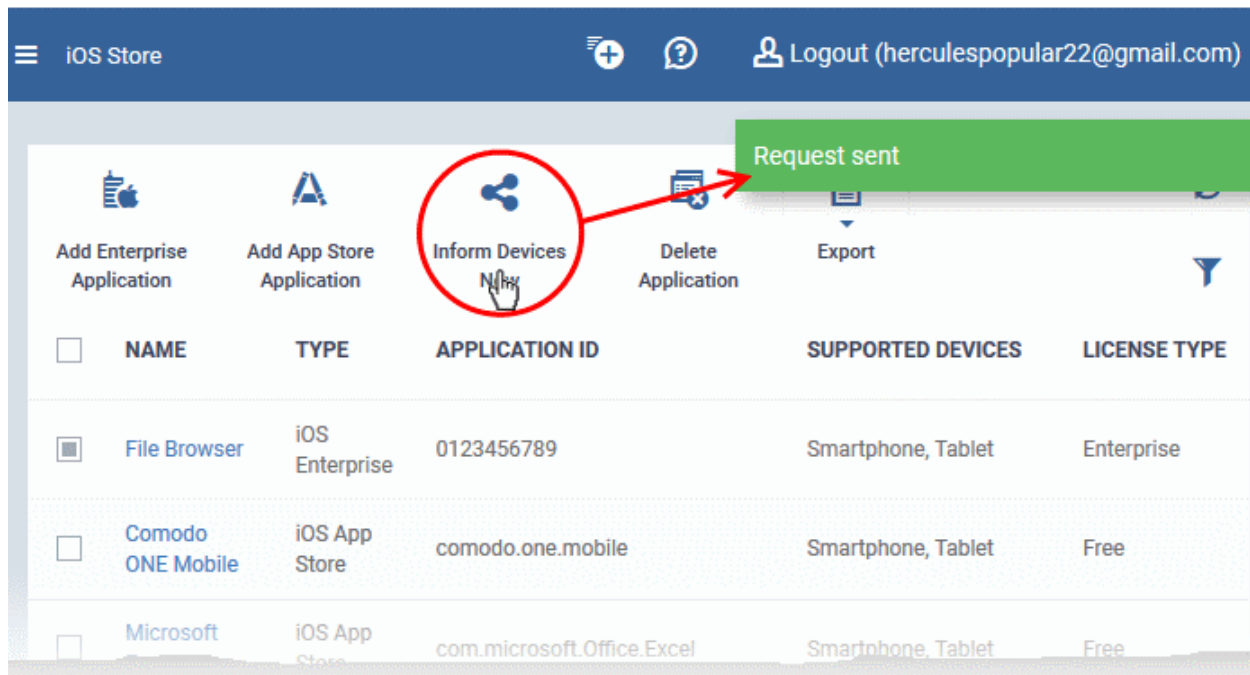
**Application screenshots**

### Add iOS Enterprise Application - Table of Parameters

Form Element	Type	Description
--------------	------	-------------

Add iOS Enterprise Application - Table of Parameters		
Name	Text Field	Application label. Auto-populated from the .ipa file <ul style="list-style-type: none"> <li>Enter the name of the app if not auto-populated</li> </ul>
Version	Text Field	The version of the application as obtained from the .ipa file. <ul style="list-style-type: none"> <li>Enter the version number, if it is not auto-populated</li> </ul>
Application ID	Text Field	The app's unique identifier as obtained from the .ipa file. Usually, this number will appear after ID in the download URL of the app. For example, in the URL <a href="https://itunes.apple.com/us/app/ITSM/id807480077">https://itunes.apple.com/us/app/ITSM/id807480077</a> , the numbers after ID is the iTunes Store ID for this app.
Category	Drop-down	Select the app classification.
Supported devices	Drop-down	Select the category of the devices to which the app is compatible.
Description	Text Field	Enter a description for the app.
Mandatory app	Checkbox	Specify whether the app should compulsorily be installed on devices. If enabled, all enrolled devices will be alerted to install the app. See <b>Install Apps on Android/iOS Devices</b> for more details.
Allow backup of the app data	Checkbox	Allows to backup the application along with its user data to iTunes.
Remove app when device management profile is removed	Checkbox	The app will be automatically uninstalled if the EM profile applied to the device is removed.
Source file	Browse button	Navigate to the storage location of the .ipa file to be uploaded and select the file.
Application logo	Browse button	Upload the logo image for the app.
Application screenshots	Browse button	Upload screenshots of the app, if required.

- Click 'Save' after confirming all details.
- The app will be added to the repository and listed in the 'iOS Store' interface. It will be pushed to devices on the next sync-cycle.
- Click 'Inform Devices Now' if you want to push the app to devices immediately.



## 8.1.2. Manage iOS Apps

The 'iOS Apps' interface lets you view and edit app details, and remove unwanted apps from the repository.

- Click 'Application Store' > 'iOS Store'
- Click the name of an app.

<input type="checkbox"/>	NAME	TYPE	APPLICATION ID	SUPPORTED DEVICES	LICENSE TYPE
<input type="checkbox"/>	File Browser	iOS Enterprise	0123456789	Smartphone, Tablet	Enterprise
<input checked="" type="checkbox"/>	<a href="#">Comodo ONE Mobile</a>	iOS App Store	comodo.one.mobile	Smartphone, Tablet	Free
<input type="checkbox"/>	Microsoft Excel	iOS App Store	com.microsoft.Office.Excel	Smartphone, Tablet	Free

### Detail

[Edit](#)

**Name**  
Comodo ONE Mobile

**Version**  
1.3.3

**iTunes store ID**  
1087953385

**Application ID**  
comodo.one.mobile

**License type \***  
Free

**Category**  
Productivity

**Supported devices**  
Smartphone, Tablet

**Description**  
Here's an easy way to track your customer requests even when you are mobile via Comodo One (C1) Mobile! C1 Mobile is a mobile version of Comodo One platform. With Service Desk (ticket management) which is part of C1 platform, it allows you to view, create, track, manage tickets, update ticket info and more wherever you are and whenever you want. C1 Mobile application enables overall view on tickets by categorization and provides easy way to support customer request. All these amazing features are now available for mobile and FREE. Features: - Create new tickets - Edit info and details of tickets - Total view on open, assigned to you, overdue and unassigned tickets - Get ticket updates and alerts as notifications on your mobile device - And more..

**Distribution Options**

**Mandatory app**  
Disabled

The details page contains a product description and various other info about the app. You can edit app details from here too.

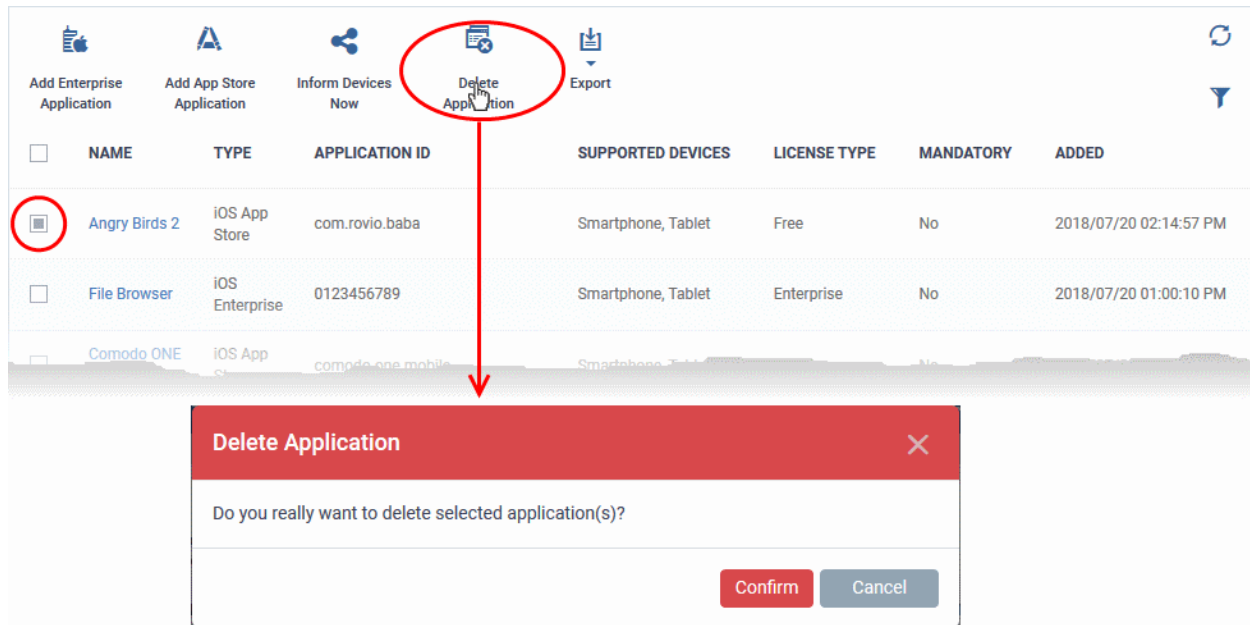
## To edit the details of an application

- Click on the 'Edit' button  at top right.

The application details edit screen will open. This screen is similar to the interface for adding a new application. See [Add iOS Apps and Install them on Devices](#) if you need help with this.

## Remove Apps from the store

- Click 'Application Store' > 'iOS Store'
- Select the app(s) you want to remove and click 'Delete Application' above the table.
  - Note. If 'Remove from device when removed from app catalog' is enabled, then the app will also be removed from devices.



- Click 'Confirm' in the confirmation dialog to remove the app(s)

## 8.2. Android Apps

- Click 'Application Store' > 'Android Store'.
- The store contains all Android apps that have been uploaded to Endpoint Manager. You can deploy selected apps to all managed devices or to specific devices.
- You can add new apps from the Google Play Store or upload your own custom enterprise apps. You can synchronize the app list with managed Android devices and edit existing app parameters.
- You can specify whether an app is a mandatory install or an optional install.

<input type="checkbox"/>	NAME	TYPE	APPLICATION ID	SUPPORTED DEVICES	LICENSE TYPE	MANDATORY	ADDED
<input type="checkbox"/>	<a href="#">Dithers Office</a>	Android Enterprise	cn.wps.moffice_eng	Smartphone, Tablet	Enterprise	Yes	2018/07/20 03:18:08 PM
<input checked="" type="checkbox"/>	<a href="#">Kanchi Sri Sankara Academy</a>	Google Play Store	in.nirals.kssa	Smartphone, Tablet	Free	No	2018/07/20 03:12:27 PM
<input type="checkbox"/>	<a href="#">Chennai Transit: Offline Metro, Rail, MTC, CMRL</a>	Google Play Store	com.swash.transitworld.chennai	Smartphone, Tablet	Free	No	2018/07/20 03:11:41 PM
<input type="checkbox"/>	<a href="#">Chennai Local Train Timetable</a>	Google Play Store	com.miin.chennai.railtimetable	Smartphone, Tablet	Free	No	2018/07/20 03:10:47 PM
<input type="checkbox"/>	<a href="#">SHAREit - Transfer &amp; Share</a>	Google Play Store	com.lenovo.anyshare.gps	Smartphone, Tablet	Free	No	2018/07/20 03:09:55 PM
<input type="checkbox"/>	<a href="#">Skype - free IM &amp; video calls</a>	Google Play Store	com.skype.raider	Smartphone, Tablet	Free	No	2018/07/20 03:09:26 PM

'Android Store' - Column Descriptions	
Column Heading	Description
Name	Label of the application. <ul style="list-style-type: none"> <li>Click the name to view details of the application.</li> <li>The screen also lets you edit app details. See <a href="#">Manage Android Apps</a> for more details.</li> </ul>
Type	The source type of the app. Possible types are: <ul style="list-style-type: none"> <li>Google Play Store Application</li> <li>Android Enterprise Application uploaded by the administrator</li> </ul>
Application ID	The bundle identifier of the app.
Supported Devices	The types of devices with which the application is compatible.
License Type	Whether the app is a free, paid or enterprise version.
Mandatory	Whether the app has been marked to be installed compulsorily on the devices. See <a href="#">'Add Android Apps and Install them on Devices'</a> for more details
Added	The date and time at which the app was added to repository.
Controls	
Add Enterprise Application	Add custom applications to Endpoint Manager by uploading the .apk package files. See <a href="#">Add Android Apps and Install them on Devices</a> for more details.
Add App Store Application	Add Android apps from the Play Store by entering the app name. See <a href="#">Add Android Apps and Install them on Devices</a> for more details.
Inform Devices Now	Synchronize the app list with enrolled Android devices.
Delete Application	Remove an application from the Android app repository.
Export	Save the list of Android apps as a comma separated values (csv) file. See <a href="#">Export the</a>

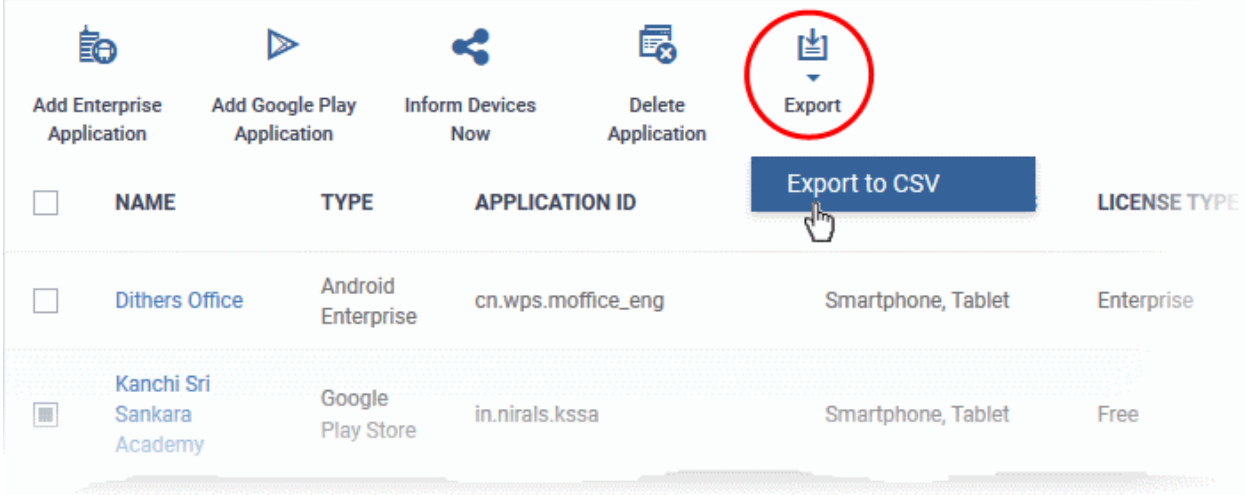


[List of Android Applications](#) for more details.

## Export the List of Android Applications

Export the list of Android applications to a .csv file as follows:

- Click 'Application Store' > 'Android Store'.
- Click the 'Export' button above the table then choose 'Export to CSV':




The screenshot shows the 'Android Applications' list in the Endpoint Manager interface. At the top, there are five action buttons: 'Add Enterprise Application', 'Add Google Play Application', 'Inform Devices Now', 'Delete Application', and 'Export'. The 'Export' button is circled in red. Below the buttons is a table with columns: 'NAME', 'TYPE', 'APPLICATION ID', 'Smartphone, Tablet', and 'LICENSE TYPE'. The 'Export to CSV' button is highlighted with a blue box and a mouse cursor. The table contains two rows of application data.

<input type="checkbox"/>	NAME	TYPE	APPLICATION ID	Smartphone, Tablet	LICENSE TYPE
<input type="checkbox"/>	Dithers Office	Android Enterprise	cn.wps.moffice_eng	Smartphone, Tablet	Enterprise
<input checked="" type="checkbox"/>	Kanchi Sri Sankara Academy	Google Play Store	in.nirals.kssa	Smartphone, Tablet	Free

- The CSV file will be available in 'Dashboard' > 'Reports'
- See [Reports](#) in [The Dashboard](#) for more details.

## Sort, Search and Filter Options

- Click a column header to sort items in alphabetical order of entries in the column.
- Click the funnel button  to open the filter options.

The screenshot shows a configuration form for adding an Android app. On the left, there is a sidebar with 'LICENSE TYPE' options: 'Enterprise' and 'Free'. The main form area contains the following fields and options:

- Name:** A text input field.
- Type:** Two checkboxes:  Google Play Store and  Android Enterprise.
- Application ID:** A text input field.
- Supported devices:** Three checkboxes:  Smartphone,  Tablet, and  Smartphone, Tablet.
- License type:** Three checkboxes:  Free,  Paid, and  Enterprise.
- Mandatory:** Two checkboxes:  Yes and  No.

Click the following links for more help:

- [Add Android Apps and Install them on Devices](#)
- [Manage Android Apps](#)

## 8.2.1. Add Android Apps and Install them on Devices

- You can add apps direct from the Google Play Store or by uploading custom apps
- Apps in the repository can be installed on all or specific managed Android devices.

See the following sections for more details:

- [Add an Android App from Google Play Store](#)
- [Add a Custom/Enterprise Android App](#)

### Add an App from the Google Play Store

- Click 'Application Store' > 'Android Store'
- Click the 'Add Google Play Application' button
- Type the first few letters of the app in the 'Name' field on the form. Endpoint Manager will search for matching apps from the store.
- Select the correct app from the list of suggestions. Most of the form will then be auto-populated from the app details

The screenshot shows the 'Add Google Play Application' form. At the top, there is a navigation bar with buttons: 'Add Enterprise Application', 'Add Google Play Application' (circled in red), 'Inform Devices Now', 'Delete Application', and 'Export'. Below the navigation bar is a table header with columns: 'NAME', 'TYPE', 'APPLICATION ID', and 'LICENSE TYPE'. The main form area is titled 'Google Play Application' and contains the following fields and options:

- Name \***: Text input field.
- Version \***: Text input field.
- Application ID \***: Text input field with an information icon.
- License type \***: Radio buttons for 'Free' and 'Paid'.
- Category \***: Dropdown menu with 'Select category'.
- Supported devices \***: Dropdown menu with 'Select supported devices'.
- Description**: Text area.
- Distribution Options**:
  - Mandatory app
  - Remove from device when removed from app catalog
- Application logo \***: 'Browse' button.
- Application screenshots**: 'Browse' button.

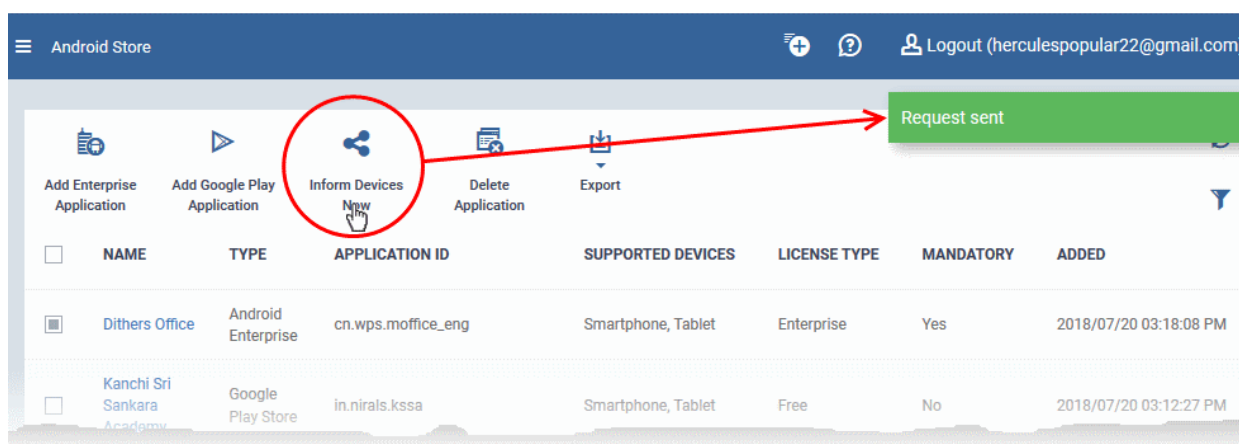
**Google Play Application - Table of Parameters**

Form Element	Type	Description
Name	Text Field	Enter the label of the application.

Google Play Application - Table of Parameters		
		<ul style="list-style-type: none"> <li>Type the first few letters of the app name</li> <li>EM displays matching results</li> <li>Choose the app you want to add from the suggestions</li> <li>Once you have chosen the app, most other form fields will be auto-populated.</li> </ul>
Version	Text Field	<p>The version number of the application.</p> <p>This field will be auto-populated after choosing an app in the 'Name' field.</p> <ul style="list-style-type: none"> <li>Enter the version number manually if the version number wasn't automatically fetched.</li> </ul>
Application ID	Text Field	<p>The application ID (bundle identifier) of the app. Usually this is in the reverse DNS format, for example, 'com.comodo.mobile.comodoantitheft'. In the Google Play store, the identifier is located after the '=' in the URL. An example is shown below:</p> <p><a href="https://play.google.com/store/apps/details?id=com.comodo.mdm">https://play.google.com/store/apps/details?id=com.comodo.mdm</a></p> <ul style="list-style-type: none"> <li>Click the help icon beside the field displays how to retrieve the application ID for the Play Store Apps.</li> </ul> <p>This field will be auto-populated on entering the correct app name in the 'Name' field.</p>
License Type	Radio Button	<p>Whether the app is free or paid.</p> <p>This option will be pre-chosen depending on the app chosen in the 'Name' field.</p>
Category	Drop-down	<p>The classification of the application.</p> <p>The category will be auto-selected depending on the app chosen in the 'Name' field.</p> <ul style="list-style-type: none"> <li>Select the category from the drop-down if it is not auto-populated.</li> </ul>
Supported devices	Drop-down	<p>The category of devices on which the app can be run.</p> <p>This device type will be auto-selected depending on the app chosen in the 'Name' field.</p> <ul style="list-style-type: none"> <li>Select the device type from the drop-down if it is not auto-populated.</li> </ul>
Description	Text Field	<p>The 'Description' field will be auto-populated with the description of the selected app, from the Google Play Store page.</p> <p>The text field also enables you to edit the description or enter your own description of the app.</p>
Mandatory app	Checkbox	<p>Specify whether the app is a compulsorily install. If enabled, the app will be automatically pushed to all enrolled devices.</p>
Remove from device when removed from app catalog	Checkbox	<p>The app will be uninstalled from devices if it is removed from the EM app store.</p>
Application logo	Button	<p>The application logo will be automatically fetched from the Google Play Store for the app chosen in the 'Name' field. If you want to change the</p>

Google Play Application - Table of Parameters		
		logo, upload a new logo from the local computer by clicking 'Browse'.
Application screenshots	Button	The application screenshots will be automatically fetched from the Google Play Store for the app chosen in the 'Name' field. If you want to add new screenshots from the local computer, upload them by clicking 'Browse'.

- Click 'Save' after entering the details.
- The app will be added to the App repository and will listed in the 'Android Store'. It will be synced to the devices during the next cycle.
- Click 'Inform Devices Now' if you want to push the app immediately.



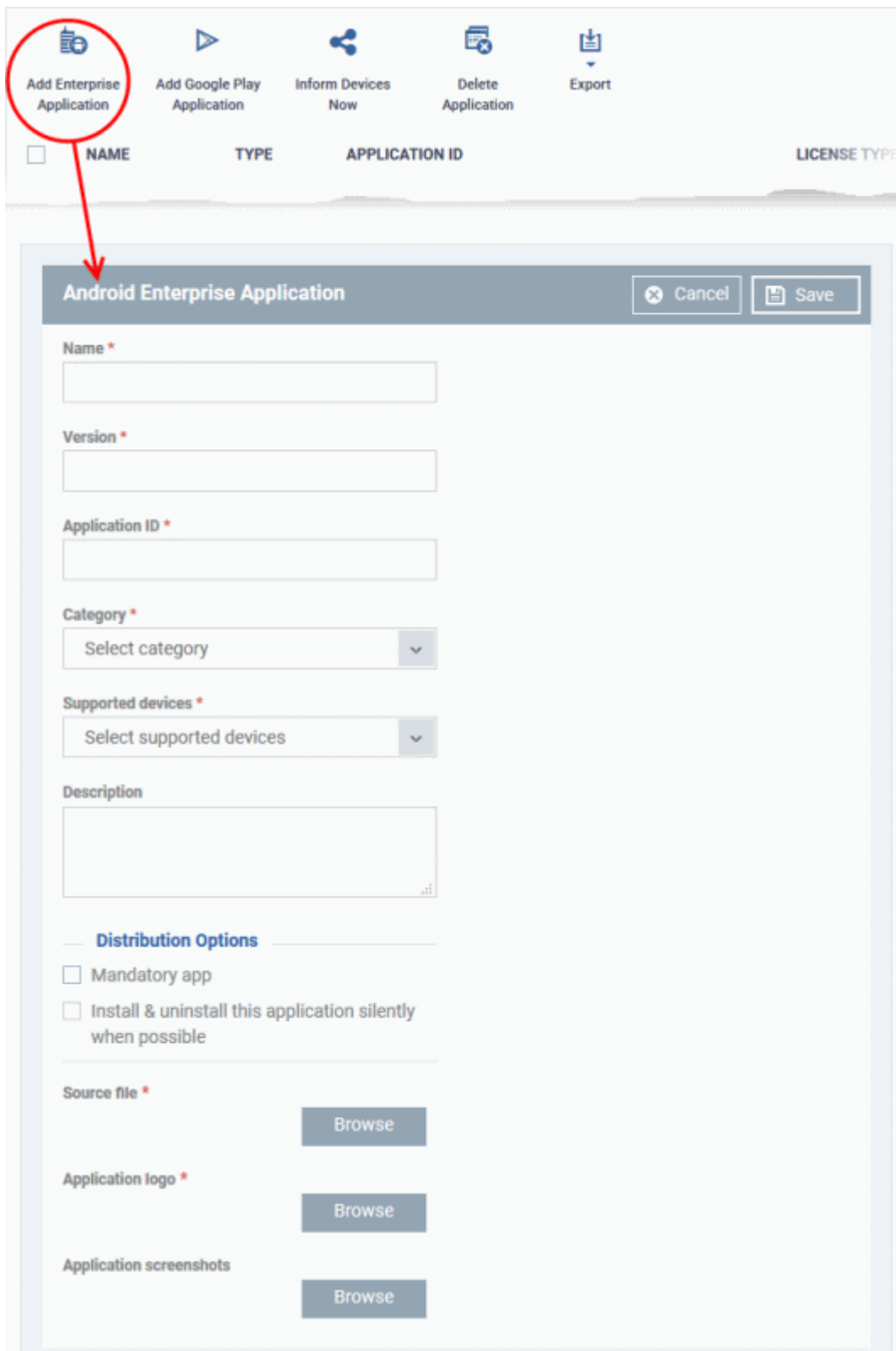
## Add a Custom/Enterprise Android App

- Custom apps can be added to the repository by uploading the app's .apk file.
- App details will be automatically fetched by parsing the file. You will need to manually enter details which could not be fetched from the .apk file.

**Prerequisite:** The .apk file of the app should have been saved in the computer or in the network storage accessible through the computer, from which the Endpoint Manager console is accessed.

### To add Custom/Enterprise Android Apps

- Click 'Application Store' > 'Android Store'
- Click 'Add Enterprise Application' from the options at the top.



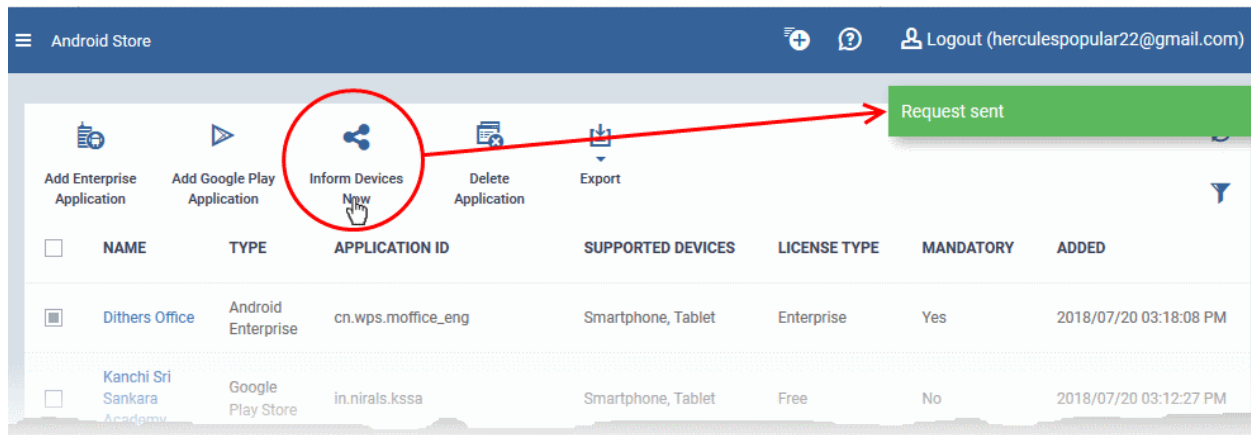
- Click 'Browse' under 'Source File', navigate to the location of the .apk file to be uploaded, select the file and click 'Open'

The file will be uploaded and form details auto-populated. See the previous section if you need advice on the fields in this form.

- Click 'Save' after entering the details.
- The app will be added to the repository and listed in the 'Android Store' interface. It will be synced to

enrolled devices during the next update cycle.

- Click 'Inform Devices Now' if you want to push the app out immediately.



## 8.2.2. Manage Android Apps

The 'Android Apps' interface lets you view and edit app details, and remove unwanted apps from the repository.

- Click 'Application Store' > 'Android Store'
- Click the name of an app



The screenshot shows the 'Applications' page in the Endpoint Manager interface. At the top, there are five action buttons: 'Add Enterprise Application', 'Add Google Play Application', 'Inform Devices Now', 'Delete Application', and 'Export'. Below these is a table with columns: 'NAME', 'TYPE', 'APPLICATION ID', 'SUPPORTED DEVICES', and 'LICENSE TYPE'. The first row in the table is for 'Dithers Office', which is highlighted with a red circle and a red arrow pointing to its 'Detail' view. The 'Detail' view is a modal window with an 'Edit' button in the top right corner. It contains the following information:

- Name:** Dithers Office
- Version:** 10.6.4
- Application ID:** co.dithers.moffice\_eng
- Category:** Productivity
- Supported devices:** Smartphone, Tablet
- Description:**
- Distribution Options:**
  - Mandatory app:** Enabled
  - Install & uninstall this application silently when possible:** Disabled
- Source file:** 18\_android\_enterprise.apk
- Application logo:**
- Application screenshots:** Images not exist

The 'Application Details' page contains a description of the app and various other identifying information. You can also edit app details from here.

### To edit the details of an application

- Click on the 'Edit' button  at the top right .

The application details edit screen will be displayed. This screen is similar to the interface for adding a new application. For more details on the parameters, see [Add Android Apps and Install them on Devices](#).

## Remove Apps from the Android App Catalog

- You can remove unwanted applications from the repository at any time.
- If you also select 'Remove from device when removed from app catalog', the app will also be deleted from devices.

### To remove selected Apps

- Click 'Application Store' > 'Android Store'
- Select the app(s) you want to remove and click the 'Delete Application' button:

The screenshot shows the 'Delete Application' button circled in red. A red arrow points from the button to a dialog box titled 'Delete Application'. The dialog box contains the text 'Do you really want to delete selected application(s)?' and two buttons: 'Confirm' and 'Cancel'.

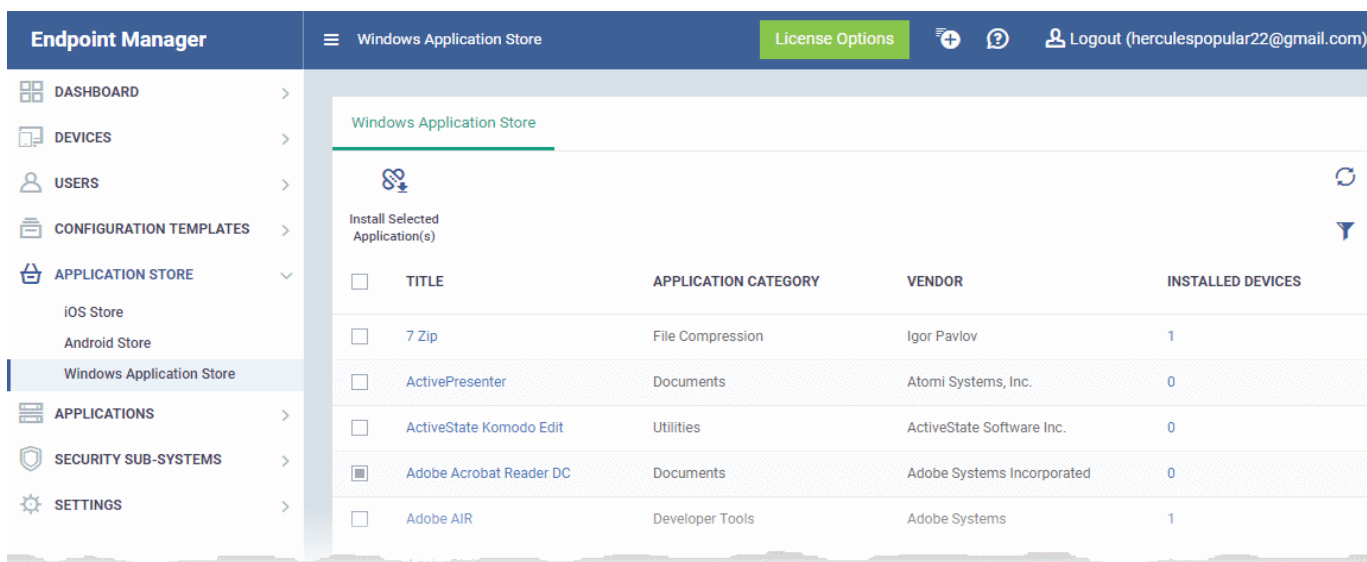
<input type="checkbox"/>	NAME ▲	TYPE	APPLICATION ID	SUPPORTED DEVICES	LICENSE TYPE
<input checked="" type="checkbox"/>	Chennai Local Train Timetable	Google Play Store	com.miiit.chennaitraintimetable	Smartphone, Tablet	Free
<input type="checkbox"/>	Chennai Transit: Offline Metro, Rail, MTC, CMRI	Google Play Store	com.swash.transitworld.chennai	Smartphone, Tablet	Free

- Click 'Confirm' to remove the app(s).



## 8.3. Windows Apps

The 'Windows Application Store' is a library of applications which can be deployed to Windows devices. Applications you can install include Adobe Acrobat, CCleaner, Firefox, Thunderbird and more. The list is continuously updated by Comodo.

- Click 'Application Store' > 'Windows Application Store' to open the interface



Windows Application Store - Column Descriptions	
Column Heading	Description
Title	The name of the application. <ul style="list-style-type: none"> <li>Click the name to view application details, including version number and any devices on which it is installed.</li> <li>See <b>View Application Details</b>.</li> </ul>
Application Category	The category under which the application is grouped.
Vendor	The name of the organization / person that distributes the application
Installed Devices	The number of devices on which the application is installed. Clicking the number will open the 'Device List' screen. See <b>View Application-Installed Devices List</b> .
Controls	
Install Selected Application(s)	Allows you to install selected application(s) on managed devices. See <b>Install Windows Apps on Devices</b> for more details.

- Click any column header to sort items in ascending/descending order of entries in that column.
- Click the refresh icon  on the top-right to update the table list
- Click the funnel icon  on the top-right to search for Windows applications by title, vendor and/or application category.
- To display all the items again, remove the search key from filter and click 'Apply'.
- EM returns 20 results per page when you perform a search. Click the arrow next to 'Results per page' to change the number of results shown.

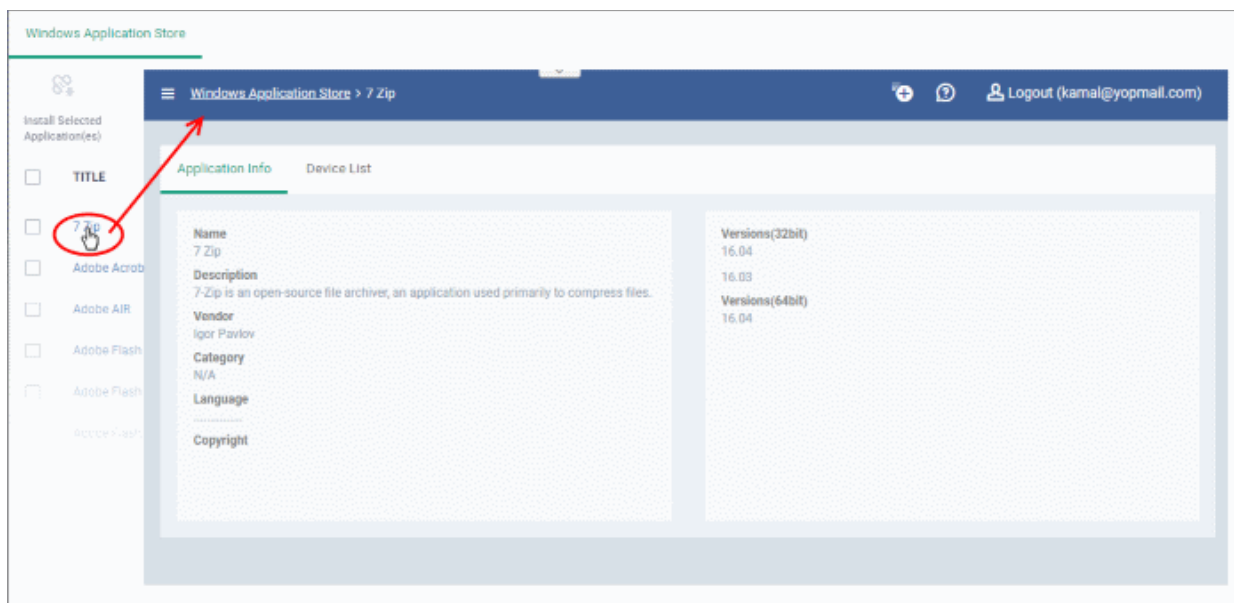
From the interface you can:

- **View Application Details**
- **View Application-Installed Devices List**
- **Install Applications on Devices**

## View Application Details

- Click an application's name in the list

A new screen with 'Application Info' and 'Device List' tabs will open.



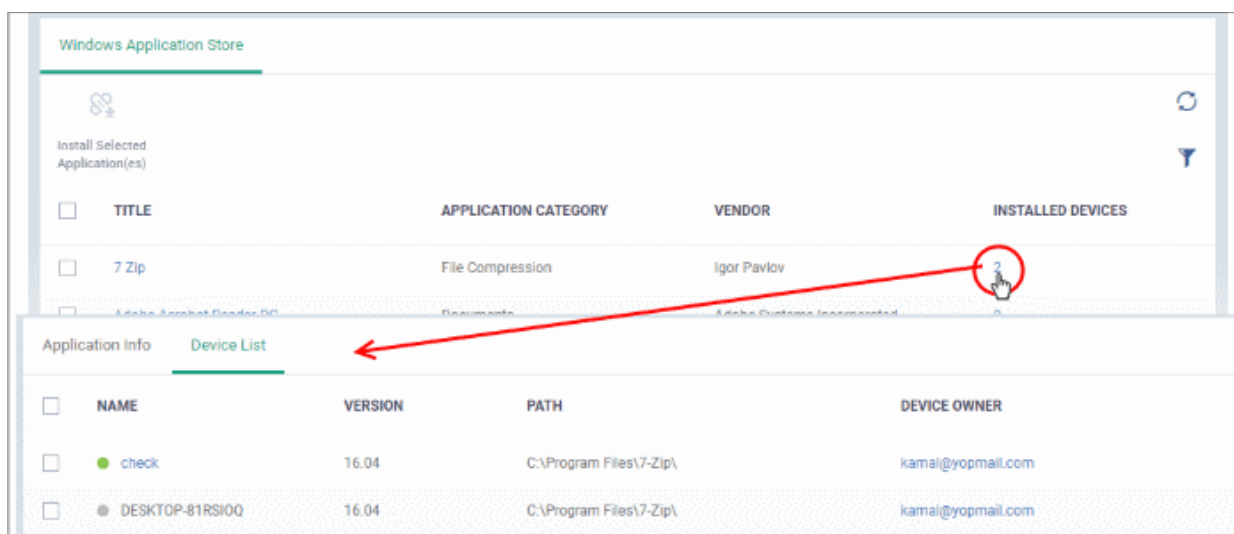
By default, the 'Application Info' tab will be displayed. The details of the application such as name, description, vendor, category including version number(s) will be available.

- The 'Device List' tab displays the device details on which the application is installed. This screen is same that is shown when the number in the 'Installed Devices' column is clicked. See **View Application-Installed Devices List** for details.

## View Application-Installed Devices List

- Click the number on the far right beside an application's name ('Installed Devices' column)

A new screen with 'Application Info' and 'Device List' tabs will open.



By default, the 'Device List' tab will be displayed. The details of the device such as name, application version, installation path and name of the device owner will be available.

- Click the name of a device to view its **summary** information. See '**Manage Windows Devices**' for more information about how to manage devices.

## 8.3.1. Install Windows Apps on Devices

The 'Windows Application Store' lets you install apps on managed Windows devices.

- Click 'Application Store' > 'Windows Application Store'
- Select the applications you want and click 'Install Selected Application(s)':

The screenshot shows the 'Windows Application Store' interface. At the top left, there is a button labeled 'Install Selected Application(s)' with a download icon, circled in red. Below it is a table of applications with columns for 'TITLE', 'APPLICATION CATEGORY', and 'VENDOR'. The table lists several applications, with 'Adobe Acrobat Reader DC' and 'Adobe AIR' selected, indicated by checked checkboxes, also circled in red. A red arrow points from the 'Install Selected Application(s)' button to a modal dialog box titled 'Install Selected Application(s)'. The dialog box has a close button (X) in the top right corner. It contains the text 'Install selected applications over:' followed by two radio button options: 'All devices' (which is selected) and 'Selected device(s)'. Below these options is a search input field with the placeholder text 'Type device name to search among devices...'. At the bottom right of the dialog box is a blue 'Install' button.

	TITLE	APPLICATION CATEGORY	VENDOR
<input type="checkbox"/>	7 Zip	File Compression	Igor Pavlov
<input type="checkbox"/>	ActivePresenter	Documents	Atomi Systems, Inc.
<input type="checkbox"/>	ActiveState Komodo Edit	Utilities	ActiveState Software Inc.
<input checked="" type="checkbox"/>	Adobe Acrobat Reader DC	Documents	Adobe Systems Incorporated
<input checked="" type="checkbox"/>	Adobe AIR	Developer Tools	Adobe Systems
<input type="checkbox"/>	Adobe...		

- **All Devices** - Install the latest version of the apps on every managed Windows device.
- **Selected Devices** - Install the apps on specific devices:
  - Choose 'Selected device(s)'

**Install Selected Application(es)** [X]

Install selected applications over:

All devices

Selected device(s)

Aqua-PC [X]

Please select a version to install:

Available Versions

[Dropdown Menu]

**Install**

- Enter first few letters of the device name and select from the suggestions.
- Repeat to add multiple devices.

Note - The version number drop-down is not available if you select 'All devices', multiple devices, or multiple apps.

- Select the application version (available for single application/ single device installs only)

Aqua-PC [X]

Please select a version to install:

Available Versions

[Dropdown Menu]

- 16.04 (32bit)
- 16.03 (32bit)
- 16.04 (64bit)

- Click 'Install'

The install command is sent immediately. The 'Software Inventory' screen shows all apps installed on a particular device. See '[View Applications Installed on a Device](#)' for more information.

## 9. Security Sub Systems

The 'Security Sub systems' menu lets you:

- View the infection status of managed devices.
- Run antivirus and file-rating scan on devices.
- Update the virus database on devices.
- View and manage quarantined files.
- View and modify the trust rating of files discovered on devices
- View unknown files currently running in the container on an endpoint.
- View unknown files which were automatically submitted to Valkyrie for analysis
- View a consolidated list of all security events on all managed Windows endpoints.
- View a list of external connection attempts from devices.

The following sections contain more details on each area:

- **Security Dashboards**
  - **View Security Events by Time**
  - **View Events by File**
- **View Contained Applications**
- **Manage File Trust Ratings on Windows Devices**
- **View Valkyrie Analyzed Files**
- **Antivirus and File Rating scans**
  - **Run Antivirus and/or File Rating Scans on Devices**
  - **Handle Malware on Scanned Devices**
  - **Update Virus Signature Database on Windows, Mac OS and Linux Devices**
- **View and Manage Identified Malware**
- **View and Manage Quarantined Items**
- **View Threat History**
- **View History of External Device Connection Attempts**

### 9.1. Security Dashboards

- Click 'Security Sub-Systems' > 'Security Dashboards'

The security dashboard is a list of all security events on managed Windows endpoints. This includes events generated by the antivirus, containment and application-control modules. Events include:

#### Antivirus:

- Files blocked, moved to quarantine or ignored
- Files restored/removed from quarantine
- Files rated as trusted, or submitted as false positives, from the scan results screen
- Files added to the exclusions list

#### Containment:



- Files blocked, ignored or run in the container by:
  - Auto-containment rules in the profile on the device
  - Local user running the file in the container on a one-off basis

## Application Control

- Unrecognized and malicious files added to, or removed from, the CCS 'File list'.
- Changes in the trust rating of those files
- See **Manage File Trust Ratings on Windows Devices** for more details.

The interface also lets you rate files, and move files in or out of quarantine.

To open the interface:

- Click 'Security Sub-Systems' > 'Security Dashboards'

The screenshot shows the Endpoint Manager interface. On the left, the 'SECURITY SUB-SYSTEMS' menu item is circled in red. The main content area is titled 'Security Dashboards / Event View' and has two tabs: 'Event View' (selected) and 'File View'. Below the tabs are icons for 'Action on Endpoint' and 'Change Rating'. A search bar labeled 'Search file HASH' is present. Below the search bar is a table with the following columns: DATE TIME, COMPONENTS, ACTION, SEVERITY, DEVICE NAME, FILE NAME, FILE PATH, FILE HASH, and ADDITIONAL INFO. The table contains several rows of security events, including entries for Antivirus, Malware detection, and Application control.

DATE TIME	COMPONENTS	ACTION	SEVERITY	DEVICE NAME	FILE NAME	FILE PATH	FILE HASH	ADDITIONAL INFO
2018/11/09 ...	Antivirus	Block	High	DESKTOP-D...	123	\Device...		ApplicUnwn...
2018/11/09 ...	Antivirus	Malware det...	High	DESKTOP-D...	123	\Device...		ApplicUnwn...
2018/11/09 ...	Application c...	Update items	Low	DESKTOP-D...	Astrolog.exe	C:\Astr...	87ABE0...	Unrecogniz...
2018/11/09 ...	Antivirus	Malware det...	High	DESKTOP-D...	Astrolog.exe	C:\Astr...	87ABE0...	Policy.Admi...
2018/11/09 ...	Antivirus	Block	High	DESKTOP-D...	Astrolog.exe	C:\Astr...	87ABE0...	Policy.Admi...
2018/11/08 ...	Antivirus	Malware det...	High	DESKTOP-D...	123	\Device...		ApplicUnwn...

The interface has two tabs:

- Event View** - Shows the events in chronological order. See **View Security Events by Time** for more details.
- File View** - Shows events in file wise order. The events from antivirus, containment and application control components for each file are grouped and shown in a single row. You can expand the row to view the list of events on that file corresponding to different components. See **View Events by Files** for more details.

### 9.1.1. View Security Events by Time



- Click 'Security Sub-Systems' > 'Security Dashboards' > 'Event View'
- The event view shows events in chronological order:

Event View    File View

Action on Endpoint    Change Rating

Search file HASH

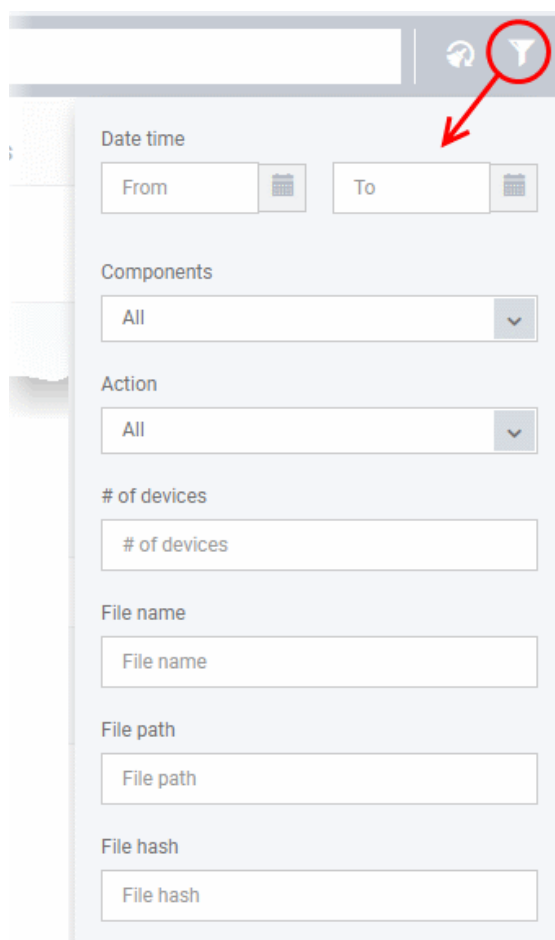
<input type="checkbox"/>	DATE TIME▼	COMPONENTS	ACTION	SEVERITY	DEVICE NAME	FILE NAME	FILE PATH	FILE HASH	ADDITIONAL INFO
<input type="checkbox"/>	2018/09/12 ...	Containment	Virtually	Low	DESKTOP-D...	virtkiosk.exe	C:\Prog...	474348...	Completed
<input type="checkbox"/>	2018/09/12 ...	Containment	Virtually	Low	DESKTOP-D...	virtkiosk.exe	C:\Prog...	474348...	Completed
<input type="checkbox"/>	2018/09/12 ...	Containment	Virtually	Low	DESKTOP-D...	cheatbook0...	C:\Prog...	0AF7BD...	Completed
<input type="checkbox"/>	2018/09/12 ...	Containment	Virtually	Low	DESKTOP-D...	virtkiosk.exe	C:\Prog...	474348...	Completed
<input type="checkbox"/>	2018/09/12 ...	Antivirus	Malware qu...	Moderate	DESKTOP-D...	pcalc_17046...	C:\User...	EB9592...	Malware@#...
<input type="checkbox"/>	2018/09/12 ...	Antivirus	Malware det...	High	DESKTOP-D...	pcalc_17046...	C:\User...	EB9592...	Malware@#...
<input type="checkbox"/>	2018/09/12 ...	Containment	Virtually	Low	DESKTOP-D...	cheatbook0...	C:\Prog...	0AF7BD...	Running
<input type="checkbox"/>	2018/09/12 ...	Containment	Virtually	Low	DESKTOP-D...	virtkiosk.exe	C:\Prog...	474348...	Completed
<input type="checkbox"/>	2018/09/10 ...	Application c...	Delete items	None	DESKTOP-D...	C_powershe...	C:\Prog...	AA2317...	Unrecognized

Security Dashboards - Event View - Column Descriptions	
Column Header	Description
Date/Time	The time at which the event occurred.
Components	Whether the 'Antivirus', 'Containment' or 'Application Control' that reported the event
Action	<p>The nature of the event showing the how the file was handled by the CCS component. The possible actions are:</p> <p>Antivirus:</p> <ul style="list-style-type: none"> <li>• Detection of malware</li> <li>• Malware quarantined</li> <li>• Malware removed from quarantine</li> <li>• Malware restored from quarantine</li> <li>• Malware removed from infected file</li> <li>• Detected item ignored</li> <li>• Detected file blocked</li> <li>• File added to exclusions</li> <li>• File added to trusted files list</li> <li>• File reported as false positive from the results screen</li> </ul> <p>Containment</p> <ul style="list-style-type: none"> <li>• File run inside container with different restriction levels:                             <ul style="list-style-type: none"> <li>• Restricted</li> <li>• Virtually</li> </ul> </li> <li>• File blocked</li> <li>• File ignored</li> </ul> <p>Application Control:</p> <ul style="list-style-type: none"> <li>• File added to the file list</li> <li>• File removed from the file list</li> <li>• Trust rating updated for a file</li> </ul>
Severity	<p>The criticality of the event. The possible values are:</p> <ul style="list-style-type: none"> <li>• High</li> <li>• Moderate</li> <li>• Low</li> </ul>
Device Name	The label of the Windows endpoint on which the event occurred.
File Name	The label of the executable file affected by the action
File Path	<p>The installation location of the executable file on the endpoint</p> <ul style="list-style-type: none"> <li>• Click the  icon to copy the path to the clipboard.</li> </ul>
File Hash	<p>The SHA 1 hash value of the executable file</p> <ul style="list-style-type: none"> <li>• Click the  icon to copy the hash value to the clipboard.</li> </ul>

Additional Info	Provides details of the affected file.
<b>Controls</b>	
Action on Endpoints	Allows you to delete a file or restore a file from quarantine on the endpoint. Applicable only for events involving 'Malware quarantined' action. See <b>Handle Quarantined Items</b> for more details
Change rating	Allow you to change the rating of the affected file to trusted, malicious or unrecognized. See <b>Rate Files as Trusted, Malicious or Unrecognized</b> for more details.

## Sorting, Search and Filter Options

- Click the column headers to sort events in ascending or descending order
- Enter the SHA 1 hash value of a file in the search box to filter the events involving the file.
- Click the funnel icon on the top right to open more filter options:



- Use the search fields to filter the events by date/time, component, action, number of devices, file name, file path or SHA1 hash value.
- To display all items again, clear any search filters and click 'OK'.

You can use any combination of filters simultaneously to search for specific apps.

## Handle Quarantined Items

- You can delete or restore quarantined items from the 'File View' tab of 'Security Dashboards' interface.

- Click 'Security Sub-Systems' > 'Security Dashboards' > 'File View'
- Select the event(s) in which the file(s) of interest are moved to quarantine.
- Click 'Action on Endpoint' on top

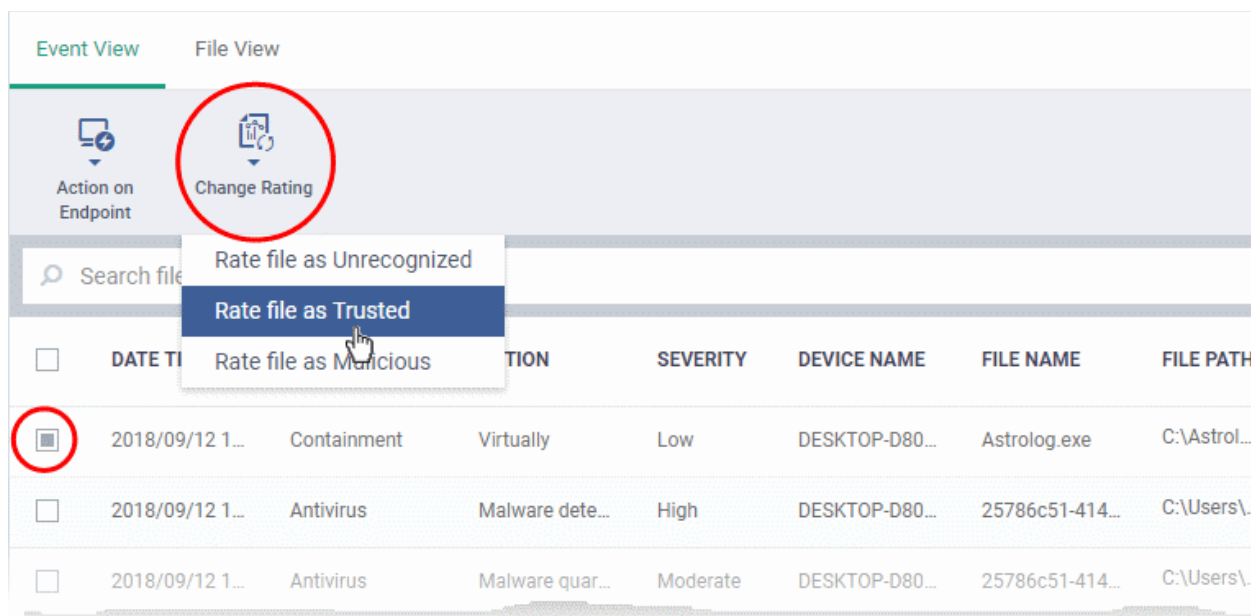
<input type="checkbox"/>	DATE TIME	COMPONENTS	ACTION	SEVERITY	DEVICE NAME	FILE NAME
<input type="checkbox"/>	2018/09/12 1...	Containment	Virtually	Low	DESKTOP-D80...	Astrolog.exe
<input type="checkbox"/>	2018/09/12 1...	Antivirus	Malware dete...	High	DESKTOP-D80...	25786c51-414
<input checked="" type="checkbox"/>	2018/09/12 1...	Antivirus	Malware quar...	Moderate	DESKTOP-D80...	25786c51-414
<input type="checkbox"/>	2018/09/12 1...	Antivirus	Malware dete...	High	DESKTOP-D80...	2473c2ca-414
<input type="checkbox"/>	2018/09/12 1...	Antivirus	Malware resto...	Low	DESKTOP-D80...	25786c51-414
<input type="checkbox"/>	2018/09/12 1...	Antivirus	Malware resto...	Low	DESKTOP-D80...	pcalc_170462...
<input type="checkbox"/>	2018/09/12 1...	Antivirus	Malware dete...	High	DESKTOP-D80...	pcalc_170462...
<input checked="" type="checkbox"/>	2018/09/12 1...	Antivirus	Malware quar...	Moderate	DESKTOP-D80...	pcalc_170462...
<input type="checkbox"/>	2018/09/12 1...	Containment	Virtually	Low	DESKTOP-D80...	virtkiosk.exe

- Select 'Delete File' to remove the file from the device
- Select 'Restore from Quarantine' to move the file(s) from quarantine to their original location on the device

## Rate Files as Trusted, Malicious or Unrecognized

If required, you can manually rate files as unrecognized, trusted or malicious. The new rating will be sent to endpoints during the next sync.

- Click 'Security Sub-Systems' > 'Security Dashboards' > 'Event View'
- Select the events involving the files of interest.
- Click the 'Change Rating' button
- Set your preferred rating from the options:



The new rating will be propagated to all endpoints during the next synchronization.

## 9.1.2. View Events by File

- Click 'Security Sub-Systems' > 'Security Dashboards' > 'File View'
- File view groups together all events concerning a particular file.
  - A file can generate events from multiple security modules on multiple devices at different times. All these events are grouped together and shown as a single row:

Event View **File View**

Action on Endpoint    Change Rating

Search file HASH

<input type="checkbox"/>	DATE TIME	COMPONENTS	ACTION	SEVERITY	# OF DEVICES	FILE NAME	FILE PATH	FILE HASH
<input type="checkbox"/>	2018/09/12 ...	Containment, Application control	Virtually, Insert items, Delete items	Low	1	Astrolog.exe	C:\Astr...	87ABE...
<input checked="" type="checkbox"/>	2018/09/12 ...	Antivirus, Application control	Malware detected, Ignore, Malware quarantined, Malware restored from quarantine, Update items, Delete items, Insert items	High	1	25786c51-4...	C:\Susp...	3EF5D...
<input type="checkbox"/>	2018/09/12 ...	Containment	Virtually	Low	1	virtkiosk.exe	C:\Prog...	47434...
<input type="checkbox"/>	2018/09/12 ...	Antivirus, Application control	Malware detected, Insert items	High	1	2473c2ca-4...	C:\Susp...	56237...

- You can expand the row to view individual events:
- Click the '+' at the left of a row to expand it and view a list of all events for a file.



Search file HASH

<input type="checkbox"/>	DATE TIME	COMPONENTS	ACTION	SEVERITY	# OF DEVICES	FILE NAME	FILE PATH	FILE HASH
<input type="checkbox"/>	2018/09/12 ...	Containment, Application control	Virtually, Insert items, Delete items	Low	1	Astrolog.exe	C:\Astr...	87ABE...
<input checked="" type="checkbox"/>	2018/09/12 ...	Containment, Application control	Virtually, Insert items, Delete items	Low	1	Astrolog.exe	C:\Astr...	87ABE...
<input type="checkbox"/>	2018/09/12 ...	Containment	Virtually	Low	1	Astrolog.exe	C:\Astr...	87ABE...
<input type="checkbox"/>	2018/09/12 ...	Application control	Insert items, Delete items	Low	1	Astrolog.exe	C:\VTR...	87ABE...
<input type="checkbox"/>	2018/09/12 ...	Antivirus, Application control	Malware detected, Ignore, Malware quarantined, Malware restored from quarantine, Update items, Delete items, Insert items	High	1	25786c51-4...	C:\Susp...	3EF5D...

### Security Dashboards - Event View - Column Descriptions

Column Header	Description
---------------	-------------

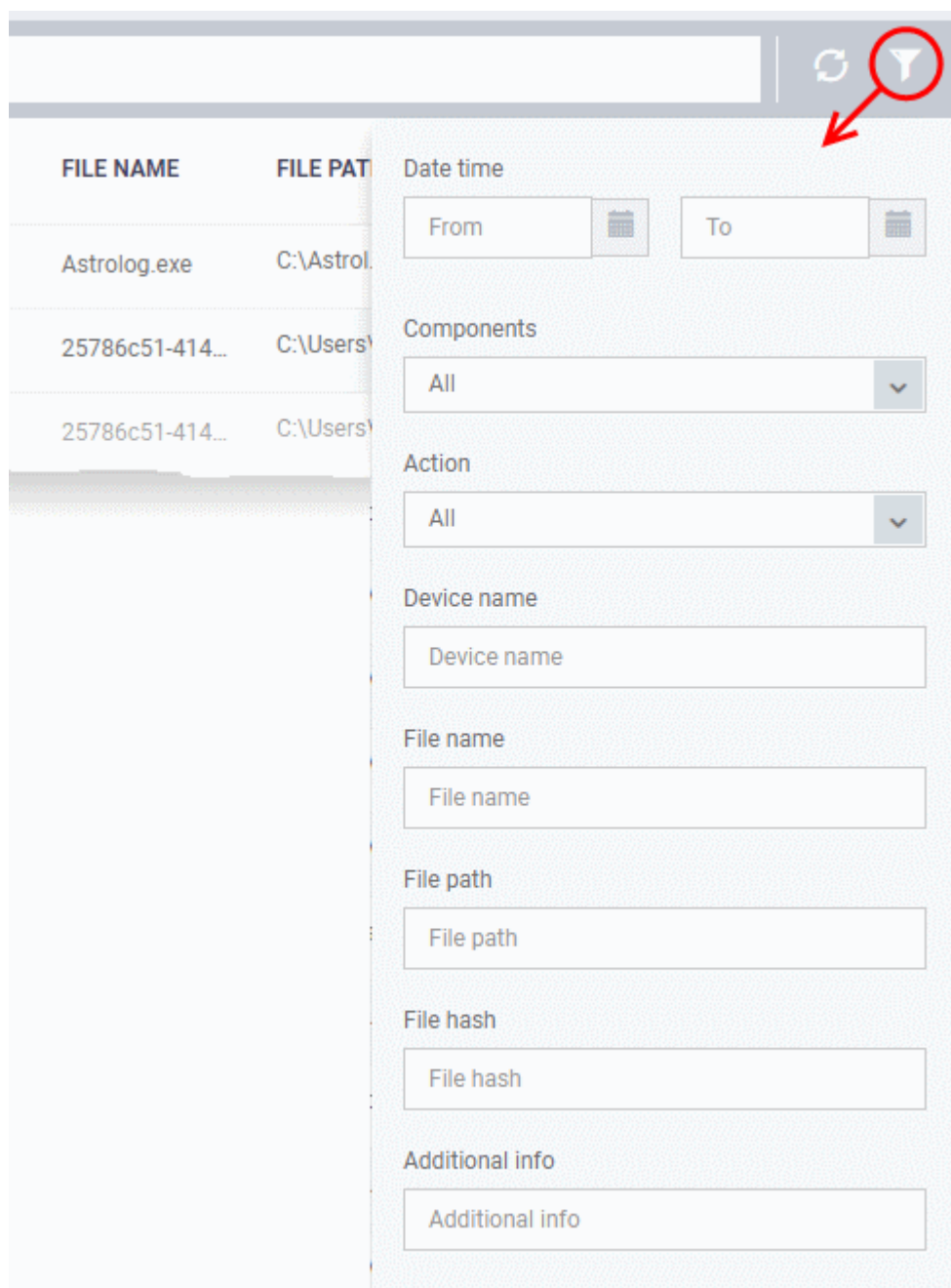


Date/Time	The time at which the event occurred.
Components	Whether the 'Antivirus', 'Containment' or 'Application Control' that reported the event
Action	<p>The nature of the event showing the how the file was handled by the CCS component. The possible actions are:</p> <p>Antivirus:</p> <ul style="list-style-type: none"> <li>• Detection of malware</li> <li>• Malware quarantined</li> <li>• Malware removed from quarantine</li> <li>• Malware restored from quarantine</li> <li>• Malware removed from infected file</li> <li>• Detected item ignored</li> <li>• Detected file blocked</li> <li>• File added to exclusions</li> <li>• File added to trusted files list</li> <li>• File reported as false positive from the results screen</li> </ul> <p>Containment</p> <ul style="list-style-type: none"> <li>• File run inside container with different restriction levels:                             <ul style="list-style-type: none"> <li>• Restricted</li> <li>• Virtually</li> </ul> </li> <li>• File blocked</li> <li>• File ignored</li> </ul> <p>Application Control:</p> <ul style="list-style-type: none"> <li>• File added to the file list</li> <li>• File removed from the file list</li> <li>• Trust rating updated for a file</li> </ul>
Severity	<p>The criticality of the event. The possible values are:</p> <ul style="list-style-type: none"> <li>• High</li> <li>• Moderate</li> <li>• Low</li> </ul>
Number of devices	On how many devices the event was detected
File Name	The label of the executable file affected by the action
File Path	<p>The installation location of the executable file on the endpoint</p> <ul style="list-style-type: none"> <li>• Click the  icon to copy the path to the clipboard.</li> </ul>
File Hash	<p>The SHA 1 hash value of the executable file</p> <ul style="list-style-type: none"> <li>• Click the  icon to copy the hash value to the clipboard.</li> </ul>
<b>Controls</b>	
Action on Endpoints	Allows you to delete a file or restore a file from quarantine on the endpoint. Applicable

	only for events involving 'Malware quarantined' action. See <b>Handle Quarantined Items</b> for more details
Change rating	Allow you to change the rating of the affected file to trusted, malicious or unrecognized. See <b>Rate Files as Trusted, Malicious or Unrecognized</b> for more details.

## Sorting, Search and Filter Options

- Click a column header to sort items in ascending or descending order
- The search box at the top allows you filter devices based on any parameter in the table.
- Click the funnel icon on the top right to open more filter options:



- Use the search fields to filter the events by date/time, component, action, device name, file name, file path or SHA1 hash value.

- To display all items again, clear any search filters and click 'OK'.

You can use any combination of filters simultaneously to search for specific apps.

## Handle Quarantined Items

- You can delete or restore quarantined items from the 'Security Dashboards' interface.
- Click 'Security Sub-Systems' > 'Security Dashboards' > 'File View'
- Select the event(s) in which the file(s) of interest are moved to quarantine.
- Click 'Action on Endpoint' on top

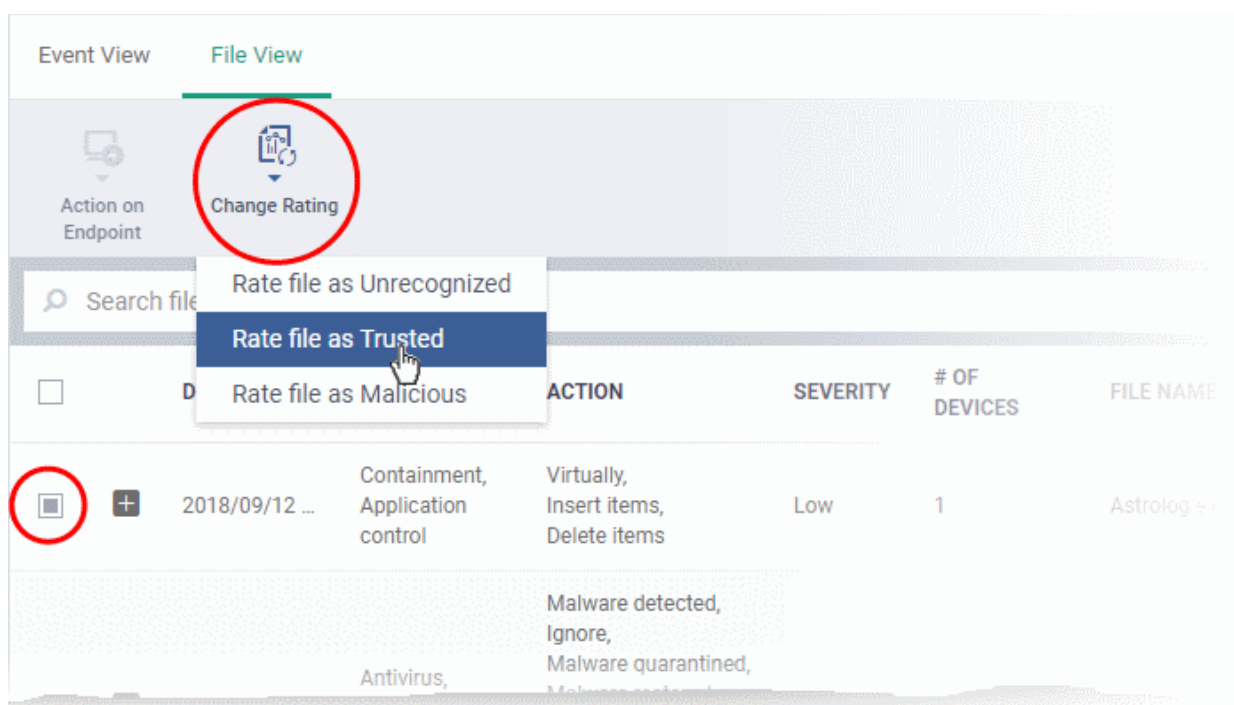
	DATE TIME	COMPONENTS	ACTION	SEVERITY	# OF DEVICES	FILE NAME
<input type="checkbox"/>	2018/09/12 ...	Containment, Application control	Virtually, Insert items, Delete items	Low	1	Astrolog.exe
<input checked="" type="checkbox"/>	2018/09/12 ...	Antivirus, Application control	Malware detected, Ignore, Malware quarantined, Malware restored from quarantine, Update items, Delete items, Insert items	High	1	25786c51-4

- Select 'Delete File' to remove the file from the respective devices
- Select 'Restore from Quarantine' to move the file(s) from quarantine to their original location on the respective devices

## Rate Files as Trusted, Malicious or Unrecognized

If required, you can rate the files affected by the events as unrecognized, trusted or malicious. Please make sure before marking a file as trusted. Any new file ratings will be sent to endpoints during the next sync.

- Click 'Security Sub-Systems' > 'Security Dashboards' > 'File View'
- Select the event(s) involving the file(s) of interest.
- Click the 'Change Rating' button
- Set your preferred rating from the options:



The new rating will be propagated to all endpoints during the next synchronization.

## 9.2. View Contained Applications

- Click 'Security Sub-Systems' > 'Containment'
- The container is a secure environment in which files with an 'unknown' trust rating are run. 'Unknown' files have not yet been classified as either 'safe' or 'malware'.
- Contained applications are not permitted to modify files, user data or other processes on the host machine.
- You can also submit unknown applications to Valkyrie, Comodo's file analysis system. Valkyrie will test the file and attempt to classify it as 'safe' or 'malware'.

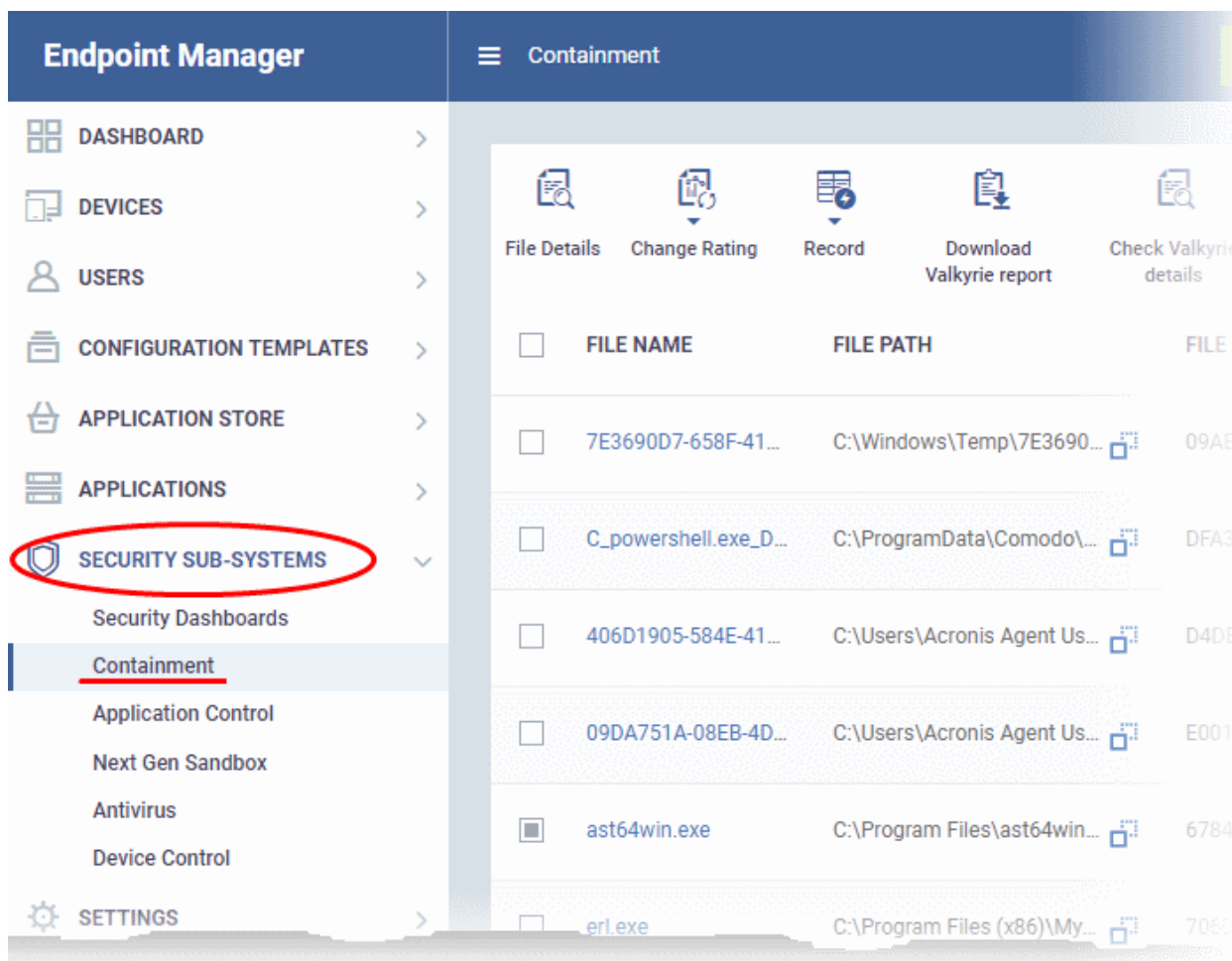
An application could be run inside the container because:



- It was auto-contained by rules in the EM configuration profile applied to the endpoint. See '**Containment Settings**' in **Create Windows Profiles** for more details about containment rules in a profile.
- It was auto-contained by local Comodo Client Security rules on the endpoint
- The endpoint user ran the program inside the container on a 'one-off' basis. This can be helpful to test the behavior of new executables that have they downloaded.

You can view all programs that ran inside the container from the 'Containment' interface. Admins can also view the activity of processes started by contained applications. Admins have the option to rate a contained file as trusted or malicious.


To open the 'Containment' file list interface:

- Click 'Security Sub-Systems' > 'Containment'



Containment - Column Descriptions	
Column Heading	Description
File Name	The executable that was run in the container. <ul style="list-style-type: none"> <li>Click the name of the file to view its details.</li> <li>See <b>View details of a contained application</b> for more details.</li> </ul>
File Path	The location of the contained file on the local endpoint. <ul style="list-style-type: none"> <li>Click the  icon to copy the path to the clipboard.</li> </ul>
File Hash	SHA1 hash value of the file. <ul style="list-style-type: none"> <li>Click the  icon to copy the hash value to the clipboard.</li> </ul>
Number of Devices	The quantity of endpoints on which the item was identified. <ul style="list-style-type: none"> <li>Click the number to view a list of endpoints on which the item was found.</li> <li>This also allows you to view the activities of processes started by the item. For more details, see <b>Device List Screen</b> below.</li> </ul>
Contained By	The reason the file was contained.
Parent Process	The program or service that launched the contained application.
Action	The permission level at which the file was executed in the container, or the action that

	<p>was taken upon it. The possible values are:</p> <ul style="list-style-type: none"> <li>• Restricted - The file was run inside the container but had limited access to the operating system resources.</li> <li>• Virtually - The file was completely isolated from the operating system and files on the computer.</li> <li>• Blocked - The file was not allowed to run at all.</li> <li>• Ignored - The file was allowed to run outside the container without any restrictions.</li> <li>• Unknown - The containment status was not determined.</li> </ul>
Status	<p>The execution state of the file inside the container. The possible values are:</p> <ul style="list-style-type: none"> <li>• Running</li> <li>• Complete</li> <li>• Failed</li> </ul>
Admin Rating	<p>The trust rating of the file as set by the administrator. Files can be rated as trusted, malicious or unrecognized.</p>
Date Contained	<p>Date and time the file ran in the contained environment.</p>
<b>Controls</b>	
File Details	<p>View full details of the contained file including the devices on which it was contained and its activity.</p>
Change Rating	<p>You can change the rating of the contained file as trusted, malicious or unrecognized.</p>
Record	<p>Hide or delete a contained file record from the list.</p>
Export	<p>Export the list of contained files to a .csv file. The exported file can be viewed in 'Dashboard' &gt; 'Reports'.</p>
Download Valkyrie report	<p>Valkyrie is Comodo's advanced file analysis and verdicting system. Each report contains an in-depth breakdown on the activity an unknown file, along with an overall verdict on its trustworthiness.</p>
Check Valkyrie details	<p>View Valkyrie file analysis of the contained file at <a href="https://valkyrie.comodo.com">https://valkyrie.comodo.com</a>.</p>

- Click any column header to sort items in ascending/descending order of entries in that column.
- Click the funnel icon  on the right to search for contained applications by name, file path, SHA1 file hash, admin rating, action, status and/or execution date.
- To display all the items again, remove / deselect the search key from filter and click 'Apply'.
- EM returns 20 results per page when you perform a search. To increase the number of results displayed per page up to 200, click the arrow next to 'Results per page' drop-down and choose the number.

## Manage Contained Items

The 'Containment' interface allows you to:

- **View details of a contained application**
- **Rate the files**
- **Hide / Unhide / Delete records**

- **Export file records as CSV file**
- **Download Valkyrie report**
- **View Valkyrie file analysis report online**

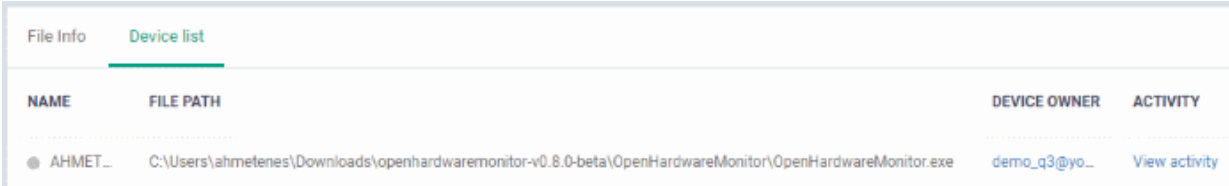
## View details of a contained application

- Click 'Security Sub-Systems' > 'Containment'
- Click on a specific file-name in the list OR select a file and click 'File Details'
- This will open the file details interface which shows:
  - **File Info** - General information such as file-name, path, age, hash and file-size.
  - **Device List** - Shows endpoints upon which the file was found. This tab also tells you the device owner and lists any activities by the file. The next sections contain more info on these items:

## Device List Screen

- Click 'Security Sub-Systems' > 'Containment'
- Click on a specific file name in the list OR select a file and click 'File Details'
- Click the 'Device List' tab

The 'Device List' shows endpoints on which the file was discovered and its activities. Admins can view processes executed by the file with details on data handled by each process.



NAME	FILE PATH	DEVICE OWNER	ACTIVITY
AHMET...	C:\Users\ahmetenes\Downloads\openhwaremonitor-v0.8.0-beta\OpenHardwareMonitor\OpenHardwareMonitor.exe	demo_q3@yo...	<a href="#">View activity</a>

## View File Activities on Endpoints

- Click 'Security Sub-Systems' > 'Containment'
- Click on a specific file-name in the list OR select a file and click 'File Details'
- Click the 'Device List' tab
- Click the 'View Activity' link

**Note:** VirusScope must be enabled in the profile in effect on the endpoint for Endpoint Manager to collect file activity data. See **VirusScope Settings** in **Create Windows Profiles** for more details.

The 'Process Activity' interface will open. It has two tabs.

- **Summary** - Shows basic file activity details



Summary
<b>Path</b> C:\Users\ahmetenes\Downloads\openhwaremonitor-v0.8.0-beta\OpenHardwareMonitor\OpenHardwareMonitor.exe
<b>Name</b> AHMETENES-HP (removed)



- **Activity** - Lists all processes executed by the files in chronological order:

File Info		Device List		
Process OpenHardwareMonitor.exe				
Summary		Activity		
DATE	ACTION	PATH	DETAILS	
2016/09/20 09:34:10 AM	Create Process	C:\Program Files (x86)\COMODO\Comodo...	<a href="#">Details</a>	
2016/09/20 09:34:10 AM	Create Process	C:\Windows\System32\conhost.exe	<a href="#">Details</a>	
2016/09/20 09:34:18 AM	Create Process	C:\Program Files (x86)\COMODO\Comodo...	<a href="#">Details</a>	
2016/09/20 09:34:18 AM	Create Process	C:\Windows\System32\conhost.exe	<a href="#">Details</a>	
2016/09/20 09:36:58 AM	Create Process	C:\Program Files (x86)\COMODO\Comodo...	<a href="#">Details</a>	
2016/09/20 09:36:58 AM	Create Process	C:\Windows\System32\conhost.exe	<a href="#">Details</a>	
2016/09/20 09:32:52 AM	Create Process	C:\Program Files (x86)\COMODO\Comodo...	<a href="#">Details</a>	

The 'Activity' - Table of Column Descriptions	
Column Heading	Description
Date	Date and time the process was executed
Action	Task that was executed by the file
Path	Location of the file affected by the action
Details	View more information about the action

- To view the details of an activity, click the 'Details' link under the 'Details' column

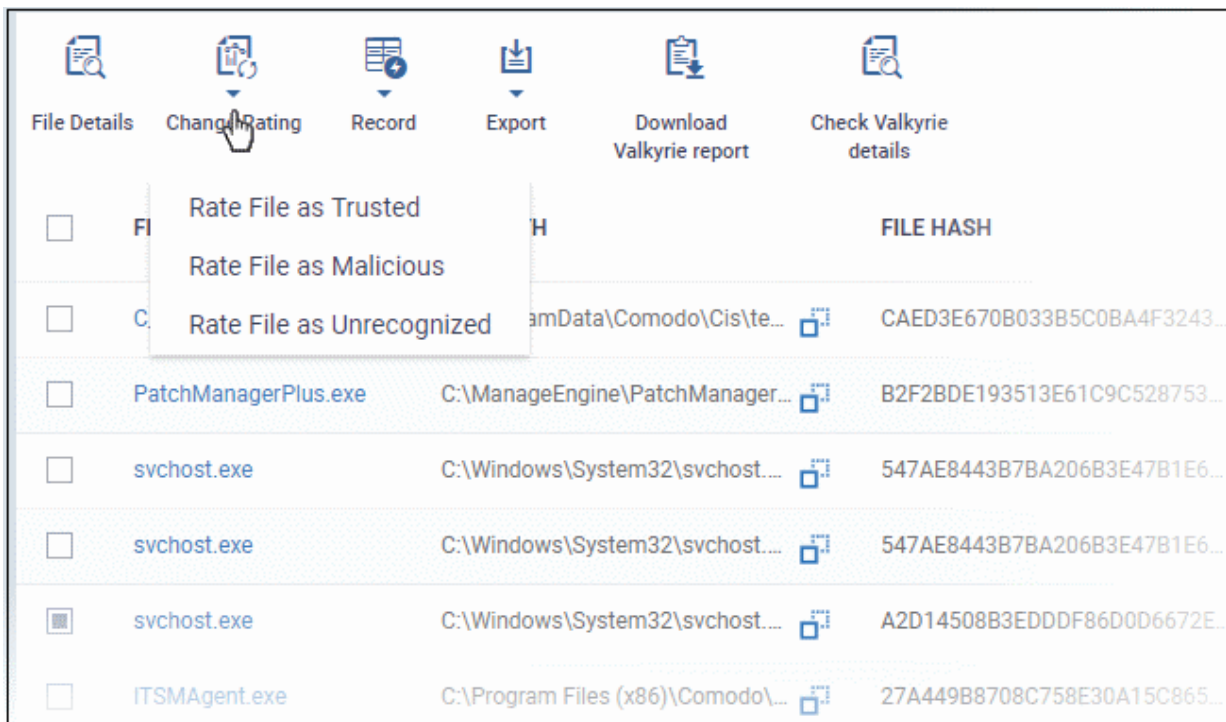
conhost.exe	
Details	<a href="#">Back</a>
<b>Date</b> 2016/09/20 09:36:58 AM	
<b>Action</b> Create Process	
<b>Path</b> C:\Windows\System32\conhost.exe	
<b>Object Type</b> Unknown	
<b>Cmd Line</b> C:\Windows\System32\conhost.exe	

### Rate files as trusted / malicious

If required, admins can rate contained files as unrecognized, trusted or malicious. Please make sure before marking a file as trusted. Any new file ratings will be sent to endpoints during the next sync.

- Click 'Security Sub-Systems' > 'Containment'

- Select the file(s) whose rating you wish to change
- Click the 'Change Rating' button
- Set your preferred rating from the options:



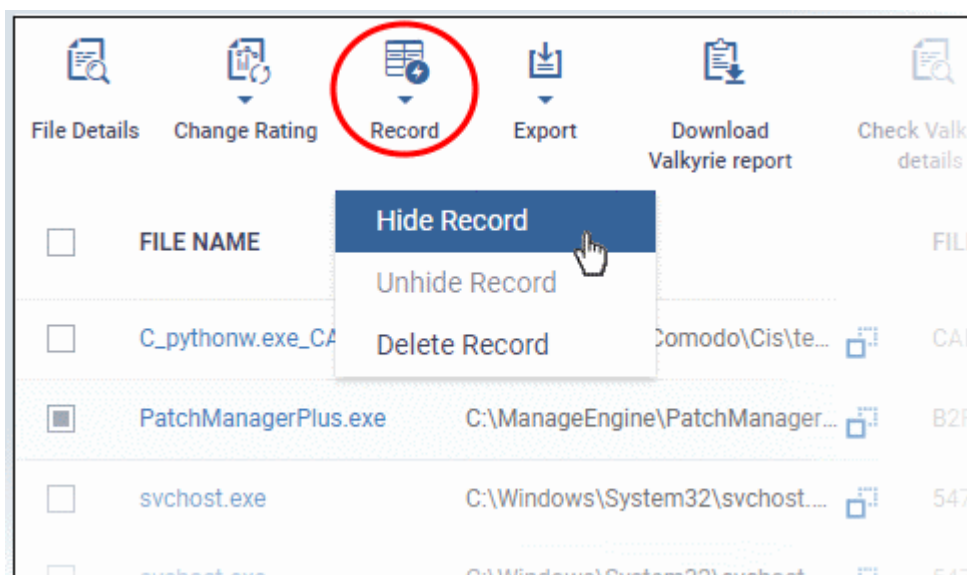
The new rating will be propagated to all endpoints during the next synchronization.

## Hide / unhide / remove files from the list

The 'Record' button at the top allows you to change the visibility of file records and also to remove files from the list.

### To hide a file record

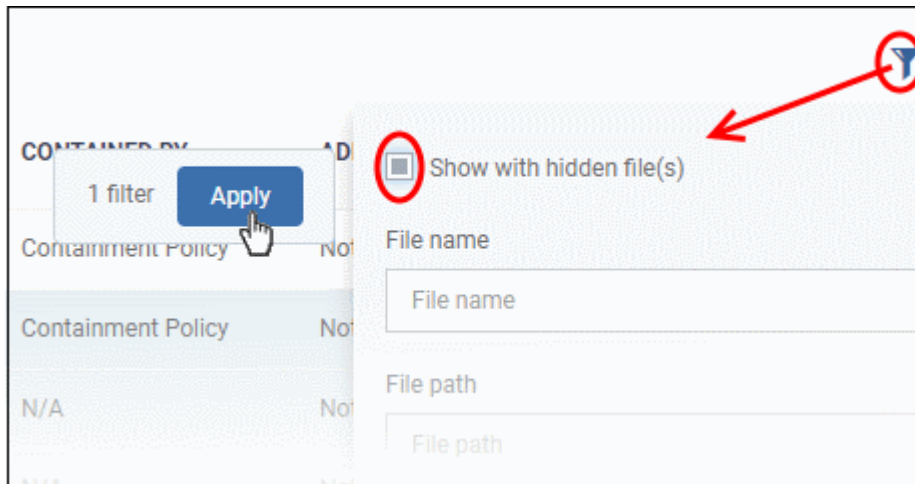
- Select a file, click 'Record' at the top and select 'Hide' from the options



The file will no longer be displayed in the list. Please note you can hide multiple files at a time.

## To unhide file records

- First click the filter icon, select 'Show with hidden file(s)'

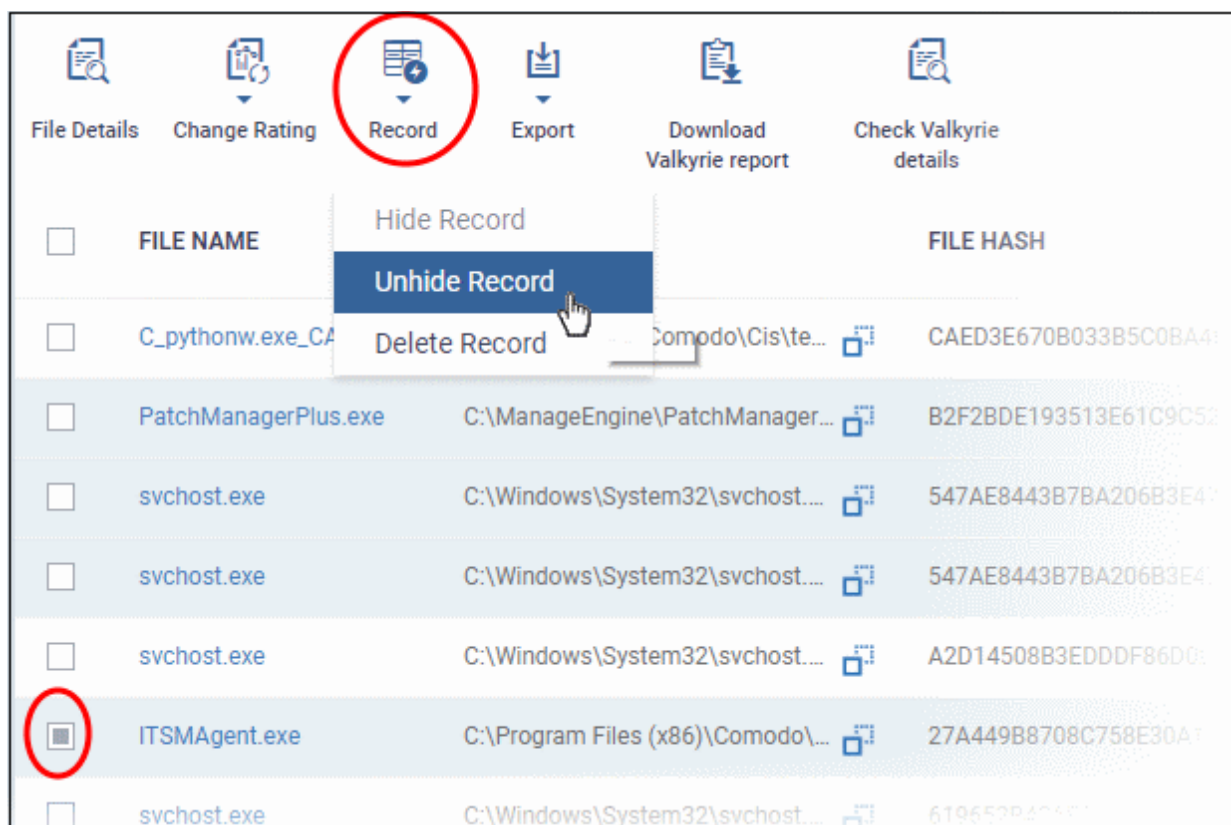


- Click 'Apply'

The hidden file records will now be visible and highlighted.

FILE NAME	FILE PATH	FILE HASH	# OF DEVICES	CONTAINED BY	ADMIN RATING	DATE CONTAINED
C:\pythonw.exe_CAED3E...	C:\ProgramData\Comodo\CisUe...	CAED3E670B033B5CDBA4F3243...	2	Containment Policy	Not set	2017/07/14 07:52:05 PM
PatchManagerPlus.exe	C:\ManageEngine\PatchManager...	82F2BDE193513E6109C528753...	1	Containment Policy	Not set	2017/07/14 07:51:01 PM
svchost.exe	C:\Windows\System32\svchost...	547AE8443B7BA206B3E4781E6...	1	N/A	Not set	2017/05/23 09:00:30 AM
svchost.exe	C:\Windows\System32\svchost...	547AE8443B7BA206B3E4781E6...	1	N/A	Not set	2017/05/23 09:00:30 AM
svchost.exe	C:\Windows\System32\svchost...	A2D14508B3EDDDF6D0D6672E...	1	N/A	Not set	2017/05/09 06:33:07 PM
ITSMAGent.exe	C:\Program Files (x86)\ComodoL...	27A44988708C758E30A15C865...	1	Containment Policy	Not set	2017/02/21 01:00:37 PM
svchost.exe	C:\Windows\System32\svchost...	619652B42AF5F90E371907AE...	12	N/A	Not set	2017/02/21 08:36:13 AM

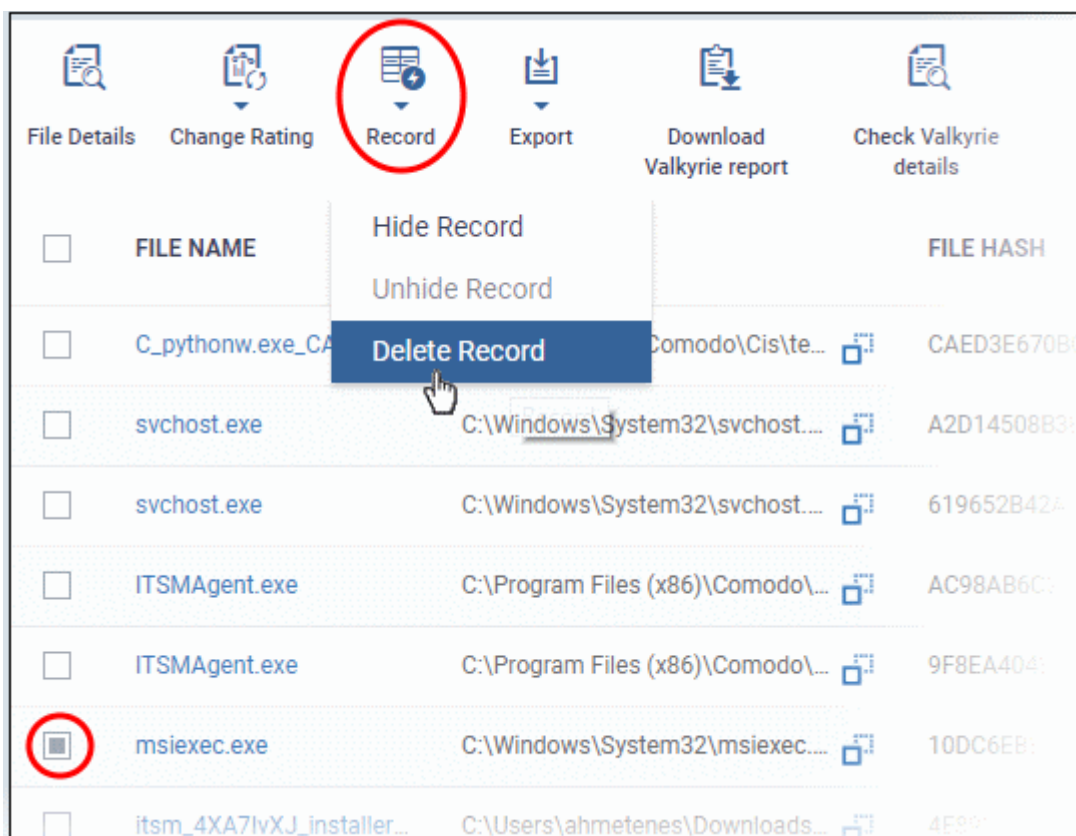
- Select the file(s) that you want to unhide, click 'Record' at the top then 'Unhide' from the options.



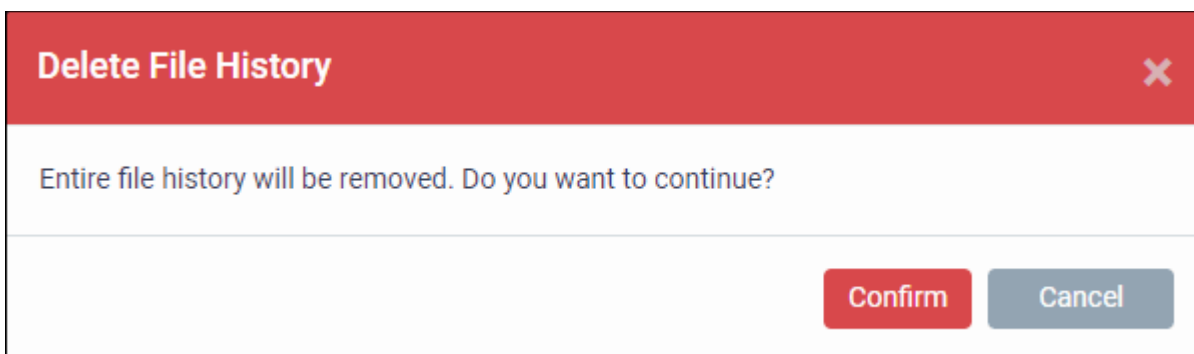
The selected hidden file records will now be visible.

## To remove file records


- To delete item(s), select from the list, click 'Record' at the top then 'Delete Record' from the options

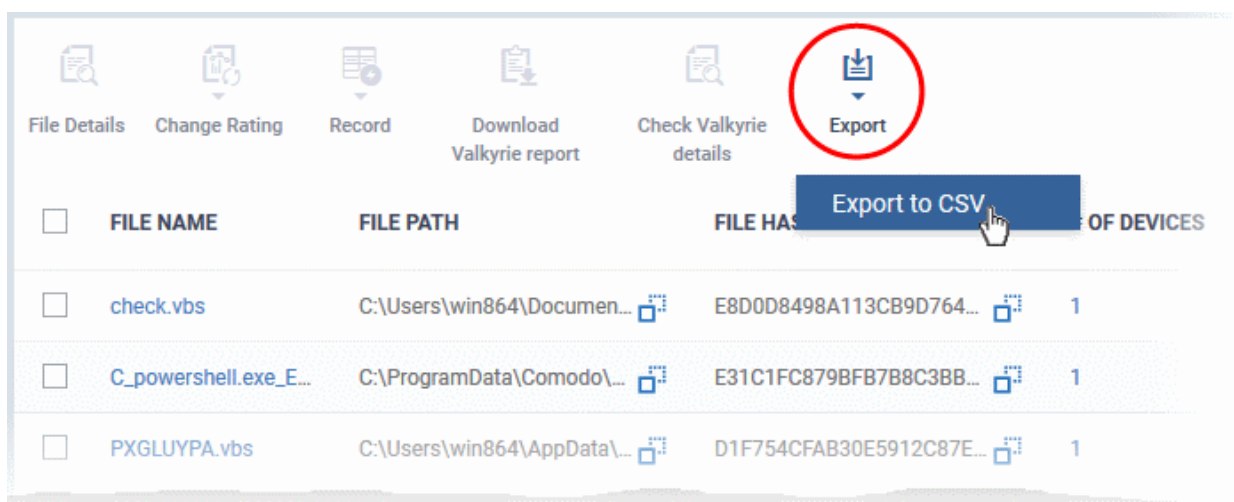


- Click 'Confirm' in the confirmation dialog to remove the item(s) from the 'Containment' interface.



### Export file records as a CSV file

- Click 'Security Sub-Systems' > 'Containment'
- Click the funnel  icon to filter which records are included in the report.
- Click the 'Export' button and choose 'Export to CSV':



The report will be generated in .csv file format.

Report has been created. Please, check «[Reports](#)» in dashboard

You can access the report in the 'Dashboard' > 'Reports' interface. See **Reports** if you need more help with this interface.

### Valkyrie Reports

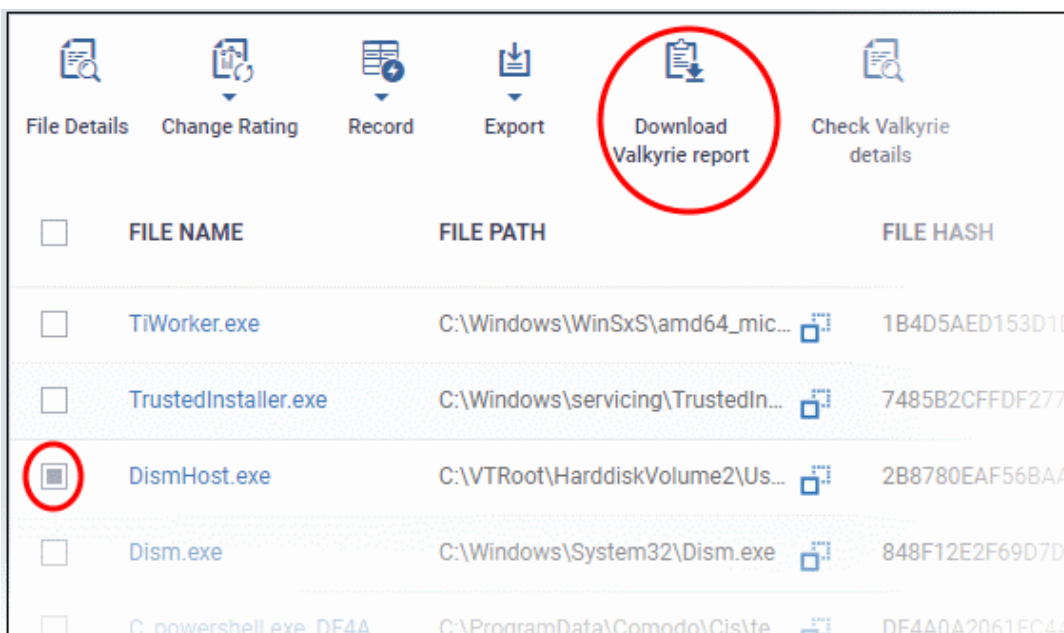
Files running in the container are analyzed and rated by Comodo's behavior analysis system, Valkyrie. Valkyrie tests unknown files with a range of static and dynamic behavioral checks to identify whether they are malicious or safe.

You can view the file rating in the '**Application Control**' interface also. You can download a Valkyrie report or view it online at <https://valkyrie.comodo.com/>

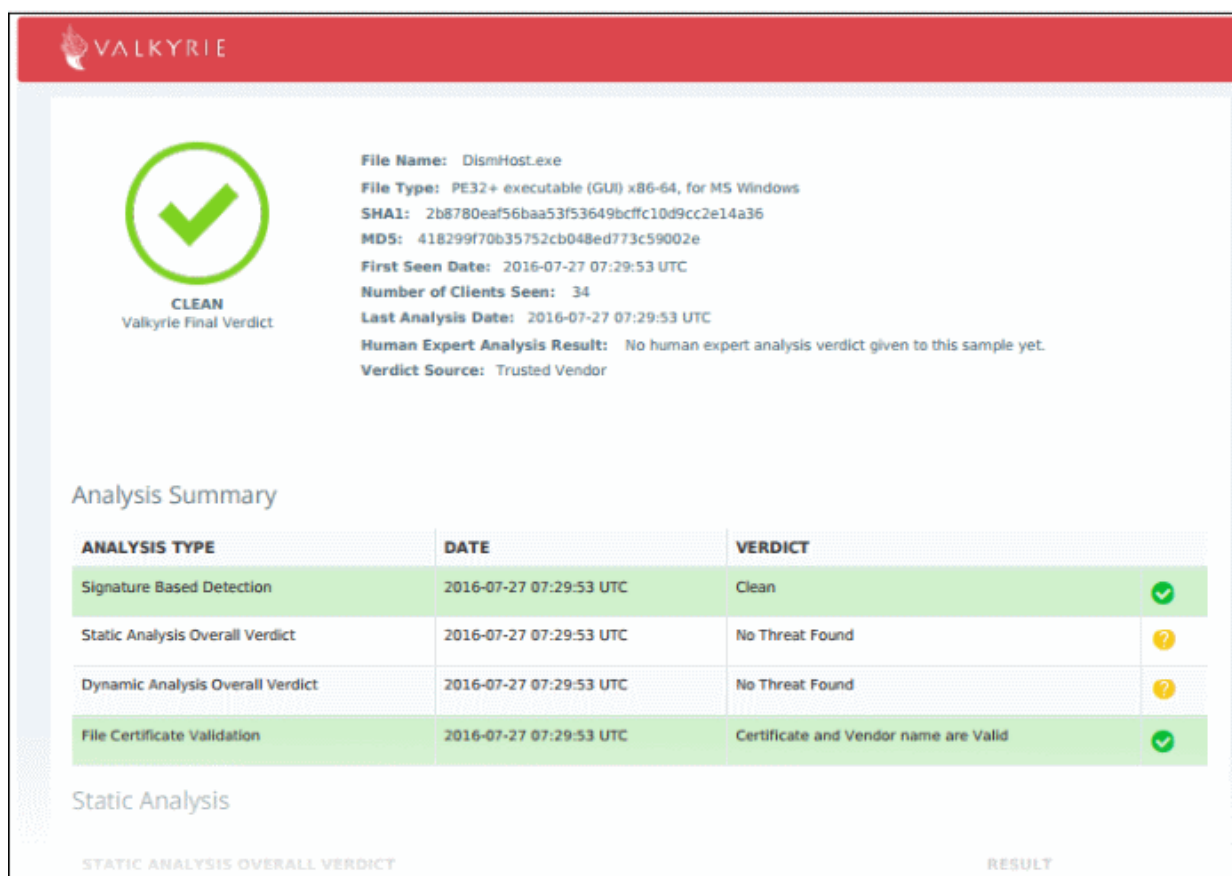
### Download Valkyrie report

- Click 'Security Sub-Systems' > 'Containment'
- Select any file

- Click 'Download Valkyrie report':



This will open the Valkyrie report on the contained file in PDF format:

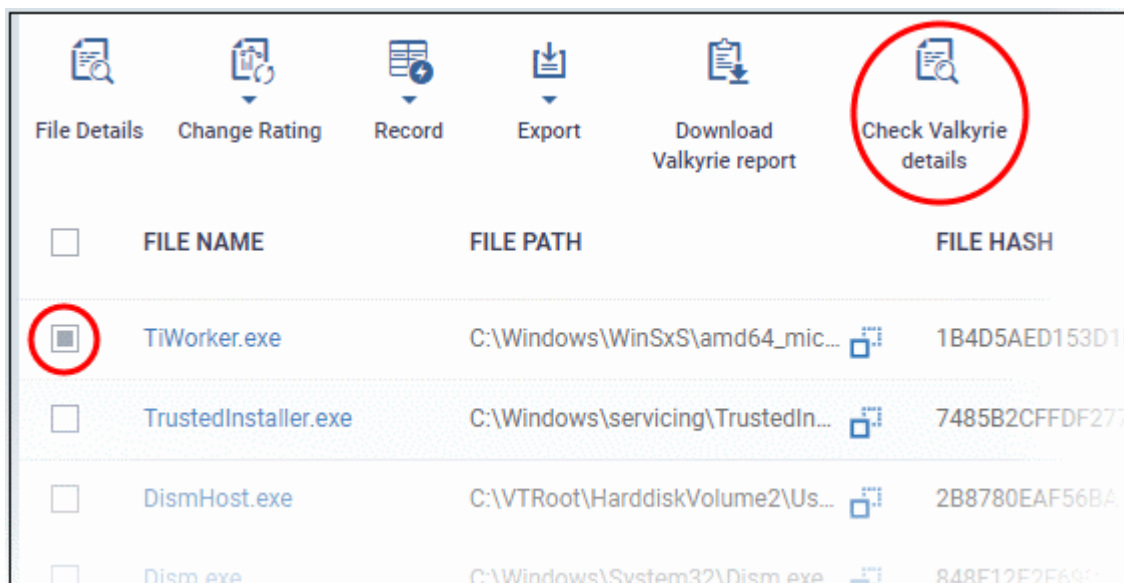


You can also download and view the report at <https://valkyrie.comodo.com/> after signing into your Valkyrie account.

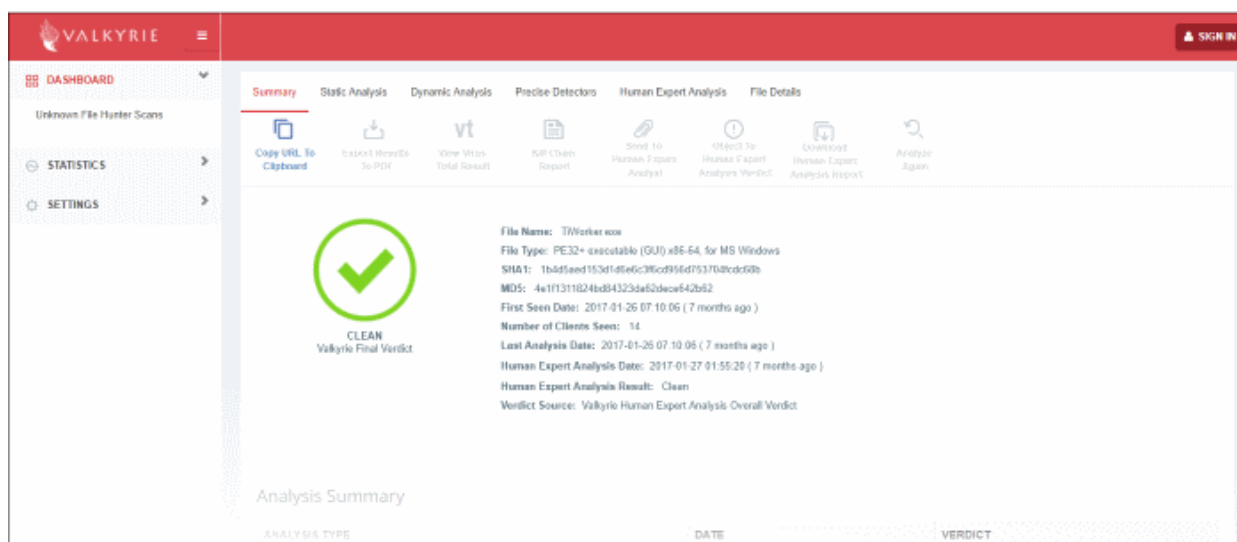
## View Valkyrie file analysis report online

- Select the file from the list and click 'Check Valkyrie Details' at the top.





You will be taken to the report summary page of the selected file at <https://valkyrie.comodo.com/>.



- View a more detailed version of the Valkyrie analysis by logging in at <https://valkyrie.comodo.com/>. You can use your Comodo One username and password to login.
- See <https://help.comodo.com/topic-397-1-773-9563-Introduction-to-Comodo-Valkyrie.html> for help to use the Valkyrie online portal.

## 9.3. Manage File Trust Ratings on Windows Devices

- Click 'Security Sub-Systems' > 'Application Control' to open the 'Application Control' interface.
- Comodo Client Security (CCS) monitors all file activity on Windows devices. Every new executable is scanned against the Comodo white and blacklists then awarded a rating of 'Unrecognized', 'Trusted' or 'Malicious'.
- Files that have a rating of 'Unrecognized' or 'Malicious' are reported to the 'Application Control' interface. Admins can change the rating of a file as required.
- You can configure file analysis in the 'File Rating settings' section of the configuration profile applied to the device. See **File Rating settings** in **Creating a Windows Profile** for more details.



- See **File Ratings Explained** for background information on file ratings.

## The Application Control Interface

The 'Application Control' interface lets you view the trust rating of files on an endpoint. Possible ratings are 'Unrecognized', 'Trusted' or 'Malicious', with 'Unrecognized' and 'Malicious' files being reported to this interface. You can manually set the rating of a file at your discretion.

- Files rated as 'Trusted' are allowed to run as normal on the endpoint.
- Files rated as 'Malicious' are quarantined and not allowed to run.
- Files rated as 'Unrecognized' are run inside the container - an isolated operating environment. Contained applications are not permitted to access files or user data on the host machine.

Any rating you set for a file is pushed to all managed endpoints on which the file is installed.



- You can also view a history of purged files. Purged files are those which existed on devices at one point in time, but are not currently present on any device.
- Apply the 'Show Purged Files' filter to view these files. See the explanation of **Filter Options** below.

You can also hide items as required.

- Click 'Security Sub-Systems' > Application Control' to open the application control interface:


FILE NAME	FILE PATH	FILE HASH	SIZE	# OF DEVICES	COMODO RATING	ADMIN RATING
ccsetup539...	C:\Users\stuxnet\Desktop\...	46AC9F993765F87FF419D...	N/A	1	Trusted	Trusted
CuteWriter3...	C:\Users\cool\Desktop\Cu...	3E5974149C4A3FBA9385...	N/A	1	Malicious	Trusted
disk-defrag...	C:\Users\cool\Desktop\dis...	D5A179660F19786882D0A...	7.8 MB	1	Trusted	Trusted

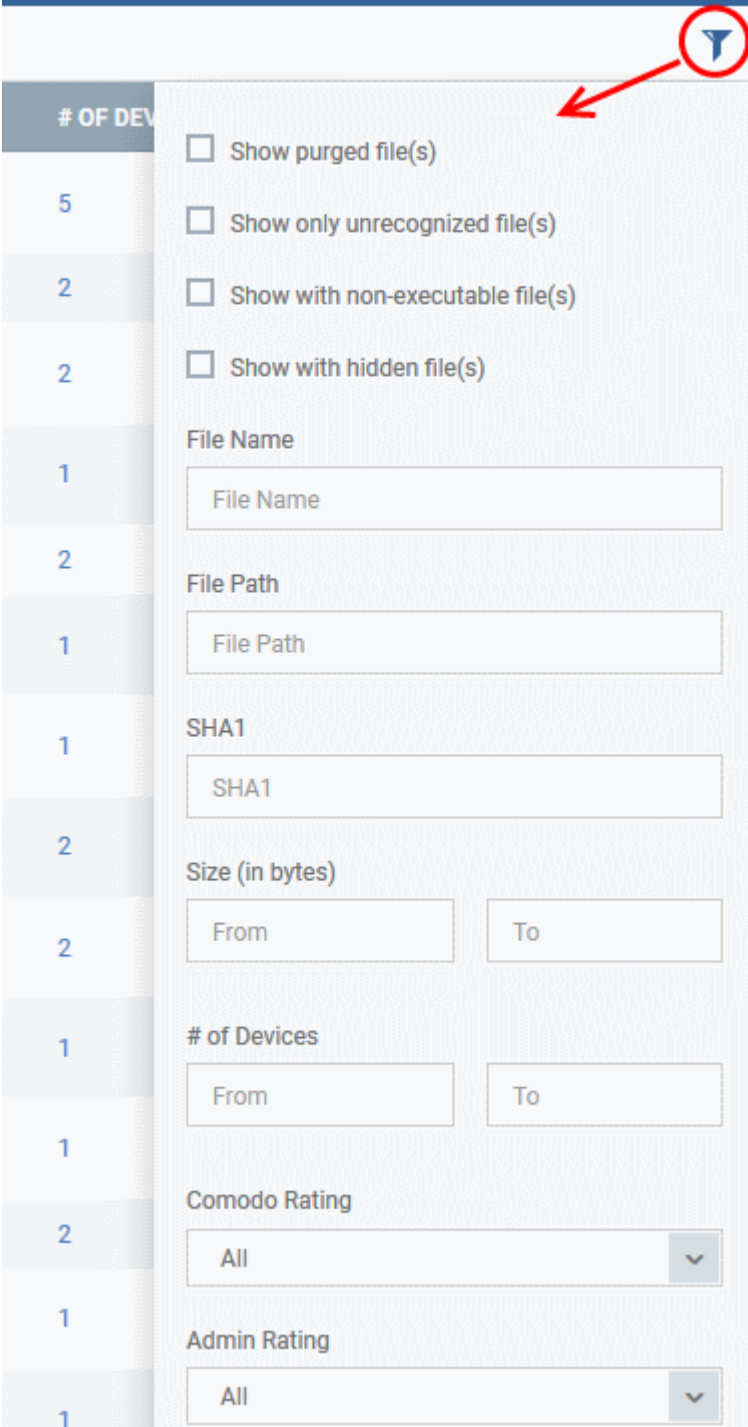
**Application Control - Table of Column Descriptions**

Column Heading	Description
File Name	The label of the application/executable file. <ul style="list-style-type: none"> <li>• Click the name of a file to view its details.</li> <li>• See <b>View file details</b> given below for more details.</li> </ul>
File Path	The installation location of the application on the endpoint. <ul style="list-style-type: none"> <li>• Click the  icon to copy the path to the clipboard.</li> </ul>
File Hash	The SHA1 hash value of the executable file. <ul style="list-style-type: none"> <li>• Click the  icon to copy the hash value to the clipboard.</li> </ul>
Size	The size of the executable file.
# of Devices	The count of endpoints on which the item was found. <ul style="list-style-type: none"> <li>• Click the number to view the the 'Device List' interface with a list of endpoints containing the item.</li> </ul>

	<ul style="list-style-type: none"> <li>You can also view the activities of the item from here. For more details, refer to the description under <b>Device List Screen</b> below.</li> </ul>
Comodo Rating	The rating of the file as per the Comodo File Look-up service, reported by the CCS installations at the endpoints. See <b>File Ratings Explained</b> for more details.
Admin Rating	Indicates the rating of the file as manually set by the administrator, if any.

## Sorting, Search and Filter Options

- Click any column header to sort items in alphabetical order
- Click the funnel icon  to open more filter options:



The screenshot shows a filter menu with the following options:

- Show purged file(s)
- Show only unrecognized file(s)
- Show with non-executable file(s)
- Show with hidden file(s)
- File Name**  
File Name
- File Path**  
File Path
- SHA1**  
SHA1
- Size (in bytes)**  
From: [ ] To: [ ]
- # of Devices**  
From: [ ] To: [ ]
- Comodo Rating**  
All [v]
- Admin Rating**  
All [v]

- Use the check-boxes to show or hide purged, non-executable, hidden or unrecognized files.
- Use the search fields to filter by file name, file path or SHA1 hash value. You can also filter by file size and the number of devices on which the file is present.
- Use the drop-down boxes to filter items by Comodo and/or Admin rating
- To display all items again, clear any search filters and click 'OK'.

You can use any combination of filters simultaneously to search for specific apps.

## Manage Applications

The Applications Control interface allows you to:

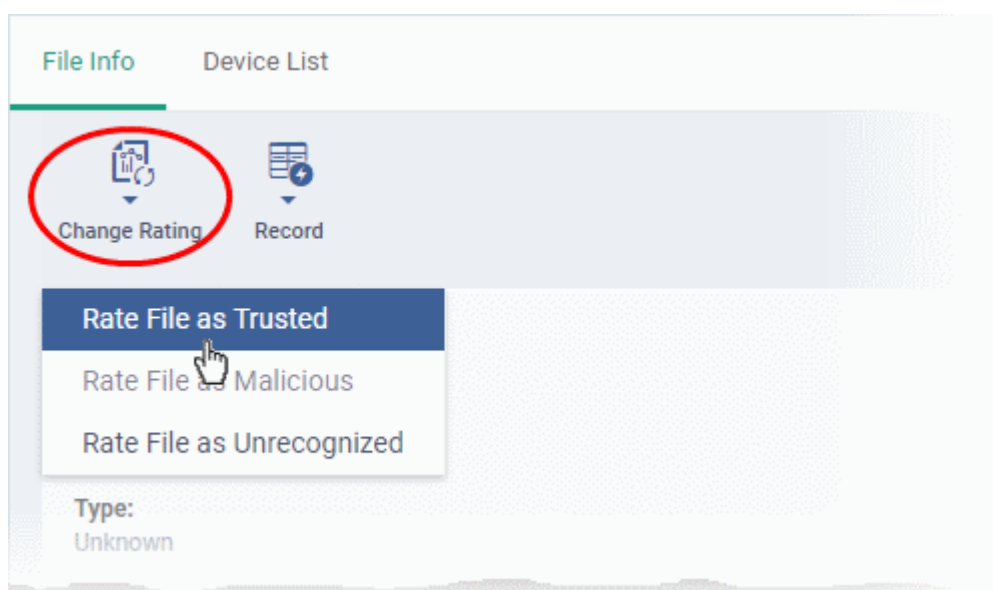
- **View the details of files in the list**
- **View Process Activities of a File**
- **Assign Admin rating to a file**
- **Hide/Display selected files in the list**
- **Export the list of selected files to a CSV file**
- **Remove files from the list**

### View file details

- Simply click on a file in the list or select a file and click 'File Details' at the top. The 'file info' screen shows basic file details and the devices on which the file is present. You can also change the trust rating of the file in this area.

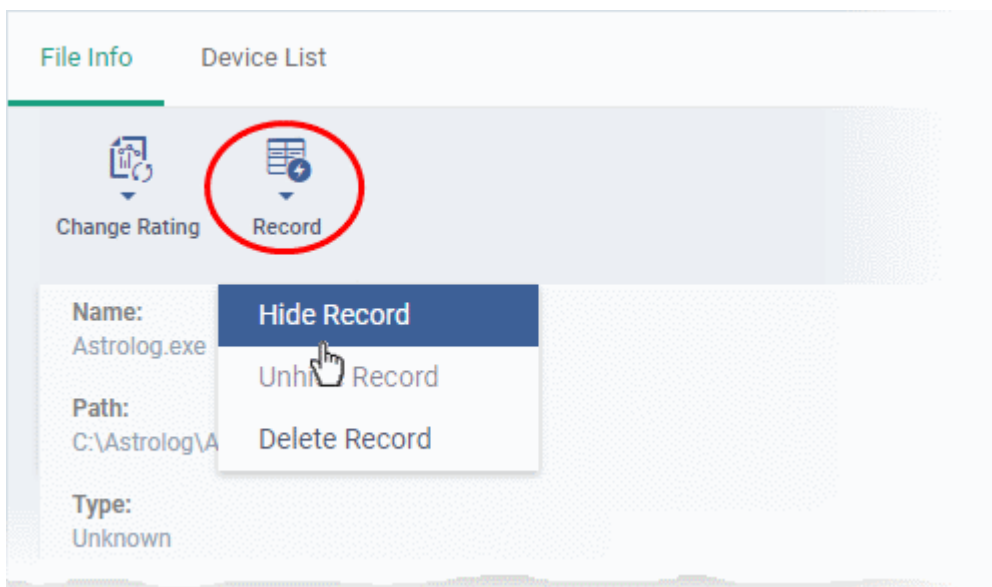
### File information

- The file info screen shows file name, installation path, file type, version, size, hash values and the date the file was first encountered. The screen also shows the file's trust rating and the number of endpoints on which the file is present.
- The 'Change Rating' button allows you to manually set the file's rating as 'Trusted', 'Malicious' or 'Unrecognized':



The new rating will be sent to all endpoints.

- The 'Record' button lets you hide, display or remove the file from the 'Application Control' list



## Device List Screen

- Click 'Security Sub-Systems' > 'Application Control' then click on a file in the list.
- Next, select the 'Device List' tab to see a list of all devices on which the file is present
- The 'Device List' Screen can also be opened by clicking on the number in the 'Number of Devices' column in the 'Application Control' table.
- The device list screen shows each endpoint on which the item was discovered. The screen also shows the installation path, the installation date and the file rating assigned by Comodo Client Security. The VirusScope column shows detailed info on processes started by the file.

File Info		Device List					
Delete							
<input type="checkbox"/>	NAME	OWNER	COMPANY	PATH	AGE	RATING ON COMPUTER	VIRUSCOPE
<input type="checkbox"/>	DESKTOP-HIP81N3	Dyanora	Dithers Construction Company	C:\Suspicious\x64\vt.exe	Apr 25, 2017	Unrecognized	<a href="#">View processes</a>
Results per page: 20							Displaying 1 of 1 results

- You can remove the file from device(s) by selecting a device then clicking 'Delete'

## View Process Activities of a File

**Note:** In order to fetch process activity data, VirusScope should be enabled in the profile in effect on the endpoint. See [VirusScope Settings](#) in [Create a Windows Profile](#) for more details.

### To view the activities of a file on an endpoint

- Open the 'Device List' screen by clicking the file name or the number in the 'Number of Devices' column
- Click the 'View Processes' link in the 'Activity' column in the row of the device name.

- This will open a list of processes executed by the file on the selected endpoint:

File Info **Device List**

Delete

<input type="checkbox"/>	NAME	OWNER	COMPANY	PATH	AGE	RATING ON COMPUTER	VIRUSCOPE
<input type="checkbox"/>	DESKTOP-HIP81N3	Dyanora	Dithers Construction Company	C:\Suspicious\x64\vt.exe	Apr 25, 2017	Unrecognized	<a href="#">View processes</a>

Process List of vt.exe

PID	CREATED AT	FILE PATH	DETAILS
5708	Apr 25, 2017	C:\Suspicious\x64\vt.exe	<a href="#">View Activity</a>
6608	Apr 25, 2017	C:\Suspicious\x64\vt.exe	<a href="#">View Activity</a>
6608	Apr 25, 2017	C:\Suspicious\x64\vt.exe	<a href="#">View Activity</a>

Results per page: 20 Displaying 1-3 of 3 results

- Click 'View Activity' to see detailed information about each process. The 'Process Activity' interface has two tabs:
  - Summary** - Displays the name of the device and the installation path of the executable
  - Activity** - Displays a chronological list of activities by the selected process, including details of files modified by the process.

Process vt.exe

Summary **Activity**

DATE	ACTION	PATH	DETAILS
Apr 25, 2017	Load Image File	C:\Windows\System32\conhost.exe	<a href="#">Details</a>
Apr 25, 2017	Create Process	C:\Windows\System32\conhost.exe	<a href="#">Details</a>
Apr 25, 2017	Load Image File	C:\Windows\System32\guard64.dll	<a href="#">Details</a>
Apr 25, 2017	Load Image File	C:\Windows\System32\imm32.dll	<a href="#">Details</a>
Apr 25, 2017	Load Image File	C:\Windows\System32\version.dll	<a href="#">Details</a>

The 'Activity' - Table of Column Descriptions	
Column Heading	Description
Date	Indicates the date and time of process execution
Action	Indicates the action executed by the process on the target file

Path	Indicates the path of the target file
Details	Contains a link to view details of the action

- You can inspect a particular activity by clicking the 'Details' link:

The screenshot shows the 'Process vt.exe' activity page. It has two tabs: 'Summary' and 'Activity'. The 'Activity' tab is active, displaying a table with columns: DATE, ACTION, PATH, and DETAILS. The table contains two rows of activity. The first row shows 'Apr 25, 2017' for 'Load Image File' at 'C:\Windows\System32\conhost.exe'. The 'DETAILS' column for this row contains a blue link labeled 'Details' with a hand cursor icon, which is circled in red. A red arrow points from this link to the 'conhost.exe' header of a detailed view below. The detailed view has a 'Details' section with the following information:

- Date:** 1493103035
- Action:** Load Image File
- Path:** C:\Windows\System32\conhost.exe
- Object Type:** Not available

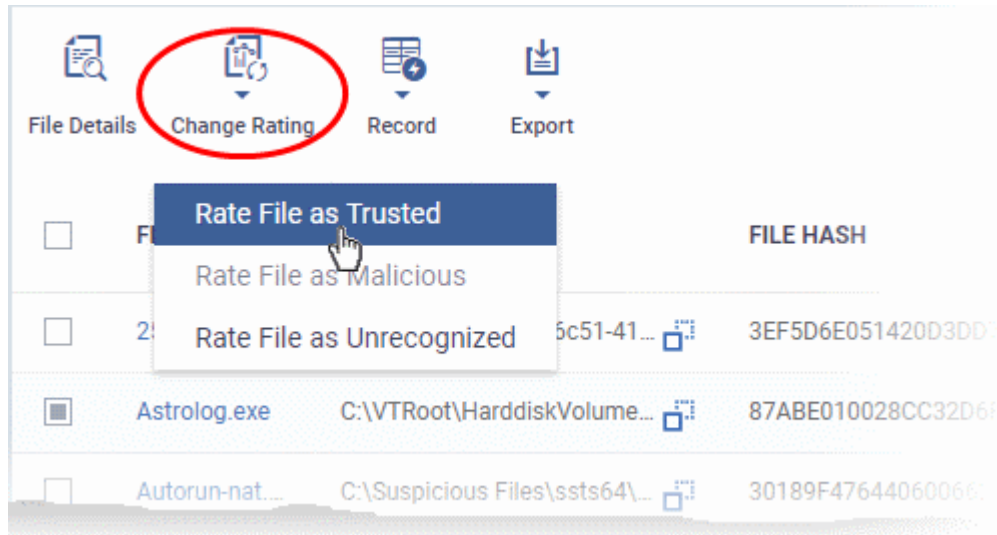
## Assign Admin Rating to a File

- Each file on an endpoint is automatically scanned and assigned a trust rating by Comodo Client Security on the endpoint.
- These ratings can be either '**Unrecognized**', '**Trusted**' or '**Malicious**'. The rating for each file is shown in the 'Comodo Rating' column of the 'Application Control' interface.
- The file rating determines whether or how the file is allowed to run:
  - Trusted** - The file will be allowed to run normally. It will, of course, still be subject to the standard protection mechanisms of Comodo Client Security (behavior monitoring, host intrusion prevention etc).
  - Malicious** - The file will not be allowed to run. It will be automatically quarantined or deleted depending on admin preferences.
  - Unknown** - The file will be run inside the container. The container is a virtual operating environment which is isolated from the rest of the endpoint. Files in the container write to a virtual file system, use a virtual registry and cannot access user or operating system data.
- Automatic file rating can be configured in the 'File Rating' section of the configuration profile active on the endpoint. See **File Rating settings** in **Create a Windows Profile** for more details.
- Click 'Change Rating' in the 'Application Control' interface to manually set a rating for a selected file or files. The new rating will be propagated to all endpoints on which the item was identified and will determine the file's run-time privileges. Admin assigned ratings will be shown in the 'Admin Rating' column of the interface:



## To assign a file rating to a file

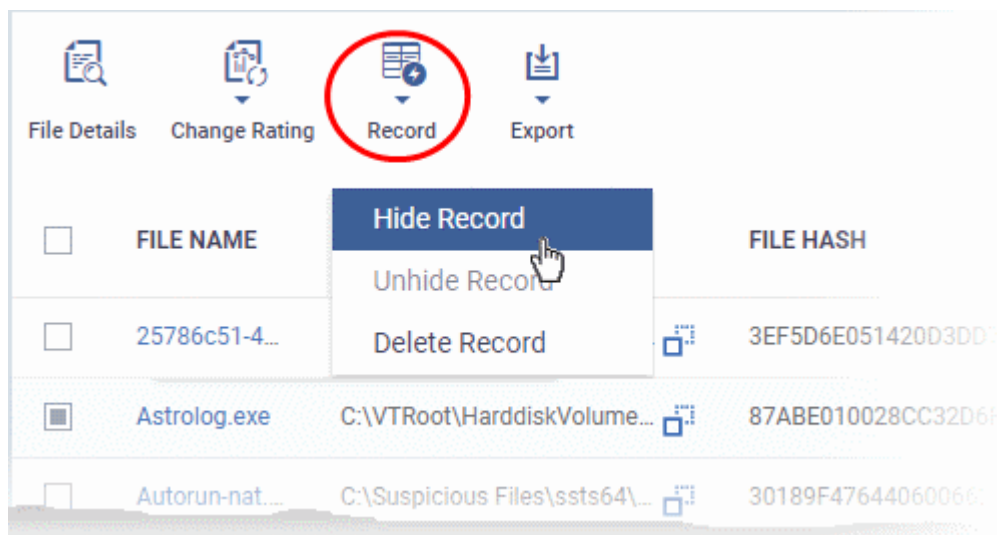
- Select the file(s) whose rating you want to change and click 'Change Rating'.
- Choose the rating you want to from the drop-down:



As mentioned, the admin rating will be set and sent to all endpoints. The admin rating will determine the file's run-time privileges.

## Hide/Display Selected Files

- Select the file(s) you want to hide and click 'Record' at the top

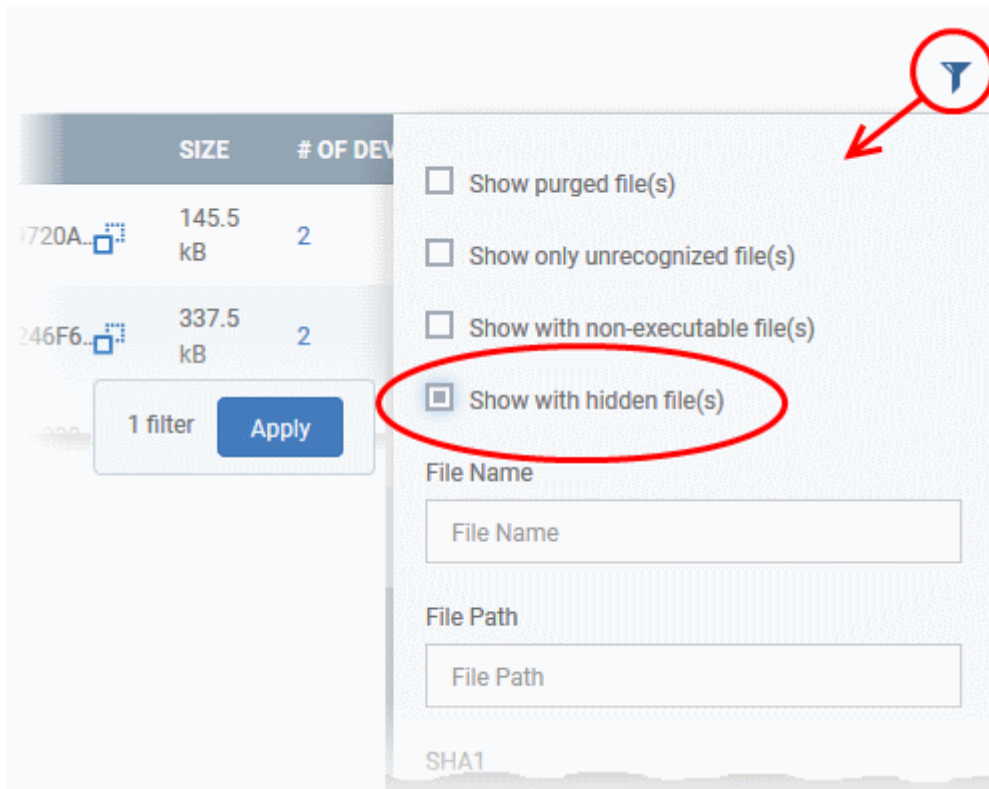


- Select 'Hide / Unhide / Delete Record' as required.

## To view hidden files

- Click the funnel icon at the top-right to open the filter options
- Select 'Show with hidden file(s)' and click 'Apply'

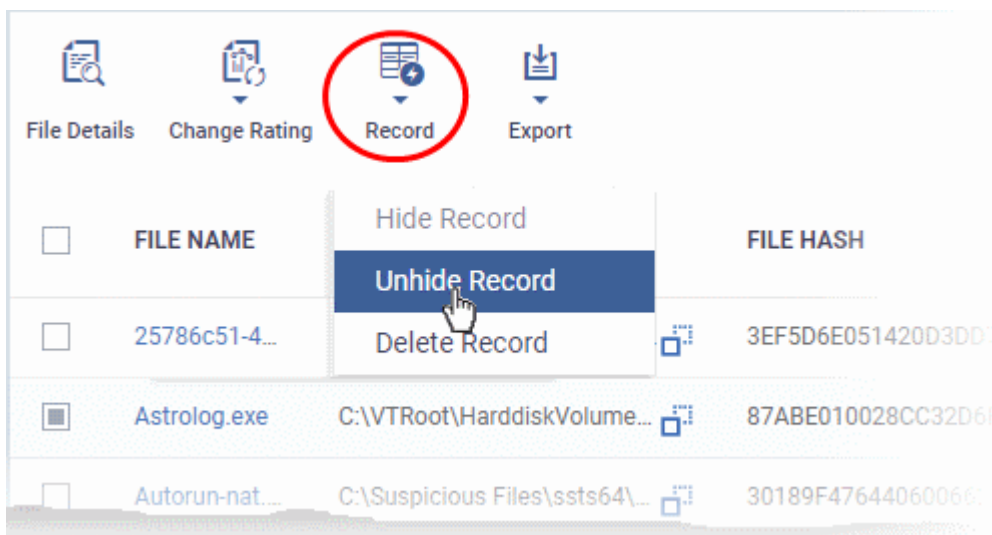




The hidden files will be included to the 'Application Control' interface. These files will be highlighted with a gray stripe.

### To restore hidden files

- Click the funnel icon at the top-right to open the filter options
- Enable 'Show with hidden file(s)'
- Select the hidden files you want to restore click 'Record' and choose 'Unhide Record' from the drop-down




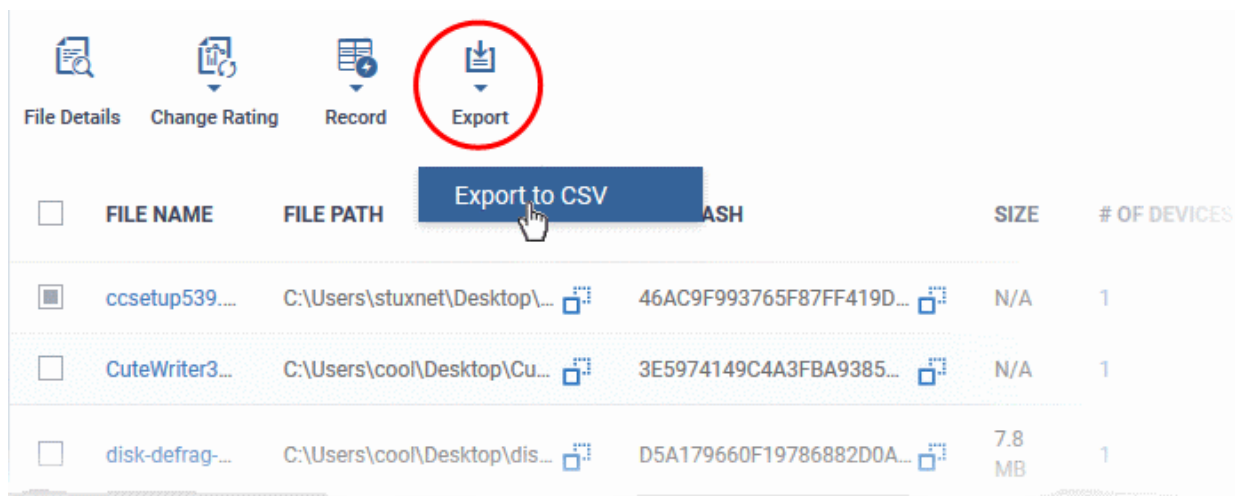
The files will be displayed in the file list permanently.

### Export a Report of the Files List

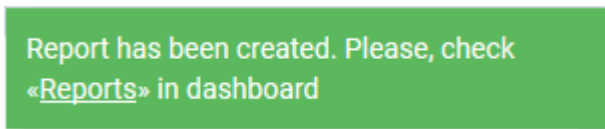
You can export a file-rating report in .csv format as follows:

- Click 'Security Sub-Systems' > 'Application Control'

- Click the funnel icon  to apply any filters you require
- Click the 'Export' button and choose 'Export to CSV':



The report will be generated in .csv file format.

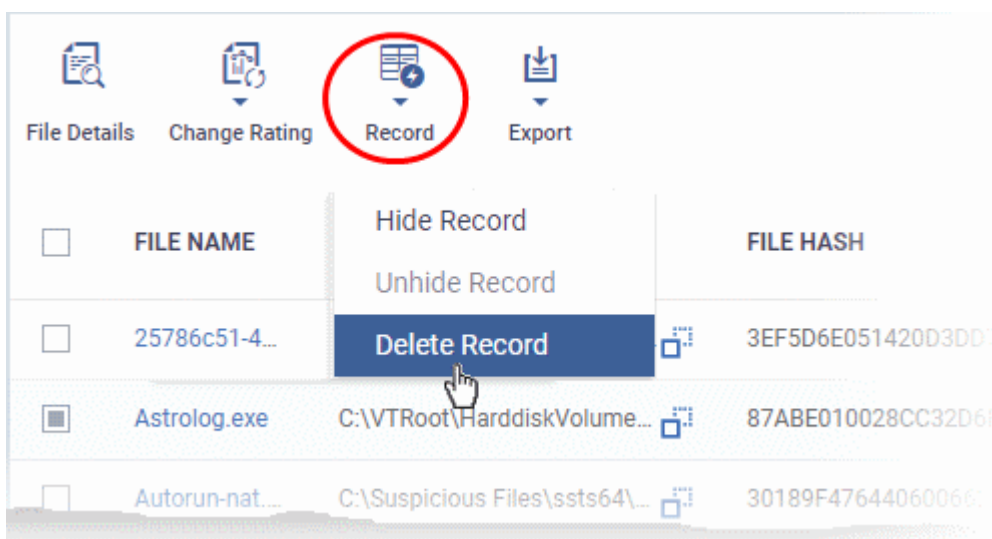


The report will be available in the 'Dashboard' > 'Reports' interface. See **Reports** if you need more help with this interface.

## Remove files from the list

You can hide files that you no longer wish to see in the list. The files will be removed from the list but will not be deleted from the endpoints.

- Select the files you want to remove and click 'Record' at the top
- Choose 'Delete Record' from the drop-down



## 9.3.1. File Ratings Explained

Comodo Client Security (CCS) rates files on Windows devices as follows:

### Unrecognized Files

Files that could not be identified as 'Trusted' or 'Malicious' by Comodo Client Security (CCS). You can review these files and can manually rate them as 'Trusted' or 'Malicious' as required.

### Trusted Files

Files that are safe to run. Files can be classed as safe by the following:

- **File lookup service (FLS)** - When a file is first accessed, CCS will check whether it is on Comodo's master whitelist and blacklists. The file is classed as trusted if:
  - The application is on the whitelist
  - The application is from a vendor in the 'Trusted Software Vendors' list
- **Admin rating** - The application control interface lets you assign a trusted rating to files. Click 'Security Sub-Systems > 'Application Control'
- **User rating** - Users can assign a trusted rating to a file in the CCS interface. There are two ways to do this:
  - At a security alert. If an executable is unknown then it may generate a HIPS alert on the local endpoint. Users could choose 'Treat this as a Trusted Application' at the alert
  - In the 'File List' interface. From the CCS home screen, click 'Tasks' > 'Security Settings' > 'File Rating' > 'File List'.

CCS creates a hash of all files that a user classifies as 'Trusted'. So, even if the file name is changed, it will keep its trusted status because the hash remains same. This is particularly useful for developers creating new applications which, by their nature, are unknown to the Comodo.

### Malicious Files

Files on the Comodo blacklist will be quarantined or deleted by CCS. These files are reported to Endpoint Manager as malware.

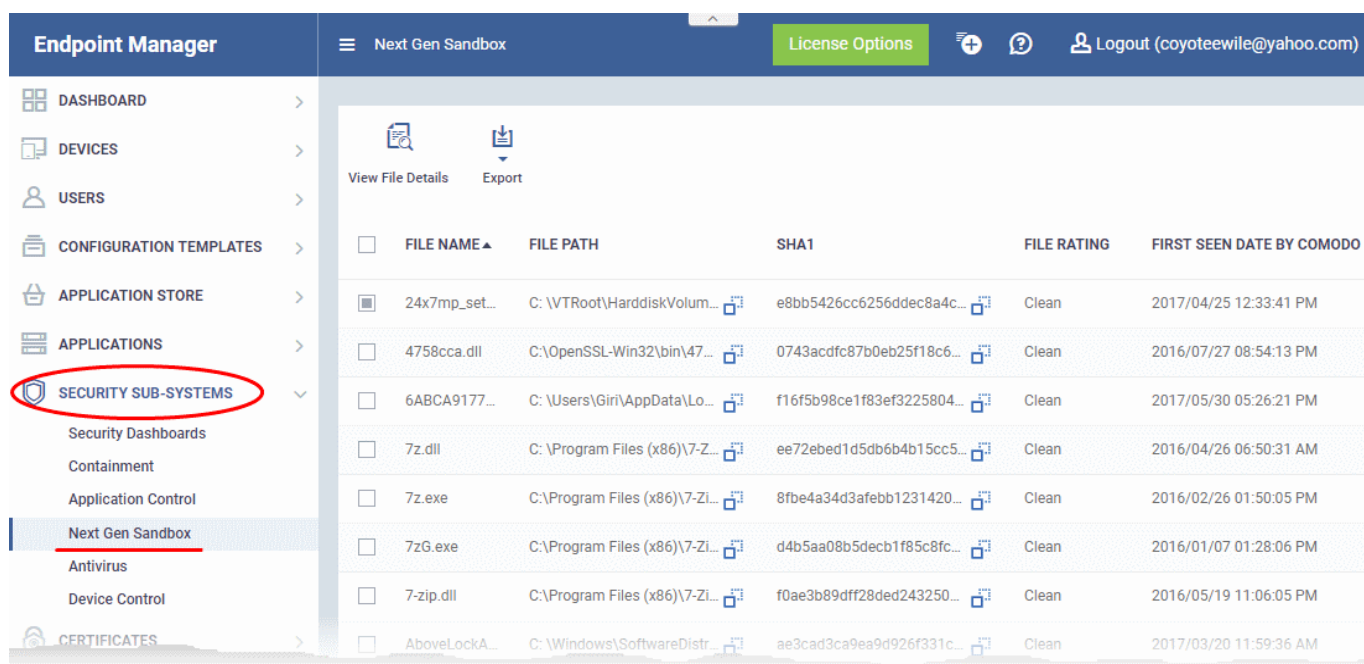
## 9.4. View List of Valkyrie Analyzed Files

- Click 'Security Sub-Systems' > 'Next Gen Sandbox'
- The 'Next Gen Sandbox' interface lists unknown files identified on all endpoints, along with their Valkyrie ratings.
  - Valkyrie is a cloud-based file analysis service that tests unknown files with a range of static and behavioral checks. The service helps Comodo establish whether an unknown file is malicious or safe.
  - You can configure Comodo Client Security on endpoints to automatically upload unknown files to Valkyrie.
- You can also view Valkyrie statistics by clicking 'Dashboard' > 'Valkyrie'.
- You can schedule the upload of unknown files in the 'Valkyrie' section of a Windows profile. See **Valkyrie Settings** if you need help with this.



**Note:** The version of Valkyrie that comes with the free version of Endpoint Manager is limited to the online testing service. The 'Premium' and 'Managed' versions of EM also includes manual file testing by Comodo research labs. This helps enterprises quickly create definitive whitelists of trusted files. Valkyrie is also available as a standalone service. Contact your Comodo account manager for further details.

### To open the 'Next Gen Sandbox' interface

- Click 'Security Sub-Systems' > 'Next Gen Sandbox'



**The 'Next Gen Sandbox' List - Table of Column Descriptions**

Column Heading	Description
Name	The label of the unknown item
Path	The installation location of the file on the endpoint <ul style="list-style-type: none"> <li>Click the  icon to copy the file path to the clipboard.</li> </ul>
Hash	The SHA1 hash value of the unknown file <ul style="list-style-type: none"> <li>Click the  icon to copy the hash value to the clipboard.</li> </ul>
File Rating	The file's trust verdict from Valkyrie. The possible values are: <ul style="list-style-type: none"> <li>Clean - The file is safe to run</li> <li>No Threat Found - No malware found in the file, but cannot say it is safe to run</li> <li>Malware - The file is malicious and should not be allowed to run.</li> <li>Potentially Unwanted Application - Applications such as adware, browser toolbars etc. These applications are often bundled as an 'extra utility' with freeware applications. Users might not be aware they are installed, or may not be aware of their full functionality. For example, a browser toolbar may also contain code that tracks a user's activity on the internet.</li> </ul>
First Seen by Comodo	Date and time at which the file was first received by Valkyrie.
View File Details	Complete information about a selected item. See <a href="#">View the details of files in the list</a> for more.
Export	Save the list of analyzed files as a comma separated values (csv) file. See <a href="#">Export the List of Valkyrie Analyzed Files</a> for more details.

**View the details of files in the list**

Administrators can view complete details of files identified as 'Unknown' and uploaded to Valkyrie for analysis.

- Select a file and click the 'View File Details' button:

The screenshot shows the Endpoint Manager interface. At the top, there are two buttons: 'View File Details' (circled in red) and 'Export'. Below them is a table with columns: FILE NAME, FILE PATH, SHA1, FILE RATING, and FILE VERSION. The first row is selected, and a red arrow points from the 'View File Details' button to the 'General Info' section below. The 'General Info' section displays the following details:

Property	Value
File name	24x7mp_setup.tmp
File type	application/x-dosexec
SHA1	e8bb5426cc6256ddec8a4c7b7ff2218021d668b4
MD5	6bfe73ca91c986586f70a0d1df7db856
Size	686.7 kB
Number of endpoints seen	1
File rating	Clean
Comodo rating	Not rated
Admin rating	Not available
First seen date by Comodo	2017-04-25 12:33:41
Last update of rating	2017-04-25 12:33:41

The 'General Info' screen displays file details like file name, installation path, file version, size, hash value and file ratings assigned by Comodo and by EM Administrator.

## Export the List of Valkyrie Analyzed Files

Export the list of files to a .csv file as follows:

- Click 'Security Sub-Systems' > 'Next Gen Sandbox'.
- Click the 'Export' button above the table then choose 'Export to CSV':



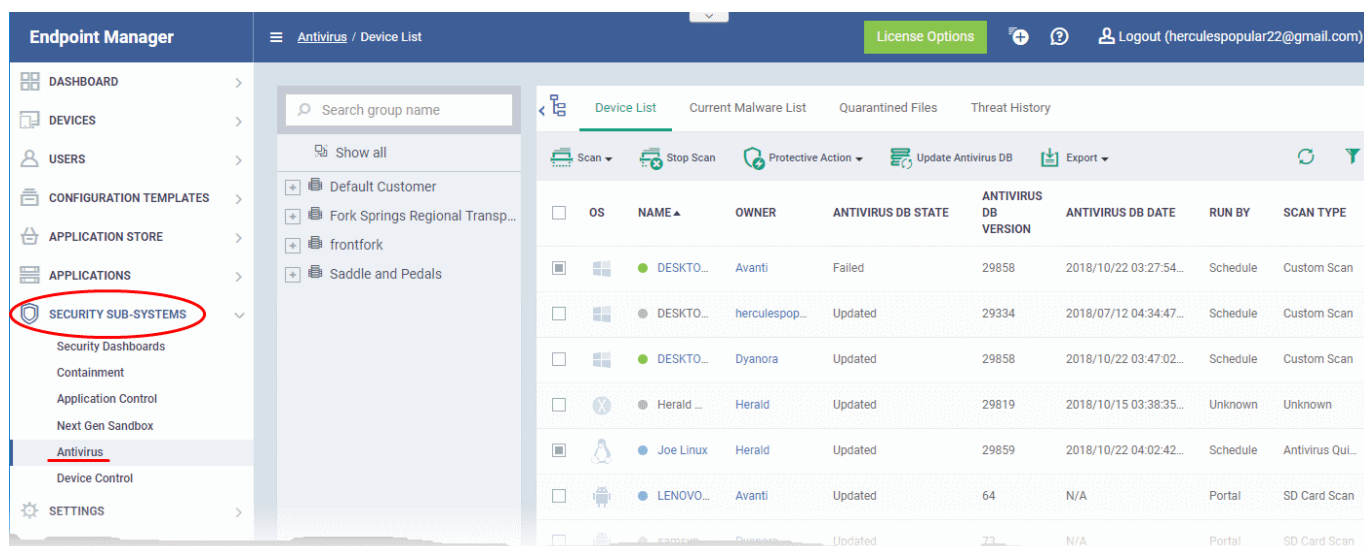
- The CSV file will be available in 'Dashboard' > 'Reports'
- See **Reports** in **The Dashboard** for more details.

## 9.5. Antivirus and File Rating Scans

- Click 'Security Sub-systems' > 'Antivirus' to open this area.

The area allows you to:

- View the infection status of managed Windows, Mas OS, Linux and Android devices.
- Run antivirus and file rating scans on devices.
- View a consolidated list of all malware on all endpoints.
- View all quarantined files on Windows, Mac OS and Linux devices
- View an all-time history of threats discovered on all endpoints
- Manually delete, quarantine or ignore malicious files



The 'Antivirus' interface has five tabs:

- **Device List** - Shows the status of all managed devices with regards to antivirus health. The interface shows:
  - The date and type of the most recent virus scan
  - Whether or not the device is using the latest virus database
  - The malware status of the device (clean, infected or unknown)



You can also run a on-demand scan on a device, and delete/quarantine/ignore threats.

See [The Device List Interface](#) for more details.

- **Current Malware List** - Lists all unprocessed malware residing on managed devices. You can delete, ignore or quarantine specific pieces of malware on specific devices, or apply these actions to multiple threats at once. See [Viewing and Managing Identified Malware](#) for more details.
- **Quarantined Files** - Malware which has been quarantined by Comodo Client Security on Windows, Mac and Linux devices. You can delete or restore quarantined items, or assign a trust rating to items. See [View and Manage Quarantined Items](#) for more details.
- **Threat History** - A log of all malicious items found on Android, Windows, Mac OS and Linux devices over time. See [View Threat History](#) for more details.

## The Device List Interface

The 'Device List' screen displays the infection status of Android, Mac OS and Windows devices. From here you can:

- Run on-demand antivirus scans on selected devices
- Run file rating scans on Windows devices
- Choose the action to be taken on malware discovered by scans.
- Update the AV database on endpoints
- **Export device list data from the table**

**Note:** You can run virus scans on specific areas of a device and setup ongoing, scheduled scans. These tasks are configured in the 'Antivirus' section of the device's configuration profile. See:

- **Windows** - see [Custom Scans](#) and [Create Windows Profiles](#).
- **MAC** - see [Scan Profiles](#) and [Create a Mac OS Profile](#).
- **Linux** - see [Create and Manage Scan Profiles](#) and [Create a Linux Profile](#)

### To open the 'Device List' interface:

- Click 'Security Sub-Systems' > 'Antivirus'
  - Select the 'Device List' tab
  - Select a company and group on the left to view all devices in it
- Or
- Select 'Show All' to view all devices enrolled to EM



OS	NAME	OWNER	ANTIVIRUS DB STATE	ANTIVIRUS DB VERSION	ANTIVIRUS DB DATE	RUN BY	Scan Type
Windows	DESKTO...	Dyanora	Empty DB	1	Unknown	Unknown	Un
Windows	Herald ...	Herald	Updated	29631	2018/09/05 04:50:21...	Unknown	Un
Windows	DESKTO...	Avanti	Updated	29666	2018/09/14 12:27:54...	Schedule	Cu
Linux	Joe Linux	Herald	Updated	29666	2018/09/14 01:30:19...	Schedule	An
Android	samsun...	Dyanora	Updated	71	N/A	Portal	SD
Android	LENOVO...	Avanti	Updated	71	N/A	Portal	SD

The list displays all Android, Windows, Mac OS and Linux devices along with their last scan details, infection status and antivirus database update state.


Antivirus Device List - Column Descriptions	
Column Heading	Description
OS	The operating system of the device.
Name	<p>The label of the device on which the threat was found.</p> <ul style="list-style-type: none"> <li>If no name was assigned then the model number of the device is used.</li> <li>Gray text color shows the device has been offline for the past 24 hours.</li> <li>Click the name of the device to open its device details interface.</li> <li>See <a href="#">Manage Windows Devices</a>, <a href="#">Manage Mac OS Devices</a>, <a href="#">Manage Linux Devices</a> and <a href="#">Manage Android / iOS Devices</a> for more details.</li> </ul>
Owner	<p>The name of the device user.</p> <ul style="list-style-type: none"> <li>Click the user name to view more details about the user</li> <li>See <a href="#">View the User Details</a> for more details.</li> </ul>
Antivirus DB State	The update status of the virus signature database on the device.
Antivirus DB Version	The version number of the virus signature database on the device
Antivirus DB Date	The date and time at which the AV database was last updated
Run By	<p>The source that initiated the last scan. An antivirus scan or a file rating scan can be initiated in the following ways:</p> <ul style="list-style-type: none"> <li><b>Portal</b> - Manually run by an admin from the EM interface. See <a href="#">Run Antivirus and/or File Rating Scans on Devices</a> for more details.</li> <li><b>User</b> - Manually run by the end-user at the device itself.</li> <li><b>Scheduled</b> - Automatically run as per the schedule defined in the configuration profiles effective on the device.</li> </ul>
Scan Type	Indicates the type of the last scan ran on the device. The possible types of scan are:

	<ul style="list-style-type: none"> <li>• Antivirus Full Scan - Applies to Windows, Mac OS and Android devices.</li> <li>• Antivirus Quick Scan - Applies to Windows, Mac OS and Android devices.</li> <li>• File Rating Quick Scan - Applies only to Windows devices.</li> <li>• Custom Scan - Applies to Windows and Mac OS devices.</li> <li>• Manual Scan - Applies to Windows and Mac OS devices</li> <li>• SD Card Scan - Applies only to Android devices.</li> </ul>
Scan State	<p>Status of the last scan run on the device. Possible states are:</p> <ul style="list-style-type: none"> <li>• Not scanned yet</li> <li>• Complete</li> <li>• Scanning</li> <li>• Failed</li> <li>• Viruses found</li> <li>• Canceled</li> <li>• Command sent</li> </ul>
Scan Date	The date and time at which the last scan was run.
Malware Status	<p>The infection status of the device.</p> <ul style="list-style-type: none"> <li>• Devices with untreated malware are listed as 'Infected'.</li> <li>• Click the 'Infected' link to view a list of malware on all managed devices. <ul style="list-style-type: none"> <li>• You can remove, quarantine or ignore the malware direct from this list.</li> <li>• See <b>View and Manage Identified Malware</b> if you want more help on this.</li> </ul> </li> <li>• Alternatively, you can also view/manage malware from the device details screen. Click "Security Sub-Systems" &gt; 'Antivirus' &gt; 'Device List'. See <b>Handle Malware on Scanned Devices</b> for more details.</li> </ul>
<b>Controls</b>	
Scan	Run a manual scan on selected devices. See <b>Run Antivirus and/or File Rating Scans on Devices</b> for more details.
Stop Scan	<p>Terminate any type of on-going scans on selected devices. This includes on-demand scans run from the EM console, scheduled scans run by the security profiles active on the device and any on-demand scan run by the local user from the Comodo Client - Security (CCS) application on the device.</p> <p>See <b>Run Antivirus and/or File Rating Scans on Devices</b> for more details.</p>
Protective Action	Remove, quarantine or ignore threats found on infected devices. See <b>Handle Malware on Scanned Devices</b> for more details.
Update Antivirus DB	Manually run a virus signature update on selected devices. See <b>Update virus signature database on Windows, Mac OS and Linux Devices</b> for mode details.
Export	<p>Save the device list, including current statuses, as a .csv file.</p> <p>The exported .csv is available in 'Dashboard' &gt; 'Reports'</p> <p>See <b>Export the List of Devices</b> for more details.</p>


The 'Antivirus' > 'Device List' interface allows you to:

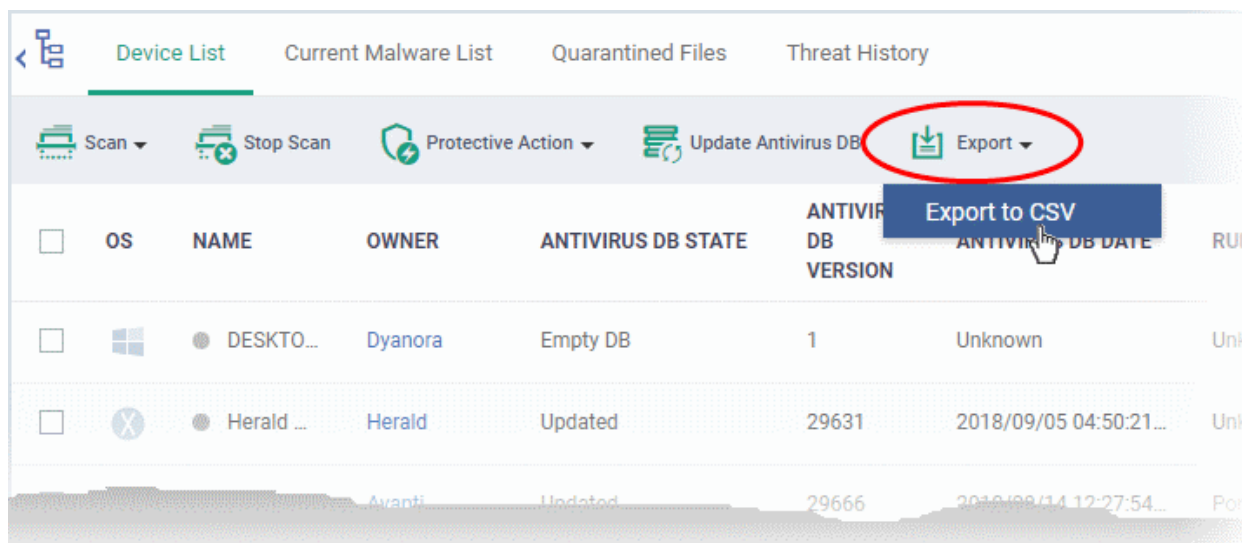
- **Run Antivirus and/or File Rating Scans on Devices**
- **Handle Malware on Scanned Devices**
- **Update virus signature database on Windows, Mac OS and Linux Devices**

## Sorting, Search and Filter Options

- Click any column header except 'Antivirus DB version' to sort items in ascending/descending order
- Click the funnel icon  on the right to filter items by various criteria.
  - Start typing or select the search criteria in the search field to find a particular item and click 'Apply'
  - To display all items again, clear any filters and search criteria and click 'Apply'.
- EM returns 20 results per page when you perform a search. Click the arrow next to the 'Results per page' drop-down to increase results up to a maximum of 200.
- Use the left and right arrows and the page numbers to navigate to the page you want to view.

## Export device list records as a CSV file

- Click 'Security Sub-Systems' > 'Antivirus' > 'Device List'
- Click the funnel  icon to filter which records are included in the report.
- Click the 'Export' button and choose 'Export to CSV':



- The .csv file will be available in 'Dashboard' > 'Reports'
- See **Reports** in **The Dashboard** for more details.

## 9.5.1. Run Antivirus and/or File Rating Scans on Devices

- Click 'Security Sub-Systems' > 'Antivirus' > 'Device List'.
- The interface lets you run virus and file rating scans on Android, Mac OS, Windows and Linux devices.

**Note:** The scans interface lets you manage on-demand scans only. For automated scans, please create a scan schedule in a configuration profile then push it to selected devices/groups. See **Create Configuration Profiles** for more details.

### To launch an on-demand scan

- Click 'Security Sub-Systems' on the left then select 'Antivirus'
- Click the 'Device List' tab
  - Select a company or a group to view their devices
  - Or
  - Select 'Show All' to view all devices enrolled to EM
- Select the devices you wish to scan
- Choose a scan type from the 'Scan' drop-down
- The scan command will be sent to the target devices and the scan will commence immediately

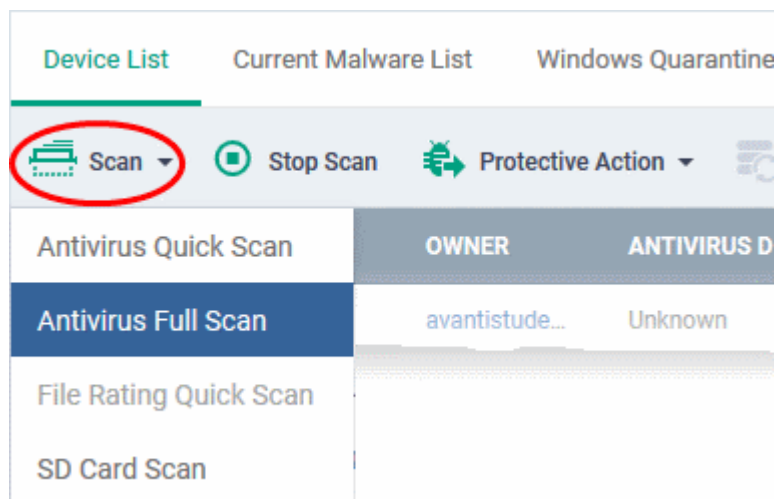
**Tip:** You can access filters by clicking the funnel icon at the top right. For example, you may want to display only devices with Last Scan States of 'Unknown', 'Scan Failed' and 'Scan Canceled'.

The scan types available depend on the OS of the selected device(s). The scan type defines the areas to be scanned on the selected device(s). The following sections explain the scan process for:

- **Android Devices** (Quick Scan, Full Scan, SD Card Scan)
- **Windows Devices** (Quick Scan, Full Scan, File Rating Quick Scan)
- **Mac OS Devices** (Quick Scan, Full Scan)
- **Linux Devices** (Quick Scan, Full Scan)

## Android Devices

- Click 'Scan Device' and choose the 'Scan Profile' from the drop-down to select the area to be scanned on the device.



The available scan profiles are:

- **Antivirus Quick Scan** - Scans critical areas of the device which are highly prone to attack from viruses, rootkits and other malware. Areas scanned include RAM, hidden services and other significant areas like system files. These areas are of great importance to the health of the device so it is essential to keep them free of infection.
- **Antivirus Full Scan** - Scans all folders/files in both the system internal memory and the SD card.
- **SD Card Scan** - Scans all folders/files in the Secure Digital (SD) memory card mounted on the device.

The scan command will be sent to the selected device(s) and the scan status will be displayed in the 'Last Scan State' column for each device.

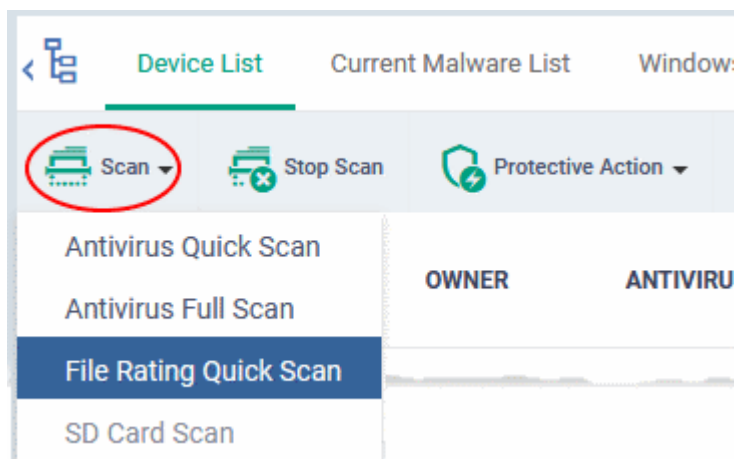
- If you want to terminate the scan, choose the devices and click 'Stop Scan' from the options at the top.
- If malware is found after the scan then the 'Last Scan State' will say 'Infected'. Infections identified after the

scan will be treated according to settings in 'Settings' > 'Portal Set-Up' > Android Client Configuration' > 'Antivirus'. See [Configure Android Client Antivirus Settings](#) for more details.

- If 'Manual control' is chosen, then you have the option to uninstall or ignore from the 'Current Malware List'. See [View and Manage Identified Malware](#) for more details.
- You can also choose to uninstall or ignore the identified malware by clicking the respective buttons at the top. See [Handle Malware Identified from Scanned devices](#) section for more details.

## Windows Devices

- Click 'Scan Device' and choose the 'Scan type/Scan Profile' from the drop-down to select the area to be scanned on the device.



The available scan types/profiles are:

- **Antivirus Quick Scan** - Scans critical areas of the device which are highly prone to attack from viruses, rootkits and other malware. Areas scanned include system memory, auto-run entries, hidden services, boot sectors and other significant areas like important registry keys and system files. These areas are of great importance to the health of each computer so it is essential to keep them free of infection.
- **Antivirus Full Scan** - Scans every local drive, folder and file on each computer. Any external devices like USB drives, digital camera and so on are also scanned.
- **File Rating Quick Scan** - Runs a cloud-based assessment of files on the device to determine the trust rating of each file. The 'Quick' rating scan checks commonly infected areas and memory.

Files are rated as:

- **Trusted** - the file is safe
- **Unknown** - the trustworthiness of the file could not be assessed
- **Bad** - the file is unsafe and may contain malicious code

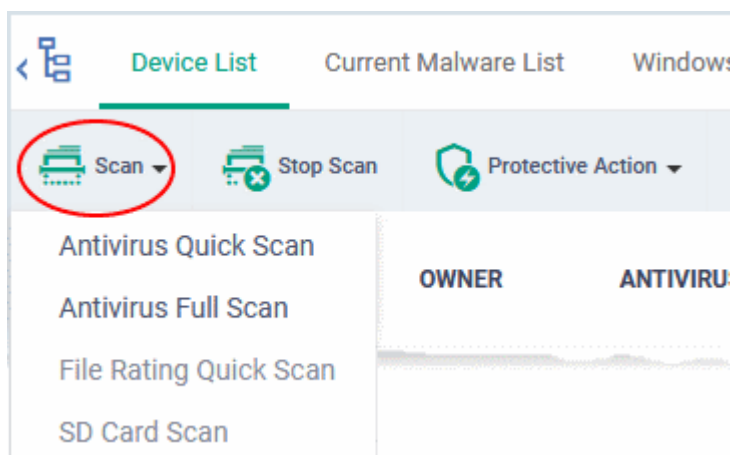
The scan command will be sent to the selected device(s) and the scan status will be displayed in the 'Scan State' column for each device.

- If you want to terminate the scanning on selected devices, choose the devices and click 'Stop Scan' from the options at the top.
- If malware is found on completion of scan the Scan State will indicate 'Viruses Found'. You can choose to uninstall, ignore, delete the identified malware or to move them to quarantine at the endpoint for later analysis. See [Handle Malware Identified from Scanned devices](#) for more details.
- Items moved to quarantine are encrypted and saved in the endpoint itself, so that they are isolated from the rest of the system.
- You view the quarantined items from the 'Quarantine' interface. The Quarantine interface allows you to:
  - Delete an item, if it is identified as malicious

- Restore the file to its original location on the endpoint if the item is a false-positive. You can also rate a file as 'Trusted' to restore it to the endpoint. Doing so will effectively white-list the file by giving it a 'Trusted' rating in the local CCS database.
- See [View and Manage Quarantined Items](#) for more details.

## Mac OS Devices

- Click 'Scan Device' and choose the 'Scan Profile' from the drop-down to select the area to be scanned on the device.



The available scan profiles are:

- **Antivirus Quick Scan** - Scans important operating system files and folders including system memory, auto-run entries, hidden services.
- **Antivirus Full Scan** - Scans every local drive, folder and file on your system including external devices, storage drives, digital cameras.

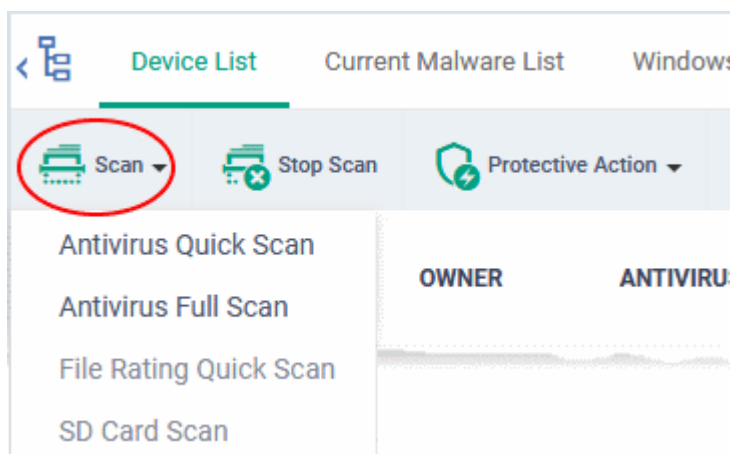
The scan command will be sent to the selected device(s) and the scan status will be displayed in the 'Last Scan State' column for each device.

- If you want to terminate the scan on certain devices, choose the devices and click 'Stop Scan' from the options at the top.
- If malware is found on completion of scan the Last Scan State will indicate 'Viruses Found'. You can choose to uninstall, ignore, delete the identified malware or to move them to quarantine at the endpoint for later analysis. See [Handle Malware Identified from Scanned devices](#) for more details.
- Items moved to quarantine are encrypted and saved in the device itself, so that they are isolated from the rest of the system.
- You view the quarantined items from the 'Quarantine' interface. The Quarantine interface allows you to:
  - Delete an item, if it is identified as malicious
  - Restore the file to its original location on the endpoint if the item is a false-positive.
- See [View and Manage Quarantined Items](#) for more details.

## Linux Devices

- Click 'Scan Device' and choose the scan type from the drop-down menu:





- **Antivirus Quick Scan** - Scans important areas which are frequently targeted by malware. Areas scanned include system memory, important registry keys, auto-run entries, operating system folders and hidden services.
- **Antivirus Full Scan** - Scans every local drive, folder and file on your system. Connected devices like USB sticks and external drives are also scanned.

The status of current, or previous, scans is shown in the 'Last Scan State' column.

- **Terminate a scan** - Select target devices then click 'Stop Scan' from the options at the top.
- **'Viruses Found'** - You can uninstall, ignore, quarantine or delete the identified malware. See **Handle Malware Identified on Scanned devices** for more details.

## 9.5.2. Handle Malware on Scanned Devices

- Click 'Security Sub-Systems' > 'Antivirus' > 'Device List'
- Click the 'Protective Action' button to remove, ignore or quarantine the malware.

**Note:**

- This interface lets you apply actions to all malware found on specific devices.
- If you instead want to apply actions to individual malware, please use the 'Current Malware List'.
  - Click 'Security Sub-Systems' > 'Antivirus' > 'Current Malware List'.
  - See **View and Manage Identified Malware** if you need more help with this interface.

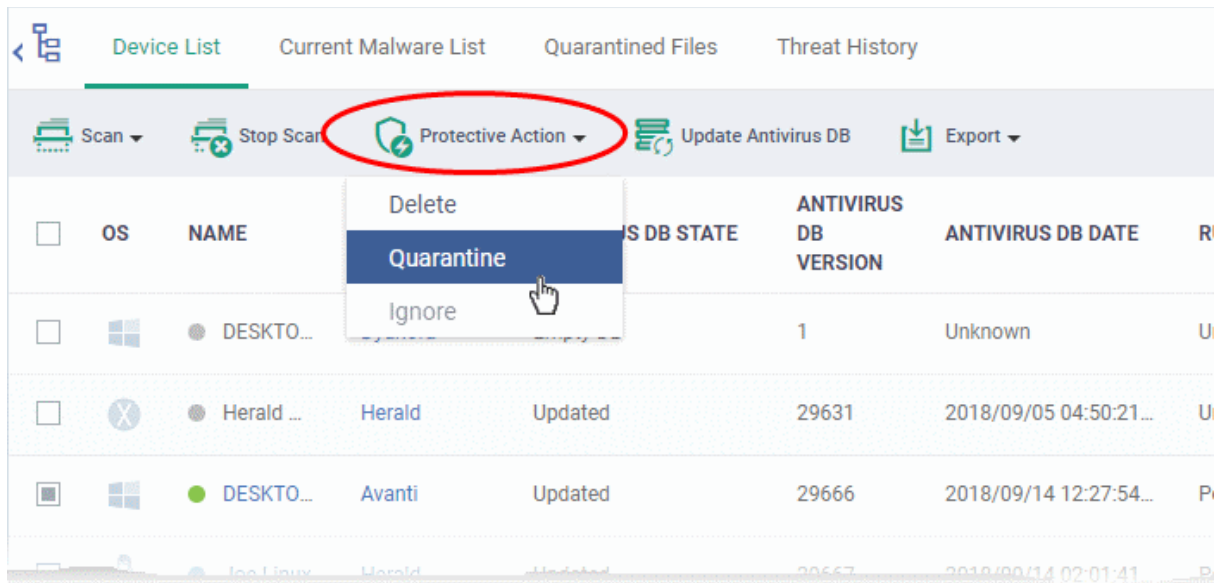
### To apply actions to ALL malware on selected devices

- Click 'Security Sub-Systems' > 'Antivirus'
- Click the 'Device List' tab
  - Click a company name/group on the left to view their devices
  - Or
  - Select 'Show All' on the left menu to view every device enrolled to EM
- Select device(s) with a malware status of 'Infected' using the check-box(es) on the left.

**Tip:** You can filter the list or search for specific device(s) by clicking the funnel icon at the top right of the table.

- Click 'Protective Action' above the table and select your desired action:



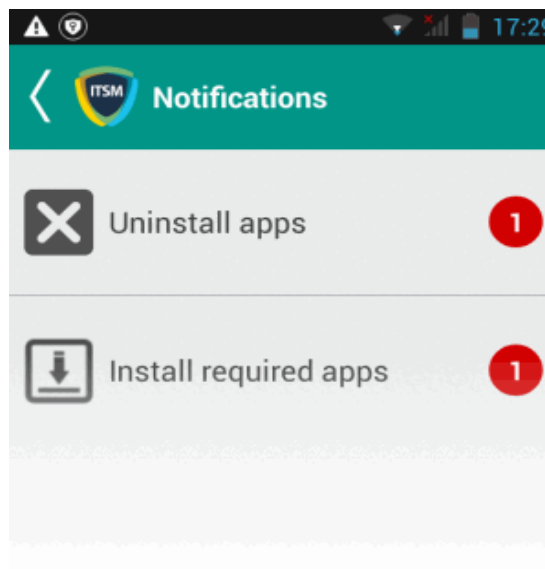


The actions available depend on the OS of the device chosen:

#### For Android Devices:

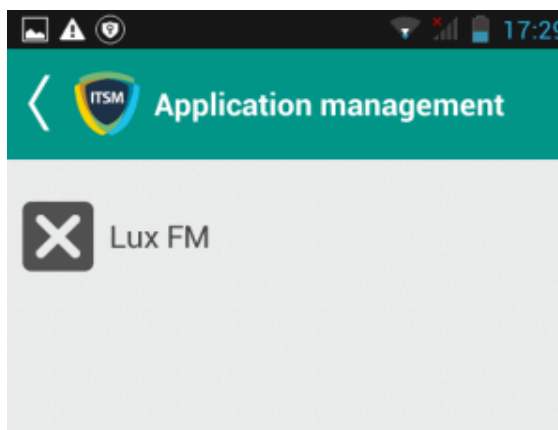
- **Delete** - Removes the malicious app
- **Ignore** - Ignores malware found by the last scan. The item will be identified as malware again on the next scan.

For the 'Delete' operation, a notification will be sent to the selected devices to uninstall the app(s):

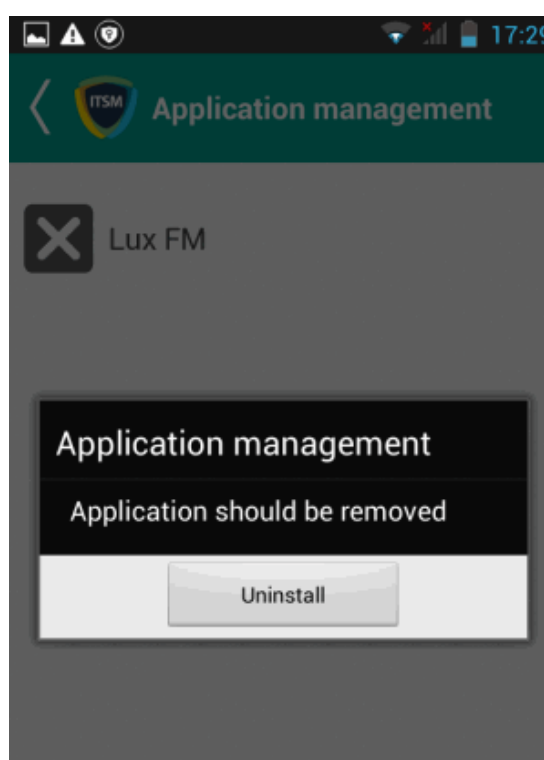


The notification shows the number of threats which will be removed from the device.

- Touch the alert to view all items which are ready for removal.



- Tap on the malware to be removed, confirm the removal in the next dialog and follow the uninstall wizard.



## For Windows, Mac OS and Linux Devices

- **Delete** - Instructs CCS on the endpoint to clean the malware.
  - If a disinfection routine is available, CCS will disinfect it and retain the original file.
  - If a disinfection routine is not available, CCS will delete the application.
- **Quarantine** - Moves the malware to quarantine on the device.
  - Click 'Security Sub-Systems' > 'Antivirus' > 'Quarantined Files' to manage quarantined files.
  - Based on their trustworthiness, you can remove them from the device or restore them to their original locations. See [View and Manage Quarantined Items](#) for more details.

## 9.5.3. Update Virus Signature Database on Windows, Mac OS and Linux Devices

- Click 'Security Sub-Systems' > 'Antivirus' > 'Device List'
- Select a device using the check-boxes on the left > Click the 'Update Antivirus DB' button

- You can update the database manually or according to a schedule.

## Automatic Updates

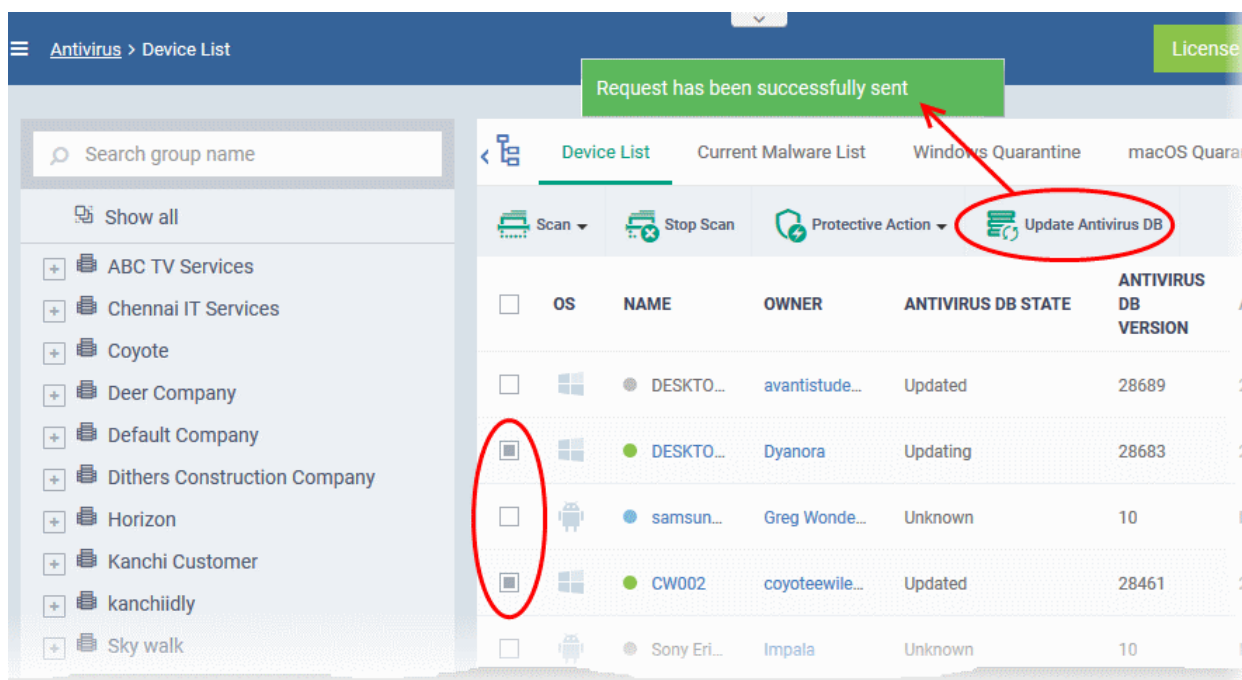
- **Windows devices** - Configure the 'Update' component of the Windows profile applied to a device. See **Client Security Update** in **Creating Windows Profiles** for more details.
- **MAC OS devices** - Configure the 'Antivirus' component of the Mac OS profile applied to a device. See **Configure Antivirus Settings** in **Antivirus Settings for Mac OS Profile** for more details.
- **Linux devices** - Configure the 'Antivirus' component of the Linux profile applied to a device. See **Antivirus Settings for Linux Profile** for more details.

## Manual Updates

- Click 'Security Sub-Systems' on the left then select 'Antivirus'
- Click the 'Device List' tab
  - Click a company or a group to view only their devices
  - Or
  - Select 'Show All' to view every device enrolled to EM
- Select the Windows, Mac OS and/or Linux device(s) on which you wish to update the virus database

**Tip:** You can filter the list or search for specific device(s) by clicking the funnel icon at the top right of the table.

- Click 'Update Antivirus DB' from the options at the top:



A command will be sent to target devices to start downloading the updates.

## 9.6. View and Manage Identified Malware

- Click 'Security Sub-Systems' > 'Antivirus' > 'Current Malware List'
- The 'Current Malware List' shows malicious items on which no action has yet been taken.
- You can use this interface to clean, ignore or quarantine the items.
- You can also assign a 'Trusted' rating to an item. Use this option if you think the item is a false positive. The

item will not be flagged by future scans.

## Notes:

### Android Devices:

- If AV options are set to 'automatically uninstall' or 'ignore' in a device profile, then the item will be handled accordingly and not shown in the 'Current Malware List'.

See **Antivirus Settings** in **Profiles for Android Devices** for more details.

### Windows Devices:

#### Real-time virus monitoring:

- Threats will be shown in the list if:
  - 'Show antivirus alerts' is disabled and 'Block Threats' is chosen as the default action in the profile active on the device
  - OR
  - 'Show antivirus alerts' is enabled and the user decides to block the threat at an alert.
- Threats will NOT be shown in the list if:
  - 'Show antivirus alerts' is disabled and 'Quarantine Threats' is set as the default action
  - OR
  - 'Show antivirus alerts' is enabled and the user quarantines the threat at an alert.
- To view the settings above:
  - Click 'Configuration Templates' > 'Profiles' > *Click the name of any Windows profile* > 'Antivirus' tab > Open the 'Realtime Scan' tab.
- See **Realtime Scan settings** in **Antivirus Settings** if you need more help with this.

#### Scheduled and manual scans:

- Threats will be shown in the list only if 'Automatically clean threats' is disabled in the profile active on the device.
- To view the setting above:
  - Click 'Configuration Templates' > 'Profiles' > *Click the name of any Windows profile* > 'Antivirus' tab > 'Scans' tab > Click the 'Edit' icon beside a profile > Click the 'Options' bar.
- See **Custom Scans** in **Antivirus Settings** if you need more help with this.

### Mac OS Devices:

- Threats will only appear in this list if 'Auto-Quarantine' is disabled in the profile on the device.
- Threats will NOT appear in this list if:
  - 'Auto quarantine' is enabled in 'Realtime scanning', 'Manual Scanning' and 'Scheduled Scanning'
  - 'Auto quarantine' is disabled but the user chooses to quarantine the item from an alert
- See **Configure Antivirus Settings** in **Antivirus Settings for Mac OS Profile** under **Create a Mac OS Profile** for more details.

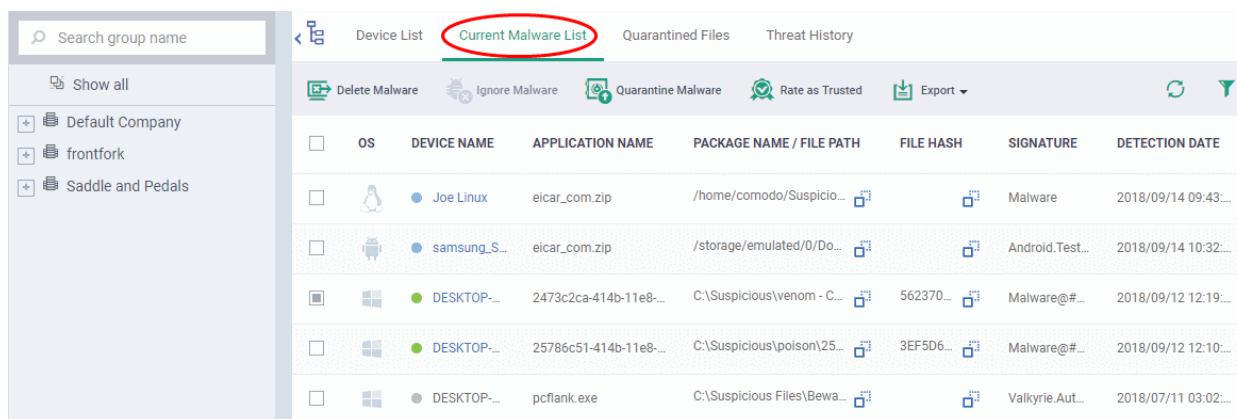
### Linux Devices:



- Threats will only appear in this list if 'Auto-Quarantine' is disabled in the profile on the device.
- Threats will NOT appear in this list if:
  - 'Auto quarantine' is enabled in 'Realtime scanning' and 'Scheduled Scanning'
  - 'Auto quarantine' is disabled but the user chooses to quarantine the item from an alert

- See '[Configure Scanner Settings for CCS for Linux](#)' in [Antivirus Settings for Linux Profile](#) in [Create a Linux Profile](#) for more details.

## To view the malware list


- Click 'Security Sub-Systems' > 'Antivirus'
- Click the 'Current Malware List' tab
  - Click a company or a group to view malware identified on their devices
  - Or
  - Select 'Show All' to view malware identified on every device in EM



Current Malware List - Column Descriptions	
Column Heading	Description
OS	The operating system of the device on which the malware was identified.
Device Name	The label of the device on which threats were found. If no name was assigned then the model number of the device is used. Gray text color shows the device has been offline for the past 24 hours. <ul style="list-style-type: none"> <li>• Click the name of the device to open its device details interface.</li> <li>• See <a href="#">Manage Windows Devices</a>, <a href="#">Manage Mac OS Devices</a>, <a href="#">Manage Linux Devices</a> and <a href="#">Manage Android / iOS Devices</a> for more details.</li> </ul>
Application Name	The label of the infected file.
Package Name / File Path	Windows, Linux and Mac OS devices - Shows the location of the malware Android devices - Shows the package name or identifier. <ul style="list-style-type: none"> <li>• Click the  icon to copy the package name/ file path to the clipboard.</li> </ul>
File Hash	The SHA1 hash value of the file. <ul style="list-style-type: none"> <li>• Click the  icon to copy the hash value to the clipboard.</li> </ul>
Signature	The malware signature. <ul style="list-style-type: none"> <li>• Signatures enable the scanner to identify viruses. Each malware signature represents a snippet of malicious code unique to a virus.</li> <li>• The signatures of known-malware are stored in the local antivirus database.</li> </ul>

	<p>This is also known as the 'blacklist'.</p> <ul style="list-style-type: none"> <li>If the scanner finds a file with a signature that matches one on the blacklist then it raises a virus alert.</li> </ul>
Detection Date	Date and time that the malware was discovered.
<b>Controls</b>	
Delete Malware	<p>Uninstalls/removes the malware infected item from the device.</p> <ul style="list-style-type: none"> <li>Applies to items identified from devices of all operating systems.</li> </ul>
Ignore Malware	<p>The item will be allowed to remain on the device.</p> <ul style="list-style-type: none"> <li>Applies to items identified from Android devices only.</li> </ul>
Quarantine Malware	<p>Moves the selected items to quarantine on the respective devices.</p> <ul style="list-style-type: none"> <li>Applies to items identified from Windows, Mac OS and Linux devices.</li> </ul>
Rate as Trusted	<p>Awards 'Trusted' file rating to the selected items. Please make sure before marking a file as trusted. Use this option only for false positives and genuine items.</p> <ul style="list-style-type: none"> <li>Applies only to items identified from Windows devices.</li> </ul>
Export	<p>Save the list of currently displayed threats as a comma separated values (CSV) file. The exported .csv is available in 'Dashboard' &gt; 'Reports'</p> <p>See <b>Export the List of Malware</b> for more details.</p>

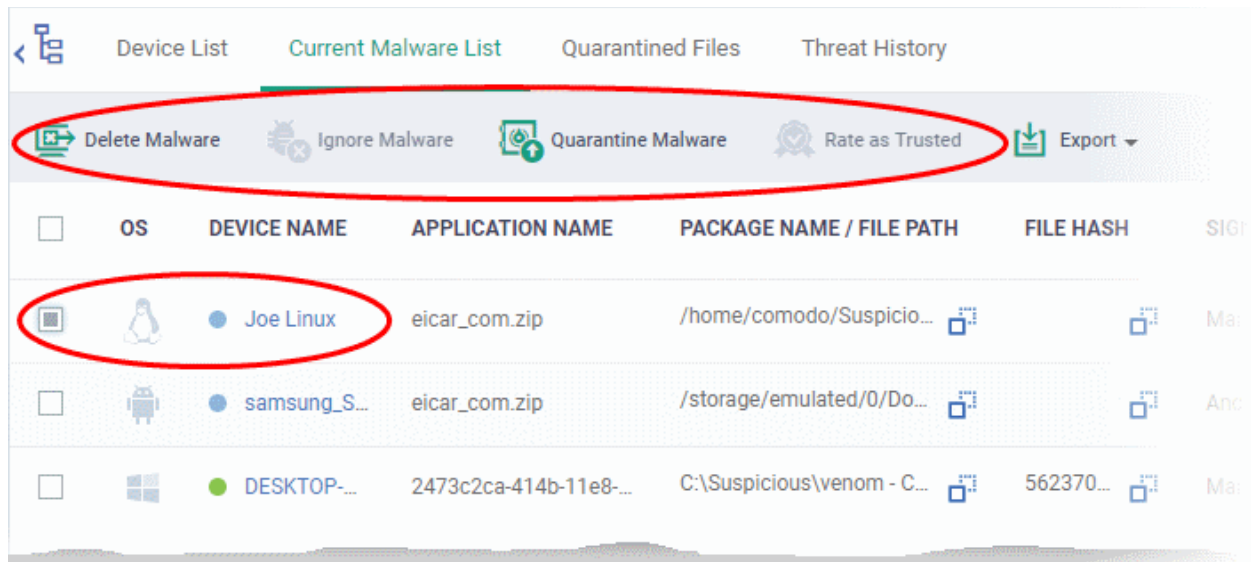
### Sorting, Search and Filter Options

- Click any column header to sort items in ascending/descending order.
- Click the funnel icon  on the right to filter items by various criteria.
  - Start typing or select the search criteria in the search field to find a particular item and click 'Apply'
  - To display all items again, clear any filters and search criteria and click 'Apply'.
- EM returns 20 results per page when you perform a search. You can increase results up to a maximum of 200.

### Take Actions on Identified Malware

- You can uninstall/delete malicious items from the devices on which they were found.
- Alternatively, if you think an item is a false positive, you have the following options:
  - Ignore malware - Applies to items identified on Android devices only. The item will not be uninstalled and will be skipped in the future scans.
  - Rate as 'Trusted' - Applies to items identified on Windows devices only. The item will be allowed to run and will be skipped in future scans.
- If an item is found to be suspicious, you can choose to move it to quarantine for later analysis and removal.

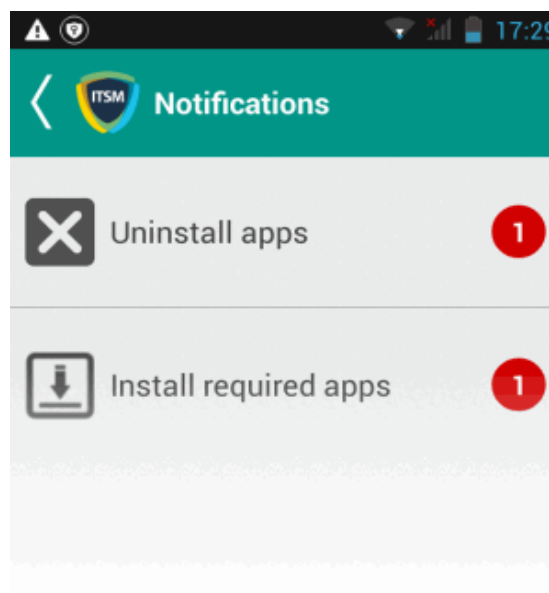
The options at the top of the table let you take actions on selected items. The available actions depend on the operating system of the device(s).



## Threats identified on Android Devices

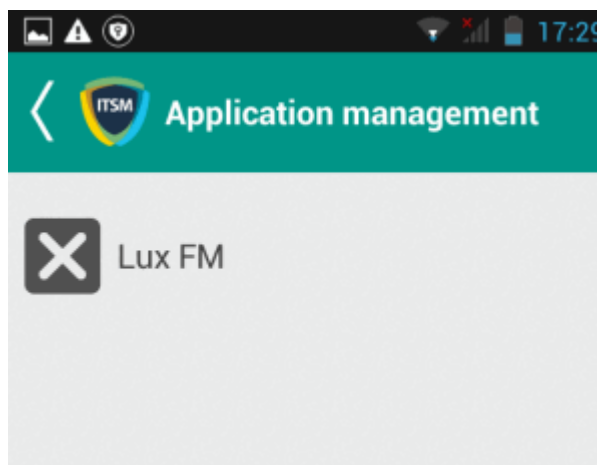
First, select the items on which you want to take the action. Then click one of the following:

- **Ignore Malware** - Select if the item is a false positive. The item will remain on the device and skipped in future scans.
- **Delete Malware** - Select if you want to remove the malware from the device. The following notification will be sent to the affected device:

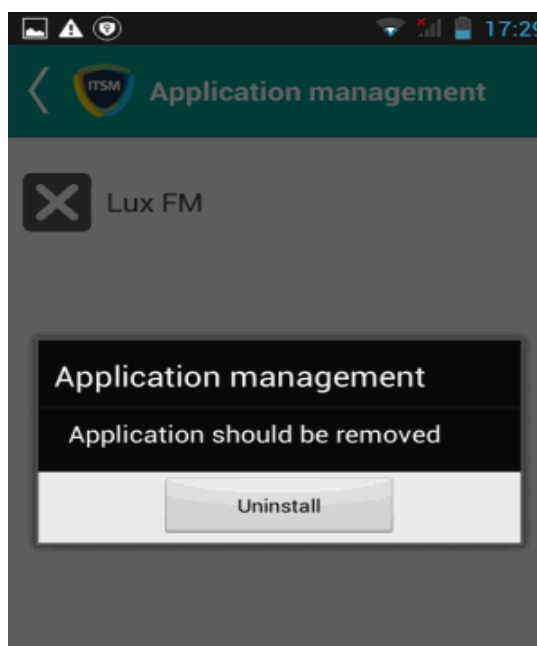


- Touch the alert to view a list of all items which are ready to be removed:





- Tap on the malware to be removed, confirm the removal in the next dialog and follow the uninstall wizard.



## Threats identified on Windows Devices:

First, select the items on which you want to take the action. Then click one of the following:

- **Delete Malware** - Will remove the malware from the device.
- **Quarantine Malware** - The items will be moved to quarantine on the respective devices. You can delete the items from quarantine later, or restore them to their original locations. See [View and Manage Quarantined Items](#) for more details.
- **Rate as Trusted** - Trusted files are considered safe to run. Trusted items can run outside the container on devices and will be skipped in future scans. See [File Ratings Explained](#) for more details on trust ratings of files.

## Threats identified on Mac OS Devices:

First, select the items on which you want to take the action. Then click one of the following:


- **Delete Malware** - Will remove the malware from the device.
- **Quarantine Malware** - The items will be moved to quarantine on the respective devices. You can delete the items from quarantine later, or restore them to their original locations. See [View and Manage Quarantined Items](#) for more details.

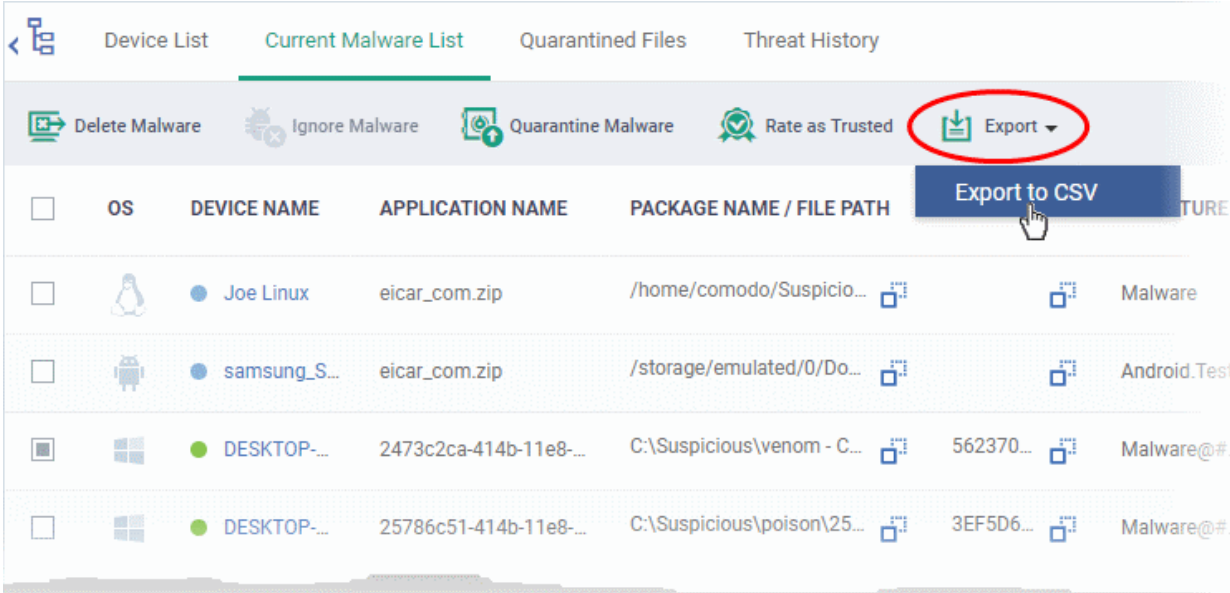
**Threats identified on Linux Devices:**





First, select the items on which you want to take the action. Then click one of the following:

- **Delete Malware** - Will remove the malware from the device.
- **Quarantine Malware** - The items will be moved to quarantine on the respective devices. You can delete the items from quarantine later, or restore them to their original locations. See [View and Manage Quarantined Items](#) for more details.

**Export the List of Malware**

- Click 'Security Sub-Systems' > 'Antivirus' > 'Current Malware List'
- Click the funnel  icon to filter which records are included in the report.
- Click the 'Export' button then choose 'Export to CSV':



<input type="checkbox"/>	OS	DEVICE NAME	APPLICATION NAME	PACKAGE NAME / FILE PATH	THREAT
<input type="checkbox"/>		Joe Linux	eicar_com.zip	/home/comodo/Suspicio...	Malware
<input type="checkbox"/>		samsung_S...	eicar_com.zip	/storage/emulated/0/Do...	Android.Test
<input checked="" type="checkbox"/>		DESKTOP-...	2473c2ca-414b-11e8-...	C:\Suspicious\venom - C...	Malware@#...
<input type="checkbox"/>		DESKTOP-...	25786c51-414b-11e8-...	C:\Suspicious\poison\25...	Malware@#...

- The .csv file is available in 'Dashboard' > 'Reports'
- See [Reports](#) in [The Dashboard](#) for more details.

## 9.7. View and Manage Quarantined Items

- Click 'Security Sub-Systems' > 'Antivirus' > 'Quarantined Files' to open the quarantine interface
- This interface lists all items moved to quarantine by CCS on managed Windows, Linux and Mac OS devices.
- Quarantine is a secure holding area for potentially dangerous files. Quarantined files pose no threat to your system.
- You can delete or restore quarantined items, or assign a file rating to them.
- File ratings determine how CCS handles the file:
  - Files rated as 'Malicious' will stay in quarantine on the device.
  - Files rated as 'Unrecognized' will be restored to their original locations on the device. Future virus scans may flag them as malicious again.
  - Files rated as 'Trusted' will be restored to their original locations on the device. These files will be

skipped by future antivirus scans.

## How do threats get quarantined on a Windows device?

**Real time scans** - Threats will be placed in quarantine if:

- 'Show antivirus alerts' is disabled and 'Quarantine Threats' is set as the default action in the profile on the device. This setting can be found in the 'Realtime Scan Settings' section of the profile's antivirus component.
- 'Show antivirus alerts' is enabled in 'Realtime Scan Settings' and the end user quarantined the threat at an alert.
- See **Realtime Scan settings** in the section **Antivirus Settings** under **Creating Windows Profile**

**On-demand / Scheduled scans** - Threats will be placed in quarantine if:

- 'Automatically clean threats' is enabled and 'Quarantine' is set as the action in the profile on the device.
- See **Custom Scans** in **Antivirus Settings** if you need more help with this.

**Manual quarantine:**

- Admins can move threats to quarantine from the 'Current Malware List' interface.
- End-users can move files to quarantine on their endpoint.
- See **View and Manage Identified Malware** for more details.

## How do threats get quarantined on a MAC?

**Real time scans** - Threats will be placed in quarantine if:

- 'Automatically quarantine threats found during scanning' is enabled is enabled in the profile on the device. This setting can be found in the 'Realtime Scan Settings' section of the profile's antivirus component.
- The end user chooses to quarantine the threat from a displayed alert
- See the explanation of **Realtime Scanner** settings in the section **Antivirus Settings for Mac OS Profile** under **Create a Mac OS Profile**

**On-demand / Scheduled scans** - Threats will be placed in quarantine if:

- 'Automatically quarantine threats found during scanning' is enabled in the 'Antivirus' > 'Scanner Settings' > 'Manual Scanning' settings/ 'Scheduled Scanning' settings of the profile on the device
- See the explanations of **Manual Scanner settings** and **Scheduled Scanner settings** in the section **Antivirus Settings for Mac OS Profile** under **Create a Mac OS Profile**.

**Manual quarantine:**

- An administrator moved a threat to quarantine from the 'Current Malware List' interface
- An end-user moved a file to quarantine on the endpoint
- See **View and Manage Identified Malware** for more details.

## How do threats get quarantined on Linux?

**Real time scans** - Threats will be placed in quarantine if:

- 'Automatically quarantine threats found during scanning' is enabled in the profile on the device. This setting can be found in the 'Realtime Scan Settings' section of the profile's antivirus component.
- The end-user chooses to quarantine the threat at an alert
- See the explanation of **Realtime Scanner** settings in the section **Antivirus Settings for Linux Profile** under **Create a Linux Profile**

**On-demand / Scheduled scans** - Threats will be placed in quarantine if:

- 'Automatically quarantine threats found during scanning' is enabled in the 'Antivirus' > 'Scanner Settings' > 'Realtime Scanning' settings/ 'Scheduled Scanning' settings of the profile on the device
- See the explanations of **Realtime Scanner settings** and **Scheduled Scanner settings** in the section **Antivirus Settings for Linux Profile** under **Create a Linux Profile**

**Manual quarantine:**

- An administrator moved a threat to quarantine from the 'Current Malware List' interface
- An end-user moved a file to quarantine on the endpoint
- See **View and Manage Identified Malware** for more details.

Items moved to quarantine are encrypted and not allowed to run.

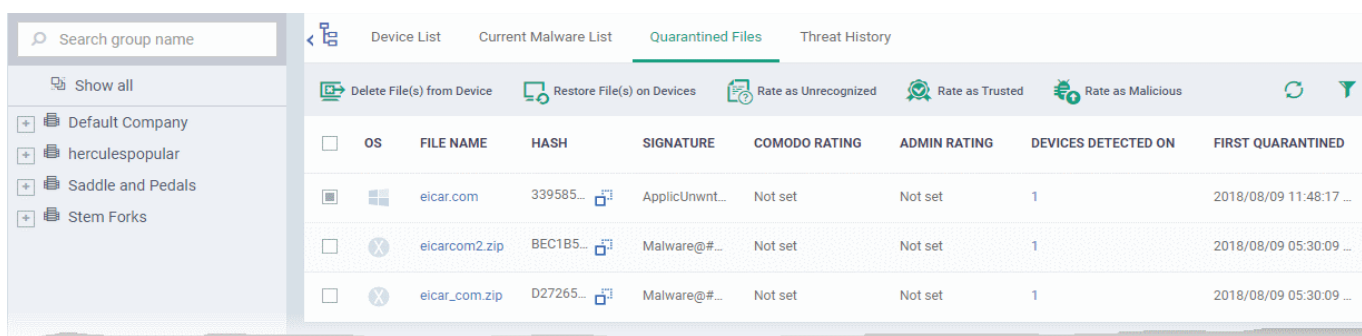
From this interface, you can:

- Assign a rating to quarantined files (trusted, malicious or unrecognized)
- Delete them permanently
- Restore them to their original location

Files rated as 'Trusted' will be restored to their original location and awarded a 'Trusted' rating in the local CCS database.


**To open the 'Quarantined Files' interface**

- Click 'Security Sub-Systems' > 'Antivirus'
  - Click the 'Quarantined Files' tab
    - Select a company or a group to view malware identified on their devices
- Or
- Select 'Show All' on the left menu to view malware identified on all devices enrolled to EM



**'Quarantine Files' - Table of Column Descriptions**

Column Heading	Description
OS	The operating system of the device at which the item was quarantined.
File Name	The file that was moved to quarantine. <ul style="list-style-type: none"> <li>• Click the name of a file to view its details.</li> <li>• See <b>View details of a quarantined item</b> for more details.</li> </ul>
Hash	The SHA1 hash value of the quarantined file

	<ul style="list-style-type: none"> <li>Click the  icon to copy the hash value to the clipboard.</li> </ul>
Signature	The name of the identified malware. 'User Item' indicates the file was moved to quarantine manually by the user on the endpoint.
Comodo Rating	The file's trust level as rated by CCS.
Admin Rating	The trust rating of the file as set by the administrator. Files can be rated as trusted, malicious or unrecognized.
Devices Detected On	<p>The number of devices on which the item was quarantined.</p> <ul style="list-style-type: none"> <li>Click the number to view the list of devices on which the item was quarantined</li> <li>See the explanation of <b>Device Details</b> given below</li> </ul>
First Quarantined	Date and time at which the malware was identified and quarantined the first time.

The 'Quarantine' interface allows you to:


- **View details of a quarantined item**
- **Restore False Positives from Quarantine**
- **Remove Malware files from the devices**
- **Rate files as 'Unrecognized', 'Trusted' or 'Malicious'**
- **Export the list of quarantined files as a CSV file**

## View Details of a Quarantined Item

- Click 'Security Sub-Systems' > 'Antivirus' > 'Quarantined Files'
- Click on the file name of an item in the list:

File Info
Device List

\_6ji5WZD.zip.part

OS	 Windows
Name of the file	_6ji5WZD.zip.part
Hash	BEC1B52D350D721C7E22A6D4BB0A92909893A3AE
Signature	Malware@#2256q1i2knmti
Comodo Rating	Malicious
Admin Rating	Not set
Devices Detected on	1
First Quarantined	2018/07/11 03:20:00 PM

- This will open the file details interface which shows:

- **File Info** - General information such as OS, file-name, hash, file ratings, number of devices on which the file was quarantined and more.
- **Device List** - Shows list of endpoints upon which the file was found with their details like installation path of the file on each device, the device owner and the date and time at which the file was quarantined.

## Device Details

	OS	DEVICE NAME	FILE PATH	DEVICE OWNER	DATE QUARANTINED
<input type="checkbox"/>	Windows	DESKTOP-Q74RLIJ	C:\Users\John\AppData...	herculespopular22@gmail.com	2018/07/11 03:20:08 PM
<input type="checkbox"/>	Windows	DESKTOP-Q74RLIJ	C:\Users\John\AppData...	herculespopular22@gmail.com	2018/07/11 03:20:00 PM

The options on the top let you to:

- Restore False Positives from Quarantine on a device
- Remove the item from a device
- Rate files as 'Unrecognized', 'Trusted' or 'Malicious'
- See the following sections for more details

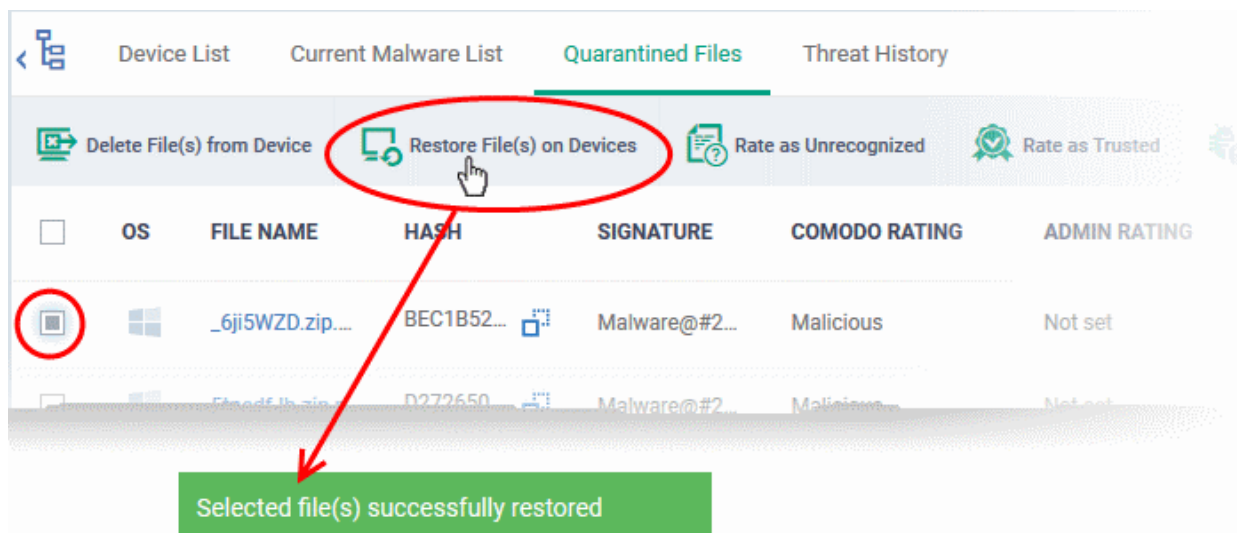
## Manage Quarantined Items

- If your review confirms that a quarantined item is a genuine threat then it can be deleted from endpoints.
- Conversely, if an item is found to be a false positive, you can restore it to its original location.
- You can also rate a file as unrecognized, trusted or malicious based on your assessment. The new verdict will be sent to all endpoints and will be reflected in the 'Unrecognized' and 'Trusted' interfaces.

## Restore False Positives from Quarantine

- If the identified item is a false positive, select the item from the list and click 'Restore File(s) on Devices' from the options at the top.

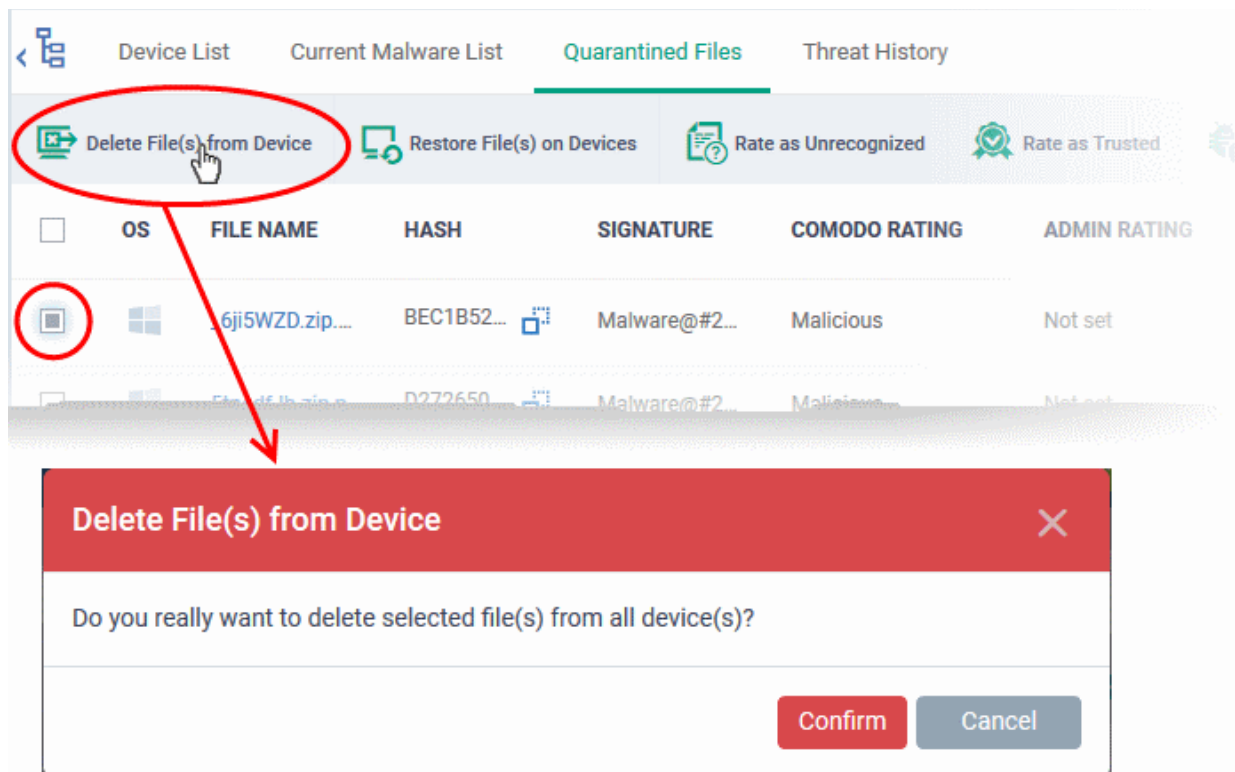
The item will be restored to its original location on all devices and removed from the list.





## Remove Malware files from the devices

- Select the item(s) from the list and click 'Delete File(s) From Device' from the options at the top.

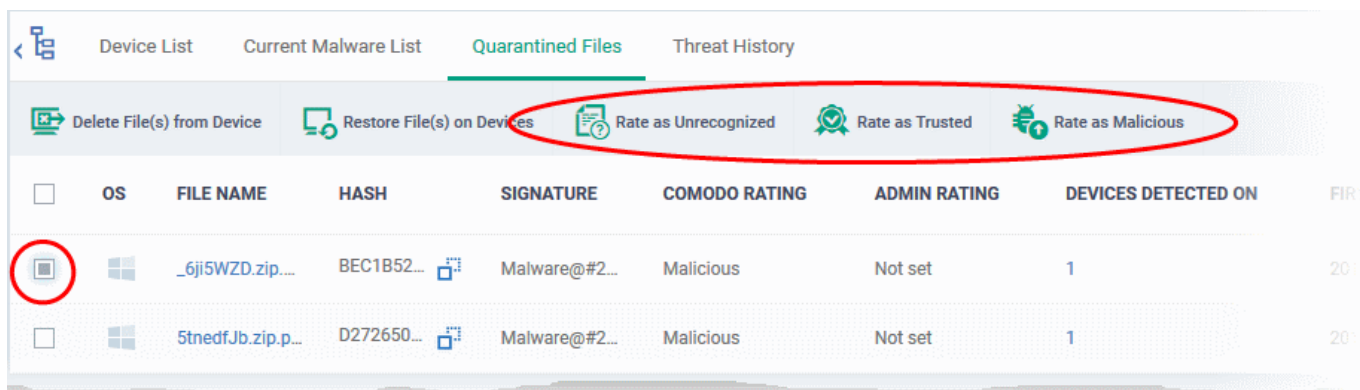


- Click 'Confirm' in the confirmation dialog.

The file will be deleted from all devices at which it was quarantined and removed from the list.

## Rate files as 'Unrecognized', 'Trusted' or 'Malicious'

- If the rating of a quarantined file is changed to 'Trusted' or 'Unrecognized', the file is restored to its original location. The new rating is also stored in the CCS database on the devices.
- To change the rating of a quarantined file, select it and click the appropriate button at the top:




A confirmation will be displayed and the information will also be sent to the devices.

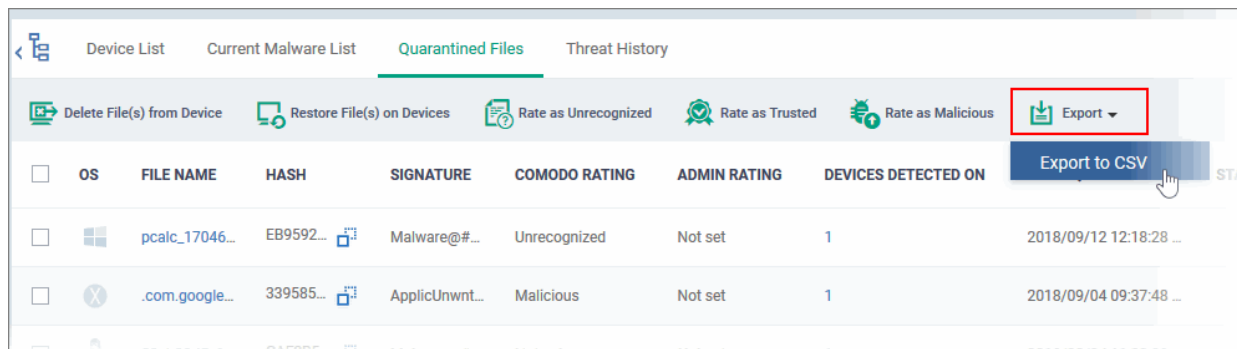
- Files rated as 'Malicious' will stay in quarantine on the device.
- Files rated as 'Unrecognized' will be restored to their original locations on the device. Future AV scans may flag them as 'malicious' again.
- Files rated as 'Trusted' will be restored to their original locations in the device. These files will be white-



listed and skipped by future antivirus scans.

## Export quarantined files records as a CSV file

- Click 'Security Sub-Systems' > 'Antivirus' > 'Quarantined Files' tab
- Click the funnel  icon to filter which records are included in the report.
- Click the 'Export' button and choose 'Export to CSV':



The report will be generated in .csv format.

Report has been created. Please, check  
«[Reports](#)» in dashboard

The file will be available in 'Dashboard' > 'Reports'. See **Reports** if you need more help with this interface.

## 9.8. View Threat History

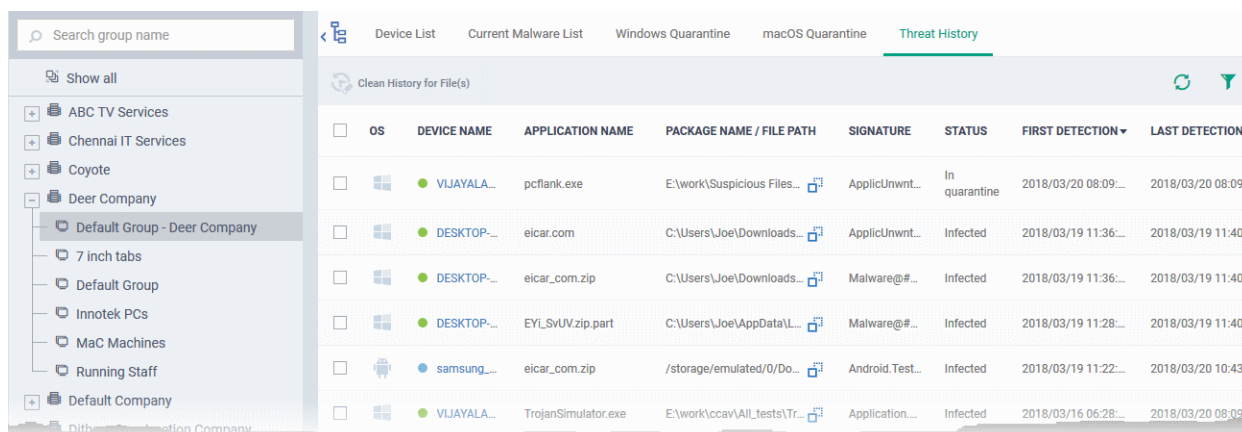
- Click 'Security Sub-Systems' > 'Antivirus' > 'Threat History' to view all malware discovered on devices since you deployed Endpoint Manager.

The 'Threat History' area shows all malicious events found on managed devices over time. The list shows items that have been removed from devices and those which are still present.

- You can remove unnecessary entries from the list

To view threat history

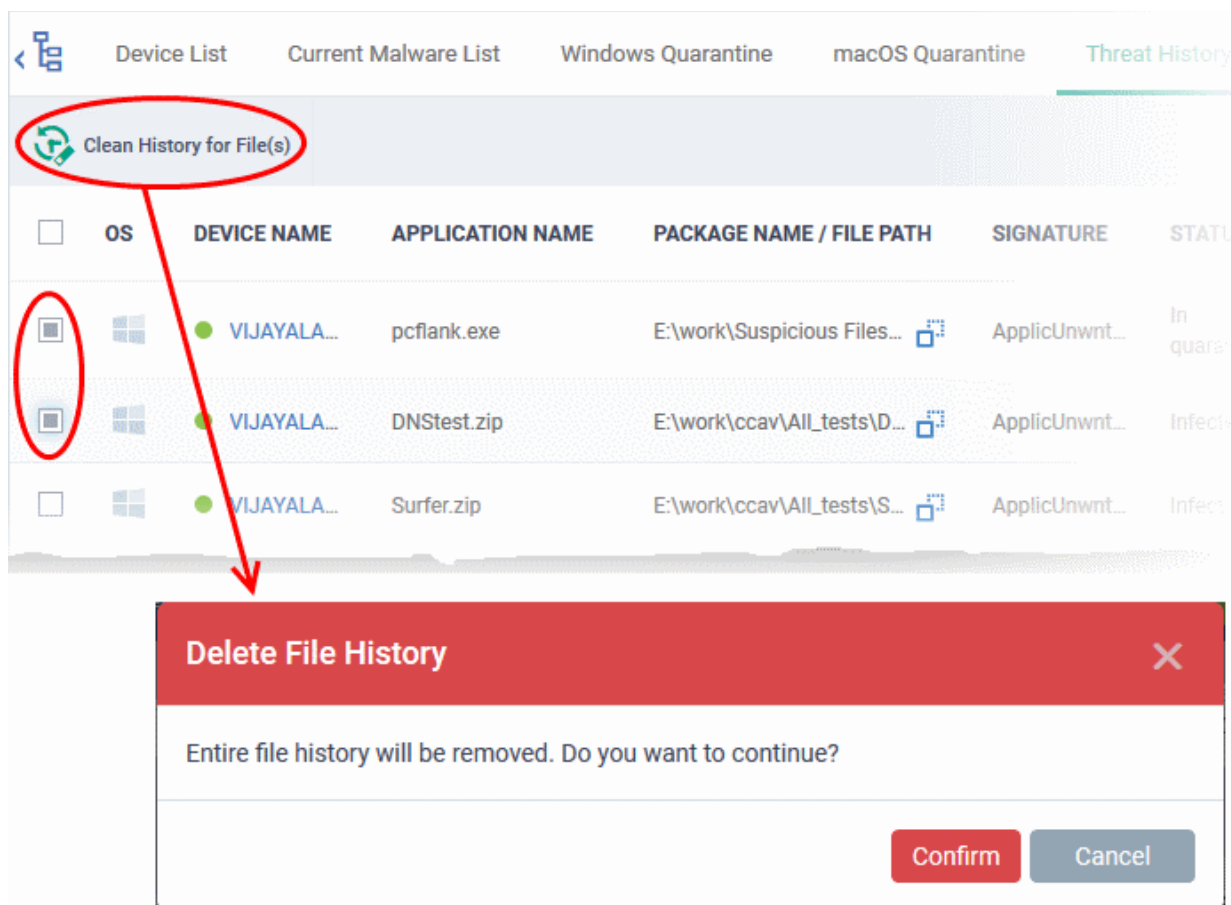
- Choose 'Security Sub-systems' on the left then select 'Antivirus'.
- Click the 'Threat History' tab.
  - Select a company or a group view a log of malware identified on their devices
  - Or
  - Select 'Show All' on the left menu to view a log of malware identified on all devices added to EM



Antivirus Threat History - Column Descriptions	
Column Heading	Description
OS	The operating system of the device on which the malware was found.
Device Name	The label assigned to the device. If no name was assigned by the end-user, the model number of the device is used. A gray text color indicates the device has been offline for the past 24 hours. <ul style="list-style-type: none"> <li>Click the device name to view granular details about the device.</li> <li>See <a href="#">Manage Windows Devices</a>, <a href="#">Manage Mac OS Devices</a>, <a href="#">Manage Linux Devices</a> and <a href="#">Manage Android / iOS Devices</a> for more details.</li> </ul>
Application Name	The name of the infected application.
Package Name / File Path	The Android package name or identifier of the package from which the app was installed. For Windows, Linux and Mac OS devices, the file path of the detected malware is shown.
Signature	The name of the identified malware.
Status	Whether the malware was uninstalled or is yet to be uninstalled.
First Detection	Date and time of the scan which first discovered the malware on the device.
Last Detection	Date and time of the last scan to discover the malware.


## To remove unwanted entries from the 'Threat History' interface

- Select the log entries you want to remove then click 'Clean History for File(s)' at the top




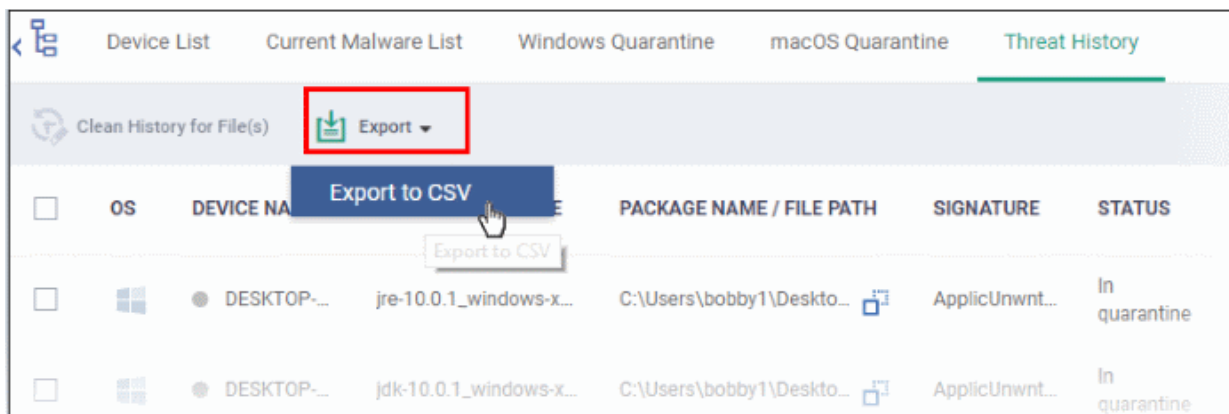
- Click 'Confirm' to remove the entries from the list
- Deleting file history will only remove the log entry. The file will not be removed from the device or from any other interfaces in which it is listed (for example, the quarantine list).

## Sorting, Search and Filter Options

- Click any column header to sort items in ascending/descending order of the entries in that column
- Click the funnel icon  on the right to filter items by various criteria, including by OS, device name, application name, package name/file path, signature, status and first/last detection dates.
- Start typing or select the search criteria in the search field to find a particular item and click 'Apply'
- To display all items again, clear any filters and search criteria and click 'Apply'.
- EM returns 20 results per page when you perform a search. Click the arrow next to the 'Results per page' drop-down to increase results up to a maximum of 200.
- Use the left and right arrows and the page numbers to navigate to the page you want to view.

## Export threat history records as a CSV file

- Click 'Security Sub-Systems' > 'Antivirus' > 'Threat History' tab
- Click the funnel  icon to filter which records are included in the report.
- Click the 'Export' button and choose 'Export to CSV':



The report will be generated in .csv file format.

Report has been created. Please, check «Reports» in dashboard

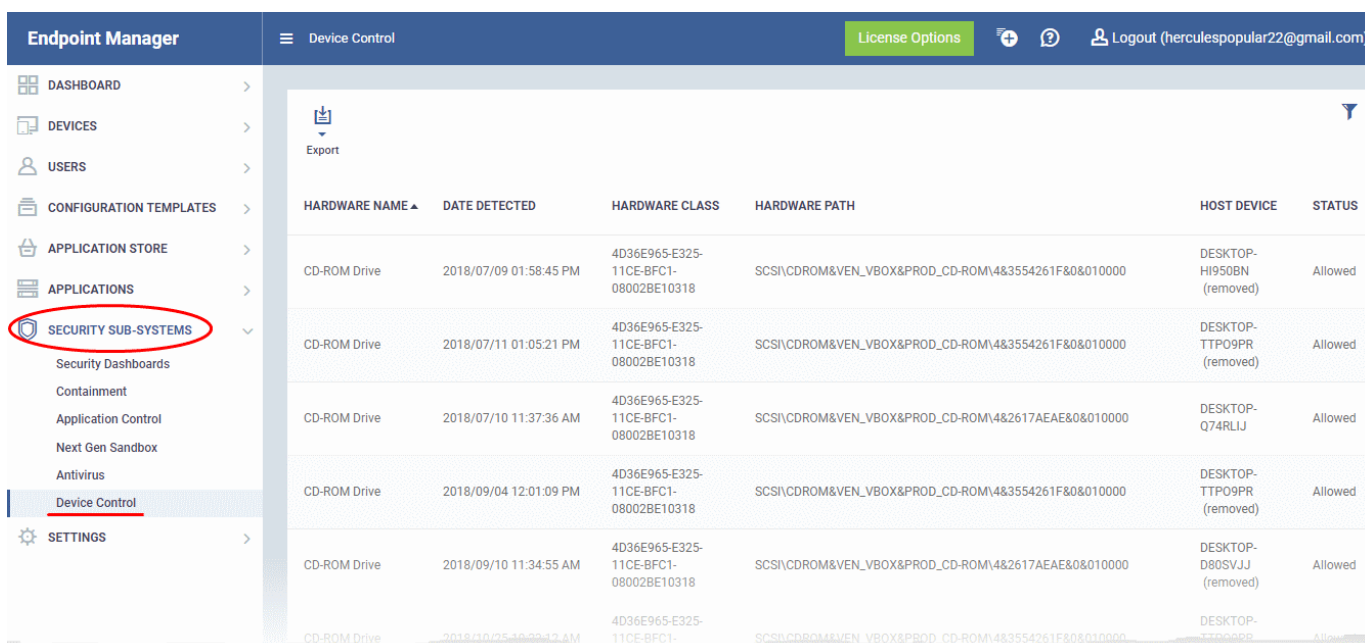
Click 'Dashboard' > 'Reports' to view the report. See **Reports** if you need more help with this interface.

## 9.9. View History of External Device Connection Attempts

- Click 'Security Sub-Systems' > 'Device Control' to view all connection attempts from external devices to your Windows endpoints
- Endpoint Manager can create a log entry when an external device attempts to connect to a Windows endpoint. External devices include USB devices, DVD drives, printers, Bluetooth devices etc.
- These logs are created when the Windows profile contains the 'External Devices Control' section. See **External Devices Control Settings** for more details.
- You can also generate a report of external device connection attempts.


To view a history of device connections:

- Click 'Security Sub-Systems' > 'Device Control'




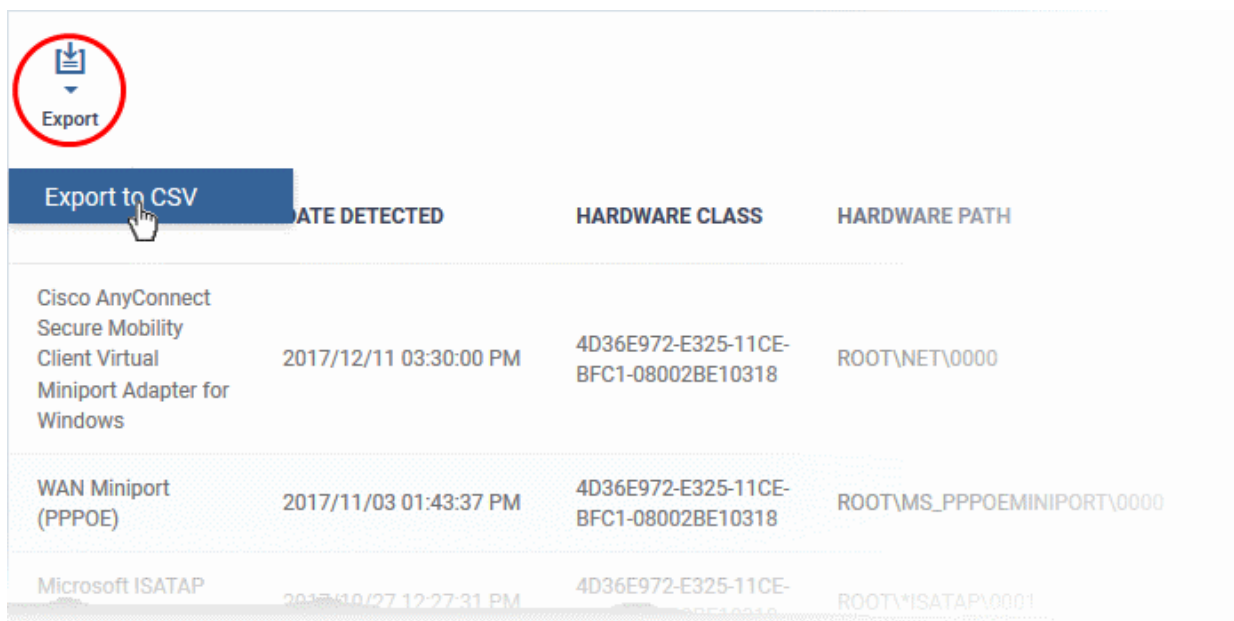
Device Control - Column Descriptions	
Column Header	Description
Hardware Name	Displays the name of the external device which attempted to connect to a managed Windows device
Date Detected	The date and time at which the device was first detected
Hardware Class	The Globally Unique Identifier (GUID) of the device class which attempted to connect.
Hardware Path	The Device Instance Identifier of the external device which attempted to connect.
Host Device	The name of the Windows device to which the connection attempt was made. This column also shows the host's current connection status (connected or removed)
Status	Indicates whether the connection was allowed or blocked. This depends on the settings in the 'External Devices Control' section of the profile active on the host device.

### Sorting, Search and Filter Options

- Click any of the 'Hardware Name', 'Hardware Class', 'Host Device' or 'Status' column headers to sort the items based on alphabetical order of entries in that column.
- Click the funnel button  at the right end to filter the items based on device name, hardware class, hardware path, host, status and/or detection date.
  - Enter the search criteria in the respective field and click 'Apply'.
- To display all the items again, remove / deselect the search key from filter and click 'OK'.
- EM returns 20 results per page when you perform a search. To increase the number of results displayed per page up to 200, click the arrow next to 'Results per page' drop-down.
- Use the left and right arrows and the page numbers at the bottom to navigate to the page you want to view.

### Generate a report containing log of device connection attempts

- Click 'Security Sub-Systems' > 'Device Control'
- Click the funnel icon  to apply filters to the report.
- Click the 'Export' button and choose 'Export to CSV':



The screenshot shows the 'Export' button circled in red. Below it, the 'Export to CSV' button is highlighted with a mouse cursor. The table below contains the following data:

	DATE DETECTED	HARDWARE CLASS	HARDWARE PATH
Cisco AnyConnect Secure Mobility Client Virtual Miniport Adapter for Windows	2017/12/11 03:30:00 PM	4D36E972-E325-11CE- BFC1-08002BE10318	ROOT\NET\0000
WAN Miniport (PPPOE)	2017/11/03 01:43:37 PM	4D36E972-E325-11CE- BFC1-08002BE10318	ROOT\MS_PPPOEMINIPOINT\0000
Microsoft ISATAP	2017/10/27 12:27:31 PM	4D36E972-E325-11CE- BFC1-08002BE10318	ROOT\ISATAP\0001

The report will be generated in .csv file format.

Report has been created. Please, check  
«[Reports](#)» in dashboard

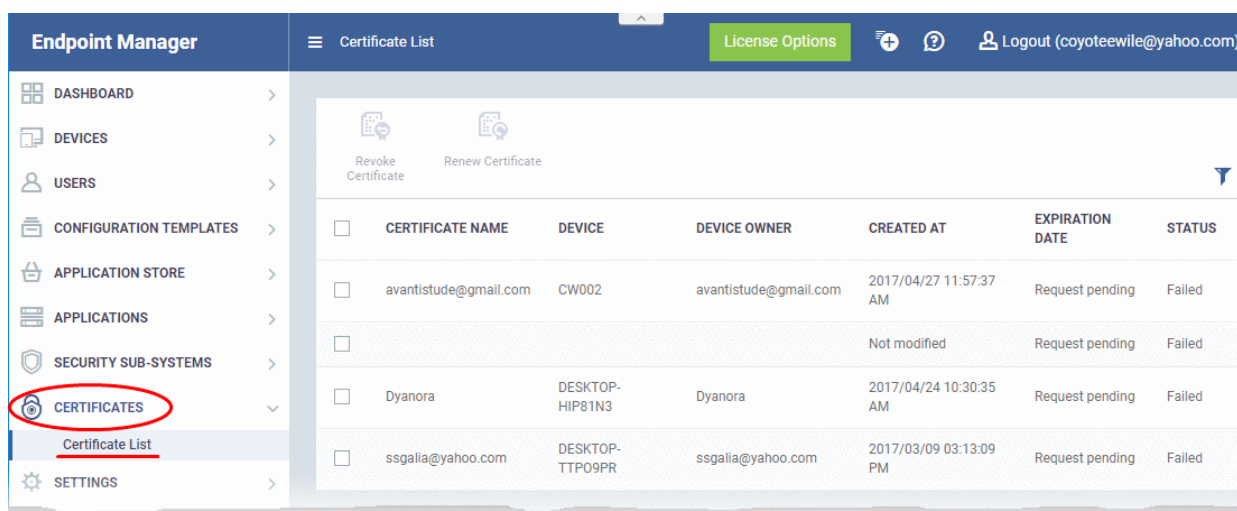
The report can be accessed in the 'Dashboard' > 'Reports' interface. See **Reports** in **The Dashboard** if you need more help with this interface.

## 10. Manage Certificates Installed on Devices

- Click 'Certificates' > 'Certificate List'
- The 'Certificate List' interface lets you view and manage client and device certificates acquired from Sectigo Certificate Manager (SCM) and installed on managed devices by Endpoint Manager.
- You can revoke certificates that are no longer required and renew certificates that are nearing expiry.
- The 'Certificate List' interface will be available only if you have integrated EM with your SCM account. For more details, see [Integrate with Sectigo Certificate Manager](#).


### To open the 'Certificate List' interface

- Click 'Certificates' > 'Certificate List'

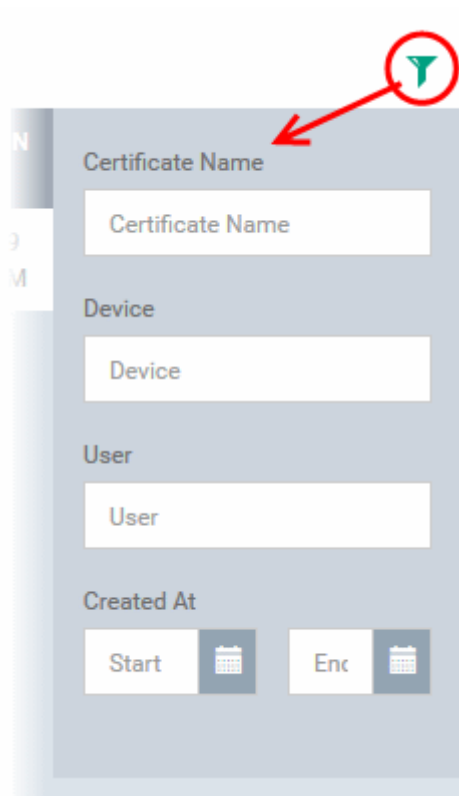


Certificate List - Column Descriptions	
Column Header	Description
Certificate Name	The label for identifying the certificate
Device	The name of the device on which the certificate was installed
User	The name or email address of the user for whom the certificate was issued.
Created At	Displays the precise date and time at which the certificate request was created.
Expiration Date	The date and time at which the validity of the certificate expires.
Status	Indicates whether the certificate is active, revoked or expired.

### Sorting, Search and Filter Options

- Click any of the 'Certificate Name', 'Device', 'User' or 'Created At' column headers sorts the items based on alphabetical order of entries in that column.
- Click the funnel button  at the right end to open the filter options.





The screenshot shows a search filter interface with the following fields:

- Certificate Name**: Input field with placeholder text "Certificate Name".
- Device**: Input field with placeholder text "Device".
- User**: Input field with placeholder text "User".
- Created At**: Two date selection buttons labeled "Start" and "End", each with a calendar icon.

- To display all the items again, remove / deselect the search key from filter and click 'OK'.
- EM returns 20 results per page when you perform a search. To increase the number of results displayed per page up to 200, click the arrow next to 'Results per page' drop-down.

## Manage Certificates

- To revoke an unwanted certificate, select it and click 'Revoke Certificate'
- To renew an expired certificate, select it and click 'Renew Certificate'.

# 11. Configure Endpoint Manager

- The 'Settings' tab lets you configure email notifications, active directory, Google and Apple device certificates, and more.
- You can also manage subscriptions, renew/upgrade licenses and view support information from this interface.

The screenshot shows the Endpoint Manager web interface. The left sidebar contains a navigation menu with 'SETTINGS' highlighted by a red box. The main content area is titled 'APNs Certificate' and shows details for a certificate. The 'Certificate Details' section includes fields for Country name (India), Locality name (Madras), Organization name (Saddle and Pedals), Organization unit name (Sales), Common name (saddleandpedals.net), and Email. There are 'Renew' and 'Delete' buttons. The 'Additional Info' section shows the Activation date (2018/09/04 15:40:37 PM) and Expiry date (2019/09/04 15:40:37 PM).

The following sections provide more details on each area:

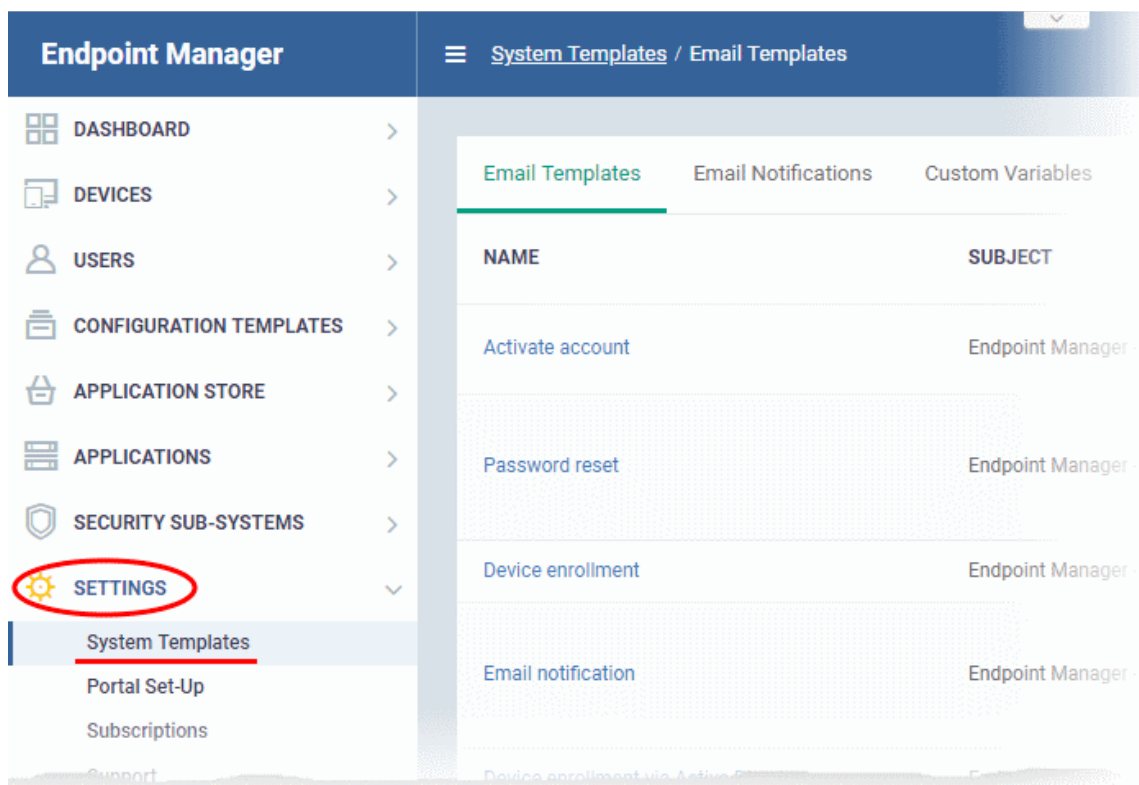
- **Email Notifications, Templates and Custom Variables**
  - **Configure Email Templates**
  - **Configure Email Notifications**
  - **Create and Manage Custom Variables**
  - **Create and Manage Registry Groups**
  - **Create and Manage COM Groups**
  - **Create and Manage File Groups**
- **Endpoint Manager Portal Configuration**
  - **Import User Groups from LDAP**
  - **Add Apple Push Notification Certificate**
  - **Configure the EM Android Client**
    - **Configure General Settings**
    - **Configure Android Client Antivirus Settings**
    - **Add Google Cloud Messaging (GCM) Token**
  - **Configure EM Windows Client**
  - **Managing Endpoint Manager Extensions**
  - **Configure Endpoint Manager Reports**
  - **Integrate with Sectigo Certificate Manager**
  - **Set-up Administrators Time Zone**

- **View and Manage Licenses**
  - **Upgrade or Add a License**
- **View Version and Support Information**

## 11.1. Email Notifications, Templates and Custom Variables

- Click 'Settings' > 'System Templates'

The 'System Templates' area lets you to manage email templates, configure variables and set file groups that can be used in profile settings.



The following sections explain how to:

- **Configure Email Templates**
- **Configure Email Notifications**
- **Create and Manage Custom Variables**
- **Create and Manage Registry Groups**
- **Create and Manage COM Groups**
- **Create and Manage File Groups**

## 11.1.1. Configure Email Templates

- Click 'Settings' > 'System Templates' > 'Email Templates'
- Email templates contain the content for Endpoint Manager's system emails. Examples include templates for account activation, device enrollment and password resets.
- Due to their importance, you cannot delete these templates or create new templates. You can, however, modify the contents of a template. The preset email templates are:
  - **Activate account** - Sent only to new admins to activate their account. These mails are not sent to people with the 'User' role (your end-users/device owners). Users receive a different enrollment mail which you can disable during the csv user import process if required.
  - **Password reset** - Sent to any user that requests a new password.
  - **Device enrollment** - Sent to end-users. Contains instructions on how to add their device to Endpoint Manager.
  - **Email notification** - Sent on the occurrence of certain events. You can configure the recipients of these mails, and the events that generate them, in the 'Email Notifications' tab.
  - **Device enrollment via Active Directory** - Sent to users imported from Active Directory when you enroll their devices. You can enable or disable this mail in 'Settings' > 'Portal Set-Up' > 'Active Directory' > click the name of an LDAP domain > 'Enroll' > 'Edit'.

### View and manage email templates

- Click 'Settings' > 'System Templates'.
- Click the 'Email Templates' tab

Email Templates						
Email Templates		Email Notifications	Custom Variables	Registry Variables	COM Variables	File Groups Variable ▶
NAME	SUBJECT	INCLUDED VARIABLES				
Activate account	Endpoint Manager - Account ...	%username% - Name of registered user %activateLink% - Link for Activate and set password				
Password reset	Endpoint Manager - Passwor...	%username% - Name of registered user %linkResetPass% - Link for reset password %supportEmail% - Support email %currentDate% - Current date				
Device enrollment	Endpoint Manager - Device E...	%linkEnroll% - Link of enrollment the client				
Email notification	Endpoint Manager - Email No...	%eventDatetime% - Event timestamp %eventTitle% - Event title %deviceUrl% - URL device detail view %description% - Additional data for this event				
Device enrollment via Active Directory	Endpoint Manager - Device E...	%linkEnroll% - Link to enrollment page				

Email Templates- Column Descriptions	
Column Heading	Description
Name	The label of email template. This cannot be changed.

	<ul style="list-style-type: none"> <li>Click the name of a email template to view and edit its content and variables.</li> <li>See <b>View and Manage an Email Template</b> for more details</li> </ul>
Subject	The email subject. You can modify this as required.
Included Variables	<p>Email variables are dynamic fields which reference data held elsewhere. For example, the %username% variable will actually show the real username of the email recipient.</p> <ul style="list-style-type: none"> <li>The 'Included Variables' column tells you the name and purpose of each variable in a template.</li> <li>You can add or remove variables if you edit the template.</li> <li>You can create your own variables in 'Settings' &gt; 'System Templates' &gt; 'Custom Variables'</li> <li>You can view other variables in the 'Registry variables', 'COM variables' and 'File Group variables' tabs.</li> </ul>

## View and Manage an Email Template

- Click 'Settings' > 'System Templates'
- Click the 'Email Templates' tab
- Click the name of the template that you want to edit

This opens the full email text. The 'Activate Account' template is shown below:

**Activate account**

**Email Editor**

 Edit

**Email Subject**  
Endpoint Manager - Account activation

**Email Body**  
Dear %username%,

Congratulations, your Endpoint Manager account has been successfully created.  
Please click the following link to activate your account and set up your password:

%activateLink%

- Click the edit button if you want to modify the subject line, body text or variables.

**Activate account**

**Email Editor** Cancel Save

**Email Subject**  
Endpoint Manager - Account activation

**Email Body**

Source ✂ 📄 📧 ↶ ↷

**B** **I** **U** **S**  $x_2$   $x^2$  **I<sub>x</sub>** ☰ ☰ ☰ ☰ 🔗 🗨 🚩 📅

Font ▼ Size ▼ User var... ▼

Dear %username%,

Congratulations, your Endpoint Manager account has been successfully created.  
Please click the following link to activate your account and set up your password:

%activateLink%

- Edit the subject line and/or email content as required
- You can remove variables by simply deleting the %variable% from the body text.
- Insert a variable - Place your mouse cursor where you want the variable to appear. Click the 'User Variables' button to insert the variable.

**Note:** Each email template has a limited selection of user and device variables.

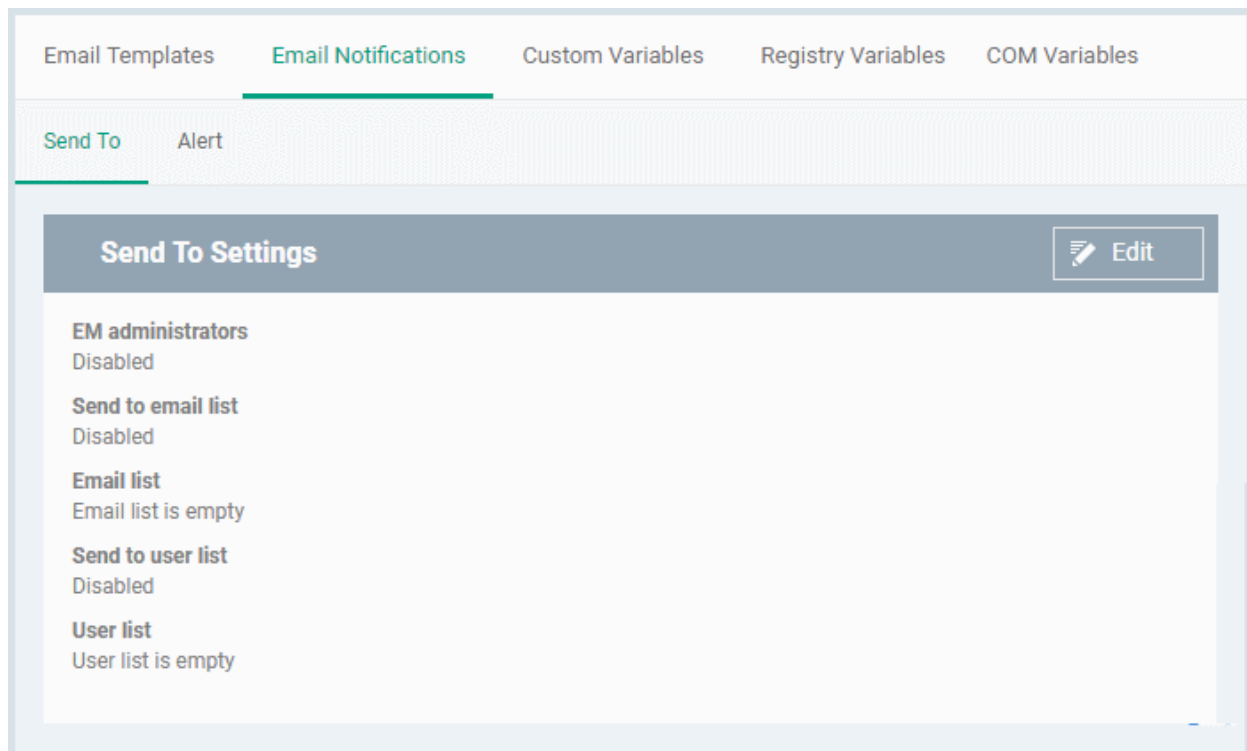
- Click 'Save'. Your changes will take effect immediately.

### 11.1.2. Configure Email Notifications

- Click 'Settings' > 'System Templates' > 'Email Notifications'
- Endpoint Manager can send alert emails to admins and users when certain events happen.
- Example events include detection of a new threat, or when a mobile device is removed from management.
- The 'Email Notifications' tab lets you set alert recipients and which events are covered.
  - The 'Email Notification' template contains the actual content of this mail. Click 'Settings' > 'System Templates' > 'Email Templates' to view and edit this content.

#### To configure email notifications

- Click 'Settings' > 'System Templates'.
- Click the 'Email Notifications' tab



The interface has two tabs.

- Send To - Configure alert recipients
- Alerts - Select which events generate an alert

## Send to

- Click the 'Edit' button at top-right to modify the list of recipients



Send To    Alert

---

**Send To Settings** Edit

**EM administrators**  
Disabled

**Send to email list**  
Disabled

**Email list**  
Email list is empty

**Send to user list**  
Disabled

**User list**  
User list is empty

Send To    Alert

---

**Send To Settings** Cancel Save

EM administrators

Send to email list

**Email list**

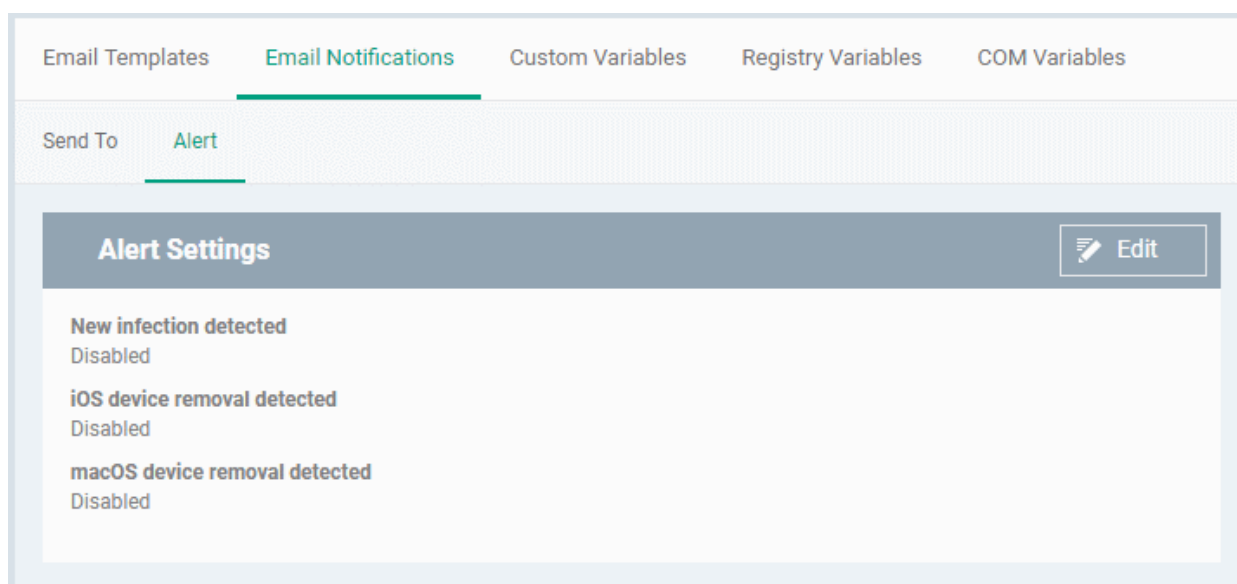
Send to user list

**User list**

- **EM Administrators** - Send alerts to every Endpoint Manager admin
- **Send to Email List** - Type the email addresses of additional recipients. Press space after each address to enter another email address.
- **Send to User List** - Select users that have been added to endpoint manager. You can view a list of current users in 'Users' > 'User List'.

## Alerts

The alerts interface lets you select the events for which alerts are sent.

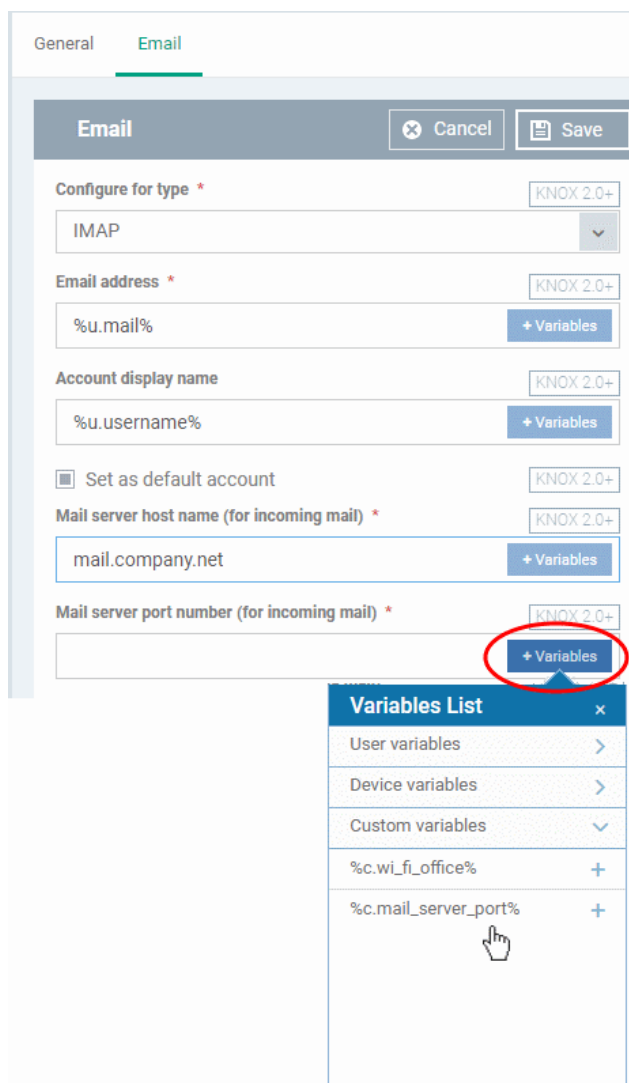


- **New Infection Detected** - Sends an alert if malware is found on a managed device
- **iOS Device Removal Detected** - Sends an alert if an iOS device is removed from management.
- **Mac OS Device Removal Detected** - Sends an alert if a MAC is removed from management.
- Click the 'Edit' button at top-right to enable/disable specific alerts.

### 11.1.3. Create and Manage Custom Variables

- Click 'Settings' > 'System Templates' > 'Custom Variables'
- A variable is a string of text which references a piece of data. For example, '%u.mail%' is the variable for a user's email address.
- Variables can be added to email templates and profiles and will dynamically populate the field with the piece of data requested.
- There are three types of variable - 'User', 'Device' and 'Custom'. The first two types, 'user' and 'device', are preset and cannot be edited.
  - **User variables** - Fetch data about a specific user. For example, the user's login name or email address.
  - **Device variables** - Fetch data about a specific device. For example, the IMEI number or phone number of a mobile device.
  - **Custom variables** - Fetch data about an item of your choice. For example, you could create a custom variable called 'secure\_mail\_port' with a value of '2525'. You can then use this variable in the 'Email' section of an Android or iOS profile. If you decide to change the port number in future, you can easily update all devices by changing the variable value instead of editing multiple profiles.

- Illustration - Click 'Configuration Templates' > 'Profiles' > open an Android profile > Click 'Add Profile Section' > 'Email'. Click the 'Variables' button in any field to view available variables:



## View, manage and create custom variables

- Click 'Settings' > 'System Templates'
- Click the 'Custom Variables' tab

KEY	VALUE	AUTHOR	LAST MODIFIED BY	CREATED
<input type="checkbox"/> %c.wi-fi-office%	wifi_ssid	demo_q3@yopmail....	Not modified	2016/10/18 11:48:5...

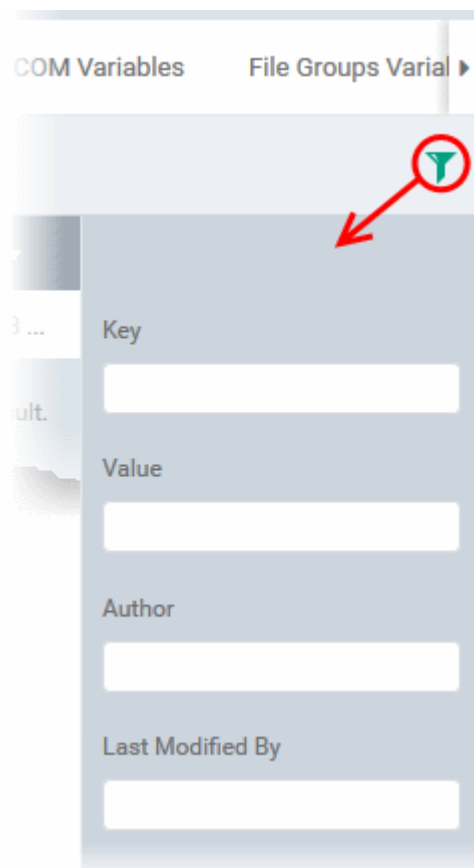
Results per page: 20 | Displaying 1-1 of 1 result.

Custom Variables - Column Descriptions	
Column Heading	Description
Key	Friendly name which identifies the variable.

	<ul style="list-style-type: none"> <li>You select a variable you want to use by choosing the key name.</li> <li>Click the key name to edit the key value.</li> </ul>
Value	The value to be substituted for the key
Author	<p>The admin who created the custom variable.</p> <ul style="list-style-type: none"> <li>Click the admin name to view their details. See <b>View User Details</b> if you need help with this.</li> </ul>
Last Modified By	<p>The admin who most recently edited the variable.</p> <ul style="list-style-type: none"> <li>Click the admin name to view their details. See <b>View User Details</b> if you need help with this.</li> </ul>
Created	The date and time the custom variable was added.

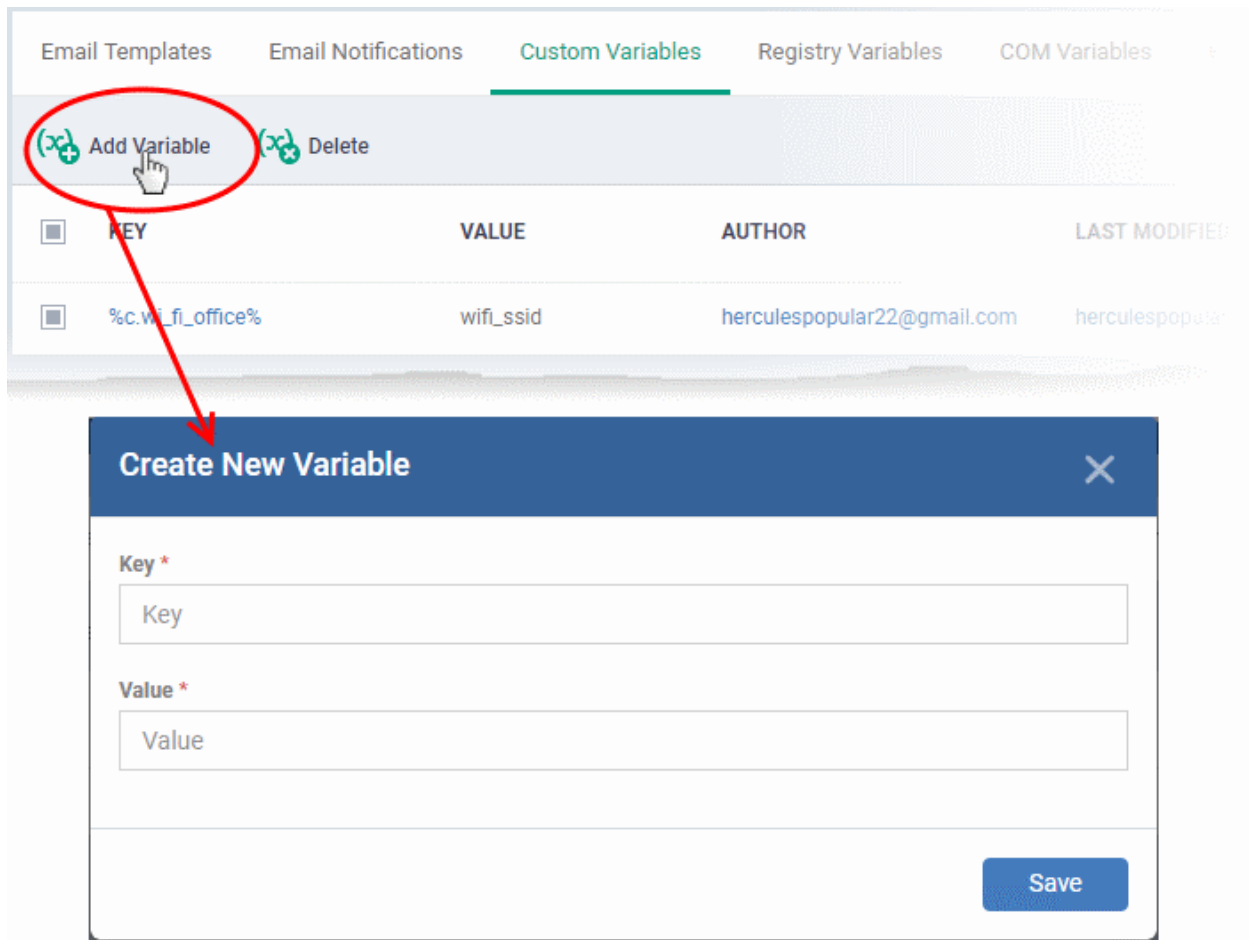
## Sorting, Search and Filter Options

- Click on any of the column headers to sort the items in ascending/descending order of entries in that column
- Click the funnel icon to search for custom variables based on filter parameters



### To create a new custom variable

- Click 'Settings' > 'System Templates' > 'Custom Variables' tab
- Click 'Add Variable'

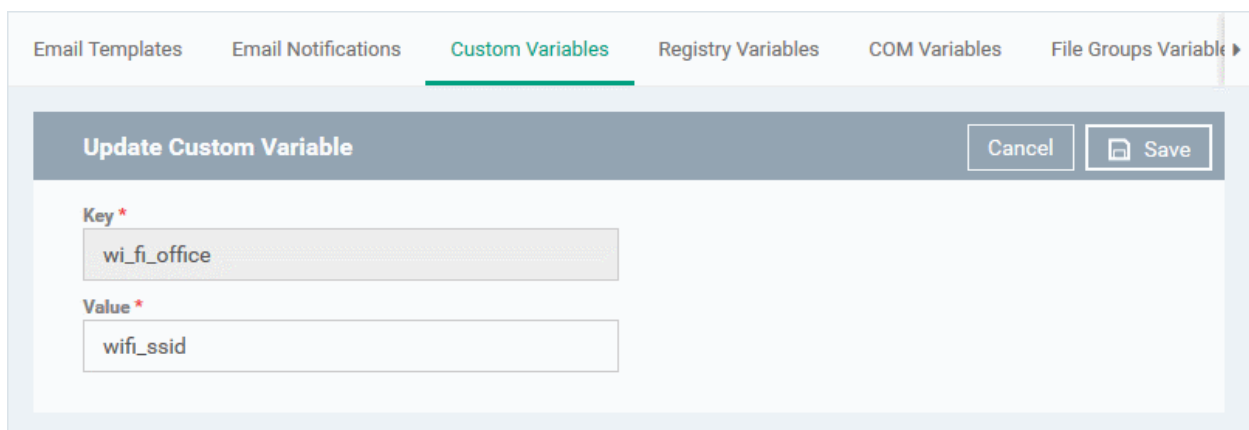


- **Key** - Enter a name for variable as it should appear in the Variables drop-down
- **Value** - Enter the value to be fetched for the key
- Click 'Save' to add the variable to EM.
- Repeat the process to add more variables.

### To edit a Custom Variable

- Click on the name of the 'Custom Variable' to be edited.

The 'Update Custom Variable' screen will appear.



- Edit the 'Key' and 'Value' as required and click the 'Save' button.

### To remove a Custom Variable

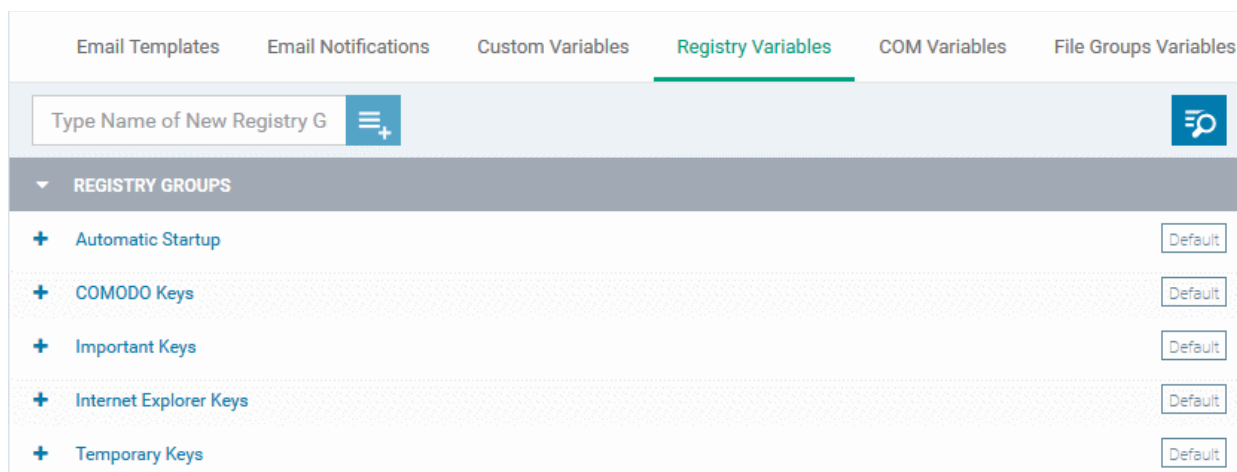
- Select the custom variable to be removed from the list and click the 'Delete' button at the top

## 11.1.4. Create and Manage Registry Groups

- Click 'Settings' > 'System Templates' > 'Registry Variables'
- The 'Registry Variables' tab contains references to pre-defined and custom registry groups.
  - A registry group is a collection of registry keys with similar attributes or scope.
  - For example, the 'Important Keys' group contains keys which are essential to the security and stability of the operating system. The 'Automatic Startup' group contains keys which load at Windows boot.
- Registry groups are useful when you want to apply an action to an entire class of keys. For example, you can exclude a registry group from containment when creating a profile.
- You can add new groups and edit existing groups as required.
- Groups in this interface are available for selection when configuring a Windows profile.

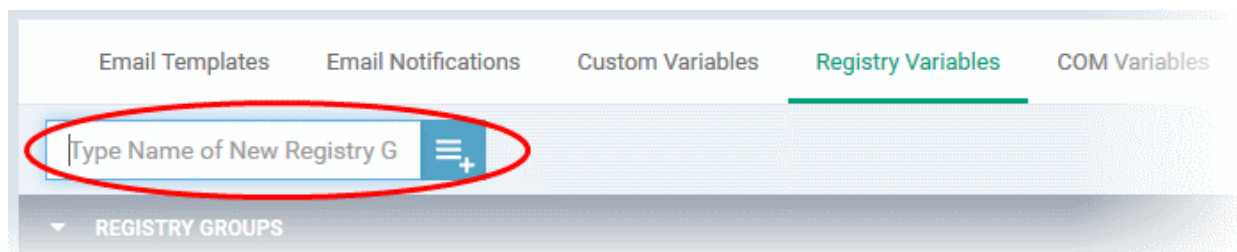
### To open the 'Registry Groups' interface

- Click 'Settings' > 'System Templates'
- Click the 'Registry Variables' tab



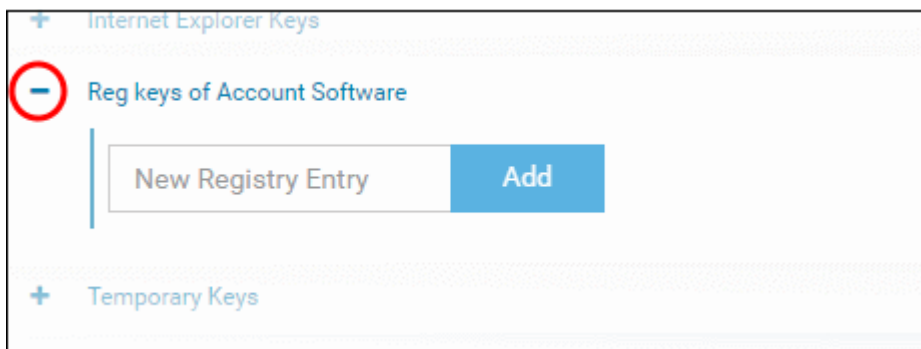
### To add a new Registry group

- Enter the name of the new Registry Group in the 'New Registry Group' field and click the '+' button.

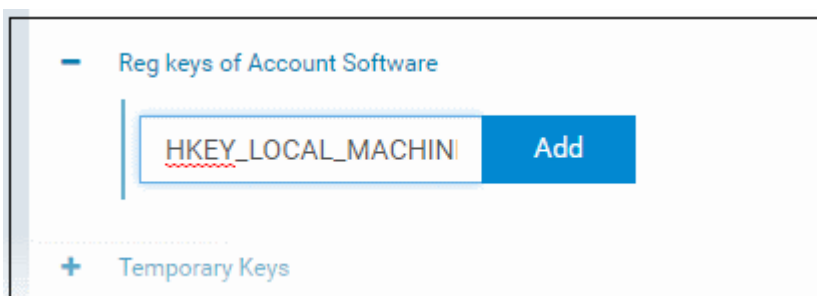


The new group will be added to the list. The next step is to add the Registry keys to the group.

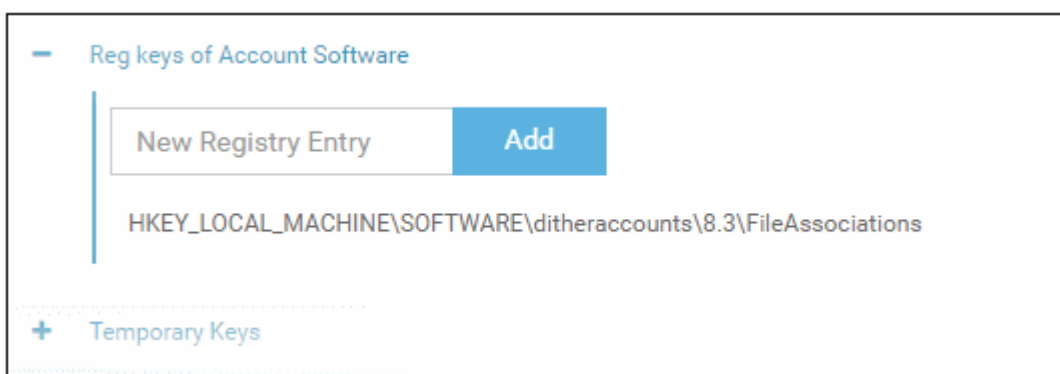
- Click the '+' at the left of the group name



- Enter the path of the registry key/value in the New Registry Entry field and click 'Add'

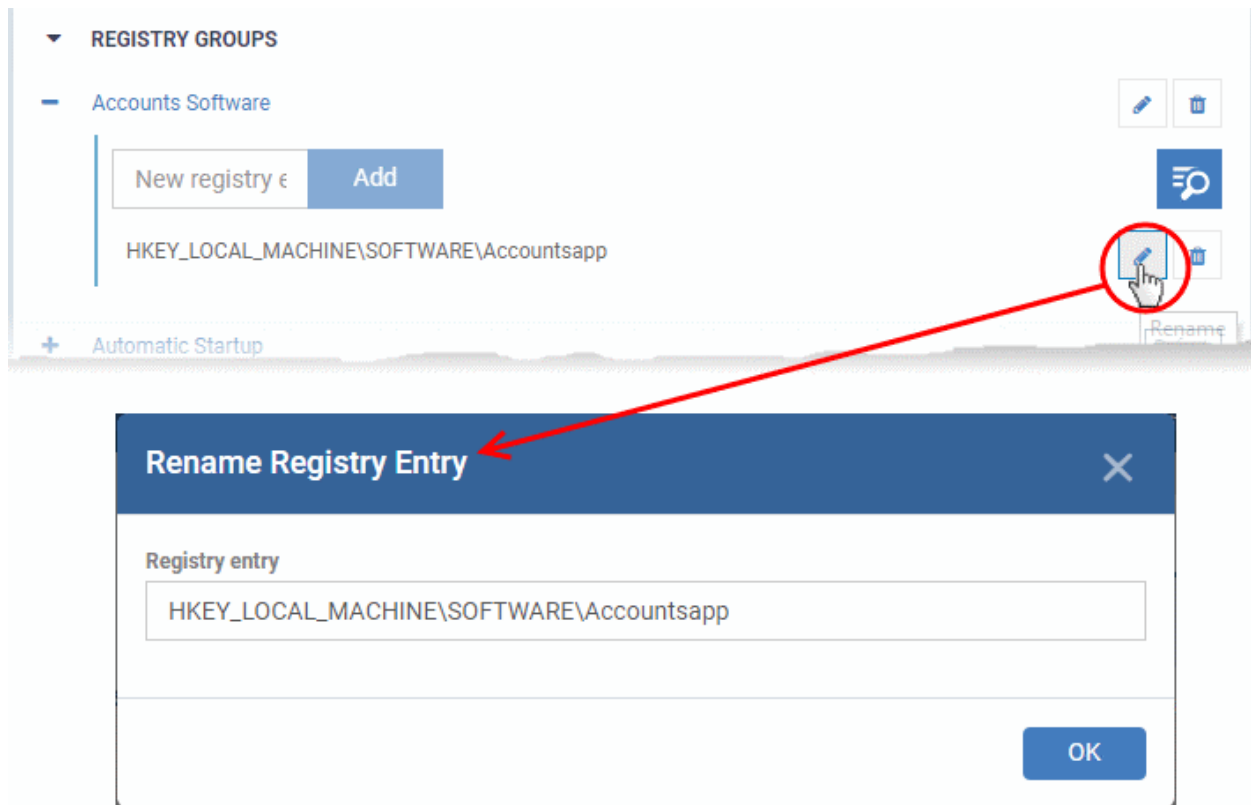


The key will be added to the group.

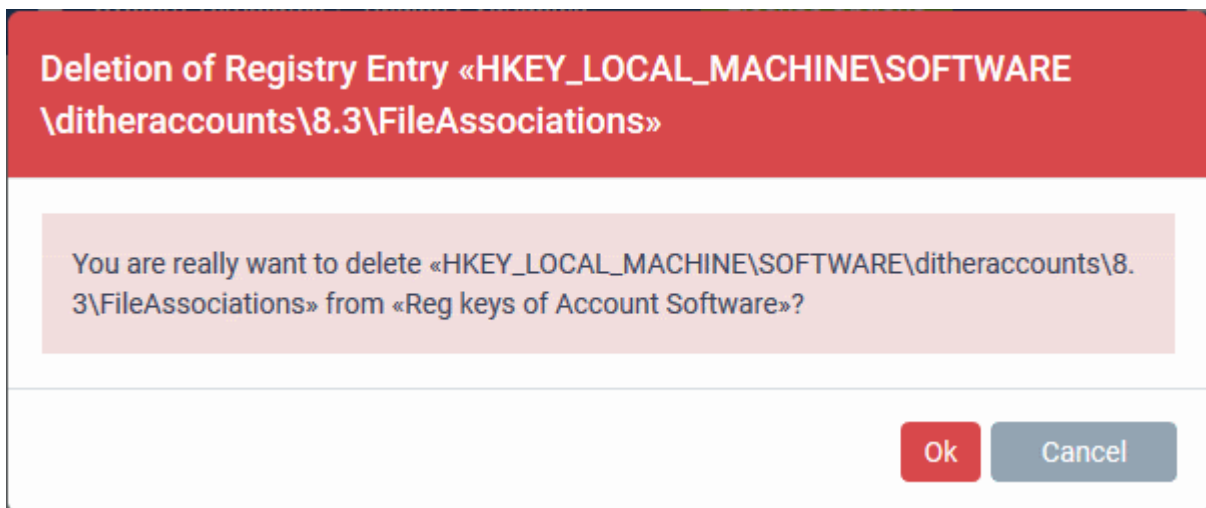


- Repeat the process to add more Registry keys and values to the group.
- To edit the key/value in the group, click the 'Edit' icon beside the key name.



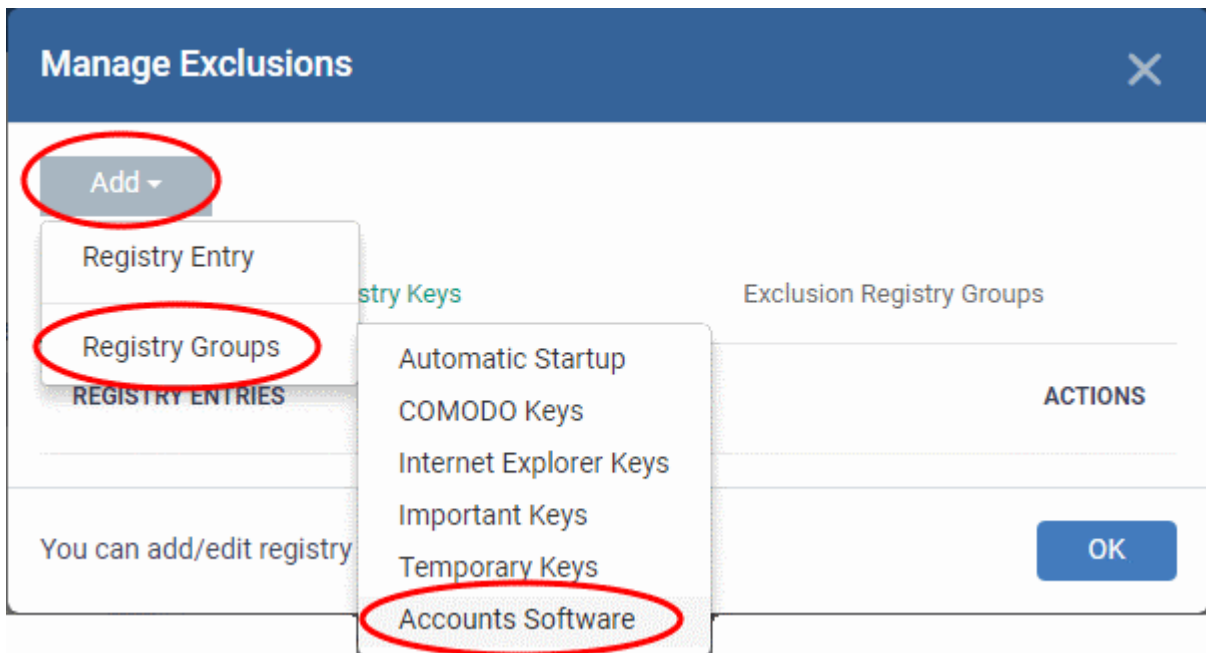


- Edit the entry and click 'OK' to save your changes
- To remove the key added by mistake or an unwanted key from the group, click the trash can icon beside the key name.



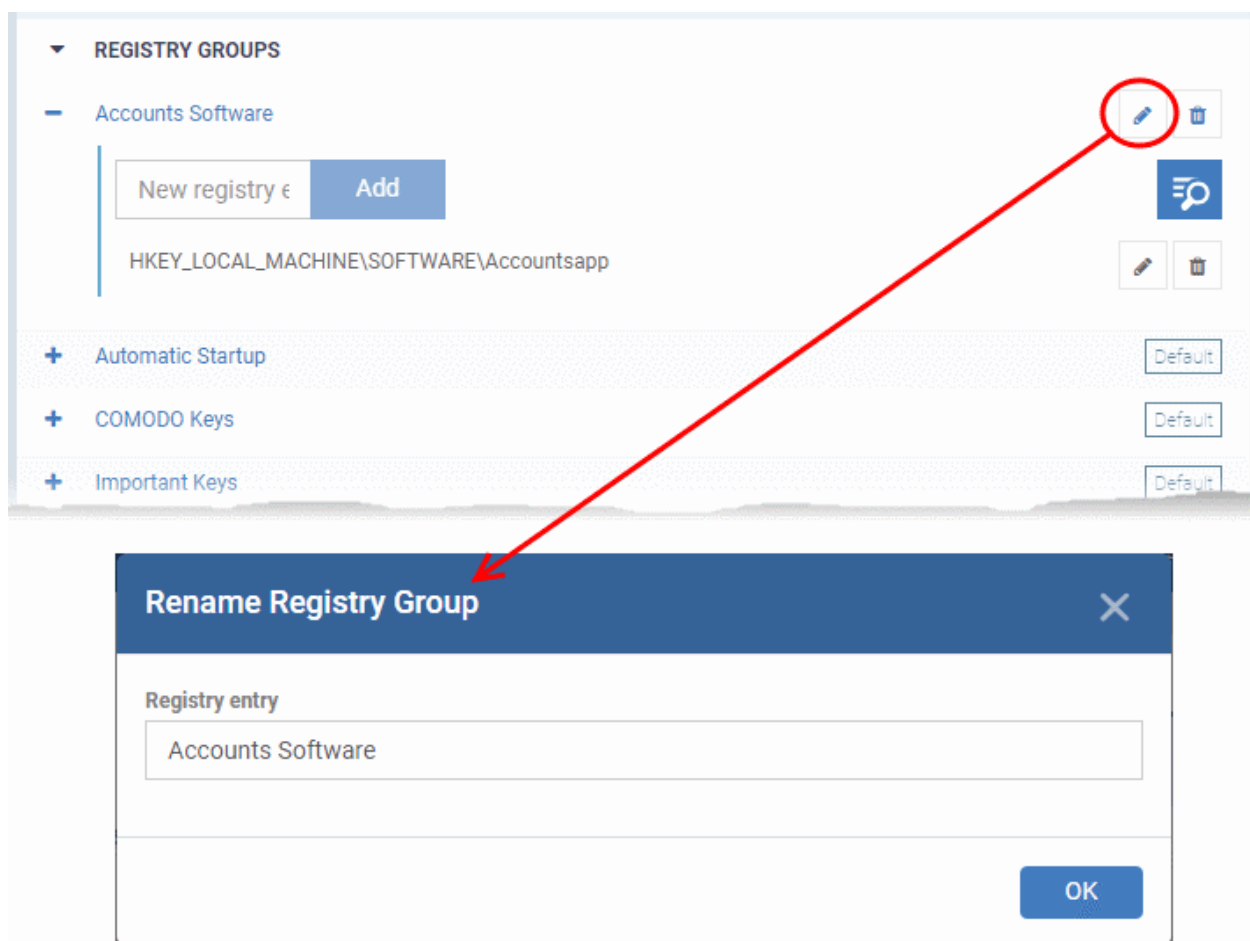
- Click 'OK' in the confirmation dialog.

Once a registry group is added, it will be available for selection while configuring Windows Profiles, for example in the 'Containment' > 'Settings' > 'Do not virtualize access to the specified registry keys/values' > 'Exclusions'.



### To edit the name of a Registry Group

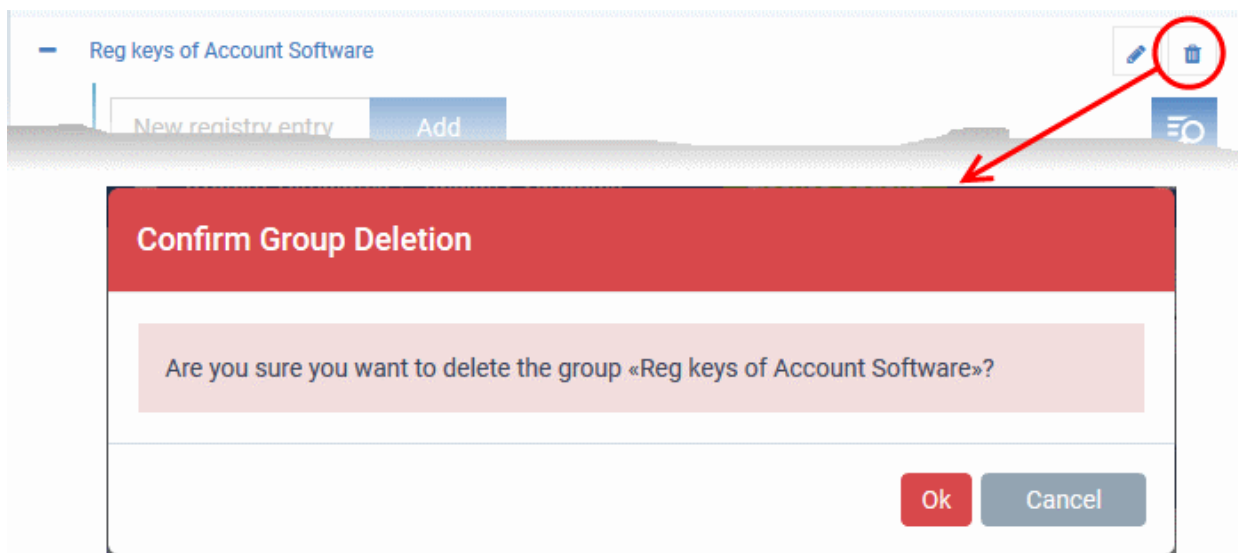
- Click the 'Edit' icon beside the Registry Group



- Enter the new name for the group in the 'Rename Registry Group' dialog and click 'OK'

### To remove a Registry Group

- Click the trash can icon beside the Registry Group



A confirmation dialog will appear.

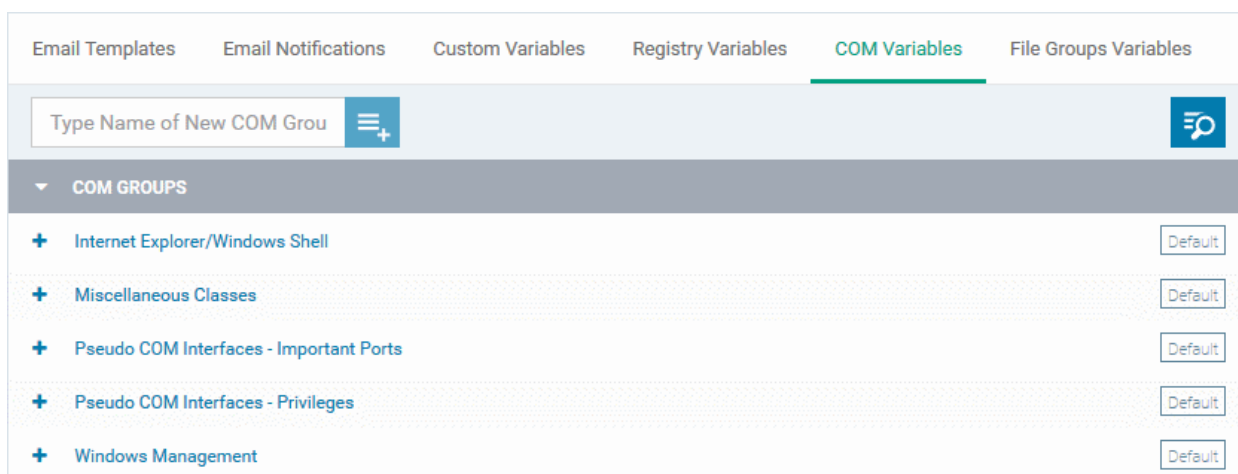
- Click OK in the confirmation dialog.

## 11.1.5. Create and Manage COM Groups

- Click 'Settings' > 'System Templates' > 'COM Variables'
- Each COM group is a handy collection of COM interfaces falling under a certain category.
- Endpoint Manager ships with a set of predefined COM Groups that are available for use in configuration profiles, for example to add a COM group to the 'Protected Objects' list in the HIPS settings of a Windows profile. If required, You administrators can add new COM Groups, edit and manage them.
- The 'COM Variables' tab in the 'System Templates' interface lets you view and manage pre-defined and custom COM groups.
- The groups added to this interface will be available for selection while configuring Windows profiles from the 'Profiles' interface.

### To open the 'COM Groups' interface

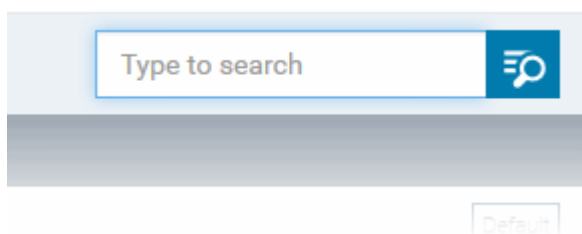
- Click 'Settings' > 'System Templates'
- Click the 'COM Variables' tab



The list of pre-defined and user-defined COM groups will be displayed. The default groups are indicated by 'Default' at their right and cannot be edited or deleted.

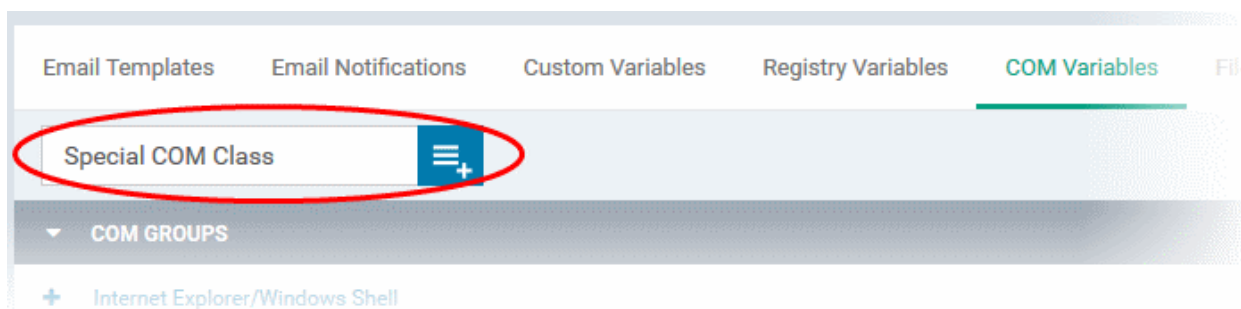
## Sorting, Search and Filter Options

- Click the 'COM Groups' column header will sort the items in ascending/descending order of the names of the groups.
- To filter or search for a specific COM group, click the search icon at the top right and enter the name of the group on part or full



## To add a new COM group

- Enter the name of the new COM Group in the 'Type Name of New COM Group' field and click the '+' button.

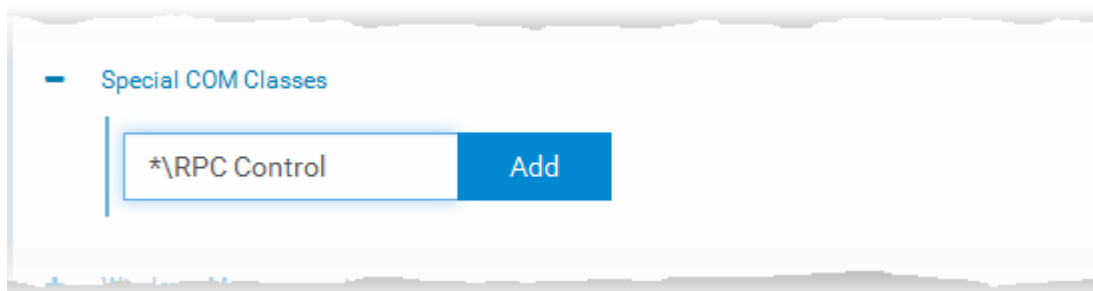


The new group will be added to the list. The next step is to add COM classes to the group.

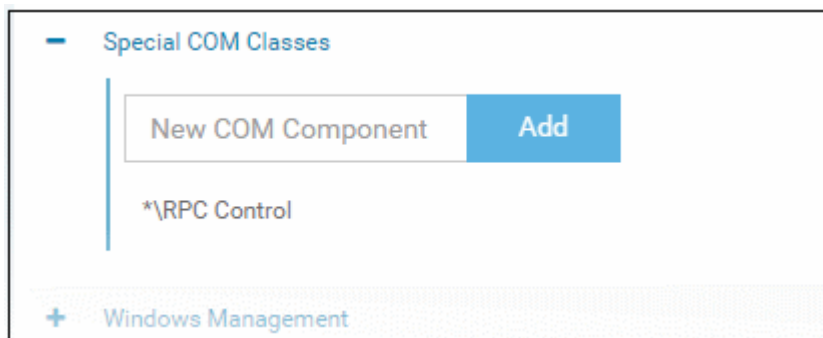
- Click the '+' at the left of the group name



- Enter the COM classes to be added to the group, in the 'New COM Component' field and click 'Add'

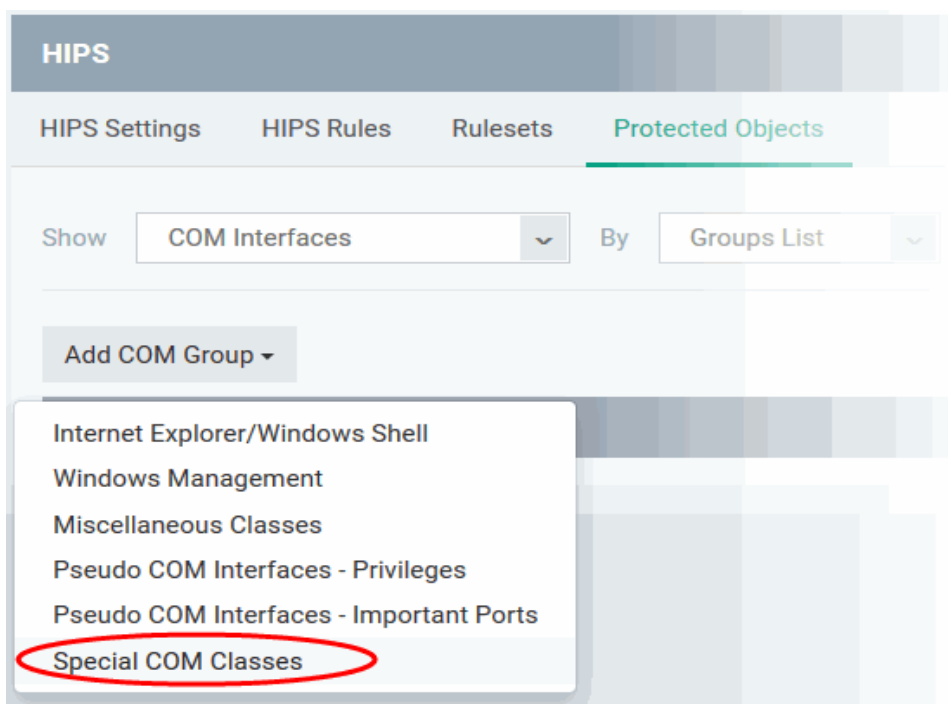


The COM class will be added to the group.

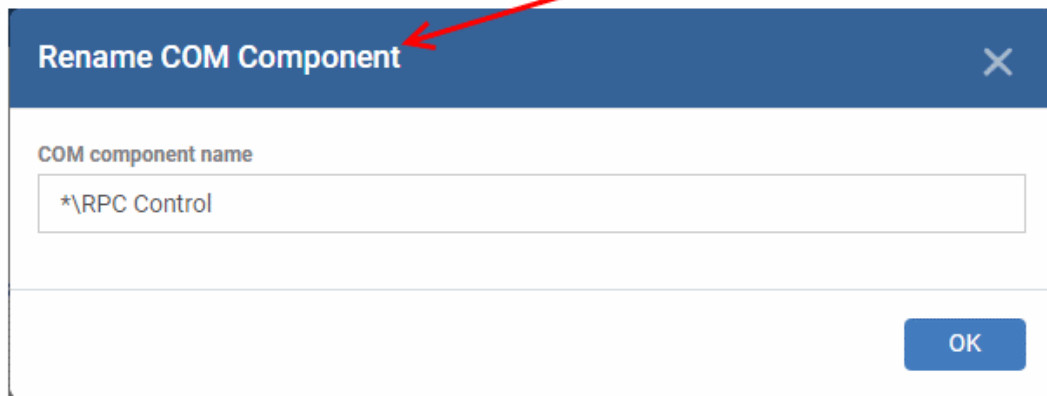


- Repeat the process to add more COM classes to the group.

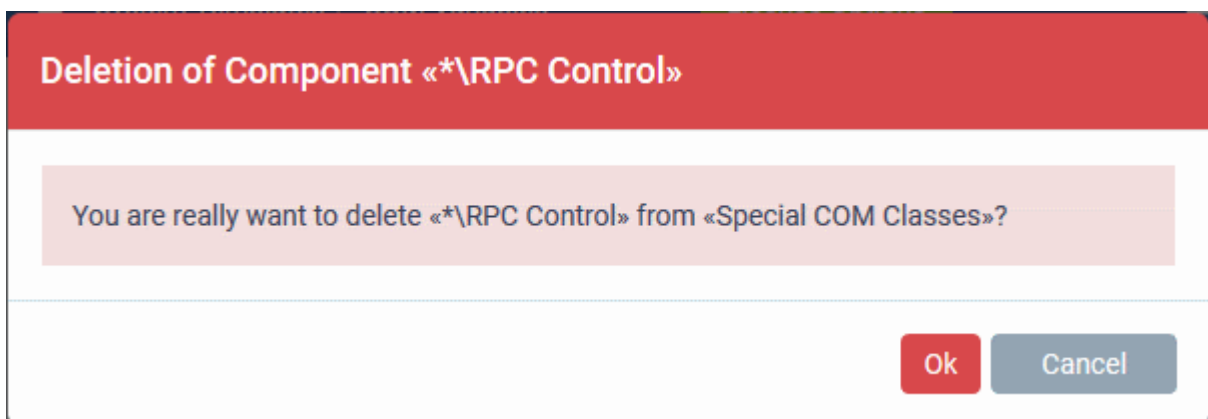
Once a COM group is added, it will be available for selection while configuring a Windows Profile, for example in the 'HIPS' > 'Protected Objects' > 'Groups List' interface.



- Click the pencil icon beside the class name to edit a class in the group,



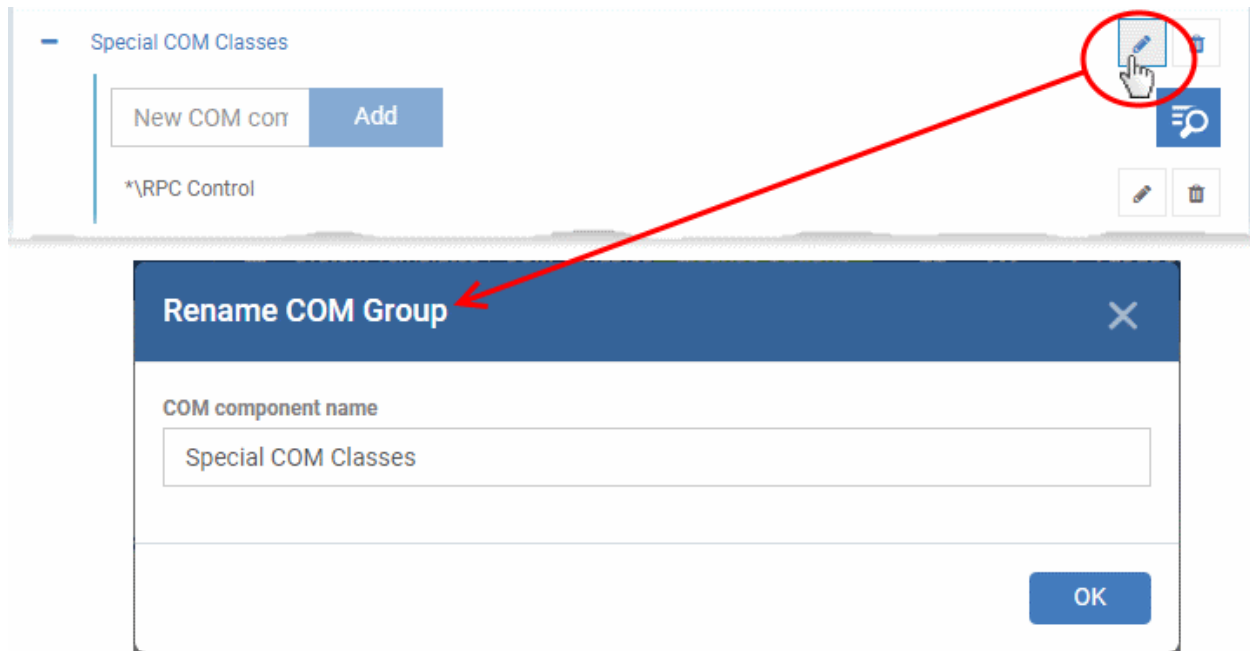
- Edit the entry and click 'OK' to save your changes
- Click the trash can icon beside the COM component name to remove the COM class added by mistake or an unwanted class



- Click 'OK' in the confirmation dialog.

### To edit the name of a COM Group

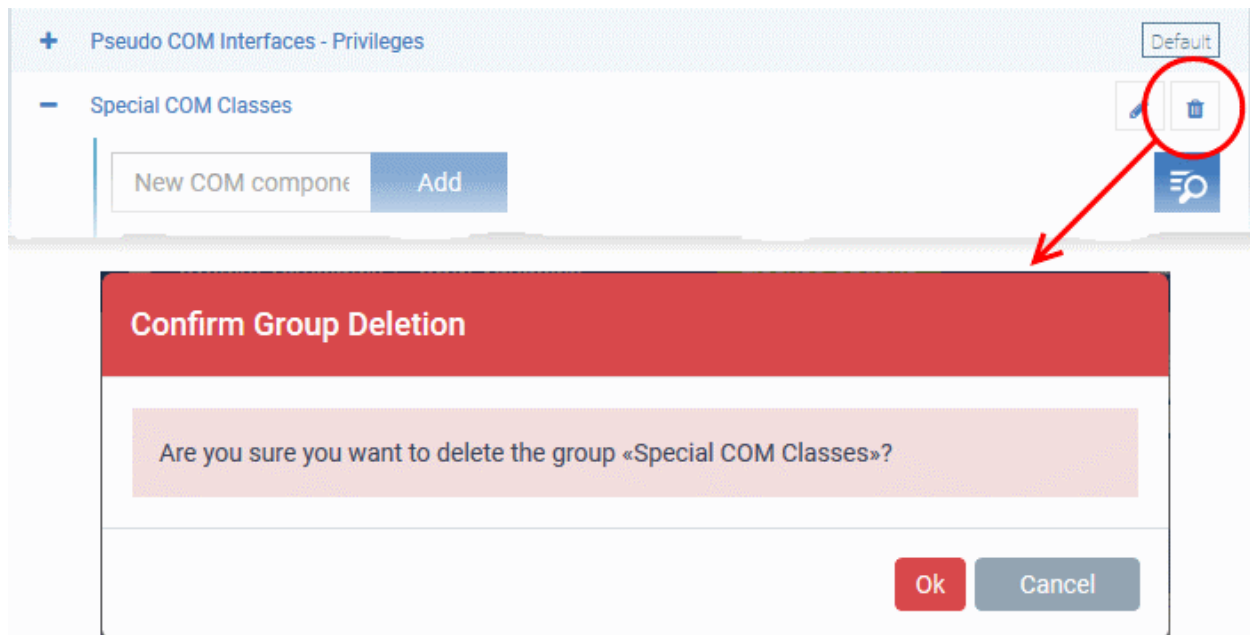
- Click the pencil icon beside the COM Group



- Enter the new name for the group in the Rename COM Group dialog and click 'OK'

## To remove a COM Group

- Click the Trash can icon beside the COM Group



- Click 'OK' in the confirmation dialog.

## 11.1.6. Create and Manage File Groups

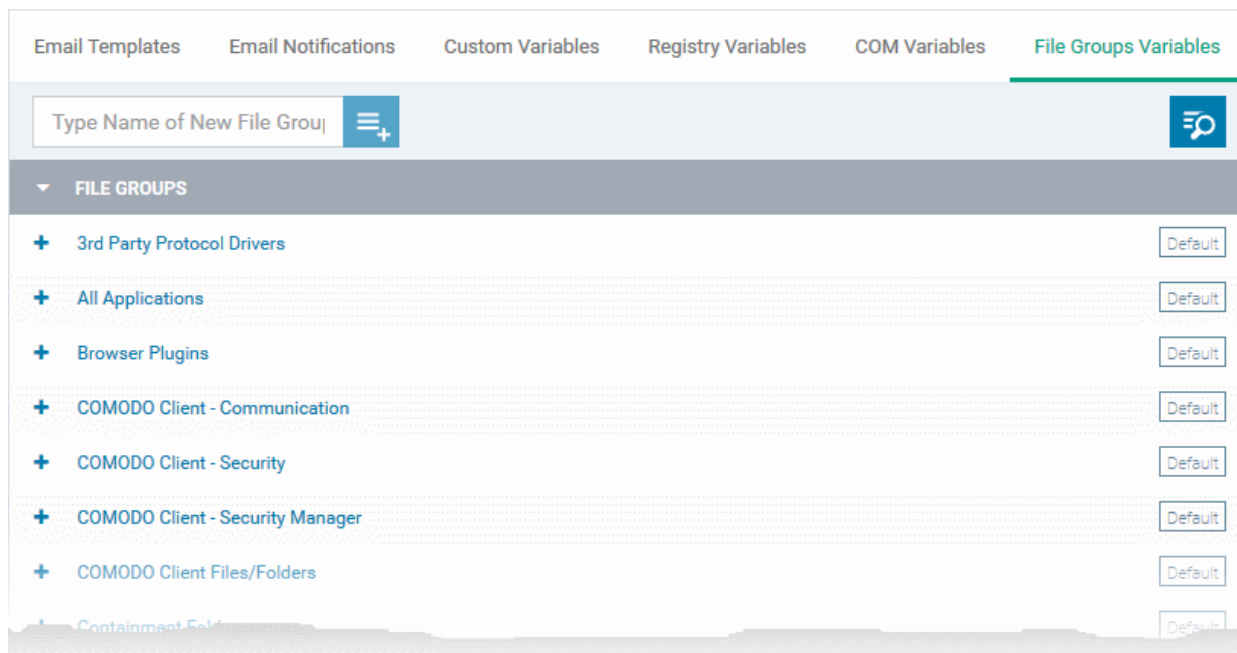
- Click 'Settings' > 'System Templates' > 'File Groups Variables'
- File Groups are handy, predefined groupings of one or more file types, which makes it easy to add them for various functions such as adding them to Exclusions for AV scans, HIPS monitoring, auto-containment rules and so on in Windows Profiles.
- Endpoint Manager ships with a set of predefined File Groups and if required administrators can add new File Groups, edit and manage them.



- The 'File Group Variables' tab in the 'System Templates' interface lets you view, create and manage pre-defined and custom file groups.
- The groups added to this interface are available for selection while configuring Windows profiles from the 'Profiles' interface.

### To open the 'File Groups' interface

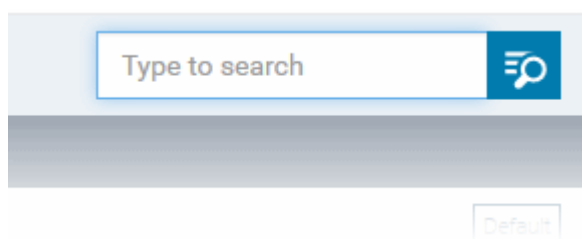
- Click 'Settings' > 'System Templates'
- Click the 'File Groups Variables' tab



The default groups are indicated by 'Default' at their right and cannot be edited or deleted.

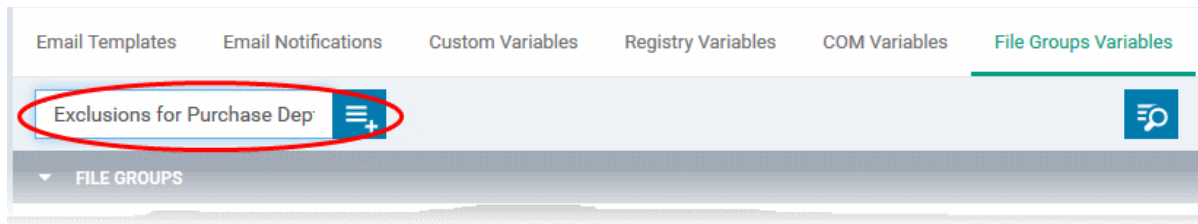
### Sorting, Search and Filter Options

- Click the 'File Groups' column header to sort the items in ascending/descending order of the names of the groups.
- To filter or search for a specific file group, click the search icon at the top right and enter the name of the group on part or full



### To add a new File group

- Enter the name shortly describing the group in the 'New File Group' field and click the '+' button



The new group will be added to the list. The next step is to add files to the group.

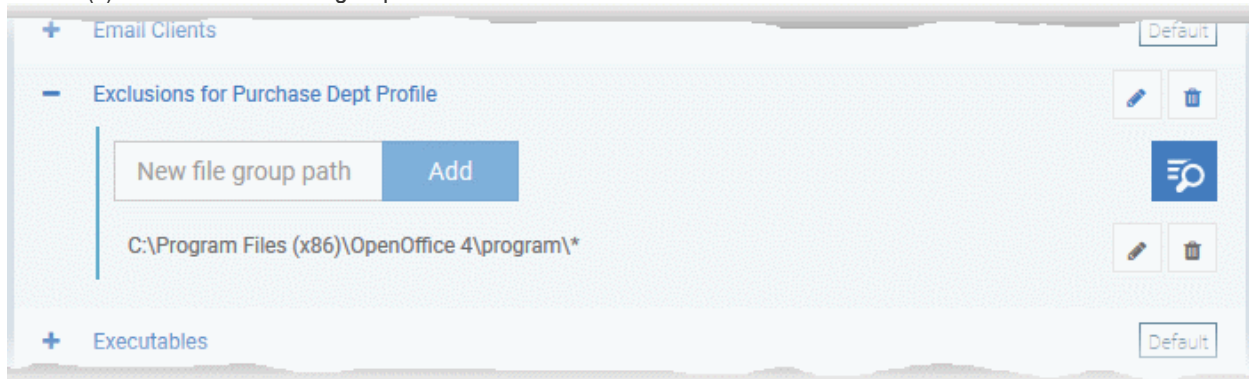
- Click the '+' at the left of the group name



- Enter the full standard folder/file path of the file to be added to the group in the 'New File Group Path' field and click 'Add'

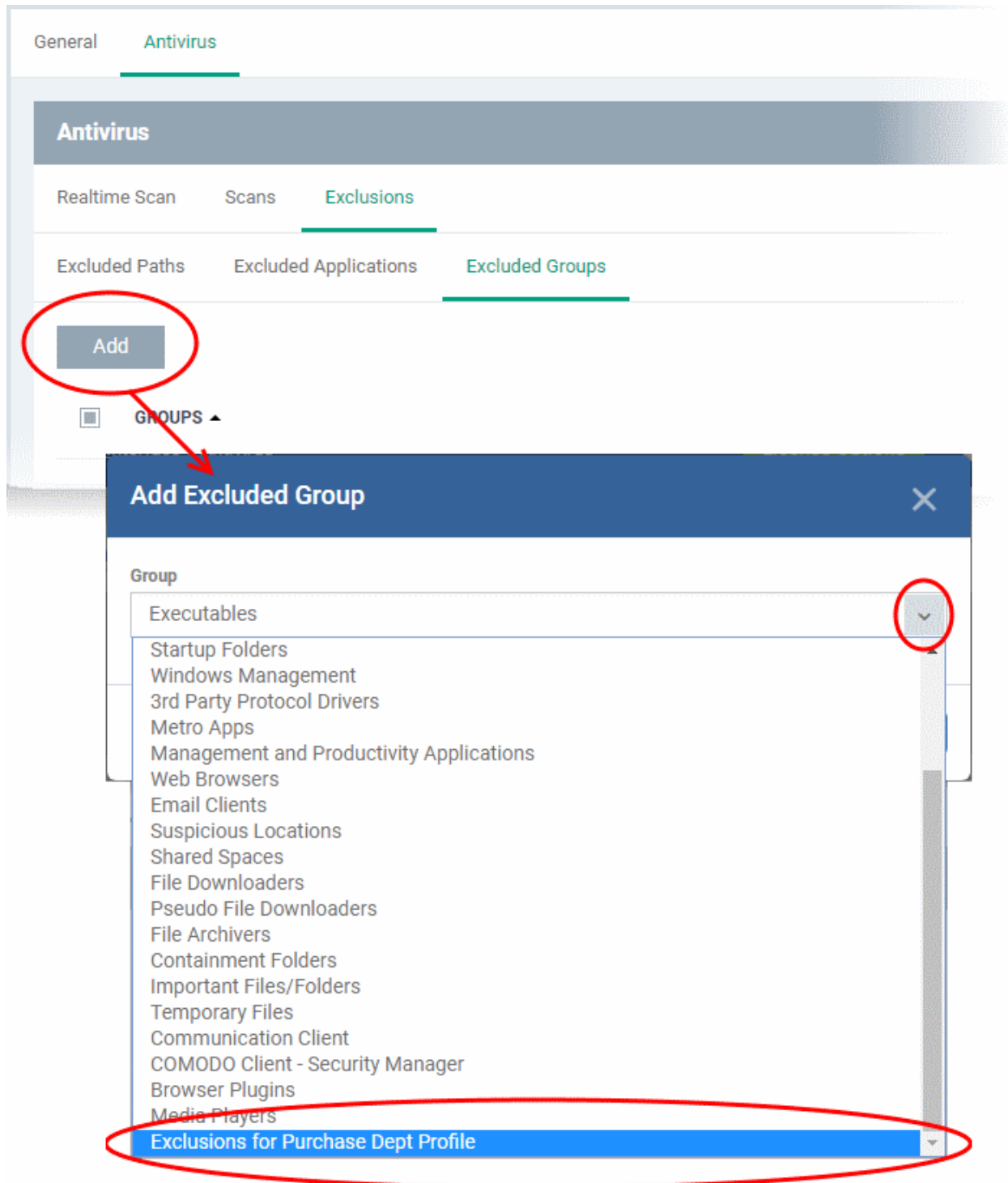
**Tip:** To include all the files in a folder, place the wildcard character in the place of file name in the folder path. For example: " C:\My Files\\* "

The file(s) will be added to the group.

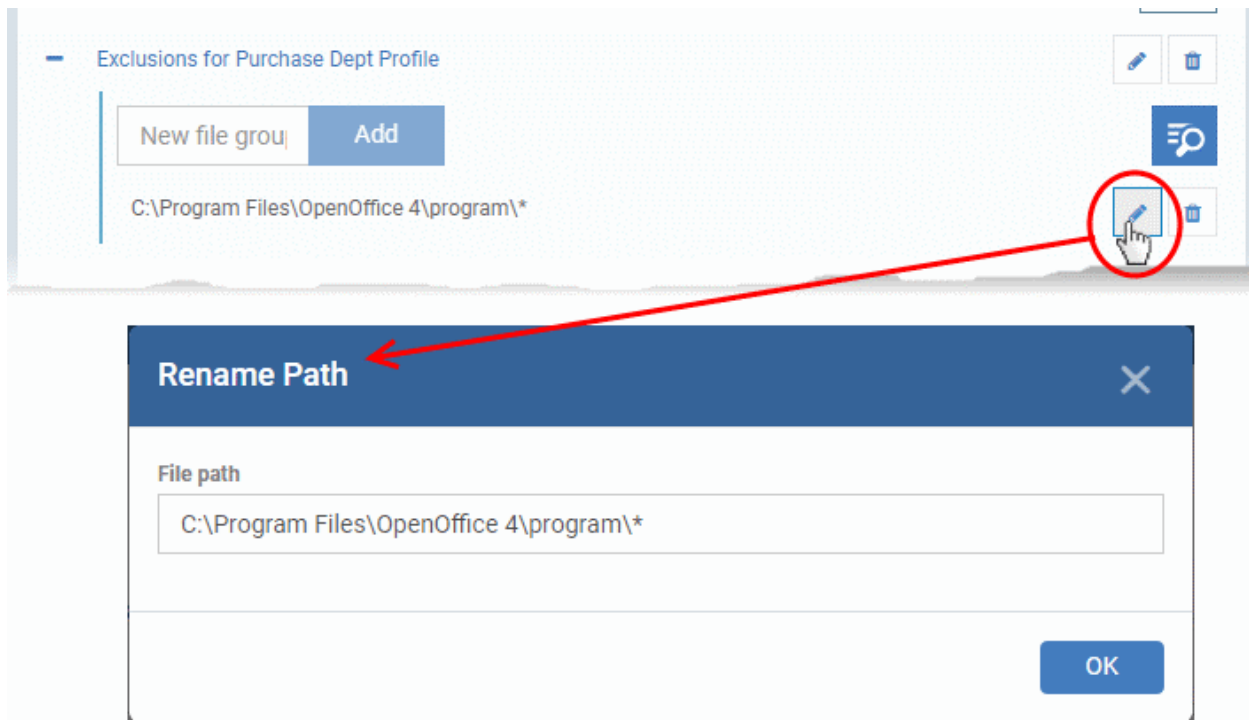


- Repeat the process to add more files to the group.

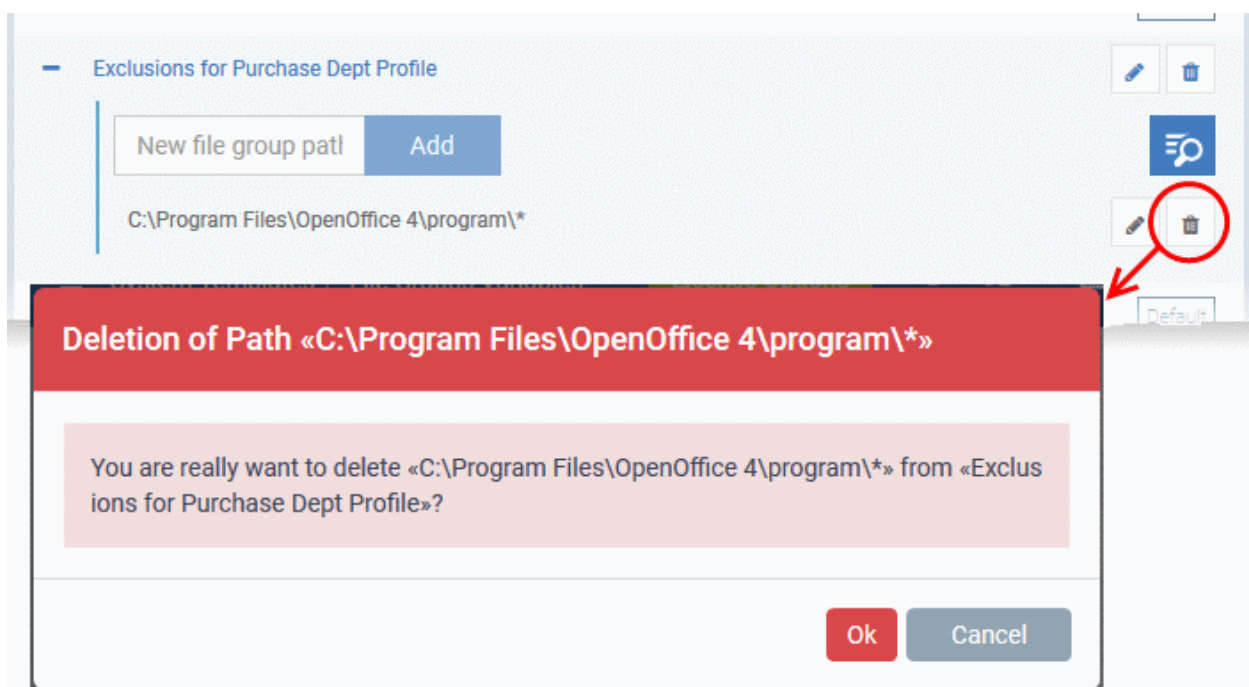
Once a File Group is added, it will be available for selection in applicable settings interfaces for defining the File Groups, example, for adding to 'Exclusions' list in 'Antivirus Settings' panel , in the 'Windows Profile' interface.



- Click the pencil icon beside the file name to edit the files in the group



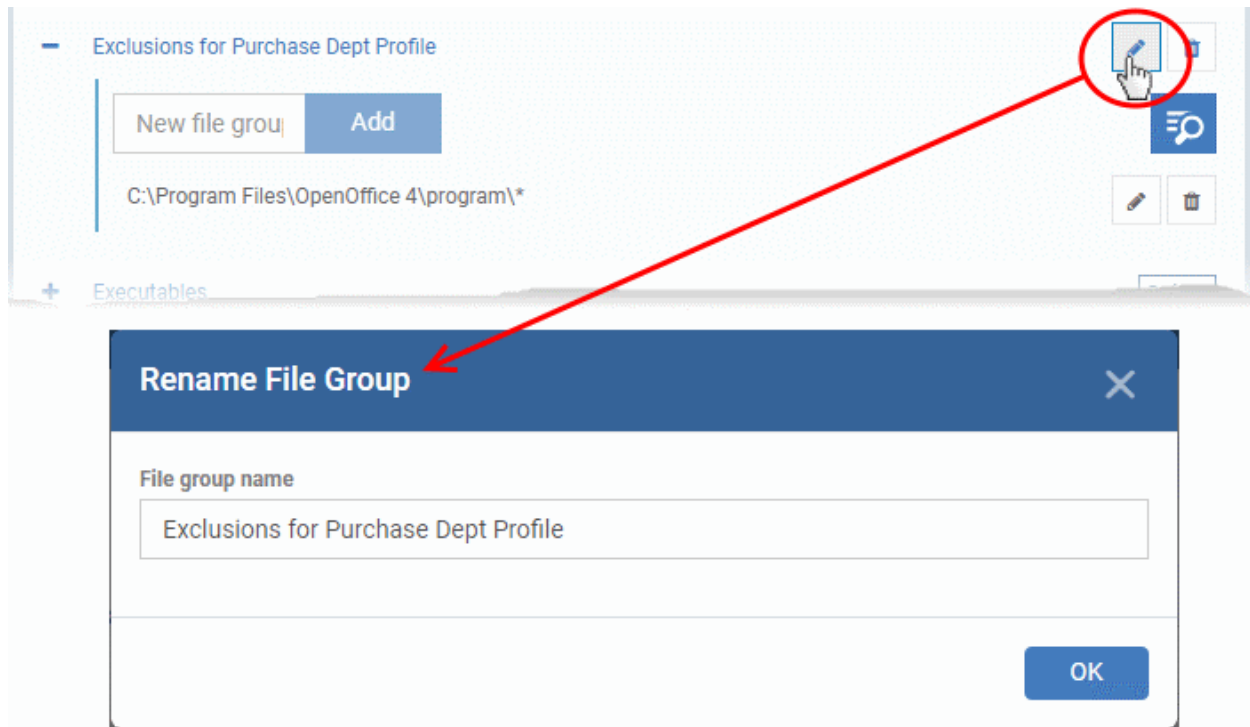
- Edit the file path in the 'Rename Path' dialog and click 'OK'.
- Click the trash can icon beside the file name to remove the file added by mistake or an unwanted file from the group.



- Click OK in the confirmation dialog

## To edit the name of a File Group

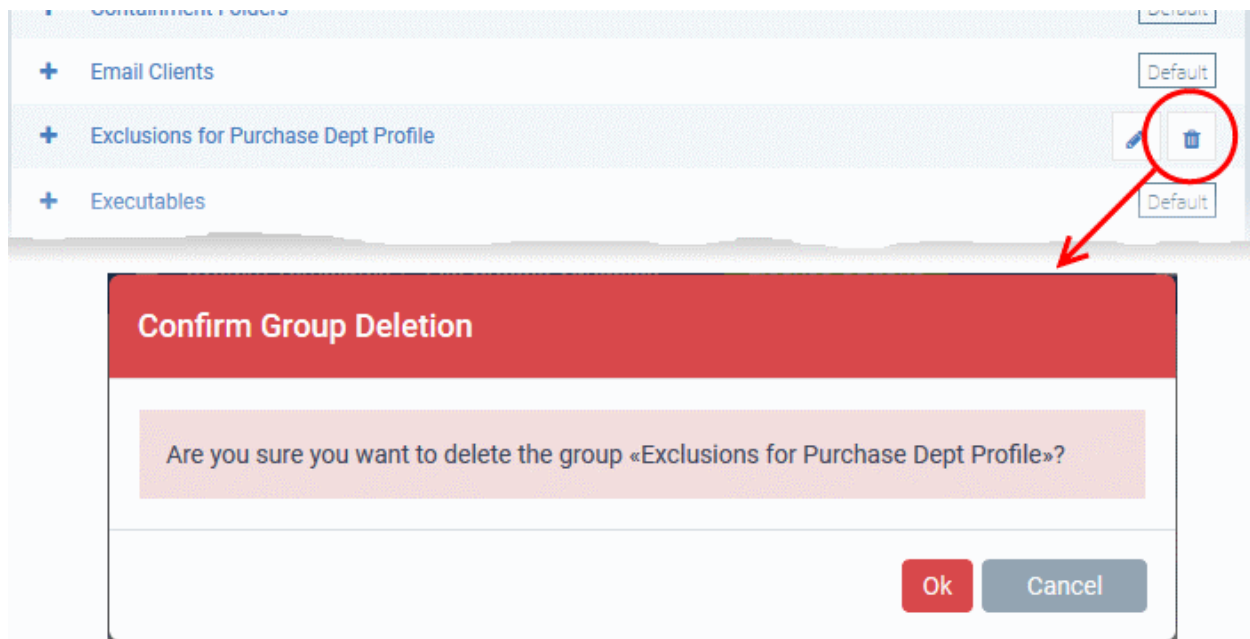
- Click the 'Edit' icon beside the File Group



- Enter the new name for the group in the 'Rename File Group' dialog and click 'OK'

## To remove a File Group

- Click the Trash can icon beside the File Group



A confirmation dialog will appear.

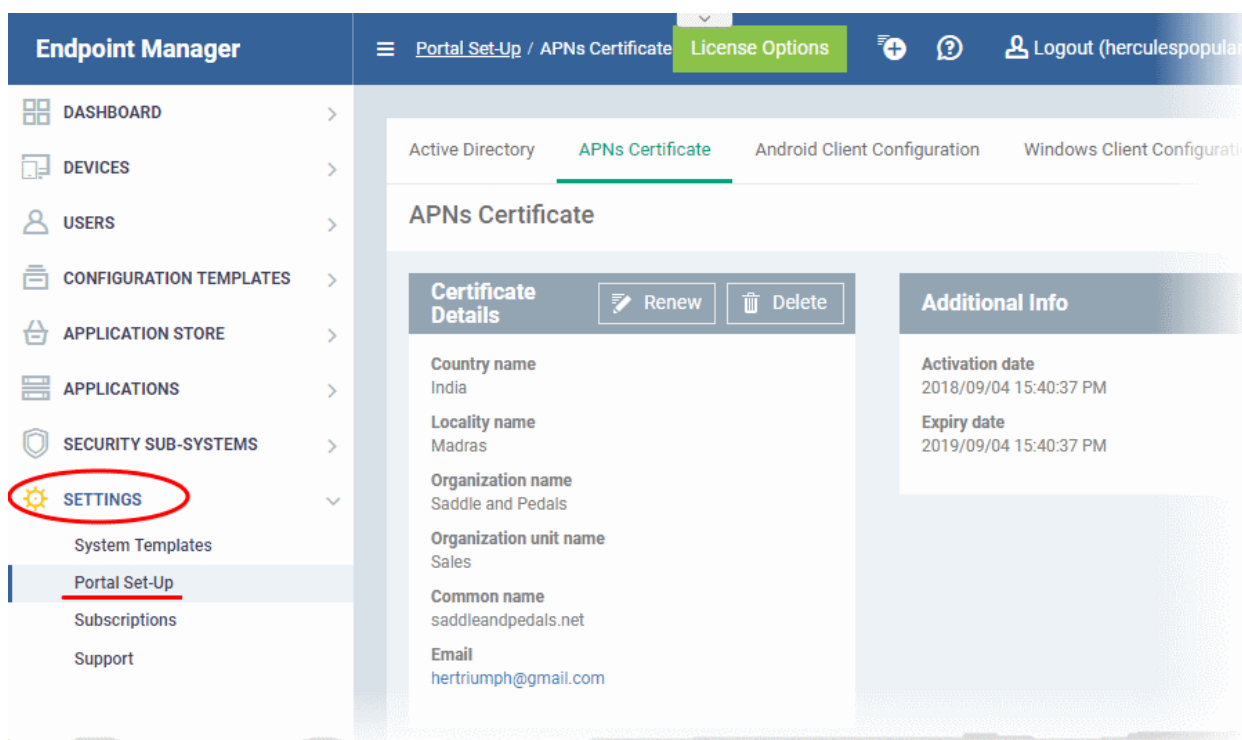
- Click 'OK' in the confirmation dialog.

## 11.2. Endpoint Manager Portal Configuration

- Click 'Settings' > 'Portal Set-up'

The 'Portal Set-up' tab under 'Settings' tab lets you configure the Endpoint Manager portal as per your network setup and requirements. You can integrate AD server(s) in your and your customers' network(s) for importing the users

and devices, integrate your Apple Push Notification (APN) certificate for communication with managed iOS and Mac OS devices, Google Cloud Messaging (GCM) token for communication with managed Android devices, integrate with Sectigo Certificate Manager (SCM) for issuance of client and device certificates and more.



Use the following links to learn more about each setting:

- [Import User Groups from LDAP](#)
- [Add Apple Push Notification Certificate](#)
- [Configure the EM Android Client](#)
  - [Configure General Settings](#)
  - [Configure Android Client Antivirus Settings](#)
  - [Add Google Cloud Messaging \(GCM\) Token](#)
- [Configure EM Windows Client](#)
- [Managing Endpoint Manager Extensions](#)
- [Configure Endpoint Manager Reports](#)
- [Integrate with Sectigo Certificate Manager](#)
- [Set-up Administrators Time Zone](#)

## 11.2.1. Import User Groups from LDAP

You can add users to Endpoint Manager in two ways:

1. Manually add users:
  - Enroll one user at a time
  - Import multiple users from a .csv file
2. Import user groups from Active Directory (AD) servers

Endpoint Manager can be configured to access your AD server through the Lightweight Directory Access Protocol (LDAP). You can add multiple LDAP accounts.



The process in brief:

- Add an LDAP server by specifying its IP address, domain and the login credentials of the AD server:
  - Click 'Settings' > 'Portal Set-Up' > select the 'Active Directory' tab > Click 'Add'
- Once added, users and user groups in the AD directory will be visible in the 'Active Directory' interface:
  - Click 'Settings' > 'Portal Set-Up' > select the 'Active Directory' tab > Click on an AD domain name > Click the 'User Groups' tab
- Select the users and groups you wish to import
- Assign roles to users/user groups as required
- Synchronize LDAP with Endpoint Manager
- The selected users/user groups will be imported and placed into respective groups in EM
- The 'User List' and 'User Groups' interfaces let you view/manage users and enroll user devices. See **Users and User Groups** for more details.

### To open the Active Directory interface

- Click 'Settings' > 'Portal Set-Up'
- Click the 'Active Directory' tab

LDAP ACCOUNT DOMAIN	COMPANY NAME	ENABLE LDAP	LDAP SERVER HOST	AUTHOR	CREATED
<input type="checkbox"/> itsm-team.net	Dithers Constructi...	Enabled	54.93.118.85	coyoteewile...	2016/08/30...

LDAP Accounts - Column Description	
Column Heading	Description
LDAP Account Domain	The Active Directory domain name. <ul style="list-style-type: none"> <li>• Click the domain name to:                             <ul style="list-style-type: none"> <li>• View and import user groups</li> <li>• Configure device enrollment for imported users</li> <li>• Configure the connection between the AD server and Endpoint Manager</li> </ul> </li> </ul> See <b>Manage LDAP Accounts</b> for more details.
Company Name	The customer organization associated with the AD domain
Enable LDAP	Whether or not the LDAP account is active
LDAP Server Host	The hostname or IP address of the AD server
Author	The admin who added the LDAP account <ul style="list-style-type: none"> <li>• Click the admin name to view their details. See <b>View User Details</b> if you need help with this.</li> </ul>
Created	The date and time at which the LDAP account was added



**Note:** Endpoint Manager communicates with Comodo servers and managed devices in order to update data, deploy profiles, synchronize LDAP server via devices and so on. You need to configure your firewall accordingly to allow these connections. The details of IPs, hostnames and ports are provided in **Appendix 1**.

## To add an LDAP account

- Click 'Add' at the top

The 'Login to Active Directory' wizard opens:

### Step 1 - Enter LDAP account details

**Login to Active Directory** [Close]

1. SETTINGS      2. SYNCHRONIZATION      3. FINISH

**LDAP server host \***

**LDAP account domain \***

**Customer \***

**LDAP account login \***

**LDAP account password \***

**Next**

'Login to Active Directory - Settings' Form - Table of Parameters	
Form Element Type	Description
LDAP Server Host	The IP address or hostname of the Active Directory (AD) server
LDAP Account Domain	The Active Directory domain name.
Company Drop-down	<p>Choose the company to which the AD server belongs.</p> <ul style="list-style-type: none"> <li>Comodo One MSP and ITarian MSP customers can add AD servers for multiple companies.                             <ul style="list-style-type: none"> <li>Type the first few characters of the company name and select from options.</li> </ul> </li> <li>Comodo One Enterprise, ITarian Enterprise and EM stand-alone customers can only select the default company.</li> </ul>
LDAP Account Login	The admin username and password required to access the AD server.
LDAP Account Password	

- Click 'Next' after completing the settings form.

## Step 2 - Configure Synchronization Settings

**Login to Active Directory**
✕

Enable sync at business days

Enable sync at weekend

---

**Please select the proper connection type for establishing connection to LDAP server**

Directly - server checks connection directly

Via Device(s) - server checks connection via enrolled device(s)

Type device name to search among devices...

Back
Next

### Sync Settings

- Enable Sync at Business Days - Endpoint Manager will automatically sync with the LDAP server once per

day Monday through Friday to check for and import new users

- Enable Sync At Weekend - Endpoint Manager will automatically sync with the LDAP server once a day on Saturdays and Sundays to check for and import new users on weekends.

Note - you can manually sync at any time by clicking the 'Sync with LDAP' button.

## Connection Type

The connections setting determine how Endpoint Manager connects to the LDAP server. You can connect directly from the EM server or via the enrolled devices.

If you choose the second option, you should specify the names of enrolled Windows devices which are in the same network as the AD server.

- Click 'Next'

## Step 3 - Finish

**Login to Active Directory**

1. SETTINGS      2. SYNCHRONIZATION      3. FINISH

**Sending device enrollment notification**

Do not send any enrollment notifications

Send enrollment notifications to all synchronized new users

Specify email addresses to send enrollment instructions for all synchronized new users

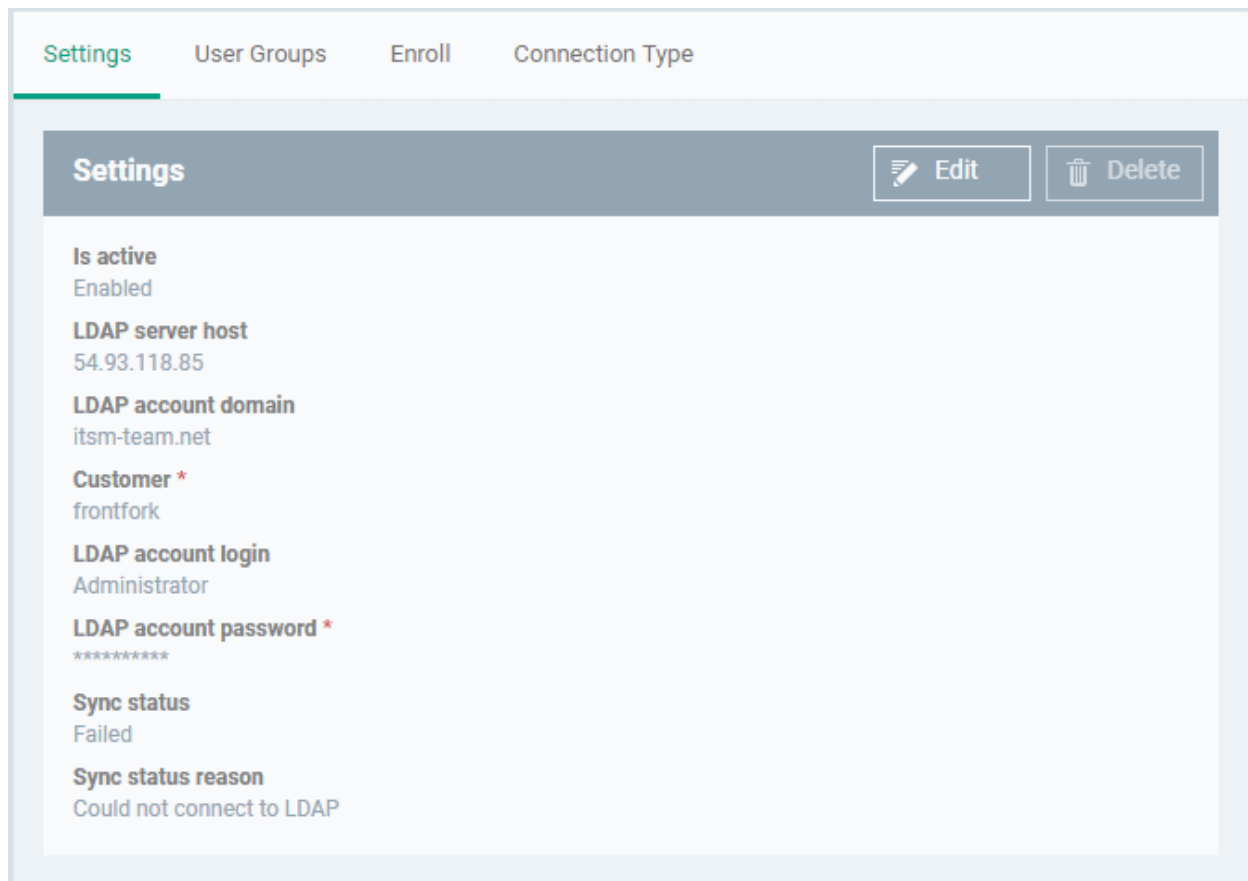
**Emails for enroll**

Add emails...

Back      Finish

- **Do not send any enrollment notifications** - No notification mails are sent to imported users
- **Send enrollment notifications to all synchronized new users** - Device enrollment emails are sent to imported users. These mails include instructions which tell the user how to add their device to Endpoint Manager.
- **Specify email address to send enrollment notifications for all synchronized new users** - Add the recipients who should receive a notification mail when new users are added. Usually sent to an administrator, the mail contains instructions on how to enroll devices for the new users. You can add multiple email addresses here.
- Click 'Finish'

Endpoint Manager will connect to the LDAP server per the configuration. A summary of account settings is shown if the connection is successful:



- Click 'Edit' if you want to change any details, edit the details and click 'Save' to save your settings.

The synchronization task will run as scheduled in step - 2, and the user groups will be added.

- Click 'Sync with LDAP' to instantly sync the user groups between the AD server and EM
- Repeat the process to add more AD servers to import user groups from.

## Manage LDAP Accounts

The Active Directory interface lets you view and edit the details of integrated AD servers, synchronize users between AD and EM, and more.

- Click 'Settings' > 'Portal Set-up' > 'Active Directory'
- Click the AD domain name from the list of LDAP accounts to view or edit its details

The screenshot shows the 'Active Directory' configuration page in the Endpoint Manager. At the top, there are navigation tabs: 'Active Directory', 'APNs Certificate', 'Android Client Configuration', 'Windows Client Configuration', and 'Ext...'. Below these are two buttons: 'Add' and 'Sync with LDAP'. A table lists LDAP configurations with columns: 'LDAP ACCOUNT DOMAIN', 'COMPANY NAME', 'ENABLE LDAP', and 'LDAP SERVER IP'. The first row is circled in red, showing 'itsm-team.net' in the domain column, 'Dithers Construction Co...' in the company name, 'Enabled' in the enable status, and '54.93.118.85' in the server IP. Below the table is a 'Results per page' dropdown set to '20'. A red arrow points from the circled domain name to the 'Settings' tab of a detailed configuration panel. This panel has tabs for 'Settings', 'User Groups', 'Enroll', and 'Connection Type'. The 'Settings' tab is active and shows the following details for the 'Active Directory' entry: 'Is Active' (Enabled), 'LDAP Server Host' (54.93.118.85), 'LDAP Account Domain' (itsm-team.net), 'Company \*' (Dithers Construction Company), 'LDAP Account Login' (Administrator), 'LDAP Account Password \*' (masked with asterisks), and 'Sync Status' (Done). 'Edit' and 'Delete' buttons are visible in the top right of the settings panel.

The Active Directory details will be displayed under four tabs:

- **Settings**
- **User Groups**
- **Enroll**
- **Connection Type**

### Settings tab

The 'Settings' tab displays AD configuration details:

**Settings**    User Groups    Enroll    Connection Type

**Settings**    Edit    Delete

**Is active**  
Enabled

**LDAP server host**  
10.100.66.9

**LDAP account domain**  
mdm.net

**Company \***  
Dithers Construction Company

**LDAP account login**  
Administrator

**LDAP account password \***  
\*\*\*\*\*

**Sync status**  
Failed

**Sync status reason**  
Could not connect to LDAP

- Click 'Edit' to update any LDAP details and click the 'Save' button

## User Groups tab

The 'User Groups' tab shows groups that were identified on the AD server. This includes users/groups created in the root folder and all sub-folders/custom folders on the AD server. This interface allows you to:

- Selectively enable/disable AD synchronization for groups. Synchronization allows EM to update its user list whenever users are added/removed from the AD sever.
- Select the roles to be applied to users in each AD group.
- Manually synchronize groups before importing to EM

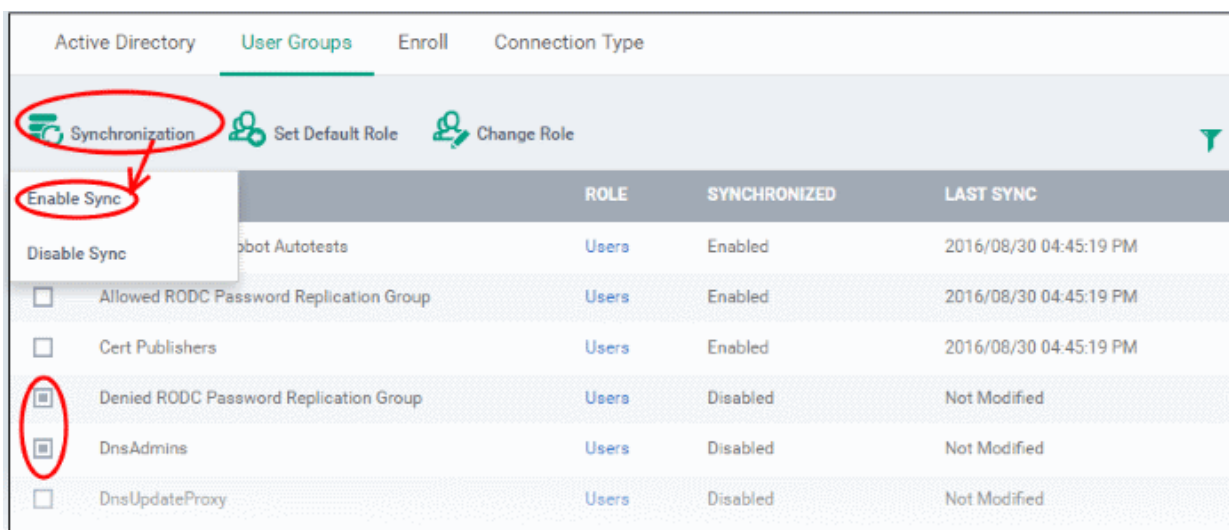
Active Directory    **User Groups**    Enroll    Connection Type

Synchronization    Set Default Role    Change Role   

<input type="checkbox"/>	GROUP NAME	ROLE	SYNCHRONIZED	LAST SYNC
<input type="checkbox"/>	Active Directory Robot Autotests	Users	Enabled	2016/08/30 04:33:23 PM
<input type="checkbox"/>	Allowed RODC Password Replication Group	Users	Enabled	Not Modified
<input type="checkbox"/>	Cert Publishers	Users	Disabled	Not Modified
<input type="checkbox"/>	Denied RODC Password Replication Group	Users	Disabled	Not Modified
<input type="checkbox"/>	DnsAdmins	Users	Disabled	Not Modified
<input type="checkbox"/>	DnsUpdateProxy	Users	Disabled	Not Modified
<input type="checkbox"/>	Domain Admins	Users	Disabled	Not Modified
<input type="checkbox"/>	Domain Computers	Users	Disabled	Not Modified

## To enable/disable synchronization

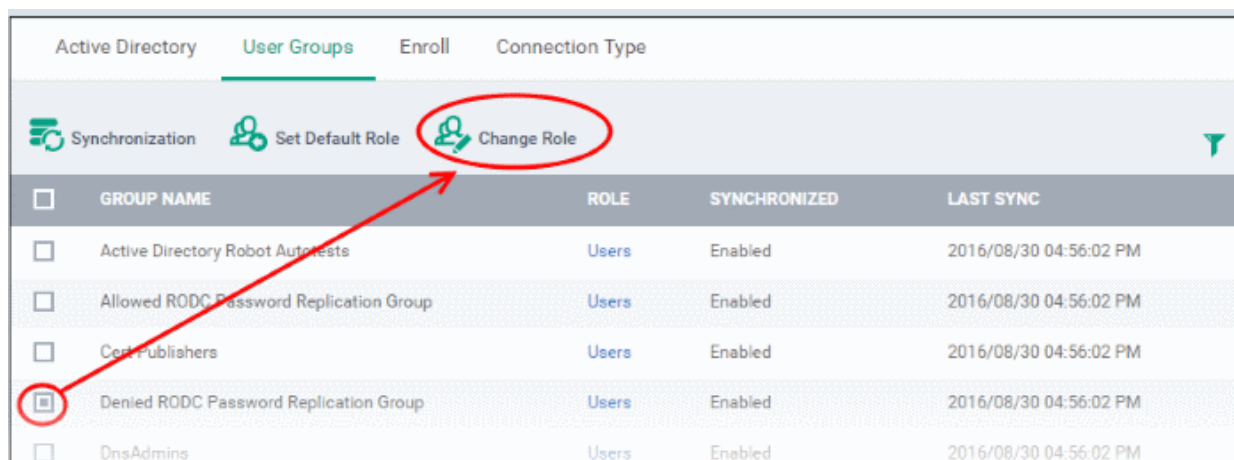
- Select user group(s) from the list and click 'Synchronization' at the top:



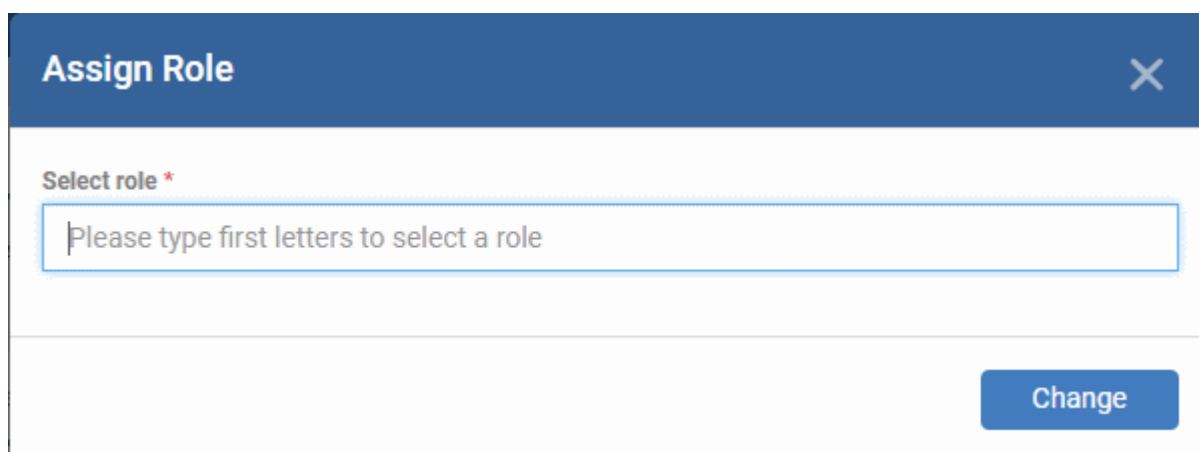
- Select whether synchronization should be enabled or not from the drop-down. If enabled, EM will periodically synchronize with the group to import new users and remove deleted users.

### To assign roles to the users to be imported

- Select the user(s)/user group(s).
- Select 'Set Default Role' to assign the default EM user role to the users. See [Set a role as the default role](#) if you need help with this.



- Select 'Change Role' if you want to assign a different role to imported users.





- Type the first few characters of the name of the role to be assigned and select the role from the options.

The selected role will be displayed in the 'Role' column for the users/user groups.

- Repeat the process to apply different roles to different users/user groups.

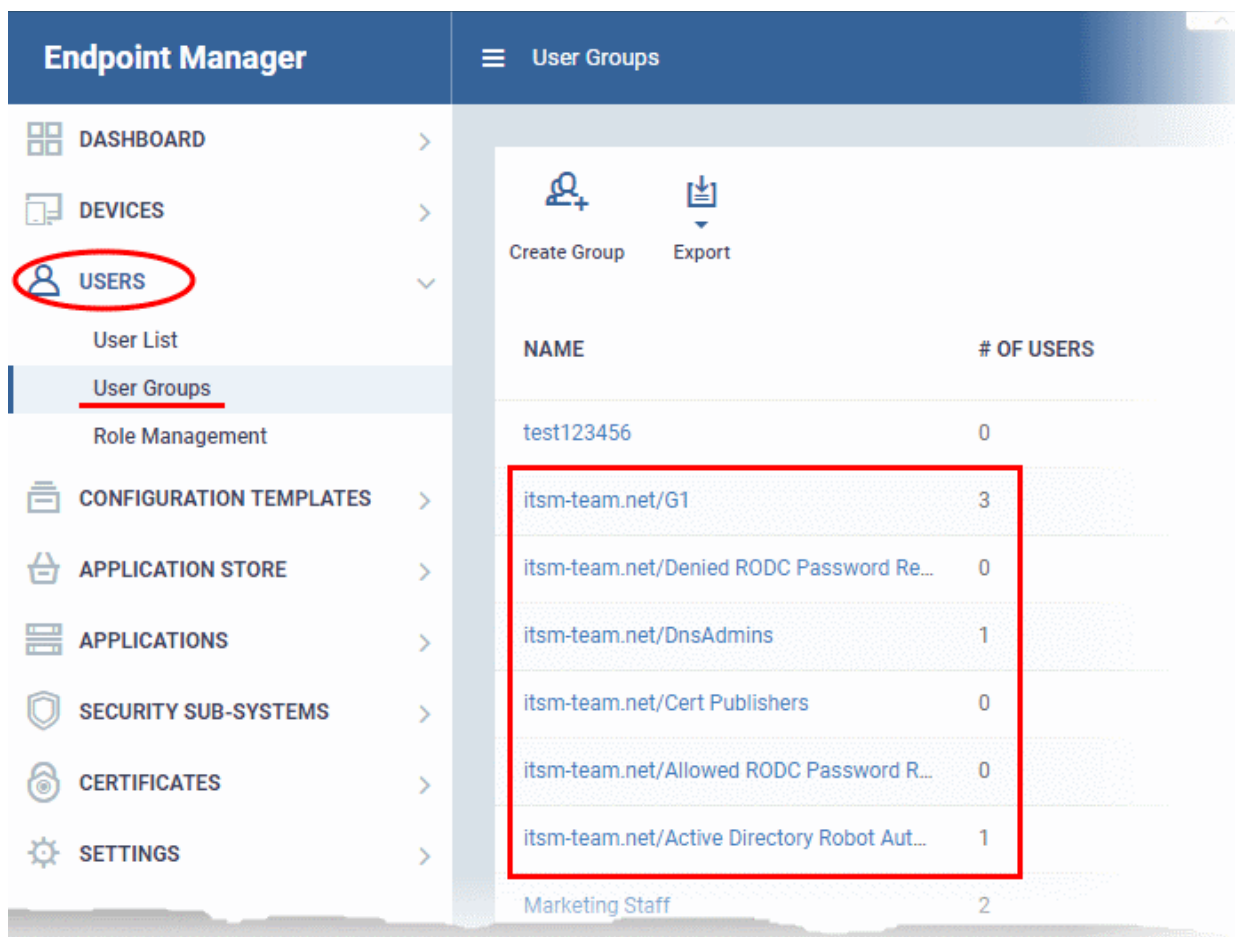
See '[Manage Roles Assigned to a User](#)' for more details on roles.

### To import users from selected user group

- Click 'Sync with LDAP'

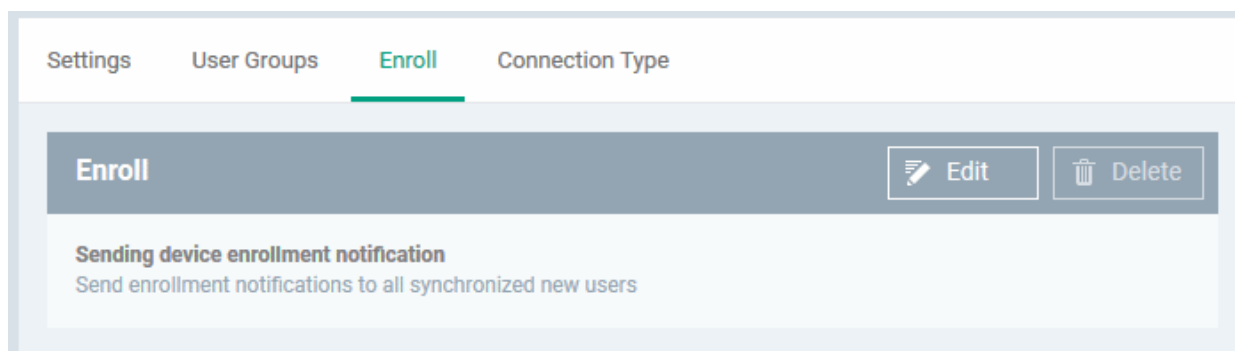
<input type="checkbox"/>	GROUP NAME	ROLE	SYNCHRONIZED	LAST SYNC
<input type="checkbox"/>	Active Directory Robot Autotests	Users	Enabled	2016/08/30 04:56:02 PM
<input type="checkbox"/>	Allowed RODC Password Replication Group	Users	Enabled	2016/08/30 04:56:02 PM
<input type="checkbox"/>	Cert Publishers	Users	Enabled	2016/08/30 04:56:02 PM
<input type="checkbox"/>	Denied RODC Password Replication Group	Users	Enabled	2016/08/30 04:56:02 PM
<input type="checkbox"/>	DnsAdmins	Users	Enabled	2016/08/30 04:56:02 PM
<input type="checkbox"/>	DnsUpdateProxy	Users	Disabled	Not Modified
<input type="checkbox"/>	Domain Admins	Users	Disabled	Not Modified
<input type="checkbox"/>	Domain Computers	Users	Disabled	Not Modified

- The LDAP user/user groups are synchronized with EM and new users are imported. The 'User List'/'User Groups' interfaces will update appropriately. See '[Users and User Groups](#)' if you need more help with users and groups.

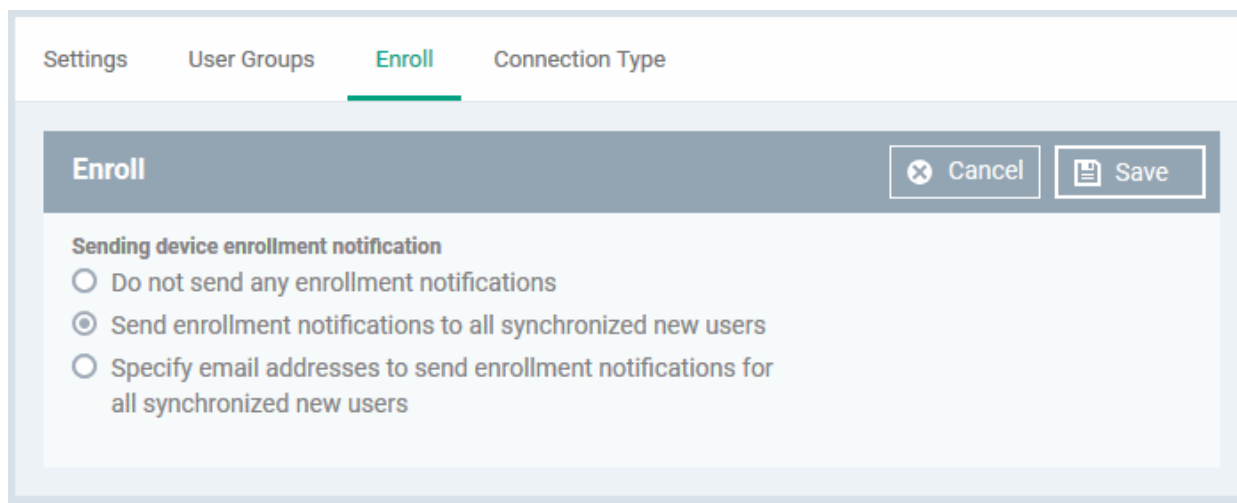


## Enroll tab

The 'Enroll' tab displays the current setting of enrollment notification sent to imported users.



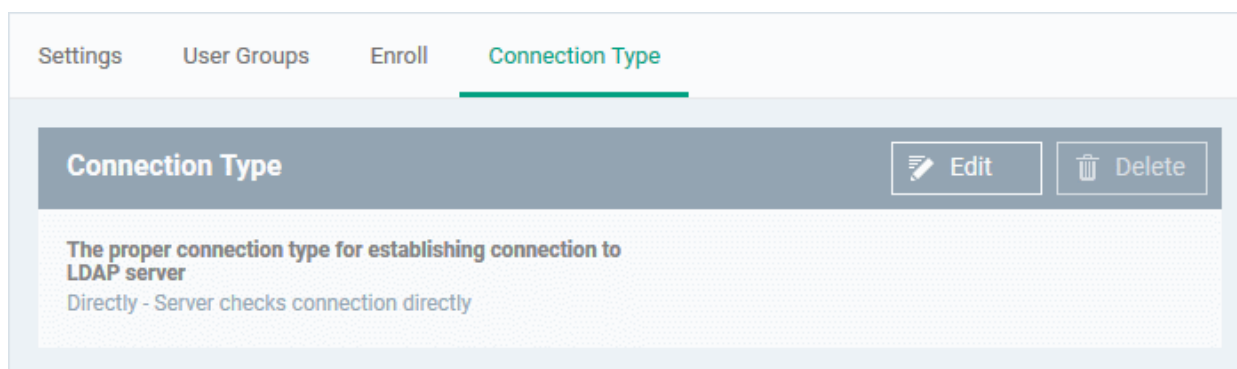
- Click 'Edit' to change the enrollment notification type



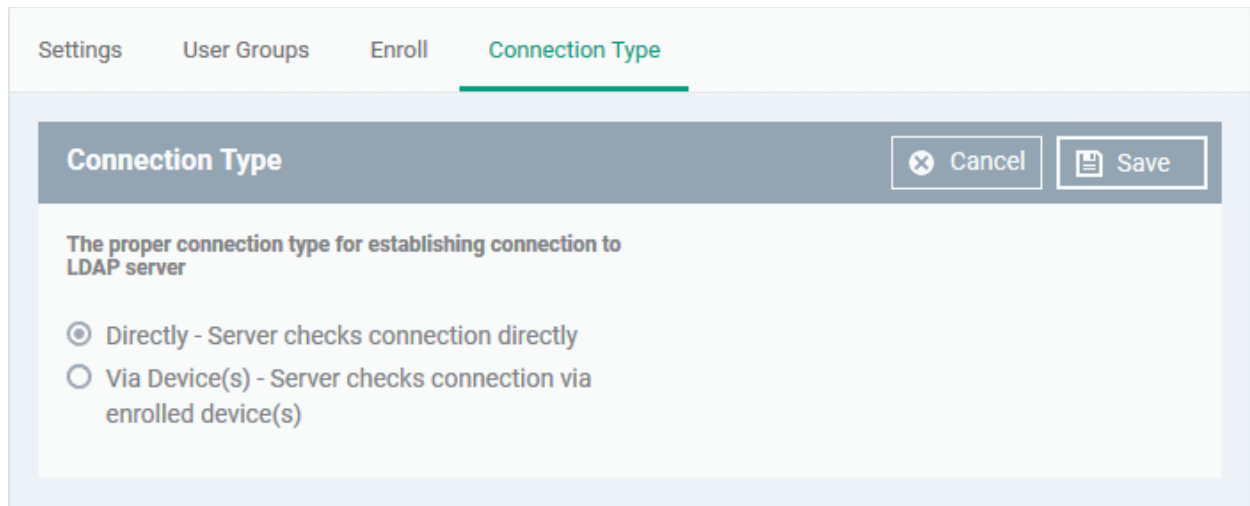
- **Do not send any enrollment notifications** - No enrollment mails will be sent to users imported via LDAP
- **Send enrollment notifications to all synchronized new users** - Device enrollment emails will be sent to new users enrolled via LDAP.
- **Specify email address to send enrollment notifications for all synchronized new users** - Specify email recipients who should receive a notification mail when new users have been added. Usually sent to an administrator, the mail will contain instructions on how to enroll devices for the new users. You can add multiple email addresses here.
- Update the notification type from the options and click 'Save'

## Connection Type Tab

The 'Connection Type' tab displays how the AD server currently connects to Endpoint Manager.



- Click the 'Edit' button to change the connection type.




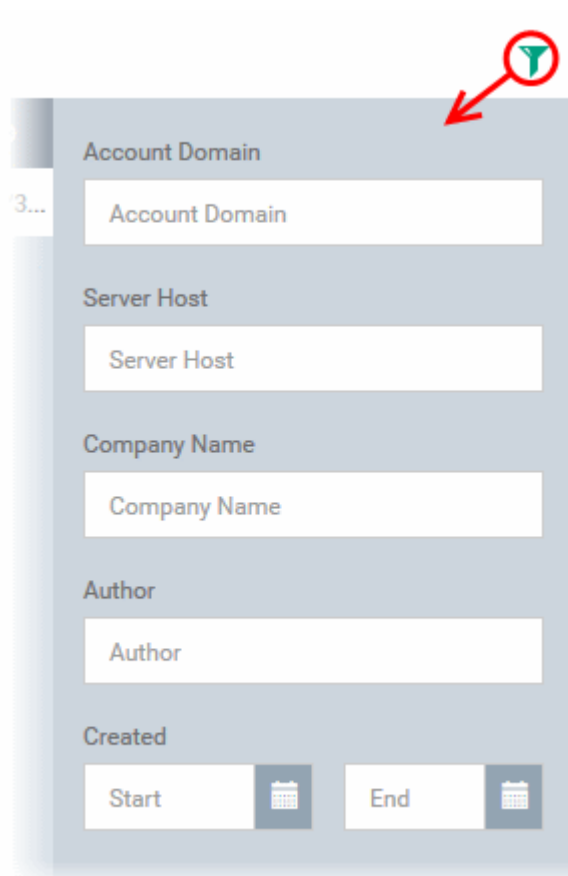
If the first option is selected, EM will connect to the configured LDAP server directly. The second option enables the EM server to connect to the LDAP server via enrolled devices. Multiple devices can be configured for the second option.

- Click 'Save' after selecting the option.

You can add multiple LDAP servers for the account from the Active Directory interface. Click 'Add' and follow the same procedure explained above.

### Active Directory Interface - Sorting, Search and Filter Options

- Click on the column headers sorts items in alphabetical, ascending/descending order
- Click the funnel button  to open filter options:



- You can search for a specific LDAP account based by domain name, host, company and/or author. Enter your search criteria in the respective text boxes and click 'Apply'.
- You can also filter by the date the account was created. Use the calendar buttons at the bottom to select start and end dates then click 'Apply'.

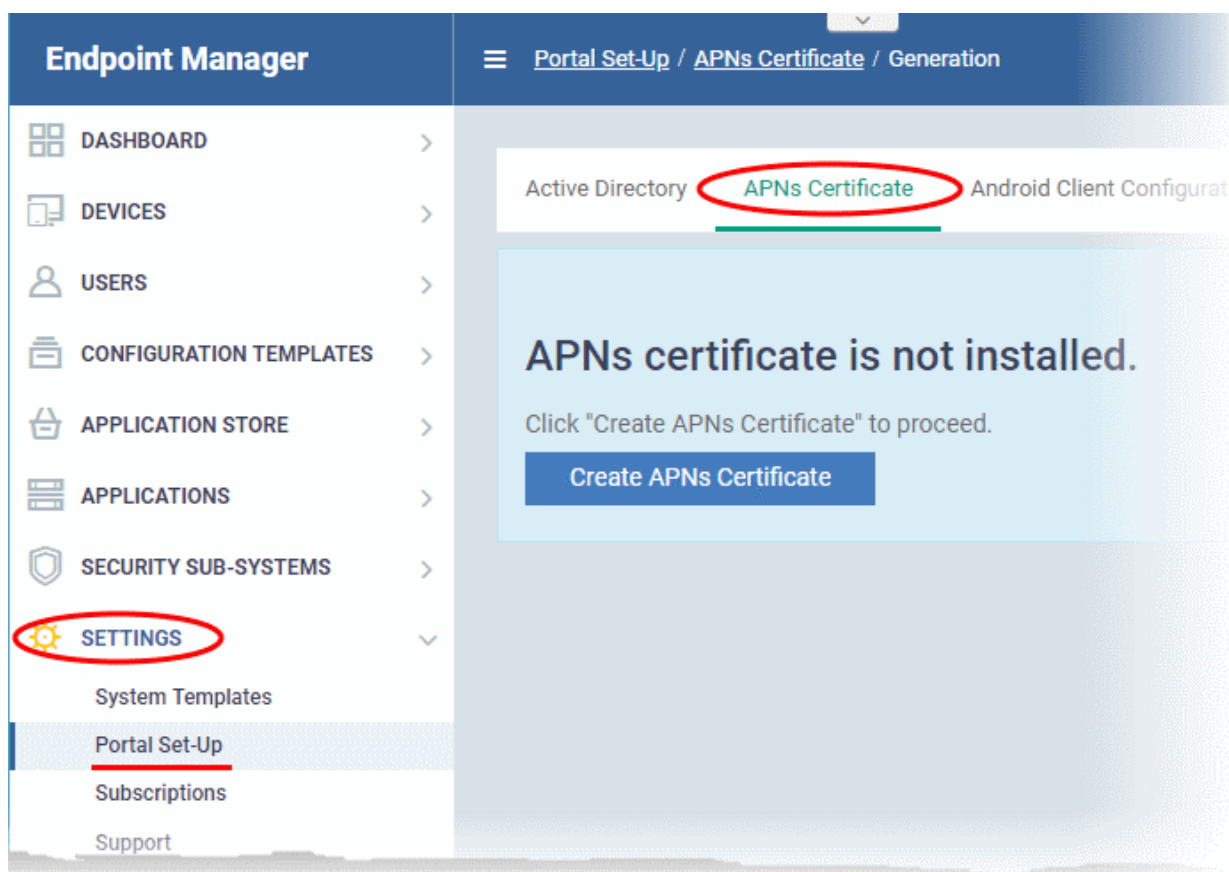
You can use any combination of filters to search for specific LDAP accounts.

## 11.2.2. Add Apple Push Notification Certificate

- You need to install an Apple Push Notification (APN) certificate on your Endpoint Manager portal in order to communicate with iOS and Mac devices.
- You can enroll for an APN certificate using your Apple account. If you do not have an Apple account then please create one at <https://appleid.apple.com>. A free account is enough.
- The certificate is valid for one year. EM will remind you when your certificate is nearing expiry. It is free to renew the certificate each year
- Please follow the steps below to obtain and implement an APN certificate:

### Step 1- Generate your PLIST

- Click 'Settings' > 'Portal Set-Up'
- Click the 'APNs Certificate' tab.



- Click the 'Create APNs Certificate' button to open the APNs application form.

The fields on this form are for generating a Certificate Signing Request (CSR):

## Generation of APNs Certificate ✕

**Country name \***

**Apple ID \***

**State or province name \***

**Locality name (e.g, city) \***

**Organization name \***

**Organizational unit \***

Organizational Unit Name (e.g, section)

**Common name \***

(e.g., server FQDN or YOUR name)

- Complete all fields marked with an asterisk and click 'Create'. This will send a request to Comodo to sign the CSR and generate an Apple PLIST. You will need to submit this to Apple in order to obtain your APN certificate. Usually your request will be fulfilled within seconds and you will be taken to a page which allows you to download the PLIST:

## Upload APNs Certificate

Save

To get the certificate for communication between server and Apple devices you need to:

1. Download: [The Apple PLIST Signed by Comodo](#)
2. Login to the [Apple Push Certificate Portal](#) with your regular Apple ID (free account is enough).
3. Upload the PLIST from step 1 to the Apple portal. Apple will use this to generate your certificate.
4. Download your certificate from Apple. It will be in .PEM format.
5. Click 'Browse', select your certificate, and click 'Save' to upload it to ITSM

Select .PEM file Browse

- Download your Apple PLIST from the link in step 1 on this screen. This will be a file with a name similar to 'COMODO\_Apple\_CSR.csr'. Please save this to your local drive.

### Step 2 -Obtain Your Certificate From Apple

- Login to the 'Apple Push Certificates Portal' with your Apple ID at <https://identity.apple.com/pushcert/>.
- Once logged in, click 'Create a Certificate'.



You will need to agree to Apple's EULA to proceed.

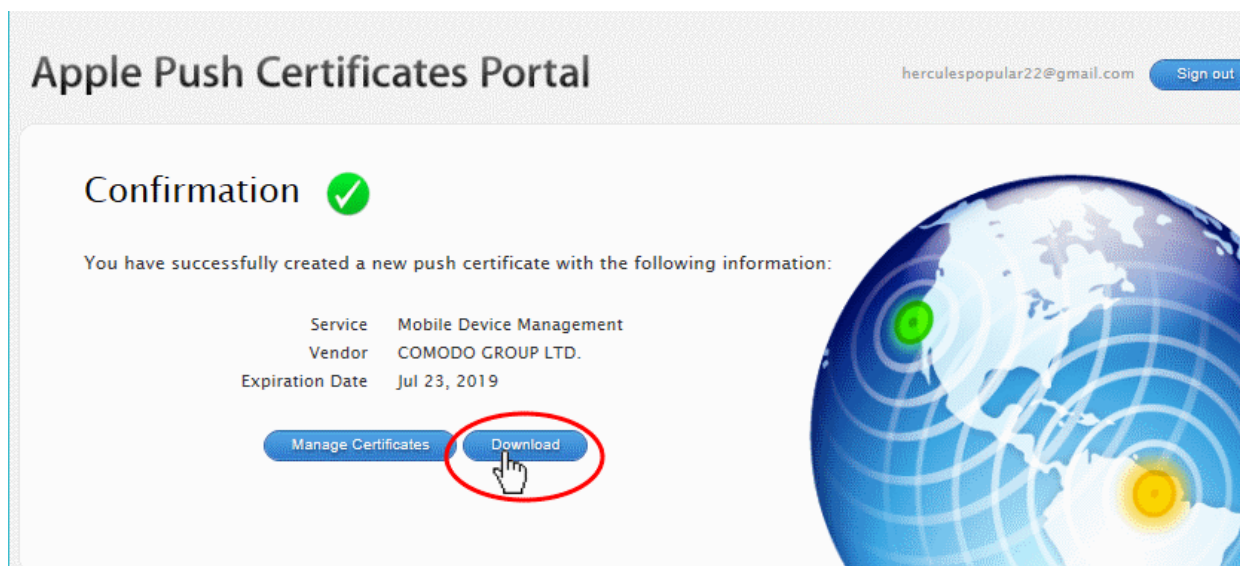


The screenshot shows the 'Terms of Use' page in the Apple Push Certificates Portal. At the top right, the user 'herculespopular22@gmail.com' is logged in with a 'Sign out' button. The main heading is 'Terms of Use'. Below it, a warning states: 'PLEASE READ THE FOLLOWING LICENSE AGREEMENT TERMS AND CONDITIONS CAREFULLY BEFORE DOWNLOADING OR USING THE APPLE CERTIFICATES. THESE TERMS AND CONDITIONS CONSTITUTE A LEGAL AGREEMENT BETWEEN YOUR COMPANY/ORGANIZATION AND APPLE.' The section is titled 'MDM Certificate Agreement (for companies deploying mobile device management for iOS and/or OS X products)'. Under 'Purpose', it explains that the company wants to use MDM Certificates for mobile device management. Section '1. Accepting this Agreement; Definitions' includes '1.1 Acceptance', which states that users must agree to the license agreement before using the certificates. At the bottom, there is a checkbox labeled 'I have read and agree to these terms and conditions.' which is checked. Below the checkbox are buttons for 'Decline' and 'Accept', and a link for 'Printable Version >'. A globe graphic is visible on the right side of the page.

- On the next page, click 'Choose File', navigate to the location where you stored 'COMODO\_Apple\_CSR.csr' and click 'Upload'.

The screenshot shows the 'Create a New Push Certificate' page in the Apple Push Certificates Portal. At the top right, the user 'herculespopular22@gmail.com' is logged in with a 'Sign out' button. The main heading is 'Create a New Push Certificate'. Below it, instructions state: 'Upload your Certificate Signing Request signed by your third-party server vendor to create a new push certificate.' There is a 'Notes' section with an empty text box. Below that, the 'Vendor-Signed Certificate Signing Request' section has a file input field containing 'E:\work\ITSM\COMODO\_' and a 'Browse...' button. At the bottom, there are 'Cancel' and 'Upload' buttons. A globe graphic is visible on the right side of the page.

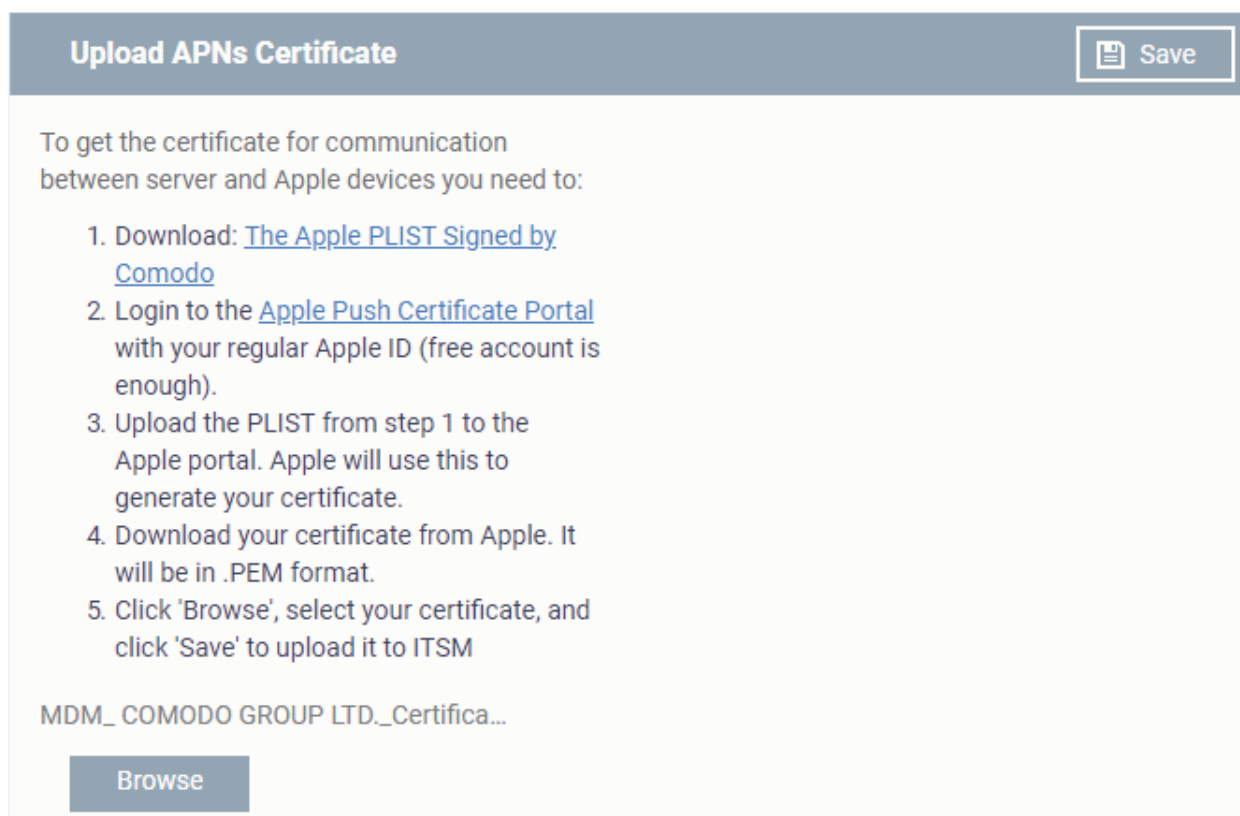
Apple servers will process your request and generate your push certificate. You can download your certificate from the confirmation screen:



- Click the 'Download' button and save the certificate to a secure location. It is a .pem file with a name similar to 'MDM\_COMODO GROUP LTD.\_Certificate.pem'

### Step 3 - Upload your certificate to Endpoint Manager

- Return to EM, click 'Settings' > 'Portal Set-Up' > 'APNs Certificate'
- Click the 'Browse' button, locate your certificate file and select it.



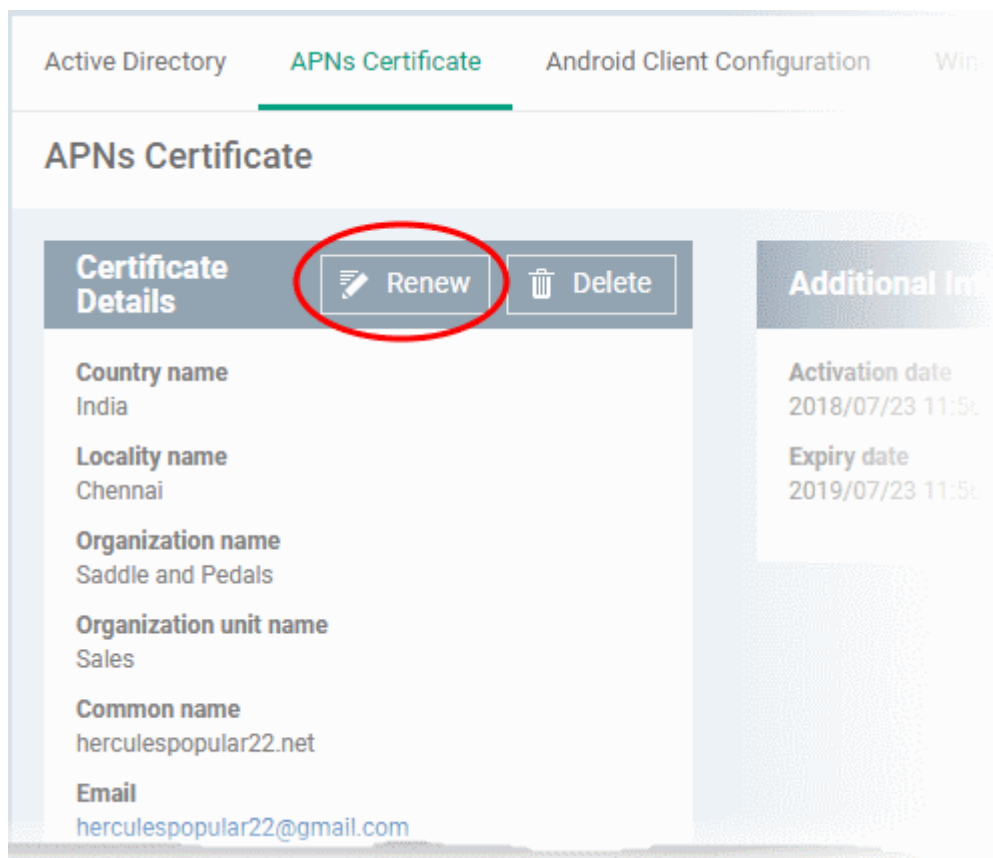
- Click 'Save' to upload your certificate.

The APNs Certificate details interface opens:

The screenshot displays the 'APNs Certificate' management interface. At the top, there are navigation tabs: 'Active Directory', 'APNs Certificate' (which is selected and underlined), 'Android Client Configuration', 'Windows Client Configuration', and 'Extensions'. Below the tabs, the page title is 'APNs Certificate'. The main content area is split into two columns. The left column, titled 'Certificate Details', contains the following information: Country name (India), Locality name (Chennai), Organization name (Saddle and Pedals), Organization unit name (Sales), Common name (herculespopular22.net), and Email (herculespopular22@gmail.com). Above this list are two buttons: 'Renew' (with a pencil icon) and 'Delete' (with a trash can icon). The right column, titled 'Additional Info', contains: Activation date (2018/07/23 11:56:51 AM) and Expiry date (2019/07/23 11:56:51 AM).

Endpoint Manager can now communicate with iOS and Mac OS devices. You can enroll iOS devices and Mac OS devices for management.

- The certificate is valid for 365 days. EM will remind you when your certificate is due to expire.
- We advise you renew your certificate at least 1 week before expiry. If it is allowed to expire, you will need to re-enroll all your iOS and Mac devices.
  - Click 'Renew' in the APNs certificate details interface to renew the cert:



- Click 'Delete' only if you wish to remove the certificate so you can generate a new APNs certificate.

### 11.2.3. Configure the EM Android Client

- Click 'Settings' > 'Portal Set-up' > 'Android Client Configuration'
- You need to install the communication client on each Android device that you want to manage. The client allows Endpoint Manager to pass updates and commands to the device, and to run antivirus scans.
- You also need to add a Google Cloud Messaging (GCM) token for the EM server to communicate with the clients.
- This area also lets you configure client general settings and antivirus settings.

#### To open the 'Android Client Configuration' interface

- Click 'Settings' > 'Portal Set-Up'
- Click the 'Android Client Configuration' tab

The screenshot shows the Endpoint Manager interface. On the left is a navigation menu with 'SETTINGS' circled in red. The main content area shows the breadcrumb path: Portal Set-Up / Android Client Configuration / Client Configuration. The 'Android Client Configuration' tab is circled in red. Below the breadcrumb, there are three sub-tabs: 'Client Configuration' (selected), 'Antivirus', and 'Android Cloud Messaging'. The 'General' settings section is displayed, listing various configuration options and their current values.

Setting	Value
Time-out for collecting basic device information	20 minutes
Time-out for collecting full device information	1 days
Interval between Antivirus database updates	1 days
Devices should check for new EM events every	5 minutes
EM should check device restrictions are active every	5 minutes
Siren playing duration	20 seconds
Enable client uninstall protection	Disabled
Allow devices to access application repositories	Disabled

The interface has three tabs:

- **Client Configuration** - General settings like client and AV database updates, polling intervals, client uninstall protection and more. See [Configure Android Client General Settings](#).
- **Antivirus** - Specify how viruses identified by client should be dealt with. If 'Automatic' is chosen you can also specify whether the AV should remove the threat or ignore it. See [Configure Android Client Antivirus Settings](#).
- **Android Cloud Messaging** - Create a Google Cloud Messaging (GCM) token to facilitate communications between EM and Android devices. See [Add Google Cloud Messaging \(GCM\) Token](#).

#### 11.2.3.1. Configure Android Client General Settings

- Click 'Settings' > 'Portal Set-up' > 'Android Client Configuration' > 'Client Configuration'
- This area lets you configure various settings for the Endpoint Manager Android client. Settings include update frequency, device alarms, uninstall protection and more.

##### To configure the Android client

- Click 'Settings' > 'Portal Set-Up'.
- Click 'Android Client Configuration' > 'Client Configuration' tab

The screenshot shows the 'Android Client Configuration' page in the Endpoint Manager. The 'Client Configuration' tab is selected, and the 'General' section is expanded. The settings are as follows:

Setting	Value
Time-out for collecting basic device information	20 minutes
Time-out for collecting full device information	1 days
Interval between Antivirus database updates	1 days
Devices should check for new EM events every	5 minutes
EM should check device restrictions are active every	5 minutes
Siren playing duration	20 seconds
Enable client uninstall protection	Disabled
Allow devices to access application repositories	Disabled

The current settings for various parameters of Client Configuration is displayed.

- To change the settings, click the edit button  on the top.



**General**
✕ Cancel
📄 Save

**Time-out for collecting basic device information**

●

20 minutes

**Time-out for collecting full device information**

●

1 days

**Interval between Antivirus database updates**

●

1 days

**Devices should check for new EM events every**

●

5 minutes

**EM should check device restrictions are active every**

●

5 minutes

**Siren playing duration**

●

20 seconds

Enable client uninstall protection

0000

Allow devices to access application repositories

**Android Client Configuration - Table of parameters**

Parameter	Description
Time-out for collecting basic device information	The maximum time allowed for EM to collect essential information such as battery level, CPU usage, GPS location and WiFi SSID.
Time-out for collecting full device information	The maximum time allowed for EM to collect all device information. This includes memory status, device name, IMEI number, roaming status, bluetooth MAC address and WiFi MAC address.
Interval between antivirus database update	The frequency at which the antivirus database should be updated on the device.
Devices should check for new EM events every	The frequency at which the device should contact Endpoint Manager to receive new push notifications.
EM should check device restrictions are active every	The frequency at which the client should confirm that its device restrictions (as per the applied profile) are in place.
Siren Playing Duration	Length of time that the device alarm will play for when remotely activated by an admin.



Enable client uninstall protection	<p>Whether or not a password is required in order to remove the client from a device.</p> <ul style="list-style-type: none"> <li>Select the 'Enable client uninstall protection' check box and specify a password in the text box.</li> </ul> <p>The EM client can be uninstalled from any enrolled device only after entering the password.</p>
Allow devices to access application repositories	<p>If enabled, an 'Applications' bar will be visible on Android devices which will open a list of Android apps in the 'Application Store'.</p>

- Click 'Save' to apply your changes.

### 11.2.3.2. Configure Android Client Antivirus Settings

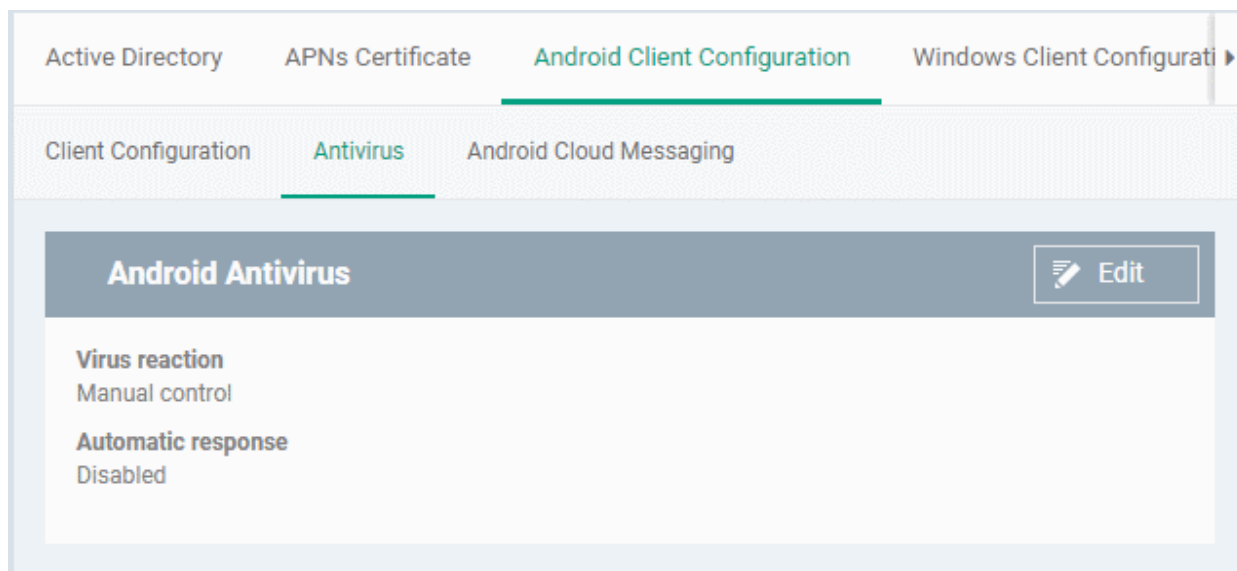
The Android antivirus provides real-time protection against malware and malicious apps on Android devices. You can also launch 'on-demand' scans from Endpoint Manager.

The antivirus settings area allows administrators to configure whether threats identified by the antivirus should be automatically removed or handled manually .

- Automatic Control** - You have the choice to auto-uninstall the threat, or ignore it.
- Manual Control** - The device status will change to 'Infected' if a virus is found. A notification will be shown on the device. The user can respond to the notification to manually remove the virus. See **Run Antivirus and/or File Rating Scans on Devices** for more details.

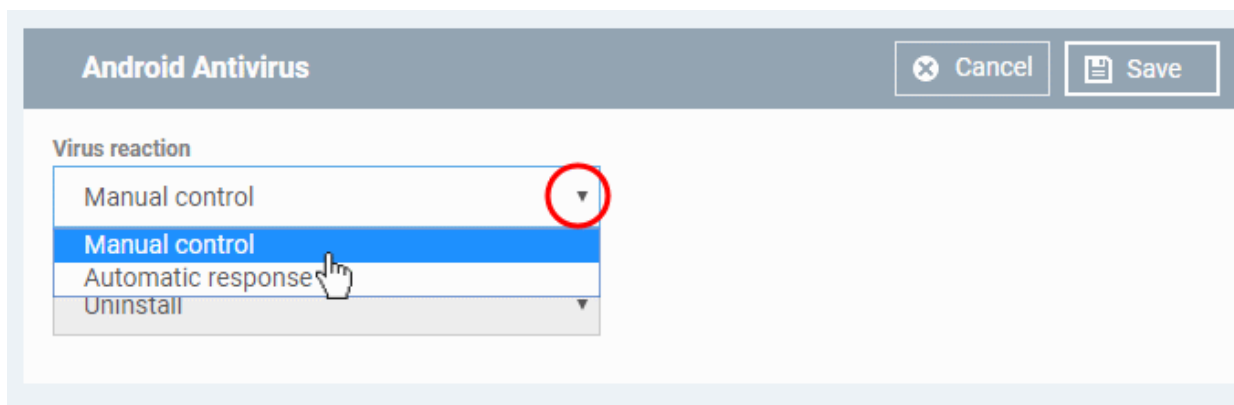
#### To configure antivirus settings

- Click 'Settings' > 'Portal Set-Up'.
- Click 'Android Client Configuration' > 'Antivirus' tab:



The current antivirus settings are displayed.

- To change the settings, click the edit button  at the top.



Android Client Antivirus Settings - Table of Parameters	
Parameter	Description
Virus Reaction	<p>Choose the type of action taken if malware is discovered on the device. The options are:</p> <ul style="list-style-type: none"> <li> <b>Manual control</b> <ul style="list-style-type: none"> <li>The device status changes to 'Infected'.</li> <li>A notification will be shown on the device.</li> <li>Users can respond to the notification to manually remove the virus</li> <li>Admins can take further action on the threat in the AV Scan interface</li> <li>See <b>Run Antivirus and/or File Rating Scans on Devices</b> for more details.</li> </ul> </li> <li> <b>Automatic response</b> <ul style="list-style-type: none"> <li>Choose the action that the client should take on the threat. Choose between 'Uninstall' (delete) or 'Ignore' (allow).</li> </ul> </li> </ul>

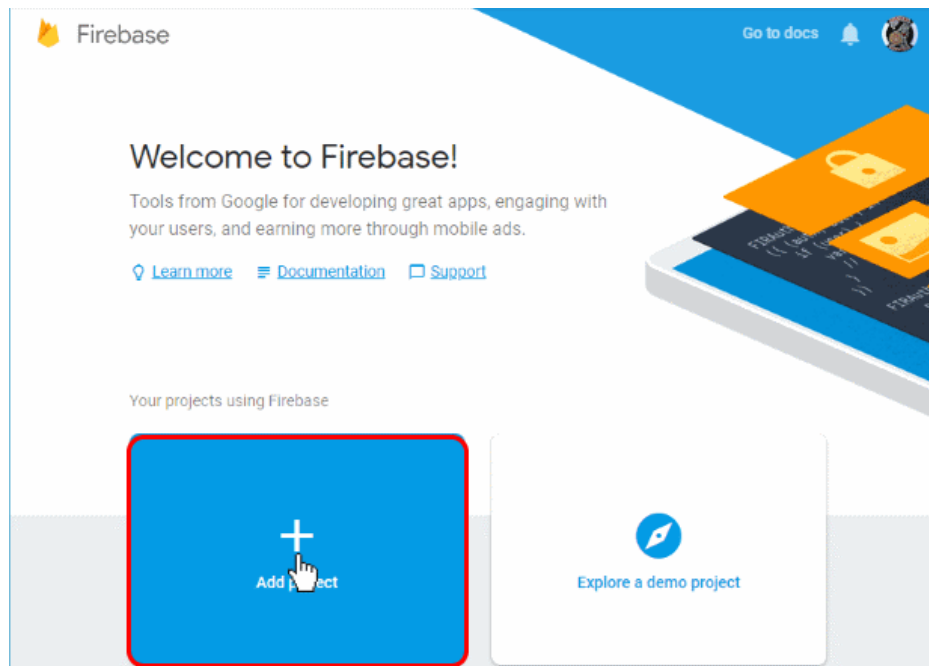
- Click 'Save' for your settings to take effect.

### 11.2.3.3. Add Google Cloud Messaging (GCM) Token

- Endpoint Manager requires a Google Cloud Messaging (GCM) token in order to communicate with enrolled Android devices.
- EM ships with a default token. However, you can also generate a unique Android GCM token for your EM portal.
- To get a token, you must first create a project in the Google Developers console.
- Please follow the steps given below to create a project and upload a token.

#### Step 1 - Create a New Project

- Login to the Google Firebase API Console at <https://console.firebase.google.com>, using your Google account.



- Click 'Add Project'

**Add a project** ✕

Project name 🤖 + iOS + </>  
Hercules EM Tip: Projects span apps across platforms ?

Project ID ?  
hercules-em ✎

Locations ?  
United States (Analytics) ✎  
us-central (Cloud Firestore)

Use the default settings for sharing Google Analytics for Firebase data

- ✓ Share your Analytics data with Google to improve Google Products and Services
- ✓ Share your Analytics data with Google to enable technical support
- ✓ Share your Analytics data with Google to enable Benchmarking
- ✓ Share your Analytics data with Google Account Specialists

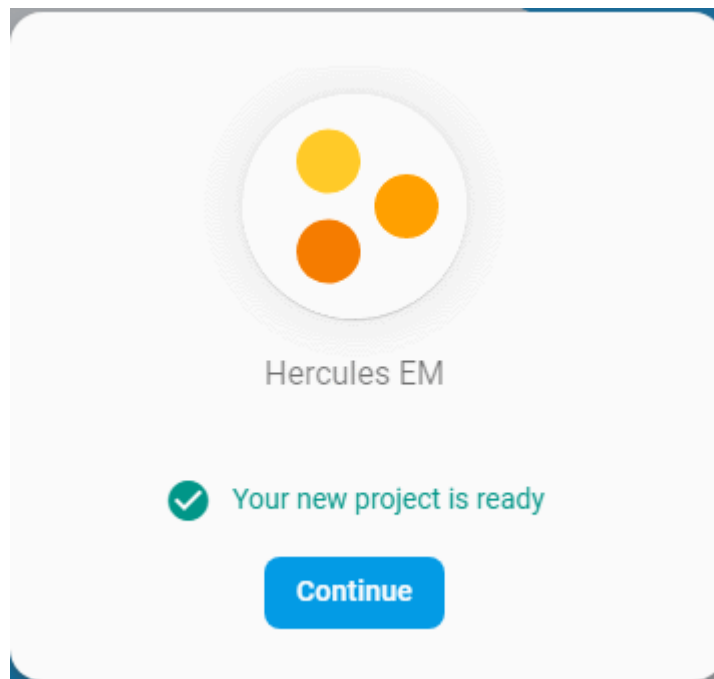
I accept the [controller-controller terms](#). This is required when sharing Analytics data to improve Google Products and Services. [Learn more](#)

I agree that I am using Firebase services in my app and I agree to the applicable [terms](#).

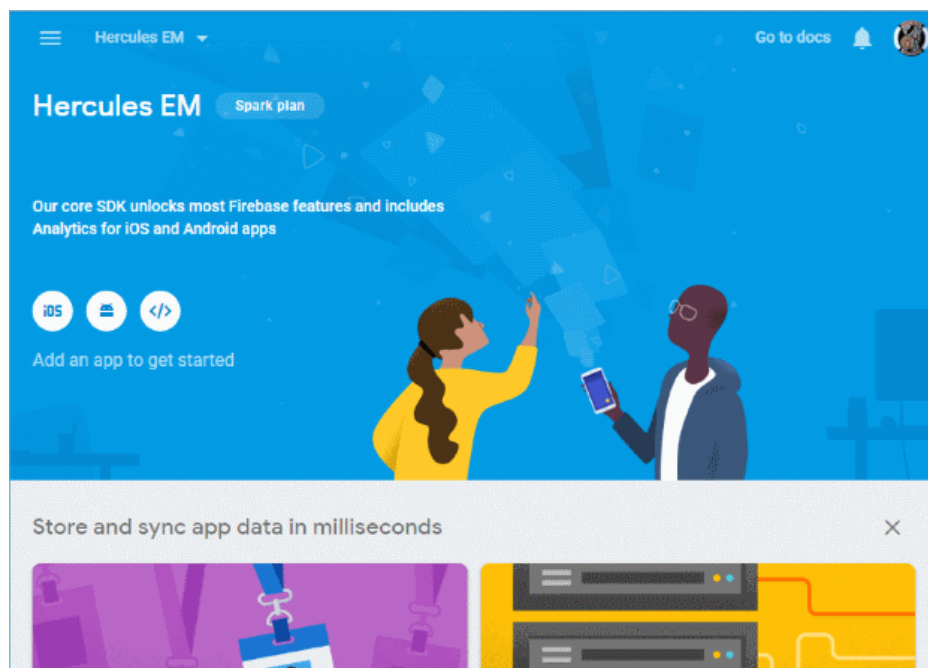
Cancel **Create project**

- Type a name for the new project in the 'Project name' field
- Click the pencil icon beside the 'Locations' field and select your country and Google Cloud Firestore server location nearest to you.
- Leave 'Use the default settings for sharing Google Analytics for Firebase data' selected
- Read Agree to the terms and conditions by selecting respective checkboxes
- Click 'Create Project'.

Your project is created.

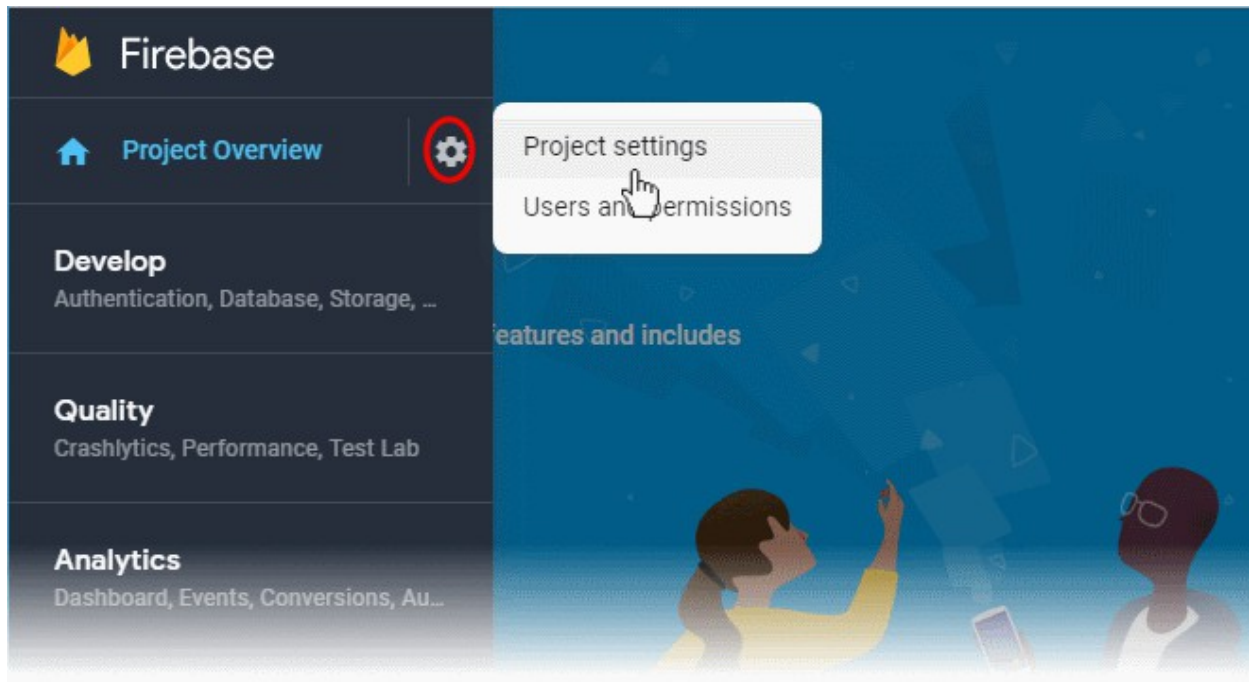


- Click 'Continue' to go to the project dashboard



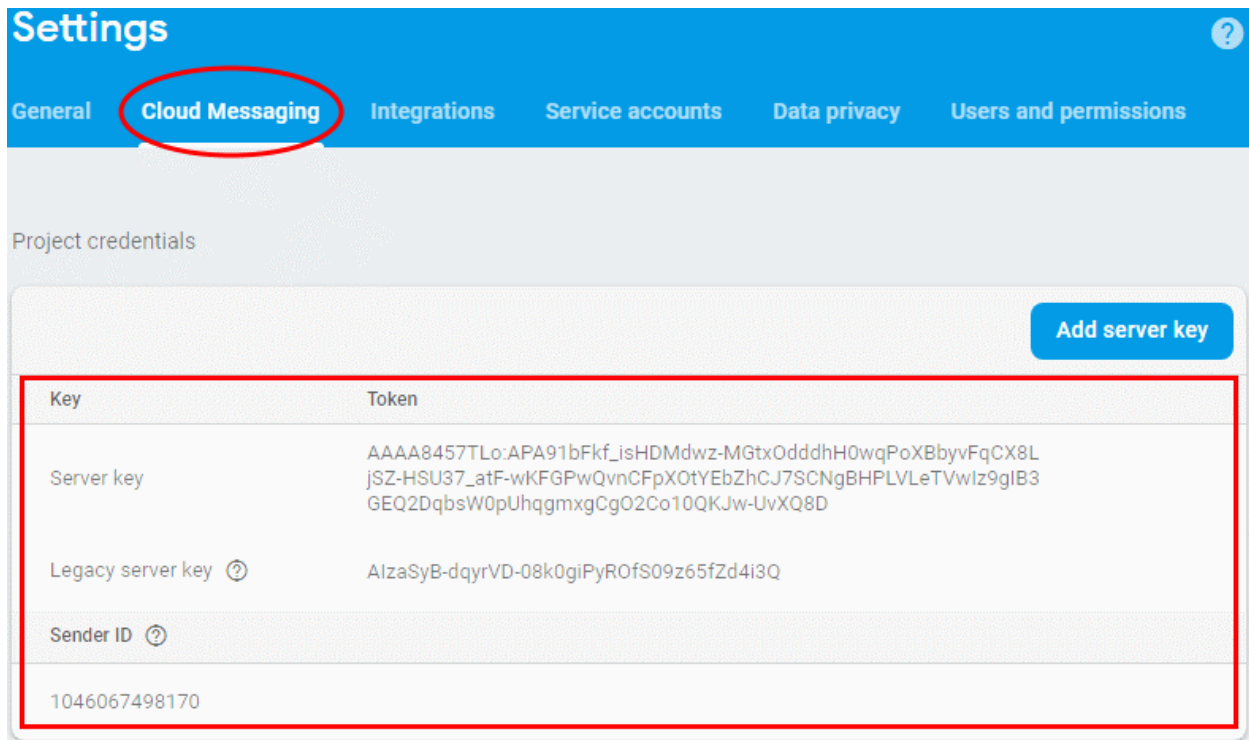
## Step 2 - Obtain GCM Token and Project number

- Click the hamburger button
- Click the gear icon beside 'Project Overview' and choose 'Project settings' from the options.



The 'Settings' screen for the project appears.

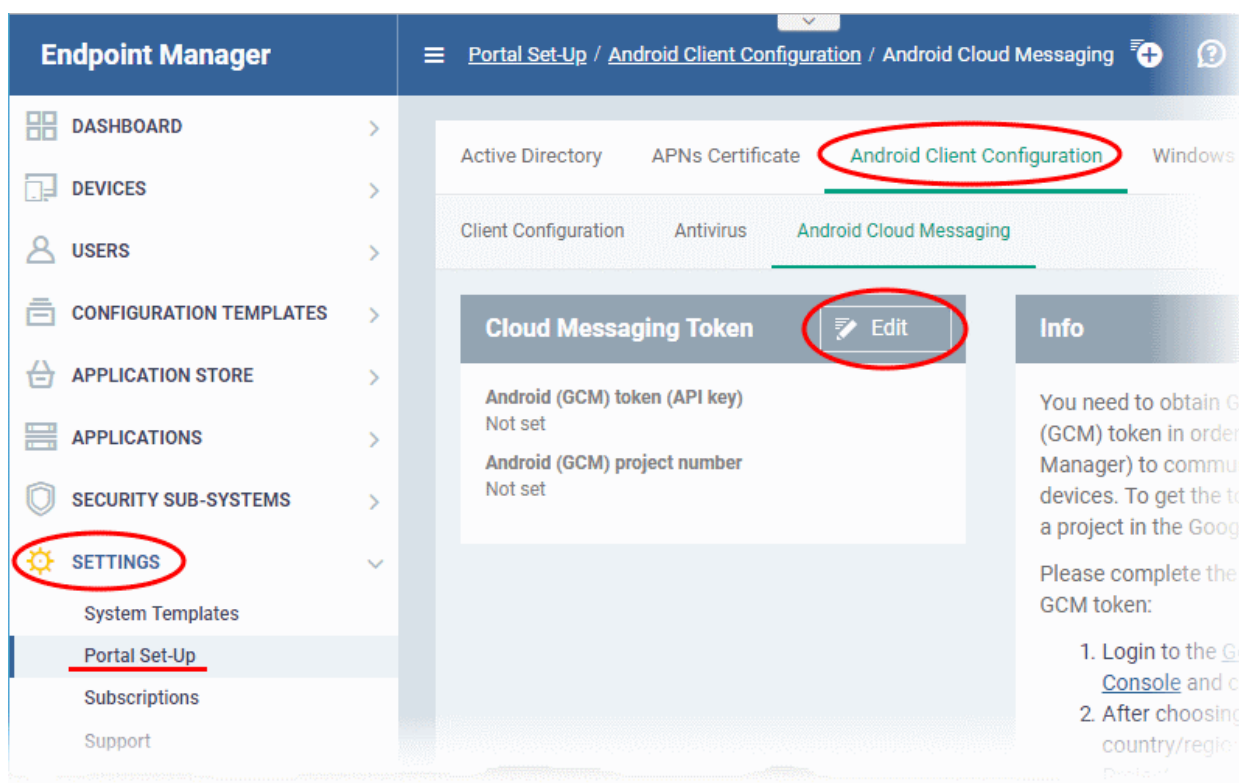
- Click the 'Cloud Messaging' tab.



- Note down the 'Server key' and 'Sender ID' in a safe place

### Step 3 - Enter GCM Token and Project number

- Login to Endpoint Manager
- Click 'Settings' > 'Portal Set-Up' > 'Android Client Configuration' and choose 'Android Cloud Messaging' tab



- Click the edit button  at the top right of the 'Cloud Messaging Token' column, to view the GCM token and project number fields

**Cloud Messaging Token** Cancel Save

**Android (GCM) token (API key)**

**Android (GCM) project number**

- Paste the 'Server key' into 'Android (GCM) Token' field.
- Paste the 'Sender ID' into 'Android (GCM) Project Number' field.



**Cloud Messaging Token** [Cancel] [Save]

**Android (GCM) token (API key)**  
AAAA8457TL0:APA91bFkf\_isHDMdwz-  
MGtxOdddH0wqPoXBbyvFqCX8LjSZ-HSU37\_atF-  
wKFGPwQvnCFpX0tYebZhCJ7SCNgbHPLVLeTVwIz9gIB3GEQ2Dq

**Android (GCM) project number**  
1046067498170

- Click 'Save'.

Your settings will be updated and the token/project number will be displayed in the same interface.

Your EM Portal will now be able to communicate with Android devices using the unique token generated for your EM portal.

## 11.2.4. Configure EM Windows Client

- Click 'Settings' > 'Portal Set-up' > 'Windows Client Configuration'

The 'Windows Agent Configuration' area lets you configure time intervals for device information updates and polling intervals for the communication client installed on the Windows devices to obtain commands from Endpoint Manager.

### To configure the windows communication client

- Click 'Settings' > 'Portal Set-Up'
- Click the 'Windows Client Configuration' tab

Active Directory | APNs Certificate | Android Client Configuration | **Windows Client Configuration** | Extensions M ▶

**Windows Client Configuration** [Edit]

**Device dynamical information update**  
Every 15 minutes

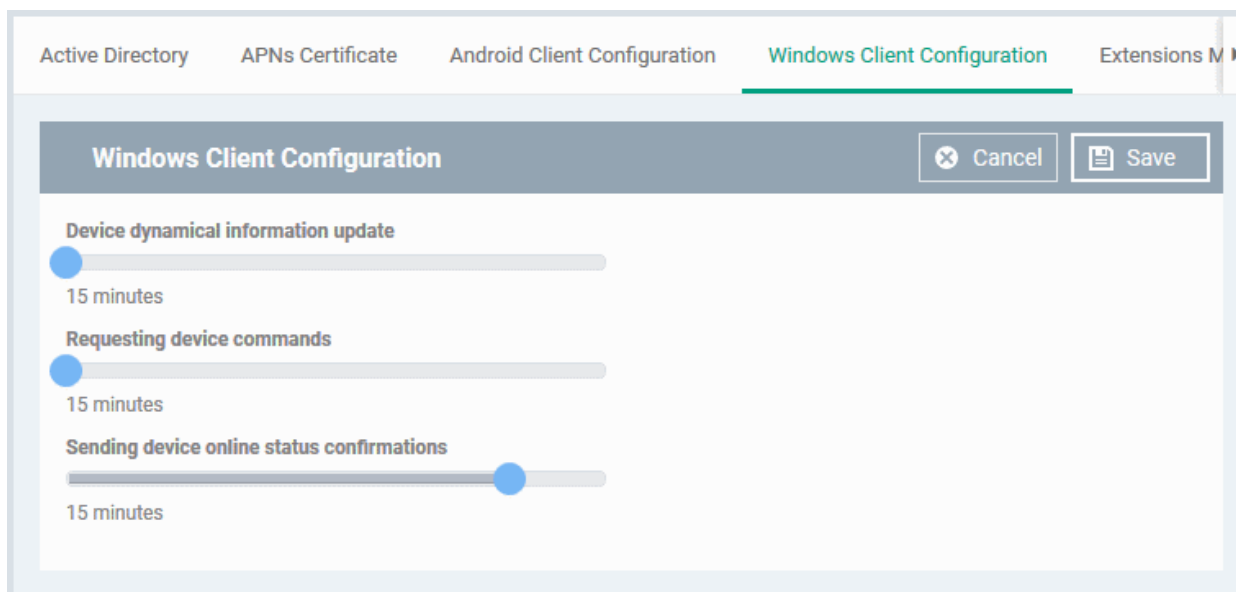
**Requesting device commands**  
Every 15 minutes

**Sending device online status confirmations**  
Every 15 minutes

The default values of the update intervals are displayed.

- Click the edit button  on the top right to modify these settings

The settings screen will be displayed.



Windows Agent Configuration Settings	
Parameter	Description
Device dynamical information update	How often the communication client on the device should provide EM with updates about its status. This includes, for example, memory status, name of the device, OS summary, security information from the CCS installation and network information. Use the slider to set the update interval. (Default = 15 minutes)
Request device commands	The frequency at which the client on the device should poll the EM server to receive commands about, for example, updating configuration profiles, refreshing device information and so on. Use the slider to set the update interval. (Default = 15 minutes)
Sending device online status confirmations	The frequency at which the client on the device should send a message confirming that it is online and connected. If EM does not receive such a message for more than the set time period, it changes the device status to 'Offline'. Use the slider to set the update interval. (Default = 15 minutes)

- Click 'Save' to apply your changes.

## 11.2.5. Manage Endpoint Manager Extensions

- Click 'Settings' > 'Portal Set-up' > 'Extensions Management'
- Endpoint Manager Extensions are additional software modules which administrators can add to EM to expand its functionality. Once added, each extension can be controlled and managed from the EM interface.
- The 'Extensions Management' interface lets you enable or disable modules.

The extension currently available is:

- **Comodo Client Security** - Comodo Client Security is the remotely managed Client Security software installed on managed Windows devices. It offers complete protection against internal and external threats by combining a powerful antivirus, an enterprise class packet filtering firewall, an advanced host intrusion prevention system (HIPS) and Containment feature that runs unknown and unrecognized applications in an isolated environment at the endpoints. CCS can be installed on the endpoints from the 'Devices' interface. See [Remotely Install and Update Packages on Windows Devices](#) for more details.

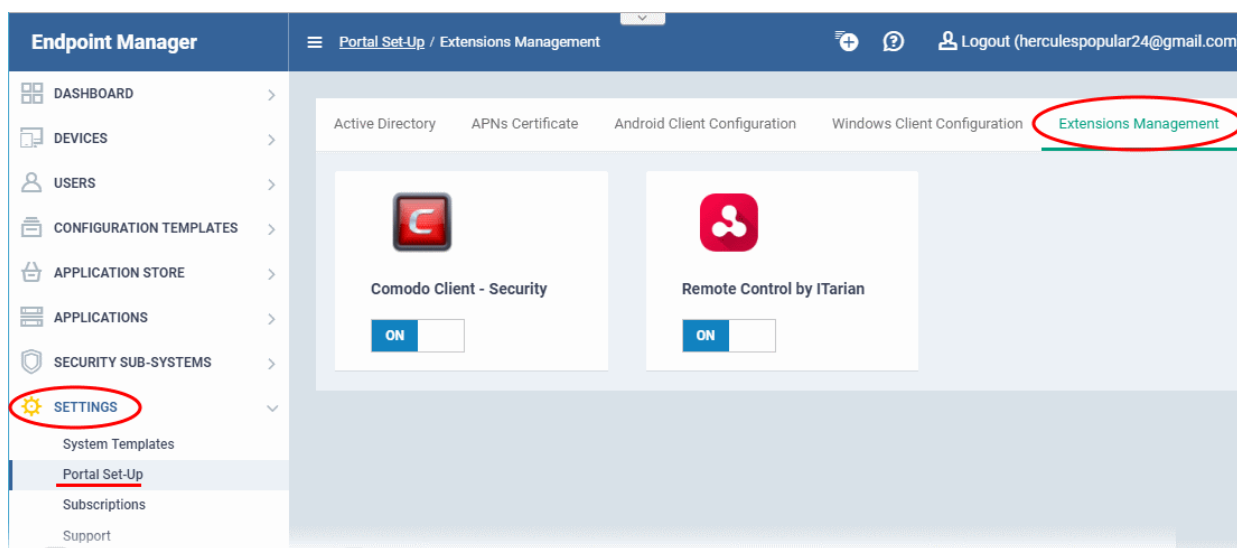
Once installed, CCS can be configured for optimal security by applying configuration profiles. See [Profiles for Windows Devices](#) for more details.

- **Remote Control by ITarian** - 'Remote Control by ITarian' lets you to take control of managed Windows and Mac OS endpoints through remote desktop connection. This allows you to solve issues, install third party software, run system maintenance and more. There are two ways to remote control of a device:
  - **Remote Control by ITarian** (recommended) - Install the client viewer software on your Windows or Mac OS admin computer to take control of any managed Windows endpoint.
  - **Comodo Remote Monitoring and Management (RMM)** - Customers using our legacy RMM product can connect to Windows endpoints using the remote desktop feature built into that product.

You can take remote control of a Windows or Mac OS device from the 'Device Management' interface. For more details, see [Remote Management of Windows and Mac OS Devices](#).

### To enable or disable EM extensions

- Click 'Settings' > 'Portal Set-Up'
- Click the 'Extensions Management' tab



- Use the toggle switch in a tile to enable or disable an extension. Only extensions which are enabled will be available in the 'Device Management' interface.
- See [Remotely Install and Update Packages on Windows Devices](#) and [Remote Management of Windows and Mac OS Devices](#) for more details.

## 11.2.6. Configure Endpoint Manager Reports

Endpoint Manager undergoes rigorous Quality Assurance testing before release to ensure that the software is as stable and reliable as possible. However, in rare situations, EM may run into an exception which needs to be addressed. If the report setting is enabled, an exception report will automatically be sent to Comodo if EM encounters a problem.

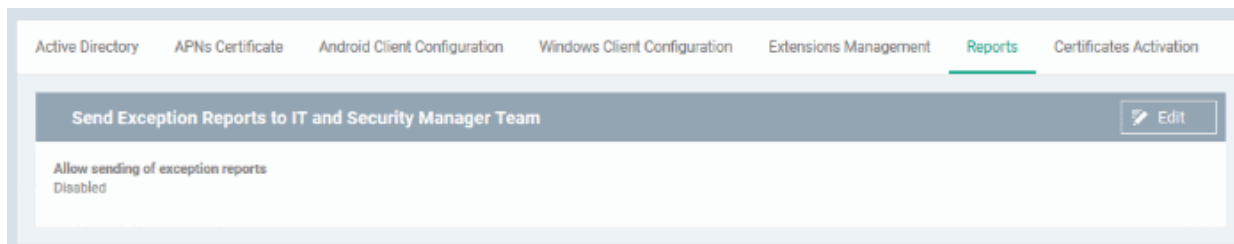
Exception reports are a valuable and constructive means of feedback that help Comodo to debug our products and improve the service we provide to our customers.

These reports contain only the line of code that failed with additional information about the circumstances of the exception. They do not contain any private information about your company or your users.

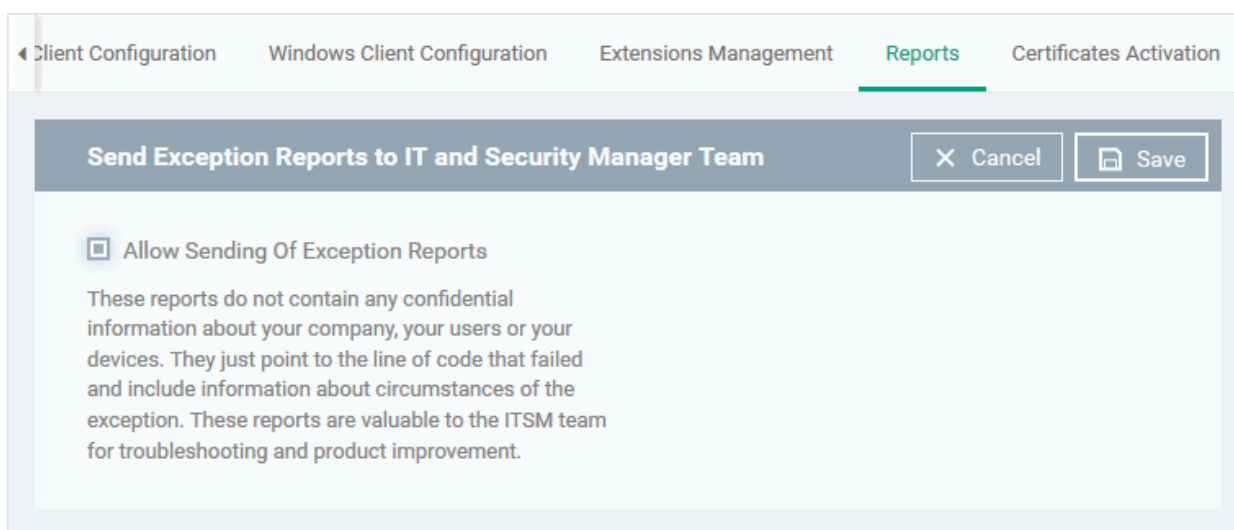
The 'Reports' interface allows you to enable or disable automated sending of exception reports. Automatic report submission is disabled by default.

### To configure exception reporting

- Click 'Settings' > 'Portal Set-Up'
- Click the 'Reports' tab



- To edit the settings click the edit button  at the top right.



- **Allow sending of exception reports** - Send anonymous reports to the Endpoint Manager team if the application encounters errors
- Click 'Save' for your settings to take effect.

## 11.2.7. Integrate with Sectigo Certificate Manager

Endpoint Manager allows admins to integrate their Sectigo Certificate Manager (SCM) account with EM to issue client certificates to end-users and device certificates to managed devices. These certificates can also be used for authentication for secure connection applications like VPN connections.

Administrators can add any number of SCM accounts from different SCM servers for different organizations. Certificates will be issued to end-users/devices by the SCM server with which the organization is associated.

**Note 1:** Sectigo Certificate Manager is the new name for Comodo Certificate Manager. We are in the process of updating the Endpoint Manager UI to reflect this name change. [Click here](#) if you want to read more about the Comodo CA/Sectigo rebrand.

**Note 2:** Please contact your Sectigo Account Manager should you need a SCM account.

**Note 3:** Endpoint Manager communicates with Sectigo servers and communication clients on devices in order to update data, deploy profiles, issue client certificates, submit unknown files for analysis to Valkyrie, monitor Windows events and provide alerts. You need to configure your firewall accordingly to allow these connections. The details of IPs, hostnames and ports are provided in [Appendix 1](#).

Once an SCM account is added, a new component will be added to your profiles called 'CCM Certificates'.

You can configure client and device certificate requests in a profile which can be applied to enrolled devices. Once

the profile is applied, a corresponding certificate request will be sent to SCM. SCM obtains the certificate and sends it to EM which in turn pushes it to the communication client on the device. The client installs the certificate to the certificate store in the respective device.

The client certificate can also be used for email signing and encryption if it is imported into a user's mail client.

The rest of this section explains how to integrate your SCM account to Endpoint Manager.

## Prerequisites:

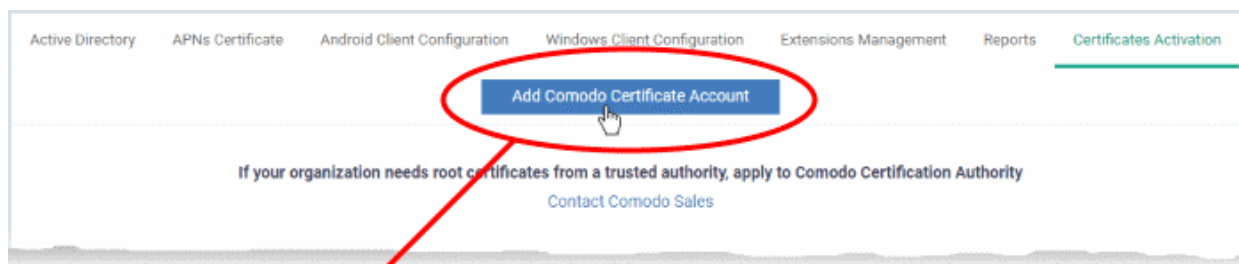
- The organization whose end-users/devices require certificates is added as an organization in SCM.
- The email domains used by end-users have been delegated to the organization in SCM.
- SMIME certificate enrollment through Web API has been enabled for the SCM organization, and a secret key has been set for Web API enrollment.

For help to add an organization to SCM and configure it for enrollment of client certificates through Web API, please see the respective section in the SCM admin guide: <https://help.comodo.com/topic-286-1-606-7511-Comodo-Certificate-Manager-MRAO.html>.

## To add an SCM Account

- Click 'Settings' > 'Portal Set-Up'
- Click the 'Certificate Activation' tab
- Click 'Add Comodo Certificate Account'

The 'Add Account' dialog opens.



Add Account
✕

**Login \***

**Password \***

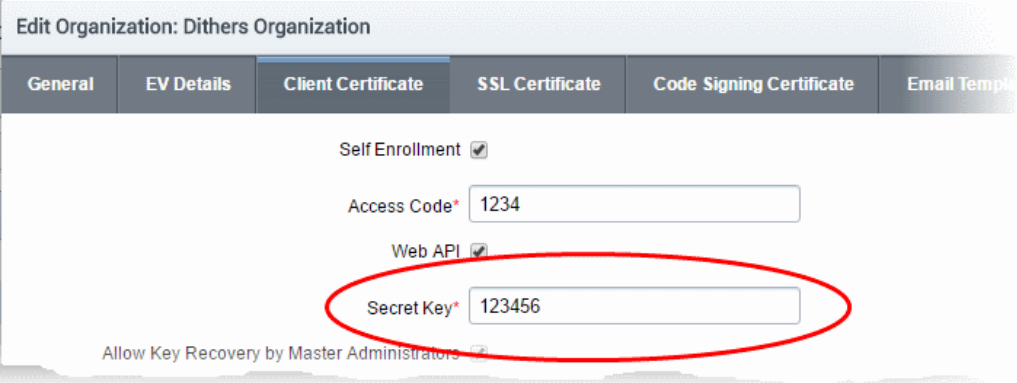
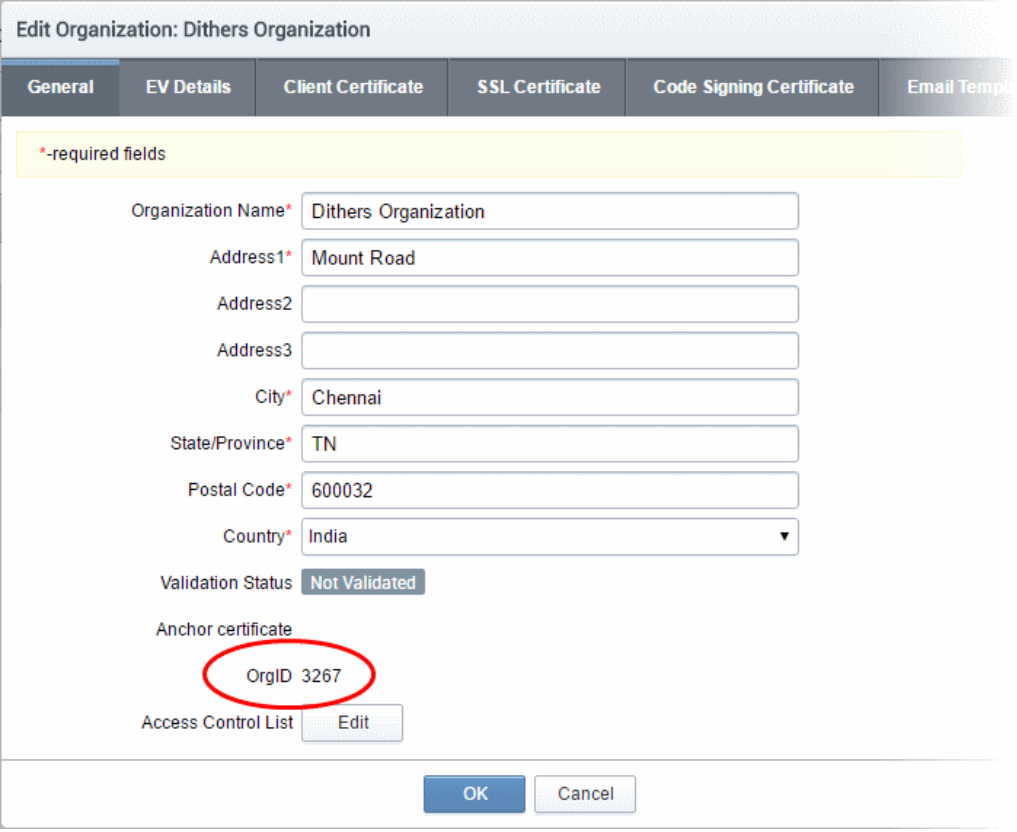
**Login URI \***

**Secret key \***

**Organization ID \***

**Certificate server \***

Add Account Dialog - Description of form parameters	
Field	Description
Login/Password	The username/password for the SCM MRAO Administrator account. This will allow EM to access SCM.
Login URI	The customer URI of the SCM account which you wish to add to EM. <b>Tip:</b> The customer URI is the suffix of the URL used to access SCM. SCM URLs use the following format: https://cert-manager.com/customer/<customer URI> So if your URL is https://cert-manager.com/customer/examplecompany , then you would enter 'examplecompany' in this field.
Secret Key	Enter the secret key which has been set for the organization for Web API enrollment of client

	<p>certificates.</p> <p><b>Tip:</b> You can find the secret identifier in SCM from the 'Client Cert' tab of the Add/Edit organization dialog:</p>  <p>For more details, see the following section of the SCM admin guide: <a href="https://help.comodo.com/topic-286-1-606-7511-Comodo-Certificate-Manager-MRAO.html">https://help.comodo.com/topic-286-1-606-7511-Comodo-Certificate-Manager-MRAO.html</a>.</p>
<p>Organization ID</p>	<p>Enter the ID of the organization to which certificates are to be issued from this SCM account.</p> <p><b>Tip:</b> You can identify the organization id in SCM from the 'General' tab of the 'Edit Organization' dialog of the organization:</p>  <p>For more details, see <a href="https://help.comodo.com/topic-286-1-606-7511-Comodo-Certificate-Manager-MRAO.html">https://help.comodo.com/topic-286-1-606-7511-Comodo-Certificate-Manager-MRAO.html</a>.</p>
<p>Certificate Server</p>	<p>Choose the SCM server at which you have your SCM account subscription:</p>



- Click 'Add' after completing the form.

The SCM account is now added to Endpoint Manager. EM can issue client certificates to users of Windows devices. You can also issue device certificates by applying a suitably enabled profile to the device.

The SCM account is listed in the interface as shown below:

LOGIN	LOGIN URI	CERTIFICATE SERVER	CREATED	CHECKED AT	API ENABLED
<input type="checkbox"/> itsm_dithers	dithers	cert-manager.com	2017/02/01 04:00:02 PM	2017/02/01 04:00:02 PM	Enabled

Results per page: 20 | Displaying 1 of 1 results

Certificates Activation - Column Descriptions	
Column Heading	Description
Login	The username of the MRAO Administrator account for EM to login to SCM. Click the username to view the account details like the login URI and the Organization ID of the organization to which certificates are issued from this account.
Login URI	The real customer URI of the SCM account.
Certificate Server	The SCM server from which the account is subscribed. The certificates will be issued only from this server,
Created	The precise date and time at which the SCM account was added to EM by the administrator.
Checked at	The precise date and time at which the EM logged-in to the SCM account.
API Enabled	Whether the organization is enabled for procuring client and device certificates from SCM through API integration.

- To add more SCM accounts, click 'Add Account' at the top left and repeat the process as explained above.

## 11.2.8. Set-up Administrator's Time Zone

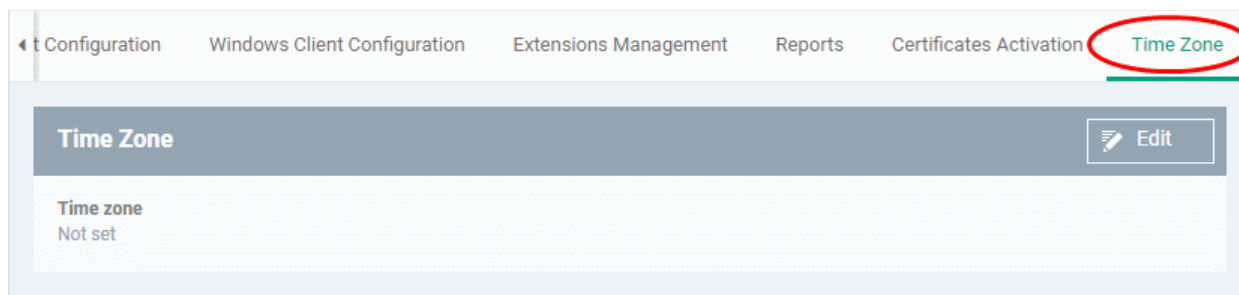
**Note.** Administrators added through Comodo One or ITarian must set their time zone in the C1/ITarian console.

Only administrators added directly to Endpoint Manager can set their time zone in the EM console.

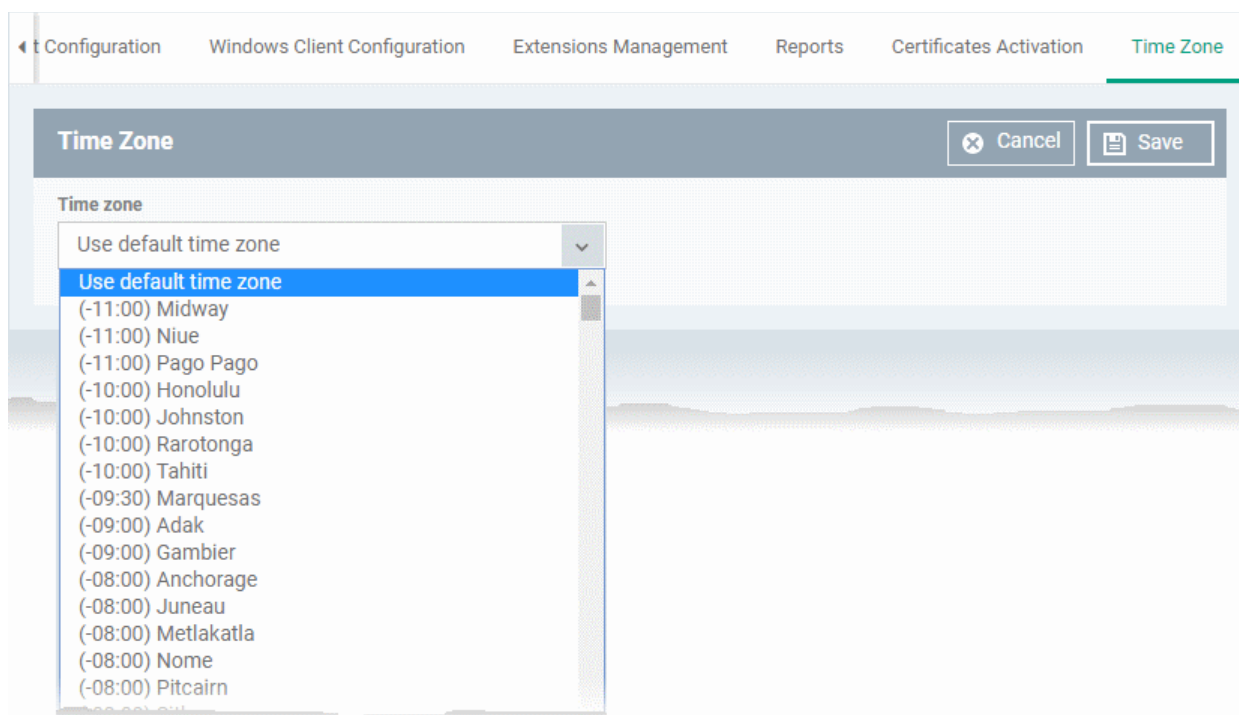
## To set your time zone

- Click 'Settings' > 'Portal Set-Up'
- Click the 'Time Zone' tab

**Note:** The 'Time Zone' tab is only available if you login to EM through your dedicated URL. It is not available if you login through Comodo One or ITarian console.



- Click 'Edit' at the top right



- Choose your time zone from the 'Time Zone' drop-down and click 'Save'.

Your time zone will be updated. All logs and interface time indicators will use the set time zone..

## 11.3. View and Manage Licenses

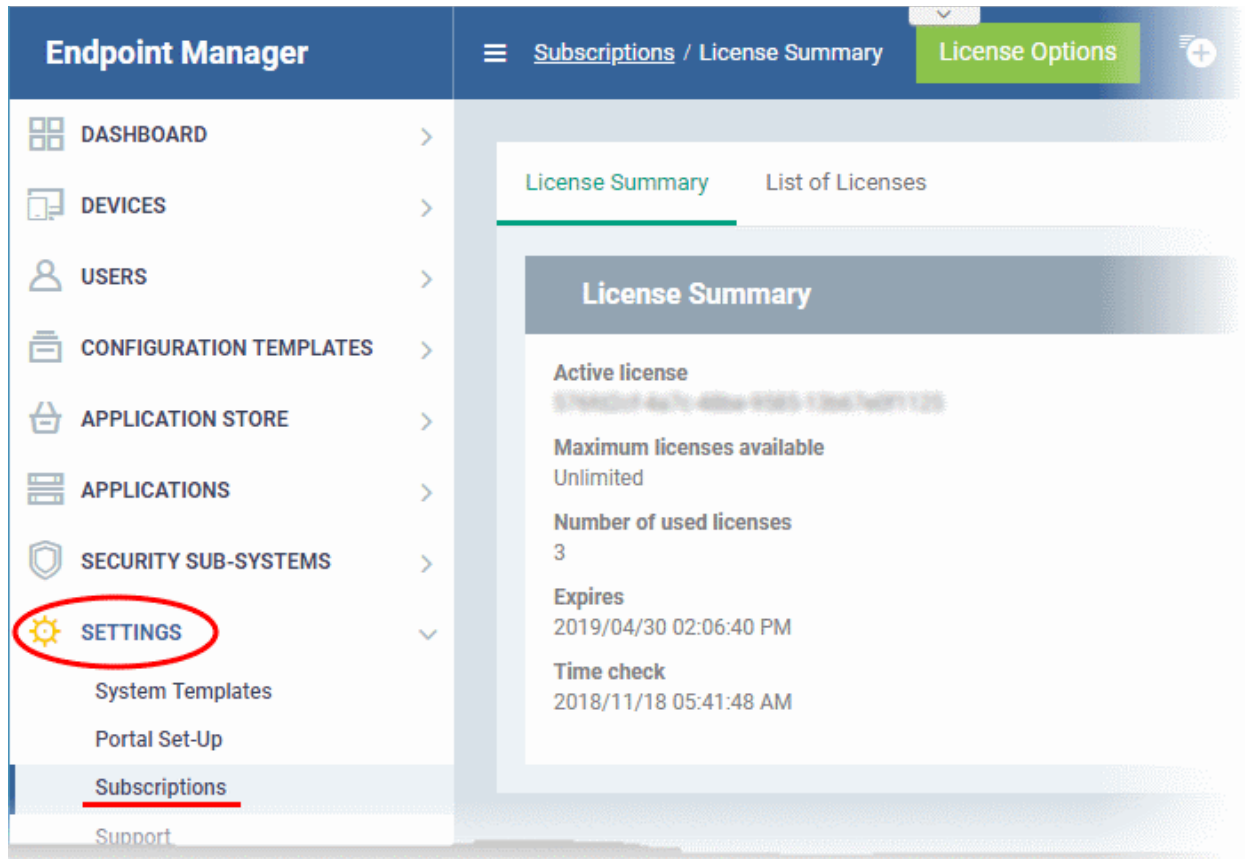
- Click 'Settings' > 'Subscriptions'
- The subscriptions area contains your license details, validity, and the number of devices allowed on each.
- You can also add new licenses from this interface.

### To view and manage licenses

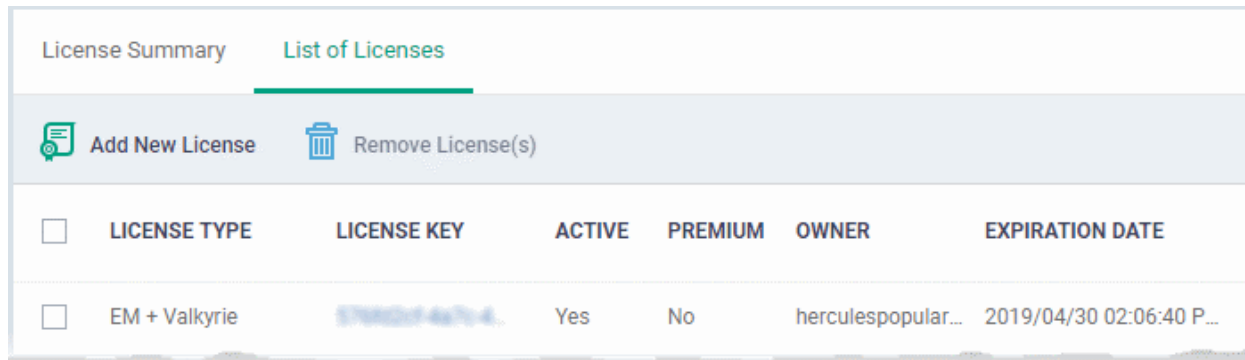
- Click 'Settings' > 'Subscriptions'.

The interface has two tabs:

- **License Summary** - Active licenses.



- **List of Licenses** - All licenses purchased so far.



- Click a license key to view its details.

### License details

<h4>Main License Details</h4> <p><b>License key</b> [REDACTED]</p> <p><b>License type</b> EM + Valkyrie</p> <p><b>Maximum licenses available</b> Unlimited</p> <p><b>Licensed to</b> herculespopular22@gmail.com</p> <p><b>Free</b> Yes</p> <p><b>Active</b> Yes</p>	<h4>Advanced</h4> <p><b>Valid from</b> 2018/04/30 02:07:20 PM</p> <p><b>Expires</b> 2019/04/30 02:06:40 PM</p> <p><b>Time check</b> 2018/11/18 05:41:48 AM</p> <p><b>License registered at</b> 2018/04/30 02:06:40 PM</p>
<h4>SubLicense Details</h4> <p><b>License key</b> [REDACTED]</p> <p><b>License type</b> Valkyrie Free</p> <p><b>Maximum licenses available</b> Unlimited</p> <p><b>Licensed to</b> herculespopular22@gmail.com</p> <p><b>Free</b> Yes</p> <p><b>Active</b> Yes</p>	<h4>Advanced</h4> <p><b>Valid from</b> 2018/04/30 02:07:20 PM</p> <p><b>Expires</b> 2019/04/30 02:06:40 PM</p> <p><b>Time check</b> 2018/11/18 05:41:48 AM</p> <p><b>License registered at</b> 2018/04/30 02:06:40 PM</p>

See [Upgrade or Add a License](#) for more help to renew or purchase licenses.

### Remove a License

- Click > 'Settings' > 'Subscriptions'
- Click the 'List of Licenses' tab
- Select the licenses you want to delete
- Click the 'Remove License' button:

The screenshot shows the 'List of Licenses' page in the Comodo Endpoint Manager. At the top, there are two tabs: 'License Summary' and 'List of Licenses'. Below the tabs, there are two buttons: 'Add New License' and 'Remove License(s)'. The 'Remove License(s)' button is circled in red. Below the buttons is a table with the following columns: 'LICENSE TYPE', 'LICENSE KEY', 'ACTIVE', 'PREMIUM', 'OWNER', and 'EXPIRATION DATE'. The first row of the table is circled in red and contains the following data: 'EM + Valkyrie', a blurred license key, 'Yes', 'No', 'herculespopular...', and '2019/04/30 02:06'. A red arrow points from the 'Remove License(s)' button to a dialog box titled 'Remove Licenses'. The dialog box contains the text 'Do you really want to delete checked-all, EM + Valkyrie licenses?' and two buttons: 'Confirm' and 'Cancel'.

- Click 'Confirm' to remove the license from the list.

## 11.3.1. Upgrade or Add a License

You can purchase new licenses by logging into Comodo Account Manager at <https://accounts.comodo.com>.

### To upgrade a license

- Log in at <https://accounts.comodo.com> with your Comodo username and password
- Select 'Endpoint Manager' and complete the purchase process.

Your license key will be sent via email to your registered email address.

- Alternatively, click 'License Options' at the top of the Endpoint Manager interface

The screenshot shows the 'Endpoint Manager' interface. In the top right corner, the 'License Options' button is highlighted with a red circle and a red arrow pointing to a detailed comparison table below.

	Core (free)	Premium	Managed
<b>Advanced Endpoint Protection (AEP)</b>			
<b>7-layer Advanced Endpoint Protection with Default Deny security posture</b> <a href="https://enterprise.comodo.com/advanced-endpoint-protection">https://enterprise.comodo.com/advanced-endpoint-protection</a> including World's best Containment technology	30 days	✓	✓
<b>Valkyrie - File intelligence service (automated artificial intelligence analysis)</b>	30 days	✓	✓
<b>Valkyrie - File intelligence service (manual analysis by human experts)</b>	30 days	✓	✓
<b>Patch management</b>	✓	✓	✓
<b>Monitoring - Proactive monitoring</b>	✓	✓	✓
<b>Procedures - Standalone instruction scripts</b>	✓	✓	✓
<b>Remote Access - Remote Desktop connection</b>	✓	✓	✓
<b>Full MDM (Mobile Device Management)</b>	✓	✓	✓
<b>Full MAM (Mobile Application Management)</b>	✓	✓	✓
<b>Full MSM (Mobile Security Management)</b>	✓	✓	✓
<b>BYOD support (Bring Your Own Device support)</b>	✓	✓	✓
<b>Community support</b>	✓	✓	✓
<b>24/7 professional support</b>	✓	✓	✓
<b>Managed Security</b>	✗	✗	✓

UPGRADE NOW (under Premium)      UPGRADE NOW (under Managed)

*One Premium / Managed license covers one device with enabled security.*

The 'License Options' screen shows a comparison of available license types:

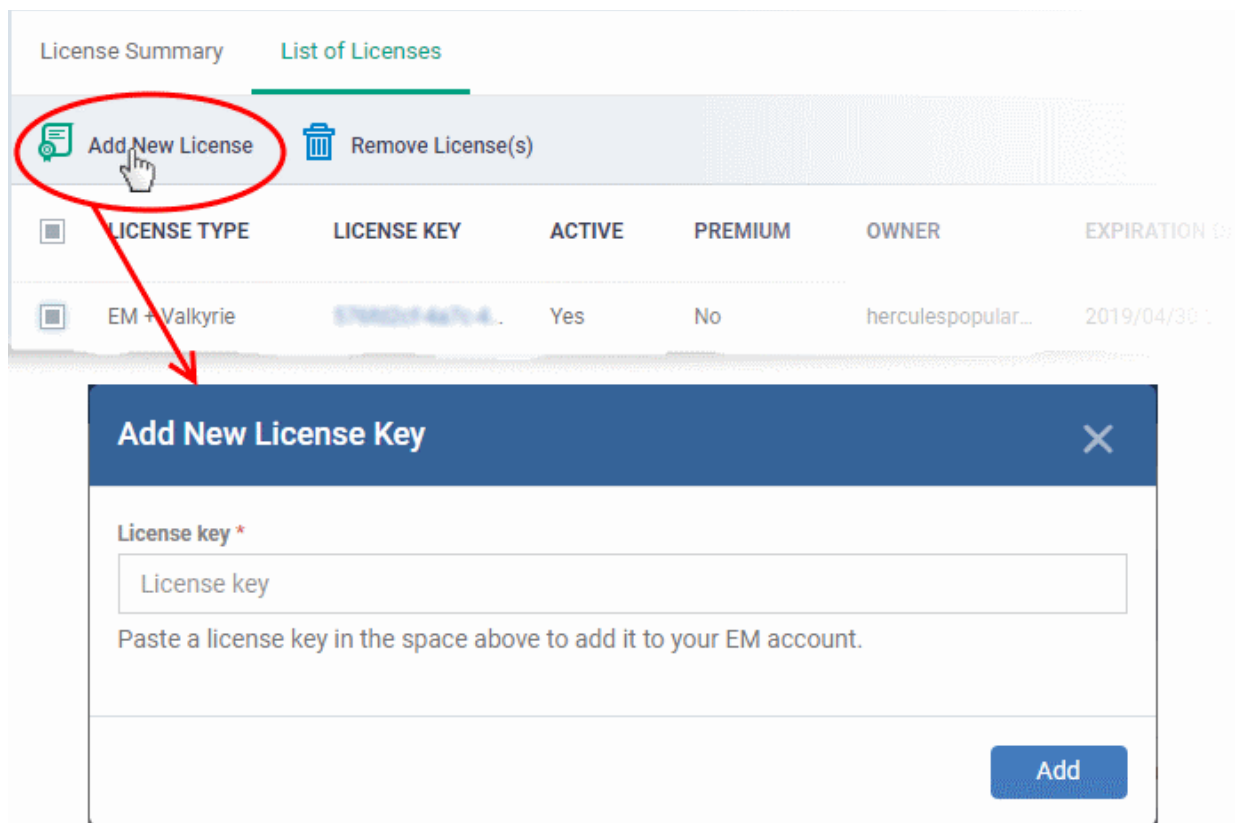
- Click 'Upgrade Now' under the license type you want.

You will be taken to the order forms to complete the purchase.

Once you have obtained a new license, you need to register it in Endpoint Manager.

## To add a new license

- Click 'Settings' > 'Subscriptions'
- Open the 'List of Licenses' tab
- Click 'Add New License' at the top left.



- Enter the license key from your license confirmation email.
- Click 'Add'.

Your new license is shown in the 'License Key' column.

- Click on the key to view license details and activation status.

## New License

Validate your license by using Endpoint Manager within 10 days of registration. Access to EM may be blocked otherwise.

## Renewal

Make sure to renew your license before it expires. You can access Endpoint Manager for up to 30 days after license expiry. Access is blocked when this grace period is over until you renew the license.

## 11.4. View Version and Support Information

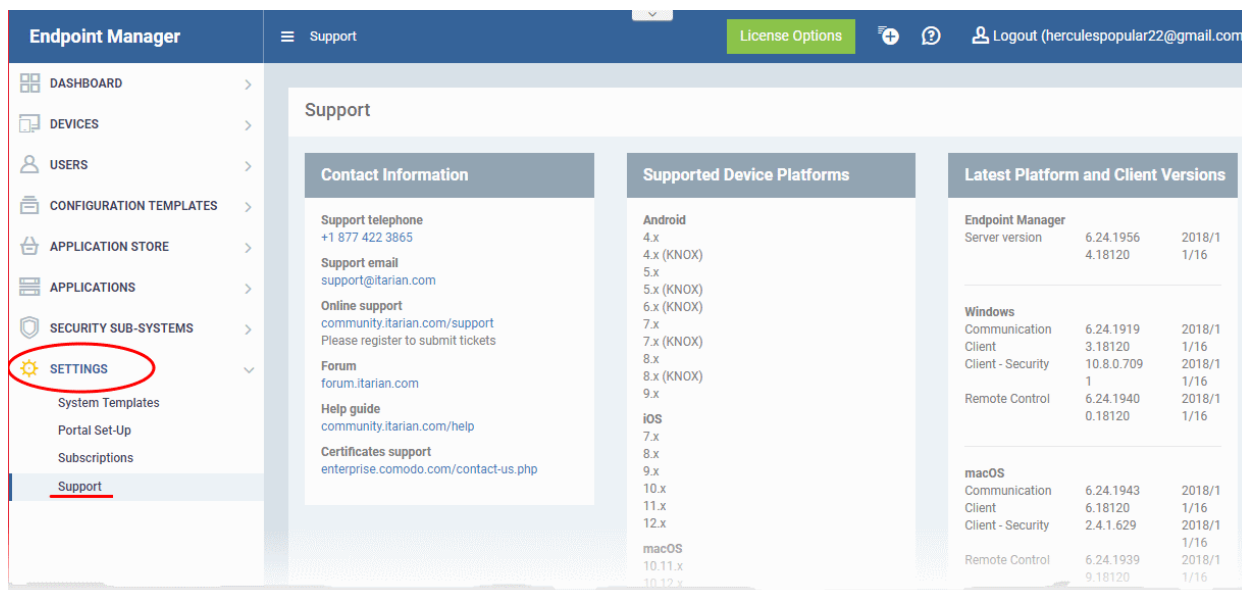
- Click 'Settings' > 'Support'

The support panel shows contact information, the Endpoint Manager version number, and a list of platforms supported by this version.

### To view the the version and support details

- Click 'Settings' > 'Support'

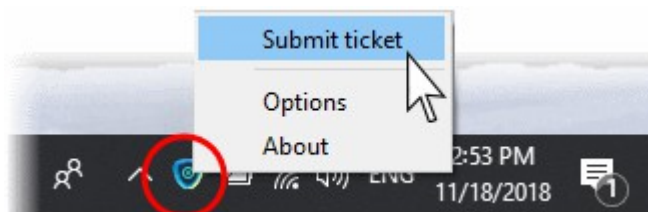




- **Contact Information** - Support telephone numbers and email addresses
- **Supported Device Platforms** - The devices and operating systems supported by this version of Endpoint Manager.
- **Latest Platform and Client Versions** - Version numbers of the Endpoint Manager server, communication clients and client security software.

**Submit Ticket** - Your end-users can submit a ticket to your Service Desk module for your technicians to handle.

- Right-click on the communication client tray icon and select 'Submit ticket'



The 'Submit ticket' dialog opens:

**Communication Client** Submit ticket [X]

**Please fill in the fields below and describe details of your issue:**

Issue Summary  
Required (max. 100 chars)

Department  
Support Department

Priority Level  
Normal

Issue Details  
Required (max. 5000 chars)

Include device data (brand, model, serial number, logged on user, domain/workgroup)

Note: Company, Device Name and Owner are included by default.

Submit Cancel

**Tip:** You can rebrand the dialog shown above as required. See [Communication Client and Comodo Client - Security Application UI Settings](#) in [Create Windows Profiles](#) for help with this.

- Issue Summary - Provide a short description of the issue.
- Department - Select the department to whom the ticket should be assigned.
- Priority Level - Select the priority from the drop-down. The levels are: Low, Normal, High and Critical.
- Issue Details - Provide detailed description of the issue.
- Click 'Submit'.

A support ticket will be created in the Service Desk module of the C1 or ITarian account based on your subscription and assigned to the selected department.

# Appendix 1a: Endpoint Manager Services - IP Nos, Host Names and Port Details - EU Customers

**Note:** This page contains information for customers located in Europe. [Click here](#) to see USA information instead.

- Endpoint Manager communicates with Comodo servers and your devices to issue commands, run virus scans, deploy updates and more.
- You need to configure your firewall accordingly to allow these connections.
- All client to server communications are encrypted over https connections using the strongest TLS protocols, RSA 2048 bit keys and SHA 256 algorithms.
- The tables on this page show firewall requirements for the following Comodo services:
  - **Communication Client (CC)**
  - **Comodo Client - Security (CCS)**
  - **Endpoint Manager Server (on premise installations)**
  - **Remote Control sessions**
    - *Remote Control Direct connection*
    - *Remote Control Peer to Peer connection*
    - *Remote Control Relay connection*
  - **All settings grouped by port**

## Communication Client (CC)

Communication Client (CC)					
Service	Purpose	Hostname	IP	Port	Criticality and notes
CC	Communication between device and EM server	subdomain.cmdm.comodo.com	Dynamic (Amazon load balancing)	443	Mandatory
Enrollment	To get client certificates	mdmsupport.comodo.com	54.93.214.133	443	Mandatory
Monitoring and alerts	Access to Monitoring and alerts server	plugins.cmdm.comodo.com	Dynamic (Amazon load balancing)	443	Mandatory
File rating management	Access to Local Verdict Server	subdomain.cmdm.comodo.com	Dynamic (Amazon load balancing)	443	Optional This is for reporting data from CCS
Windows push service (XMPP)	Device communication (push messages)	xmpp.cmdm.comodo.com	18.196.72.222 18.196.138.4 18.197.8.210	443	Mandatory
LDAP	Synchronization	User's LDAP server	User's LDAP server	389	Optional

synchronizati on	with LDAP via device	host	IP	636 (LDAPS)	For LDAP sync via device only. Related to Device to LDAP server connections only
SSO	Single Sign On	one.comodo.com	Dynamic (Amazon load balancing)	443	Mandatory
Client Security installation	Download and install/upgrade Client Security agent.  Requests to download.comodo. com are redirected to cdn.download.com odo.com which is managed by The CDN provider, and those IP addresses can change	download.comodo.co m	178.255.82.5	443, 80	Optional For CCS installation/upgrade only
		cdn.download.comod o.com	104.16.61.31 104.16.60.31	443, 80	
OCSP	Client certificate revocation checking	http://ocsp.comodoca .com/	Dynamic load balancing	80	Optional For mobile devices only. The Windows client does not perform OCSP checks.
CRL	Client certificate revocation checking	http://crl.comodoca.c om/	Dynamic load balancing	80	Optional For mobile devices only. The Windows client does not perform CRL checks.
3rd Party Patch Management	3rd party applications updates	patchportal.one.com odo.com	23.229.69.170	443	Optional For 3rd party software updates only
Telemetry	Sending telemetry data for analysis	cescollector.cwatcha pi.com	Dynamic (Amazon load balancing)	443	Optional

## Comodo Client - Security (CCS)

Comodo Client - Security (CCS)						
Service	Purpose	Hostname	IP	Port	Protocol	Criticality and notes
FLS	FLS lookup	fls.security.co modo.com	199.66.201.16	4447 (optional), 53	UDP	Mandatory - choose *either* UDP or TCP for FLS

						<p>UDP is the main, preferred FLS lookup channel</p> <p>53 - Default port.</p> <p>4447 - Reserve port.</p> <p>Can be specified manually in profile.</p> <p>At least one of the two ports must be open.</p>
	FLS lookup	fls.security.comodo.com	199.66.201.16	4448 (optional), 80	TCP	<p>Mandatory - choose *either* UDP or TCP for FLS</p> <p>TCP is the reserve FLS lookup channel.</p> <p>80 - Default port</p> <p>4448 - Reserve port.</p> <p>Can be specified manually in profile.</p> <p>At least one of the two ports must be open</p>
Valkyrie	Valkyrie lookup	valkyrie.comodo.com	Dynamic (Amazon load balancing)	443	HTTPS	<p>Optional</p> <p>Valkyrie lookup is currently disabled on CCS, CCS gets Valkyrie verdicts from LVS.</p>
	Submit to Valkyrie	valkyrie.comodo.com	Dynamic (Amazon load balancing)	443	HTTPS	Mandatory
cdn.download.comodo.com	Update / upgrade mirror	cdn.download.comodo.com	104.16.61.31 104.16.60.31	80	HTTP	Mandatory
		cdn.download.comodo.com	104.16.61.31 104.16.60.31	443	HTTPS	
download.comodo.com	Update/upgrade. Requests to download.comodo.com are redirected to cdn.download.comodo.com which is managed by The CDN provider, and those IP addresses can change	download.comodo.com	178.255.82.5	80	HTTP	Mandatory
		download.comodo.com	178.255.82.5	443	HTTPS	
LVS	Download the EM verdicts database	s3-eu-west-1.amazonaws.com	Dynamic (Amazon load balancing)	443	HTTPS	Mandatory

	LVS lookup	subdomain.cm dm.comodo.co m	Dynamic (Amazon load balancing)	443	HTTPS	
OCSP	Client certificate revocation checking	http://ocsp.co modoca.com/	Dynamic load balancing	80	-	Optional CCS does not perform CRL checking yet
CRL	Client certificate revocation checking	http://crl.como doca.com/	Dynamic load balancing	80	-	Optional CCS does not perform CRL checking yet

## Endpoint Manager Server (on premise installation)

Endpoint Manager Server (on premise)				
Service	Purpose	Hostname	IP	Port
E-mail	Connection to the configured SMTP server for e-mail sending	SMTP server hostname	SMTP server IP	25
LDAP synchronization	Direct synchronization with LDAP	User's LDAP server host	User's LDAP server IP	389 636 (LDAPS)
Connection to Comodo Accounts Manager	License verification	https://accounts.como do.com	91.199.212.166	443
Google Cloud Messaging	To push messages	https://android.google apis.com/gcm/send	Dynamic	443
Connection to Apple Push Notification Server	To push messages	https://gateway.push.a pple.com	Dynamic	2195 2196 80 443
Local Verdict Server	File rating management	EM server hostname	EM server IP	443

## Remote Control

Remote Control						
Service	Purpose	Hostname	IP	Port	Protocol	Criticality and notes
XMPP	Remote Control Session (with new version of Comodo RC*)	xmpp.cmdm.c omodo.com	18.196.72.222 18.196.138.4 18.197.8.210	443	HTTPS	Mandatory for both RC host and target device
STUN server	To receive possible	stun.l.google. com	Dynamic	19302	UDP	Mandatory for both RC host and target

	network configuration, external ip etc.					device for peer-to-peer and relay connections.
Direct connection	Establish direct connection between RC and target device.	-	IP of the RC host AND target host	Local port range specified in profile.  Win7+/MacOS. Default port range= 49152 - 65535  WinXP/2003. Default port range = 1025-5000	UDP	Mandatory for both RC host and target device
Peer-to-peer connection	Establish peer-to-peer connection RC and target device.	-	18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	3478	UDP	Mandatory for both RC host and target device for peer-to-peer connections.
Relay connection	Establish relay connection between RC and target device.	-	18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	3478, 49152 - 65535	UDP	Mandatory for both RC host and target device for relay connections.

### Remote Control - Direct connection by traffic direction \*

Outgoing Traffic				
Source		Destination		Protocol
IP	Port	IP	Port	
Local IP 1	local port range specified in profile (Win7+/MacOS default port range: 49152 — 65535) (WinXP/2003 default port range: 1025-5000)	Local IP 2	local port range specified in profile (Win7+/MacOS default port range: 49152 — 65535) (WinXP/2003 default port range: 1025-5000)	UDP

Incoming Traffic				
Source		Destination		Protocol
IP	Port	IP	Port	
Local IP 2	local port range specified in profile	Local IP 1	local port range specified in	UDP



	(Win7+/MacOS default port range: 49152 - 65535) (WinXP/2003 default port range: 1025-5000)		profile(Win7+/MacOS default port range: 49152 - 65535) (WinXP/2003 default port range: 1025-5000)	
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\* - applies to both sides - RC host and target

**Remote Control - Peer to Peer Connection by traffic direction \***

Outgoing Traffic				
Source		Destination		Protocol
IP	Port	IP	Port	
Local IP	local port range specified in profile(Win7+/MacOS default port range: 49152 - 65535)(WinXP/2003 default port range: 1025-5000)	18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	3478	UDP
Local IP	local port range specified in profile(Win7+/MacOS default port range: 49152 — 65535)(WinXP/2003 default port range: 1025-5000)	stun.l.google.com	19302	

Incoming Traffic				
Source		Destination		Protocol
IP	Port	IP	Port	
18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	3478	Local IP	local port range specified in profile(Win7+/MacOS default port range: 49152 - 65535)(WinXP/2003 default port range: 1025-5000)	UDP
stun.l.google.com	19302	Local IP	local port range specified in profile(Win7+/MacOS default port range: 49152 — 65535)(WinXP/2003 default port range: 1025-5000)	

\* - applies to both sides - RC host and target

**Remote Control - Relay connection by traffic direction\***

Outgoing Traffic				
Source		Destination		Protocol
IP	Port	IP	Port	
Local IP	local port range specified in profile(Win7+/MacOS default port range: 49152 - 65535)(WinXP/2003 default port range: 1025-5000)	18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	3478, 49152 - 65535	UDP

Local IP	local port range specified in profile(Win7+/MacOS default port range: 49152 — 65535) (WinXP/2003 default port range: 1025-5000)	stun.l.google.com	19302	
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Incoming Traffic				
Source		Destination		Protocol
IP	Port	IP	Port	
18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	3478, 49152 - 65535	Local IP	local port range specified in profile(Win7+/MacOS default port range: 49152 - 65535)(WinXP/2003 default port range: 1025-5000)	UDP
stun.l.google.com	19302	Local IP	local port range specified in profile(Win7+/MacOS default port range: 49152 - 65535)(WinXP/2003 default port range: 1025-5000)	

\* - applies to both sides - RC host and target

### All settings grouped by port

This table contains the same information as the other four tables on this page but with services grouped by port number.

Settings Grouped by Port					
Port	Service	IP	URL / Hostname	Protocol	Component
443	CC	Dynamic (Amazon load balancing)	subdomain.cmdm.comodo.com	HTTPS	Communication Client
	Enrollment	54.93.214.133	mdmsupport.comodo.com	HTTPS	
	Monitoring and alerts	Dynamic (Amazon load balancing)	plugins.cmdm.comodo.com	HTTPS	
	File rating management	Dynamic (Amazon load balancing)	subdomain.cmdm.comodo.com	HTTPS	
	Windows push service (XMPP)	18.196.72.222 18.196.138.4 18.197.8.210	xmpp.cmdm.comodo.com	HTTPS	
	SSO	69.4.89.244	one.comodo.com	HTTPS	

	3rd party patch management	23.229.69.170	patchportal.one.comodo.com	HTTPS	
	Client Security installation	178.255.82.5	download.comodo.com	HTTPS	
		104.16.61.31 104.16.60.31	cdn.download.comodo.com	HTTPS	
	Telemetry	Dynamic (Amazon load balancing)	cescollector.cwatchapi.com	HTTPS	
	Valkyrie	178.255.87.4	valkyrie.comodo.com	HTTPS	Comodo Client Security
	Update/upgrade. Requests to download.comodo.com are redirected to cdn.download.comodo.com which is managed by The CDN provider, and those IP addresses can change	178.255.82.5	download.comodo.com	HTTPS	
	Updates/upgrades mirror	104.16.61.31 & 104.16.60.31	cdn.download.comodo.com	HTTPS	
	LVS	Dynamic (Amazon load balancing)	s3-eu-west-1.amazonaws.com	HTTPS	
		Dynamic (Amazon load balancing)	subdomain.cmdm.comodo.com	HTTPS	
	License verification	91.199.212.166	accounts.comodo.com	HTTPS	EM server (on premise)
	Google cloud messaging	Dynamic	android.googleapis.com/gcm/send	HTTPS	
	Apple push notifications	Dynamic	gateway.push.apple.com	HTTPS	

	Local Verdict Server	EM server IP	EM server hostname	HTTPS	
	XMPP	18.196.72.222 18.196.138.4 18.197.8.210	xmpp.cmdm.comodo.com	HTTPS	Remote Control
80	Client Security installation	178.255.82.5	download.comodo.com	HTTPS	Communication Client
		104.16.61.31 104.16.60.31	cdn.download.comodo.com	HTTPS	
	OCSP	Dynamic load balancing	http://ocsp.comodoca.com/	HTTPS	
	CRL	Dynamic load balancing	http://crl.comodoca.com/	HTTPS	
	FLS Lookup	199.66.201.16	fls.security.comodo.com	HTTPS	Comodo Client Security
	Update/upgrade. Requests to download.comodo.com are redirected to cdn.download.comodo.com which is managed by The CDN provider, and those IP addresses can change	178.255.82.5	download.comodo.com	HTTPS	
	Updates/upgrades mirror	104.16.61.31 & 104.16.60.31	cdn.download.comodo.com	HTTPS	
	OCSP	Dynamic load balancing	http://ocsp.comodoca.com/	HTTPS	
	CRL	Dynamic load balancing	http://crl.comodoca.com/	HTTPS	
	Apple push notifications	Dynamic	gateway.push.apple.com	HTTPS	

			m		
25	Email	SMTP server IP	SMTP server hostname	SMTP	EM server (on premise)
53	FLS Lookup	199.66.201.16	fls.security.comodo.com	UDP	Comodo Client Security
4447 (Optional)	FLS Lookup	199.66.201.16	fls.security.comodo.com	UDP	Comodo Client Security
4448 (Optional)	FLS Lookup	199.66.201.16	fls.security.comodo.com	UDP	Comodo Client Security
389	LDAP synchronization	User's LDAP server IP	User's LDAP server IP	-	Communication Client
	LDAP synchronization	User's LDAP server IP	User's LDAP server IP	-	EM server (on premise)
636	LDAP synchronization	User's LDAP server IP	User's LDAP server IP	-	Communication Client
	LDAP synchronization	User's LDAP server IP	User's LDAP server IP	-	EM server (on premise)
2195	Apple push notifications	Dynamic	gateway.push.apple.com	-	EM server (on premise)
2196	Apple push notifications	Dynamic	gateway.push.apple.com	-	EM server (on premise)
19302	STUN server	Dynamic (Amazon load balancing)	stun.l.google.com	UDP	Remote Control tool
Win7+/MacOS. Default port range = 49152 - 65535  WinXP/2003. Default port range = 1025-5000	Direct connection	IP of the RC host AND target host	N/A	UDP	
3478	Peer-to-peer connection	18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	-	UDP	
3478, 49152 - 65535	Relay connection	18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	-	UDP	



# Appendix 1b: Endpoint Manager Services - IP Nos, Host Names and Port Details - US Customers

**Note:** This page contains information for customers located in the USA. [Click here](#) to see Europe information instead.

- Endpoint Manager communicates with Comodo servers and your devices to issue commands, run virus scans, deploy updates and more.
- You need to configure your firewall accordingly to allow these connections.
- All client to server communications are encrypted over https connections using the strongest TLS protocols, RSA 2048 bit keys and SHA 256 algorithms.
- The tables on this page show firewall requirements for the following Comodo services:
  - **Communication Client (CC)**
  - **Comodo Client - Security (CCS)**
  - **Endpoint Manager Server (on premise installations)**
  - **Remote Control sessions**
    - **Remote Control Direct connection**
    - **Remote Control Peer to Peer connection**
    - **Remote Control Relay connection**
  - **All settings grouped by port**

## Communication Client (CC)

Communication Client (CC)					
Service	Purpose	Hostname	IP	Port	Criticality and notes
CC	Communication between device and EM server	subdomain.itsm-us1.comodo.com	Dynamic (Amazon load balancing)	443	Mandatory
Enrollment	To get client certificates	mdmsupport.comodo.com	54.93.214.133	443	Mandatory
Monitoring and alerts	Access to Monitoring and alerts server	plugins.itsm-us1.comodo.com	Dynamic (Amazon load balancing)	443	Mandatory
File rating management	Access to Local Verdict Server	subdomain.itsm-us1.comodo.com	Dynamic (Amazon load balancing)	443	Optional This is for reporting data from CCS
Windows push service (XMPP)	Device communication (push messages)	xmpp.itsm-us1.comodo.com	100.25.122.42 34.193.74.83 54.163.100.185	443	Mandatory
LDAP	Synchronization	User's LDAP server	User's LDAP	389	Optional



synchronization	with LDAP via device	host	server IP	636 (LDAPS)	For LDAP sync via device only. Related to Device to LDAP server connections only
SSO	Single Sign On	one-us.comodo.com	Dynamic (Amazon load balancing)	443	Mandatory
Client Security installation	Download and install/upgrade Client Security agent. Requests to download.comodo.com are redirected to cdn.download.comodo.com which is managed by The CDN provider, and those IP addresses can change.	download.comodo.com	178.255.82.5	443, 80	Optional For CCS installation/upgrade only
		cdn.download.comodo.com	104.16.61.31 104.16.60.31		
OCSP	Client certificate revocation checking	http://ocsp.comodoca.com/	Dynamic load balancing	80	Optional For mobile devices only. The Windows client does not perform OCSP checks.
CRL	Client certificate revocation checking	http://crl.comodoca.com/	Dynamic load balancing	80	Optional For mobile devices only. The Windows client does not perform CRL checks.
3rd Party Patch Management	3rd party applications updates	patchportal.one.comodo.com	23.229.69.170	443	Optional For 3rd party software updates only
Telemetry	Sending telemetry data for analysis	cescollector.cwatchapi.com	Dynamic (Amazon load balancing)	443	Optional

## Comodo Client - Security (CCS)

Comodo Client - Security (CCS)						
Service	Purpose	Hostname	IP	Port	Protocol	Criticality and notes
FLS	FLS lookup	fls.security.comodo.com	199.66.201.16	4447 (optional),	UDP	Mandatory - choose *either* UDP or TCP for

				53		<p>FLS UDP is the main, preferred FLS lookup channel 53 - Default port. 4447 - Reserve port. Can be specified manually in profile. At least one of the two ports must be open.</p>
	FLS lookup	fls.security.comodo.com	199.66.201.16	4448 (optional), 80	TCP	<p>Mandatory - choose *either* UDP or TCP for FLS TCP is the reserve FLS lookup channel. 80 - Default port 4448 - Reserve port. Can be specified manually in profile. At least one of the two ports must be open</p>
Valkyrie	Valkyrie lookup	valkyrie.comodo.com	Dynamic (Amazon load balancing)	443	HTTPS	<p>Optional Valkyrie lookup is currently disabled on CCS, CCS gets Valkyrie verdicts from LVS.</p>
	Submit to Valkyrie	valkyrie.comodo.com	Dynamic (Amazon load balancing)	443	HTTPS	Mandatory
cdn.download.comodo.com	Update / upgrade mirror	cdn.download.comodo.com	104.16.61.31 104.16.60.31	80	HTTP	Mandatory
		cdn.download.comodo.com	104.16.61.31 104.16.60.31	443	HTTPS	
download.comodo.com	Update/upgrade. Requests to download.comodo.com are redirected to cdn.download.comodo.com which is managed by The CDN provider, and those IP addresses can change	download.comodo.com	178.255.82.5	80	HTTP	Mandatory
		download.comodo.com	178.255.82.5	443	HTTPS	Mandatory
LVS	Download the EM verdicts	s3-eu-west-1.amazonaws.com	Dynamic (Amazon load)	443	HTTPS	Mandatory

	database	s.com	balancing)			
	LVS lookup	subdomain.it sm- us1.comodo .com	Dynamic (Amazon load balancing)	443	HTTPS	
OCSP	Client certificate revocation checking	<a href="http://ocsp.comodoca.com/">http://ocsp.comodoca.com/</a>	Dynamic load balancing	80	-	Optional CCS does not perform CRL checking yet
CRL	Client certificate revocation checking	<a href="http://crl.comodoca.com/">http://crl.comodoca.com/</a>	Dynamic load balancing	80	-	Optional CCS does not perform CRL checking yet

## Endpoint Manager Server (on premise installation)

Endpoint Manager Server (on premise)				
Service	Purpose	Hostname	IP	Port
E-mail	Connection to the configured SMTP server for e-mail sending	SMTP server hostname	SMTP server IP	25
LDAP synchronization	Direct synchronization with LDAP	User's LDAP server host	User's LDAP server IP	389 636 (LDAPS)
Connection to Comodo Accounts Manager	License verification	<a href="https://accounts.comodo.com">https://accounts.comodo.com</a>	91.199.212.166	443
Google Cloud Messaging	To push messages	<a href="https://android.googleapis.com/gcm/send">https://android.googleapis.com/gcm/send</a>	Dynamic	443
Connection to Apple Push Notification Server	To push messages	<a href="https://gateway.push.apple.com">https://gateway.push.apple.com</a>	Dynamic	2195 2196 80 443
Local Verdict Server	File rating management	EM server hostname	EM server IP	443

## Remote Control

Remote Control						
Service	Purpose	Hostname	IP	Port	Protocol	Criticality and notes
XMPP	Remote Control Session (with new version of Comodo RC*)	xmpp.it-sm- us1.comodo.c om	100.25.122.42 34.193.74.83 54.163.100.185	443	HTTPS	Mandatory for both RC host and target device

STUN server	To receive possible network configuration, external ip etc.	stun.l.google.com	Dynamic	19302	UDP	Mandatory for both RC host and target device for peer-to-peer and relay connections.
Direct connection	To establish direct or relay connection between RC and target device.	-		1025 - 65535	UDP	Mandatory for both RC host and target device
Direct connection	Establish direct connection between RC and target device.	-	IP of the RC host AND target host	Local port range specified in profile.  Win7+/Mac OS. Default port range= 49152 - 65535  WinXP/2003 . Default port range = 1025-5000	UDP	Mandatory for both RC host and target device
Peer-to-peer connection	Establish peer-to-peer connection RC and target device.	-	18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	3478	UDP	Mandatory for both RC host and target device for peer-to-peer connections.
Relay connection	Establish relay connection between RC and target device.	-	18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	3478, 49152 - 65535	UDP	Mandatory for both RC host and target device for relay connections.

**Remote Control - Direct connection by traffic direction \***

Outgoing Traffic				
Source		Destination		Protocol
IP	Port	IP	Port	
Local IP 1	local port range specified in profile (Win7+/MacOS default port range: 49152 — 65535) (WinXP/2003 default port range: 1025-5000)	Local IP 2	local port range specified in profile (Win7+/MacOS default port range: 49152 — 65535) (WinXP/2003 default port range: 1025-5000)	UDP

Incoming Traffic				
Source		Destination		Protocol
IP	Port	IP	Port	
Local IP 2	local port range specified in profile (Win7+/MacOS default port range: 49152 - 65535) (WinXP/2003 default port range: 1025-5000)	Local IP 1	local port range specified in profile (Win7+/MacOS default port range: 49152 - 65535) (WinXP/2003 default port range: 1025-5000)	UDP

\* - applies to both sides - RC host and target.

**Remote Control - Peer to Peer Connection by traffic direction \***

Outgoing Traffic				
Source		Destination		Protocol
IP	Port	IP	Port	
Local IP	local port range specified in profile (Win7+/MacOS default port range: 49152 - 65535) (WinXP/2003 default port range: 1025-5000)	18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	3478	UDP
Local IP	local port range specified in profile (Win7+/MacOS default port range: 49152 — 65535) (WinXP/2003 default port range: 1025-5000)	stun.l.google.com	19302	

Incoming Traffic				
Source		Destination		Protocol
IP	Port	IP	Port	
18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	3478	Local IP	local port range specified in profile (Win7+/MacOS default port range: 49152 - 65535) (WinXP/2003 default port range: 1025-5000)	UDP
stun.l.google.com	19302	Local IP	local port range specified in profile (Win7+/MacOS default port range: 49152 — 65535) (WinXP/2003 default port range: 1025-5000)	

\* - applies to both sides - RC host and target.

**Remote Control - Relay Connection by traffic direction\***

Outgoing Traffic		
Source	Destination	Protocol

IP	Port	IP	Port	
Local IP	local port range specified in profile(Win7+/MacOS default port range: 49152 — 65535) (WinXP/2003 default port range: 1025-5000)	18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	3478, 49152 - 65535	UDP
Local IP	local port range specified in profile(Win7+/MacOS default port range: 49152 — 65535) (WinXP/2003 default port range: 1025-5000)	stun.l.google.com	19302	UDP

Incoming Traffic				
Source		Destination		Protocol
IP	Port	IP	Port	
18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	3478, 49152 - 65535	Local IP	local port range specified in profile(Win7+/MacOS default port range: 49152 — 65535) (WinXP/2003 default port range: 1025-5000)	UDP
stun.l.google.com	19302	Local IP	local port range specified in profile(Win7+/MacOS default port range: 49152 — 65535) (WinXP/2003 default port range: 1025-5000)	UDP

\* - applies to both sides - RC host and target.

## All settings grouped by port

This table contains the same information as the other four tables on this page but with services grouped by port number.

Settings Grouped by Port					
Port	Service	IP	URL / Hostname	Protocol	Component
443	CC	Dynamic (Amazon load balancing)	subdomain.itsm-us1.comodo.com	HTTPS	Communication Client
	Enrollment	54.93.214.133	mdmsupport.comodo.com	HTTPS	
	Monitoring and alerts	Dynamic (Amazon load balancing)	plugins.itsm-us1.comodo.com	HTTPS	

File rating management	Dynamic (Amazon load balancing)	subdomain.itsm-us1.comodo.com	HTTPS	
Windows push service (XMPP)	100.25.122.42 34.193.74.83 54.163.100.185	xmpp.itsm-us1.comodo.com	HTTPS	
SSO	69.4.89.244	one-us.comodo.com	HTTPS	
3rd party patch management	23.229.69.170	patchportal.one.comodo.com	HTTPS	
Client Security installation	178.255.82.5	download.comodo.com	HTTPS	
	104.16.61.31 104.16.60.31	cdn.download.comodo.com	HTTPS	
Telemetry	Dynamic (Amazon load balancing)	cescollector.cwatchapi.com	HTTPS	
Valkyrie	178.255.87.4	valkyrie.comodo.com	HTTPS	Comodo Client Security
Update/upgrade. Requests to download.comodo.com are redirected to cdn.download.comodo.com which is managed by The CDN provider, and those IP addresses can change	178.255.82.5	download.comodo.com	HTTPS	
Updates/updates mirror	104.16.61.31 & 104.16.60.31	cdn.download.comodo.com	HTTPS	
LVS	Dynamic (Amazon load balancing)	s3-eu-west-1.amazonaws.com	HTTPS	
	Dynamic (Amazon load balancing)	subdomain.itsm-us1.comodo.com	HTTPS	
License verification	91.199.212.166	accounts.comodo.com	HTTPS	EM server (on premise)
Google cloud messaging	Dynamic	android.googleapis.com/gcm/send	HTTPS	
Apple push notifications	Dynamic	gateway.push.apple.com	HTTPS	
Local Verdict Server	EM server IP	EM server hostname	HTTPS	
XMPP	100.25.122.42	xmpp.itsm-	HTTPS	Remote Control



		34.193.74.83 54.163.100.185	us1.comodo.com		tool
80	Client Security installation	178.255.82.5	download.comodo.com	HTTPS	Communication Client
		104.16.61.31 104.16.60.31	cdn.download.comodo.com	HTTPS	
	OCSP	Dynamic load balancing	http://ocsp.comodoca.com/	HTTPS	
	CRL	Dynamic load balancing	http://crl.comodoca.com/	HTTPS	
	FLS Lookup	199.66.201.16	fls.security.comodo.com	HTTPS	Comodo Client Security
	Update/upgrade. Requests to download.comodo.com are redirected to cdn.download.comodo.com which is managed by The CDN provider, and those IP addresses can change	178.255.82.5	download.comodo.com	HTTPS	
	Updates/upgrades mirror	104.16.61.31 & 104.16.60.31	cdn.download.comodo.com	HTTPS	
	OCSP	Dynamic load balancing	http://ocsp.comodoca.com/	HTTPS	
	CRL	Dynamic load balancing	http://crl.comodoca.com/	HTTPS	
Apple push notifications	Dynamic	gateway.push.apple.com	HTTPS	EM server (on premise)	
25	Email	SMTP server IP	SMTP server hostname	SMTP	EM server (on premise)
53	FLS Lookup	199.66.201.16	fls.security.comodo.com	UDP	Comodo Client Security
4447 (Optional)	FLS Lookup	199.66.201.16	fls.security.comodo.com	UDP	Comodo Client Security
4448 (Optional)	FLS Lookup	199.66.201.16	fls.security.comodo.com	UDP	Comodo Client Security
389	LDAP synchronization	User's LDAP server IP	User's LDAP server IP		Communication Client
	LDAP synchronization	User's LDAP server IP	User's LDAP server IP		EM server (on premise)

636	LDAP synchronization	User's LDAP server IP	User's LDAP server IP		Communication Client
	LDAP synchronization	User's LDAP server IP	User's LDAP server IP		EM server (on premise)
2195	Apple push notifications	Dynamic	gateway.push.apple.com		EM server (on premise)
2196	Apple push notifications	Dynamic	gateway.push.apple.com		EM server (on premise)
19302	STUN server	Dynamic (Amazon load balancing)	stun.l.google.com	UDP	Remote Control tool
Win7+/Mac OS. Default port range = 49152 - 65535 WinXP/2003. Default port range = 1025-5000	Direct connection	IP of the RC host AND target host	N/A	Win7+/Mac OS. Default port range = 49152 - 65535 WinXP/2003. Default port range = 1025-5000	Remote Control tool
3478	Peer-to-peer connection	18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	-	3478	
3478, 49152 - 65535	Relay connection	18.196.107.208 52.29.123.206 34.232.133.48 18.208.23.45	-	3478, 49152 - 65535	

## Appendix 2: Pre-configured Profiles

Endpoint Manager ships with the following built-in profiles:

- Windows - Security Level 1 Profile (default profile)
- Windows - Security Level 1 Profile [Former Standard Profile]
- Windows - Security Level 2 Profile
- Windows - Security Level 3 Profile
- Mac OS - Security Level 1 Profile for EM (default profile)
- iOS - Security Level 1 Profile for EM (default profile)
- Android - Security Level 1 Profile for EM (default profile)
- Linux - Security Level 1 Profile for EM (default profile)

'Default' profiles are automatically applied to devices which match their operating system IF no custom profile exists for the device.

### Windows Profile Settings

Section	Security Level 1	Security Level 1 [Former 'Standard' profile]	Security Level 2	Security Level 3
<b>Containment Rule</b>	All malicious files are blocked and quarantined  All files in suspicious and containment folders are blocked  Metro apps are not contained  All unrecognized files are contained	All malicious files are blocked and quarantined  All files in suspicious and containment folders are blocked  Metro apps are not contained  All unrecognized files are contained.	All malicious files are blocked and quarantined  All files in suspicious and containment folders are blocked  All unrecognized files are contained.  All contained files are logged	All malicious files are blocked and quarantined  All files in suspicious and containment folders are blocked  All unrecognized files are contained.  All contained files are logged
<b>HIPS</b>	Enabled  'Safe Mode' action = 'Allow Requests'  'Enhanced Protection Mode' - Disabled,	Enabled  'Safe Mode' action = 'Allow Requests'  'Enhanced Protection Mode' = Disabled  'Enable Embedded Code Detection and Heuristic Command-line Analysis for Certain Applications' = Enabled	Enabled  'Safe Mode' action = 'Block Requests'  'Enhanced Protection Mode' = Enabled	Enabled  Safe Mode action = 'Block Requests'  'Enhanced Protection Mode' = Disabled  'Enable Embedded Code Detection and Heuristic Command-Line Analysis for Certain Applications' = Enabled with all applications selected
<b>Firewall</b>	Enabled  'Safe Mode' action = 'Allow Requests'	Enabled  'Safe Mode' action = 'Allow Requests'	Enabled  'Safe Mode' action = 'Block Requests'	Enabled  'Safe Mode' action = 'Block Requests'
<b>VirusScope</b>	Enabled	Enabled	Enabled	Enabled

	'Monitor Contained Applications only' = Enabled	'Monitor Contained Applications only' = Enabled	'Monitor Contained Applications only' = Disabled	'Monitor Contained Applications only' = Disabled
<b>File Rating</b>	Enabled 'Detect potentially unwanted applications' = Enabled	Enabled 'Detect potentially unwanted applications' = Enabled	Enabled 'Detect potentially unwanted applications' = Enabled	Enabled 'Detect potentially unwanted applications' = Enabled
<b>Antivirus</b>	'Realtime Scan' - Enabled Full Scan - 'Use cloud while scanning' - Disabled	'Realtime Scan' - Enabled Full Scan - 'Use cloud while scanning' - Disabled	'Realtime Scan' - Enabled Full Scan - 'Use cloud while scanning' - Disabled	'Realtime Scan' - Enabled Full Scan - 'Use cloud while scanning' - Enabled

## About Comodo Security Solutions

Comodo Security Solutions is a global innovator of cybersecurity solutions, protecting critical information across the digital landscape. Comodo provides complete, end-to-end security solutions across the boundary, internal network and endpoint with innovative technologies solving the most advanced malware threats. With over 80 million installations of its threat prevention products, Comodo provides an extensive suite of endpoint, website and network security products for MSPs, enterprises and consumers.

Continual innovation and a commitment to reversing the growth of zero-day malware, ransomware, data-breaches and internet-crime distinguish Comodo Security Solutions as a vital player in today's enterprise and home security markets.

## About Comodo Cybersecurity

In a world where preventing all cyberattacks is impossible, Comodo Cybersecurity delivers an innovative cybersecurity platform that renders threats useless, across the LAN, web and cloud. The Comodo Cybersecurity platform enables customers to protect their systems and data against even military-grade threats, including zero-day attacks. Based in Clifton, New Jersey, Comodo Cybersecurity has a 20-year history of protecting the most sensitive data for both businesses and consumers globally. For more information, visit [comodo.com](https://www.comodo.com) or our [blog](#). You can also follow us on [Twitter](#) (@ComodoDesktop) or [LinkedIn](#).

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