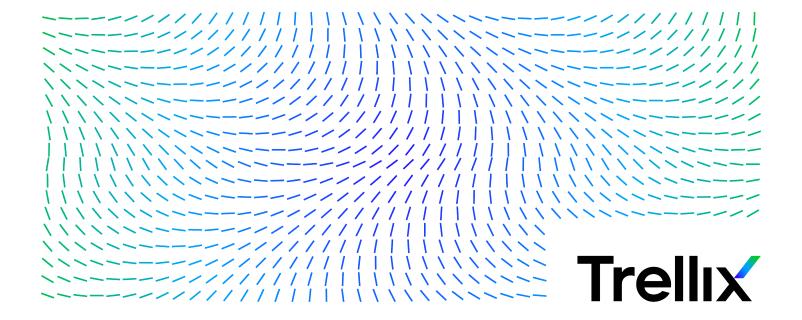
McAfee Agent 5.7.x Installation Guide



Contents

Installation overview	4
Which type of installation do you need?	. 4
System requirements	5
Requirements	. 5
Ports used by McAfee Agent	. 5
Upgrade to McAfee Agent 5.7.x.	7
Update McAfee Agent extensions	. 7
Using a product deployment task	8
Using an installation package	. 9
Upgrading the DXL client	10
Upgrading on unmanaged systems	10
On unmanaged Windows systems	10
On unmanaged Linux and Macintosh systems using install script	11
On unmanaged Ubuntu systems	11
On unmanaged Red Hat Linux systems	12
On unmanaged Macintosh systems	13
Restore Agent	14
Install McAfee Agent 5.7.x for the first time	15
On Windows systems	15
From McAfee ePO On-Premises	16
From MVISION ePO	29
From McAfee ePO Cloud	30
Command-line options for installing McAfee Agent on Windows	30
Command-line options for installing URL-based McAfee Agent manually	34
Create custom installation packages	35
McAfee Agent with integrated McAfee Data Exchange Layer (DXL)	36
McAfee Agent installation package	36
Install the agent on Linux and Macintosh systems	37
Deploying from McAfee ePO server	38
On unmanaged Windows systems	39
On Linux systems	39
From McAfee ePO On-Premises	41
On unmanaged non-Windows systems using install script	52

	On unmanaged Ubuntu systems	52
	On unmanaged Red Hat Linux systems	53
	On Macintosh systems	54
	From McAfee ePO On-Premises	55
	On unmanaged Macintosh systems	57
Ren	nove McAfee Agent.	59
	Deleting system from the System Tree	59
	Deleting group of systems from the System Tree	59
	Running a query	60
	Using command-line options for Windows systems	60
	Using command-line options for Linux and Macintosh systems	60
	From the Control Panel for unmanaged systems	62
	Removing the DXL client	62

Installation overview Which type of installation do you need?

Installation and upgrade of McAfee Agent 5.7.x on endpoints can be performed using multiple deployment methods.

Install McAfee Agent 5.7.x

You can install McAfee Agent 5.7.x from McAfee ePO or MVISION ePO on Windows, Linux, and Macintosh operating systems. McAfee Agent includes the DXL client, which is installed automatically on managed systems and connects to a DXL broker in your environment.

Upgrade to McAfee Agent 5.7.x

You can upgrade to McAfee Agent 5.7.x from a previous version by creating a client task or an installation package in McAfee ePO. The DXL client automatically upgrades when McAfee Agent is upgraded.

System requirements Requirements

Make sure that your client systems meet specific hardware and software requirements to install the agent.

System requirements

- Installed disk space 50 MB (minimum), excluding log files
- Memory 512 MB RAM (minimum)
- Processor speed 1 GHz (minimum)



The list specifies the minimum system requirements for installing the agent. For information about system requirements for other McAfee products, see the respective McAfee product documentation.

Supported operating systems and processors

For information about supported operating systems, see KB51573.

The agent supports all Data Execution Prevention modes in Windows operating systems.



When McAfee Agent is deployed on an incompatible operating system, the installation fails and an alert is sent to system log

Supported McAfee products

For the list of products that McAfee Agent 5.6.0 supports, see KB91021.

Additional supported platforms

You can install the agent on the virtual guest operating systems using these virtualization environments.

- Windows Server 2008 Hyper-V
- ESX
- · VMware Workstation
- · VMware player
- · Citrix XenServer
- Citrix XenDesktop
- · VMware Server

Ports used by McAfee Agent

McAfee Agent uses specific ports to connect to McAfee ePO.

Ports	Protocols	Traffic direction
8081	ТСР	(McAfee ePO On-Premises) Inbound connection from McAfee ePO or Agent Handler. Peer-to-peer server serves content, Relay connections established.
8082	UDP	Inbound connection to McAfee Agent. Peer-to-peer server discovery, RelayServer discovery.
8083	UDP	RelayServer discovery for previous versions of McAfee Agent.

If peer-to-peer service and RelayServer are disabled, these ports are not open.



For information about the ports used by McAfee ePO for communicating through a firewall, see KB66797.

Upgrade to McAfee Agent 5.7.x

You can upgrade to McAfee Agent 5.7.x on the client systems using multiple deployment methods. Before upgrading to the latest version of McAfee Agent, make sure you update the extensions and software packages on the McAfee ePO server.

- 1. Update the McAfee Agent extensions and software packages.
- 2. Upgrade to McAfee Agent 5.7.x using one of the following methods:
 - · Using Product Deployment task
 - · Using McAfee Agent installation package.

You can also create a customized McAfee Smart Installer to upgrade McAfee Agent on the client systems.



- If you're using McAfee Agent 4.5.x or an earlier version, upgrade to 4.6.x or 4.8.x, then upgrade to 5.0.0. For details about upgrading McAfee Agent to version 5.5.1 or later, see KB90642. You can upgrade from McAfee Agent 4.6.x or 4.8.x to 5.0.0.
- The older versions of McAfee Agent do not support all features in McAfee ePO 5.3.x. For full McAfee ePO functionality, it is recommended to upgrade to McAfee ePO version 5.0.0 or later.
- You can update the McAfee Agent key updater package while upgrading McAfee Agent to a new version.
- The DXL client automatically upgrades when McAfee Agent is upgraded. For more information, see Upgrading the DXL client.

Update McAfee Agent extensions

Before upgrading McAfee Agent, you need to update the extensions and software packages on the McAfee ePO server.

Task

- 1. In McAfee ePO, select **Menu** → **Software** → **Software Catalog**.
- 2. On the **Software Catalog** page, select **Category** \rightarrow **Management Solutions**. The list of available updates are displayed.
- 3. In the right pane, select McAfee Agent 5.7.
- 4. From the **Actions** dropdown, select **Update All**.
- 5. Select the branch where you want to check in the extensions and packages, then select **Update**.

Results

When the update is complete, the product extensions are listed on the **Extensions** page and the installation packages are listed in the Main Repository.

Using a product deployment task

You can upgrade McAfee Agent by creating an individual client task in McAfee ePO and then assign the task to run on group of systems. This is applicable only for a group of systems listed under **System Tree** that are managed and actively communicates with McAfee ePO.

Before you begin

When you are upgrading McAfee Agent on a large network simultaneously, you should consider the size of the installation package file and the available bandwidth. For example, upgrade one group in your **System Tree** at a time. In addition to balancing network traffic, this approach simplifies tracking progress and troubleshooting.

Task

- 1. Log on to your McAfee ePO console.
- 2. Select Menu → Systems → System Tree.
- 3. On the Assigned Client Tasks tab, select Actions → New Client Task Assignment to open the Client Task Assignment Builder page.
- 4. To schedule a task, select the following:
 - a. Product as McAfee Agent
 - b. Task Type as **Product Deployment**
 - c. Task Name as the McAfee Agent upgrade task. If the task is not available, create a task as mentioned in the following steps.

You can view the properties of an existing deployment task by clicking View Selected Task.

5. Click Create New Task.

- a. Enter a task name.
- b. Select the target platform.
- c. For products and components, select the following:
 - McAfee Agent version that you want to upgrade to.
 - Action as Install
 - Branch as Current
 - The language of the product package.

Optionally, you can enter the command in the **Command line** to upgrade or install the product. For more information, see command-line options for McAfee Agent.

- d. Select **Allow end users to postpone this deployment** checkbox to allow the user to postpone the upgrade task. You can specify the following:
 - · Number of times the user can postpone the task.
 - The time (in seconds) till when the dialog is displayed.
 - · The text to be displayed on the dialog.

This option is applicable only for Windows systems.

- e. Click Save.
- 6. For **Lock task inheritance**, select from the following options:
 - Unlocked allow other clients to inherit this task.
 - Locked prevent other clients from inheriting this task.
- 7. In the **Tags** section, select one of the following:
 - Send this task to all computers This option sends the upgrade tasks to all managed systems.
 - **Send this tasks to only computers which have the criteria** This option sends upgrade tasks to specific systems that match the criteria. You can define the criteria based on the tags assigned to systems.
- 8. Click **Next** and schedule the task.
- 9. Review the task details and click **Save**. The task is added to the list on the **Assigned Client Tasks** tab.
- 10. Navigate to the Systems tab and select the group under My Organization for which you want to run the client task.
- 11. Click **Actions** → **Agents** → **Wake Up Agents** to send an Agent wake-up call to run the client task.

Results

Upgrade tasks are sent to selected client systems during the next McAfee Agent-server communication. Every time this task executes, it checks whether to install the specified version of McAfee Agent.

Using an installation package

You can manually upgrade to McAfee Agent 5.7.x on Windows by creating an Agent installation package file from the McAfee ePO console.

Before you begin

Upgrading McAfee Agent using this method is identical to installing McAfee Agent for the first time.

- 1. Log on to your McAfee ePO console.
- 2. Select Menu → Systems → System Tree, then select New Systems
- 3. Select Create and download agent installation package.
- 4. Select the appropriate Agent version for Windows from the list.
- Deselect Embed Credentials in Package checkbox to receive the default package.
 You can specify the embedded credentials only for Agent Embedded package for Windows.
- 6. Assign the appropriate **Agent Handler** to communicate with McAfee ePO server for deployment.
- 7. Click **OK**. The installation package file FramePkg.exe is created.
- 8. Right-click and save the file.
- 9. Copy the installation package file from the McAfee ePO console to a shared folder on a network server accessible by the endpoint user.

- 10. Right-click the file and select **Run as administrator**.
- 11. Click **OK** to complete the upgrade.

Upgrading the DXL client

DXL client upgrades automatically when McAfee Agent is upgraded.

The DXL client is upgraded in the following scenarios:

- · Upgrading McAfee Agent on a system automatically upgrades DXL client.
- When you upgrade McAfee Agent on an unmanaged system, the DXL client remains idle.



If you are upgrading McAfee Agent on a Windows system that has DXL client version earlier to 2.1.0, you must first upgrade the DXL client to any version ranging from 2.1.0 to 4.1.0 before upgrading the McAfee Agent (only applicable to Windows systems).

Upgrading on unmanaged systems

On unmanaged Windows systems

You can manually upgrade McAfee Agent 5.7.x on Windows systems that are not managed by McAfee ePO using the FramePkg_UPD.exe installer. When McAfee Agent is installed in unmanaged mode, the DXL client is automatically installed and in an idle state.

Before you begin

You must have administrator rights to upgrade McAfee Agent on the client system.

Task

- 1. Download *McAfee Agent 5.x.x Update X* package (such as MA550XWIN.zip) for Windows from the Software Catalog on McAfee ePO where "X" is the update value of the package, for example, McAfee Agent 5.5.0 Update 1.
- 2. Extract the package to a temporary location and copy FramePkg_UPD.exe to the client system.
- 3. Right-click FramePkg_UPD.exe and select **Run as administrator**. Alternatively, open the command prompt and run the following command.

<path>/FramePkg UPD.exe/upgrade

Where <path> refers to the folder where you extracted FramePkg_UPD.exe (Example: C:\Temp).

On unmanaged Linux and Macintosh systems using install script

You can manually upgrade McAfee Agent 5.7.x on Linux (Debian or RPM package) and Macintosh systems that are not managed by McAfee ePO using the install_upd.sh script. This option is available only on McAfee ePO 5.6.4 and later versions. When McAfee Agent is installed in unmanaged mode, the DXL client is automatically upgraded and in an idle state.

Before you begin

You must have administrator rights to install McAfee Agent on the client system.

Task

- 1. Download McAfee Agent installation package MAxxxLNX.zip for Linux and MAxxxMAC.zip for Macintosh from the Software Catalog on McAfee ePO.
- 2. Extract the package to a temporary location and copy install_upd.sh to the client system.
- 3. Open **Terminal**, then enter the path where you have copied the script file.
- 4. Run the following command by giving root credentials when requested.

```
sudo chmod +x install_upd.sh
sudo ./install_upd.sh -b
```

On unmanaged Ubuntu systems

Generate a Debian package and upgrade McAfee Agent 5.7.x on an unmanaged Ubuntu system that is not managed by McAfee ePO. This option is available only on McAfee Agent version 4.8.0 to 5.x.x.

Before you begin

You must have root permissions to install McAfee Agent on the client system.

- 1. Download *McAfee Agent 5.x.x Update X* package (such as MA564XLNX.zip) for Linux from the Software Catalog on McAfee ePO where "X" is the update value of the package, for example, McAfee Agent 5.6.4 Update 1. Where "X" is the Update value of the package, such as McAfee Agent 5.6.x Update 1.
- 2. Extract the following installer files to the client system.
 - mfema-<build number>.i686.deb
 - mfema-<build number>.x86 64.deb
 - · mfert-<build number>.i686.deb
 - DXL.zip file which contains the following installer files.

- mfedx-ma-<build_number>.i686.deb
- mfedx-ma-<build_number>.x86_64.deb



Use the appropriate MFEma and MFEdx-ma-

-suild_number> packages based on the operating systems used. For example:

- mfema-<build_number>.x86_64.deb and mfedx-ma-<build_number>.x86_64.deb for a 64-bit operating system
- mfema-<build_number>.i686.deb and mfedx-ma-<build_number>.i686.deb for a 32-bit operating system.
- 3. Open **Terminal**, then enter the path where you have extracted the installer files.
- 4. Run the following commands:
 - For a 64-bit operating system:

```
dpkg --install mfert-<build_number>.i686.deb
dpkg --install mfema-<build_number>.x86_64.deb
dpkg --install mfedx-ma-<build_number>.x86_64.deb
```

• For a 32-bit operating system:

```
dpkg --install mfert-<build_number>.i686.deb
dpkg --install mfema-<build_number>.i686.deb
dpkg --install mfedx-ma-<build_number>.i686.deb
```

On unmanaged Red Hat Linux systems

Generate an RPM package and upgrade McAfee Agent 5.7.x on an unmanaged Red Hat Linux system that is not managed by McAfee ePO.

Before you begin

You must have root permissions to install McAfee Agent on the client system.

- 1. Download *McAfee Agent 5.x.x Update X* package (such as MA564XLNX.zip) for Linux from the Software Catalog on McAfee ePO where "X" is the update value of the package, for example, McAfee Agent 5.6.4 Update 1.
 - Where "X" is the Update value of the package, such as McAfee Agent 5.6.x Update 1.
- 2. Extract the following installer files to the client system.
 - MFEma.i686.rpm
 - MFEma.x86 64.rpm
 - MFErt.i686.rpm
 - DXL.zip file which contains the following installer files.

- MFEdx-ma-<build_number>.i686.rpm
- MFEdx-ma-<build_number>.x86_64.rpm



Use the appropriate MFEma and MFEdx-ma-

-suild_number> packages based on the operating systems used. For example:

- MFEma.x86_64.rpm and MFEdx-ma-

 build_number>.x86_64.rpm for a 64-bit operating system
- MFEma.i686.rpm and MFEdx-ma-<build_number>.i686.rpm for a 32-bit operating system.
- 3. Open **Terminal**, then enter the path where you have extracted the installer files.
- 4. Run the following commands:
 - For a 64-bit operating system:

```
rpm -Uvh MFErt.i686.rpm
rpm -Uvh MFEma.x86_64.rpm
rpm -Uvh MFEdx-ma-<build_number>.x86_64.rpm
```

• For a 32-bit operating system:

```
rpm -Uvh MFErt.i686.rpm
rpm -Uvh MFEma.i686.rpm
rpm -Uvh MFEdx-ma-<build_number>.i686.rpm
```

On unmanaged Macintosh systems

You can manually upgrade McAfee Agent 5.7.x on Macintosh systems that are not managed by McAfee ePO by creating an Agent package. You must manually upgrade the DXL client while installing McAfee Agent in unmanaged mode on Macintosh systems.

Before you begin

You must have root permissions to install McAfee Agent on the client system.

- 1. Download *McAfee Agent 5.x.x Update X* package (such as MA550XMAC.zip) for Macintosh from the Software Catalog on McAfee ePO where "X" is the update value of the package, for example, McAfee Agent 5.5.0 Update 1.
- 2. Extract the following installer files to the client system.
 - MFEma.x86_64.dmg
 - DXL.zip file which contains the following installer files.
 - MFEdx-ma-<build_number>.x86_64.pkg
 - MFEdx-ma-<build_number>.i386.pkg

3. Navigate to the location where you have extracted the files and double-click the MFEma.x86_64.dmg package to upgrade McAfee Agent.

To upgrade the DXL client, double-click the appropriate MFEdx-ma-

system.

Restore Agent

You can downgrade to the previous version of McAfee Agent on Windows and non-Windows systems such as Linux and Macintosh.

On Windows systems

- 1. On the McAfee ePO console, select **Menu** → **Systems** → **System Tree**, then select the systems where you want to install the previous version.
- 2. At the bottom of the page, select **Actions** → **Agent** → **Deploy Agents**.
- 3. Select the appropriate Agent version from the list.
- 4. Select Force installation over existing version.
- 5. Enter user credentials.
- 6. Specify the target **Installation path** for the force installation.
- 7. Specify the value for **Number of attempts**, **Retry interval**, and **Cancel after**.
- 8. Assign the appropriate Agent Handler to communicate with McAfee ePO server or select All Agent Handlers.
- 9. Click **OK** to send the Agent installation package to the selected systems.

On Linux and Macintosh systems

It is possible to downgrade to the previous version of McAfee Agent on the client system by uninstalling the current version and installing the version you require on **Linux** and **Macintosh** systems.

Install McAfee Agent 5.7.x for the first time On Windows systems

You can use multiple deployment methods to install McAfee Agent 5.7.x on your endpoints.

Installing McAfee Agent 5.7.x on Windows

Install McAfee Agent on	From	Using these methods
Physical machine	MVISION ePO	Install McAfee Agent 5.7.x using Smart Installer Install McAfee Agent 5.7.x on Windows, Macintosh, and Linux systems using a lightweight installer file.
	McAfee ePO (on-premises)	Deploy McAfee Agent 5.7.x from McAfee ePO Deploy McAfee Agent to the specified systems under Systems Tree using the Deploy Agents option.
		Install McAfee Agent 5.7.x using the installation package Install McAfee Agent on an individual client system by creating an Agent installation package from the McAfee ePO console.
		Install McAfee Agent 5.7.x using Smart Installer Install McAfee Agent 5.7.x on Windows, Macintosh, and Linux systems using a lightweight installer file.
		Install McAfee Agent 5.7.x using a third-party tool You can use a third-party deployment tool like Microsoft System Center Configuration Manager, IBM Tivoli, Novell Zenworks, BMC Client Automation or simple logon scripts to install McAfee Agent 5.7.x on Windows systems.

Install McAfee Agent on	From	Using these methods
		Install McAfee Agent 5.7.x using logon scripts Install McAfee Agent using logon scripts that runs when user logs on to the network.
Virtual machine	McAfee ePO (on- premises)	Installing McAfee Agent 5.7.x on a virtual machine using a URL-based installer Install McAfee Agent in VDI mode on a non-persistent virtual image to avoid the duplication of the GUID using a URL-based installer.
		Installing McAfee Agent 5.7.x on a virtual machine using the installation package Install McAfee Agent in VDI mode on a non-persistent virtual image to avoid the duplication of the GUID using an agent installation package.
		Installing McAfee Agent 5.7.x on a persistent virtual image Install McAfee Agent on a persistent virtual image to avoid the duplication of the GUID.

From McAfee ePO On-Premises

You can use a deployment method in McAfee ePO (On-Premise) to install McAfee Agent on your endpoints.

- 1. Before the installation:
 - Verify that all endpoints meet the minimum requirements (KB51573).
 - Verify the list of products compatible with McAfee Agent 5.7.x (KB93915).
- 2. Install McAfee Agent extensions and software packages.
- 3. Deploy McAfee Agent 5.7.x using one of the following methods:
 - Using McAfee Agent installation package
 - Using McAfee Smart Installer
 - Remotely deploy McAfee Agent on the client machine
 - Using a third-party tool
 - Using logon scripts
 - Using McAfee Smart Installer in Virtual Desktop Infrastructure mode
 - Using McAfee Agent installation package in Virtual Desktop Infrastructure mode

· Install on a persistent virtual image

Install McAfee Agent extension

Before installing McAfee Agent on the managed system, you must add the extension, software packages, and key updater packages to the Master Repository of McAfee ePO.

Task

1. Download the McAfee Agent extension EPOAGENTMETA.zip, McAfee Agent packages, and the key updater packages to the system with McAfee ePO.

You can download McAfee Agent packages from McAfee ePO **Software Catalog** (or **Software Manager** on McAfee ePO 5.9 or earlier). See McAfee ePO product documentation for more details.



You can manage previous versions of McAfee Agent (4.8.x and 5.0.x) with 5.x.x extension. But, previous version extensions cannot manage McAfee Agent 5.x.x clients.

McAfee Agent comes with different packages for each supported operating system.

Name	Description
MA5xxLNX.zip	Linux package
MA5xxWIN.zip	Windows package
MA5xxMAC.zip	Macintosh package
MA5xxWIN_Embedded.zip	Windows Embedded Credentials package
help_ma_5xx.zip	McAfee ePO Help extension
EPOAGENTMETA.zip	McAfee ePO extension
AgentKeyUpdate.zip	Key updater package

- 2. Install McAfee Agent and Help extension:
 - a. On the McAfee ePO console, select $Menu \rightarrow Software \rightarrow Extensions$.

- b. Click Install Extension.
- c. Browse to the location of EPOAGENTMETA.zip extension, select it, then click ${\bf OK}. \\$
 - The **Install Extension** summary page is displayed.
- d. Click **OK** to complete the installation of the extension.
- e. Repeat steps **a** through **d** to install the Help extension.



When upgrading from McAfee Agent 4.8 Help extension to 5.0, uninstall McAfee Agent 4.8 Help extension, then install 5.0 Help extension.

- 3. Check in McAfee Agent packages to the McAfee ePO Master repository:
 - a. On the McAfee ePO console, select **Menu** → **Software** → **Master Repository**.
 - b. Click Check In Package, then browse to the McAfee Agent packages list, select the required package, then click Open.
 - c. Click Next.
 - d. Under **Branch**, select **Current** to check in the packages, then click **Save**.

Results

You can now deploy McAfee Agent on Windows, Linux and Macintosh systems.

Deploying McAfee Agent 5.7.x

Using McAfee Agent installation package

You can manually install McAfee Agent 5.7.x on Windows by creating an Agent installation package from the McAfee ePO console. If you want the endpoint users (with local administrator rights) to install McAfee Agent on their own systems, distribute the installation package file to them through email or shared network.

- 1. On the McAfee ePO console, select $Menu \rightarrow Systems \rightarrow System$ Tree, then select New Systems.
- 2. Select Create and download agent installation package.
- 3. Select the appropriate Agent version for Windows from the list.
- 4. Deselect **Embed Credentials in Package** checkbox to receive the default package.

 You can specify the embedded credentials only for Agent Embedded package for Windows.
- 5. Assign the appropriate **Agent Handler** to communicate with McAfee ePO server for deployment:
 - All Agent Handlers: All Agent Handlers can communicate with McAfee ePO server.
 - **Select Agent Handler**: Select a specific Agent Handler from the list that you prefer to communicate with McAfee ePO server.

Additionally, you can select one more Agent Handler from **Secondary Agent Handler** if the agents are unable to communicate with the primary Agent Handler.

6. Click OK.

The installation package file FramePkg.exe is created.

- 7. Right-click and save the file.
- 8. Copy the installation package file from the McAfee ePO console to a shared folder on a network server accessible by the endpoint user.
- 9. Right-click the file and select **Run as administrator**.
- 10. Click **OK** to complete the installation.

Results

McAfee Agent is installed. It connects to the McAfee ePO server and displays a new system in the **Lost & Found** group of **System Tree** in McAfee ePO. You can then move the system to a required group.

Using McAfee Smart Installer

McAfee Smart Installer is a customized URL-based installer that can be created from the McAfee ePO console. You can install McAfee Agent 5.7.x on multiple client systems using McAfee Smart Installer. It initially downloads a light-weight file which connects to McAfee ePO server and downloads the necessary installation and configuration files.

- 1. Create McAfee Smart Installer URL using one of the following methods.
 - · McAfee ePO Dashboard
 - · McAfee ePO System Tree
 - · Managing McAfee Agent Deployment URL
- 2. Copy the URL on your browser. McAfee Smart Installer file is downloaded.

Running the Smart Installer file on the client system extracts McAfee ePO details and McAfee Agent unique token from the coninfo.xml. Once the file is extracted, the client system connects to McAfee ePO to download the McAfee Agent installation and configuration files.

3. Install McAfee Agent using McAfee Smart Installer.

(i) Important

- If the installer is unable to connect to McAfee ePO directly, it uses the proxy server configured on the client system to download and install McAfee Agent. You must provide the proxy server credentials if your client system requires authentication to connect to the proxy server. The installer uses browser or system proxy settings for Windows, System Preferences settings for Macintosh, and Environment Variables for Linux.
- If the client system fails to connect to McAfee ePO directly or using the proxy server, it broadcasts a message to discover McAfee Agent with relay capability in its network. The RelayServer command responds to the message and establishes connection with the client system.
- Optionally, the client system tries to connect to it's peer-to-peer servers in its broadcast domain to download the McAfee Agent installation and configuration files. On receiving the request, the McAfee Agent that is configured as peer-to-peer server responds to the request.

Create a McAfee Smart Installer URL from McAfee ePO dashboard

You can create a McAfee Smart Installer URL by selecting the required operating system and McAfee Agent version on the McAfee ePO dashboard. You can set McAfee Agent or the other McAfee products to update automatically while creating a McAfee Smart Installer URL. If you select other McAfee products to be included in the installer, a deployment task is created to install the product. These products are then installed after the first agent-server communication.

Task

- 1. Download McAfee Agent extension and software packages.
- 2. On the McAfee ePO console, select $Menu \rightarrow Systems \rightarrow Dashboards$.
- 3. On the **Getting Started** pane, click **Customize Installation**.
- 4. Enter a group name.
- 5. Select an operating system from the **Platform** dropdown list.
- 6. Select the required software and policies.



By default, the McAfee Agent checkbox is selected, and you cannot clear the checkbox.

- 7. Select **Software is automatically updated to the latest version** if you want McAfee Agent or other McAfee products to be updated automatically.
- 8. Click **Done**. You can install McAfee Agent either by downloading the generated Smart Installer file or access the installation URL that is created on the **Getting Started** pane of the **Dashboards** page.
- 9. Distribute the **McAfee Smart Installer** file to the managed systems users with administrator rights or send the Smart Installer URL to endpoint users through email or shared network. After receiving the installation URL, open the browser to access the URL, then download and run the installer.
 - After the McAfee Agent is installed, it downloads the product software you selected while creating the installation URL.

Create a McAfee Smart Installer URL from McAfee ePO System Tree

You can create a McAfee Smart Installer URL on the McAfee ePO System Tree and distribute the URL to the endpoint users to install McAfee Agent.

Task

- 1. Download McAfee Agent extension and software packages.
- 2. On the McAfee ePO console, select **Menu** → **Systems** → **System Tree** , then select **New Systems**.
- 3. Select Create URL for client-side agent download.
- 4. Enter the URL name.
- 5. Select the appropriate Agent version for Windows or Non-Windows (Mac or Linux) operating systems from the list.
- 6. Assign a specific **Agent Handler** to communicate with McAfee ePO for deployment:
 - · All Agent Handlers: Randomly select an Agent Handler to communicate with McAfee ePO.
 - Select Agent Handler: Select an Agent handler (primary) from the list.

Optionally, if the agents are unable to communicate with the primary agent handler, select **Secondary Agent Handler**.

7. Click **OK**. You can use the **Agent Deployment URL** to install Smart Installer or send the URL to your endpoint users.

After receiving the installation URL, a user can open browser to access the installation URL, and then download and run the installer.

Manage Agent Deployment URLs

You can create, delete, enable, disable, or view Agent Deployment URLs from McAfee ePO.

- 1. Select Menu → Systems → System Tree, then click Agent Deployment.
- 2. Click **Actions**, then select the required option.

Options	Definition
Choose Columns	Opens the Choose Columns page where you select the columns to display on the Agent Deployment page.

Options	Definition
Create Agent Deployment URL	Opens the Agent Deployment URL page where you create a URL for Agent Deployment.
Delete Agent Deployment URL	Deletes the selected Agent Deployment URL.
Enable/Disable Agent Deployment URL	Controls whether the client system users can deploy the agent using the URL.
Export Table	Displays the Export page where you choose the way the table is exported.
View Agent Deployment URL	Displays the Agent Deployment URL.

Install McAfee Agent using 5.7.x McAfee Smart installer

The managed system users can install McAfee Agent 5.7.x on Windows, Macintosh, and Linux systems using McAfee Smart Installer. You must have administrator rights to install McAfee Agent on the managed system.

Task

- 1. Click or copy the Smart Installer URL on your browser. McAfee Smart Installer file is downloaded. Optionally, click **Download Installer** to manually download the file.
- 2. Perform these steps to install McAfee Agent on different operating systems.
 - For Windows:
 - ☐ Run the McAfeeSmartInstall.exe installer file.
 - \square Click **Next** to continue. A dialog shows the progress of the installation.

The installation log McAfeeSmartInstall.log is saved in <LocaltempDir>\McAfeeLogs.

• For Macintosh - The McAfeeSmartInstall.sh installer file is downloaded.



- The McAfeeSmartInstall.sh installer file is available on McAfee Agent 5.6.6 and later.
- You can launch McAfeeSmartInstall.sh through remote console on McAfee Agent 5.7.4 and later. For more details, see KB93814.
- Open **Terminal**, then enter the path where you have downloaded the McAfeeSmartInstall.sh file.
- Run the following commands:

```
sudo chmod +x McAfeeSmartInstall.sh
sudo ./McAfeeSmartInstall.sh
```

The installation log McAfeeSmartInstall.log is saved in /tmp.

- For Linux The McAfeeSmartInstall.sh installer file is downloaded.
 - Open **Terminal**, then enter the path where you have downloaded the McAfeeSmartInstall.sh file.
 - □ Run the following commands:

```
sudo chmod +x McAfeeSmartInstall.sh
sudo ./McAfeeSmartInstall.sh
```

The installation log McAfeeSmartInstall.log is saved in /tmp.

Results

McAfee Agent then installs other McAfee products through the deployment tasks and enforces new policies assigned to the managed system fetched during the first agent-server communication.

Deploy McAfee Agent on multiple systems

You can deploy McAfee Agent 5.7.x on multiple Windows systems at the same time using McAfee ePO. We recommend this method if you want to deploy McAfee Agent on multiple systems that are available under **System Tree**.



You can deploy McAfee Agent only on the Windows system using this method. If you need to install on multiple operating systems or versions, repeat this task for each additional target operating system or version.

Task

- 1. On the McAfee ePO console, select **Menu** → **Systems** → **System Tree**, then select the groups or systems where you want to deploy McAfee Agent.
- 2. At the bottom of the page, select **Actions** → **Agent** → **Deploy Agents**.
- 3. Select the appropriate Agent version for Windows from the list.
- 4. Select from the following installation options:
 - Install only on systems that do not already have an agent managed by this McAfee ePO server
 - **Force installation over existing version** This option removes the existing McAfee Agent including policies, tasks, events, and logs, before the new McAfee Agent is installed.



McAfee recommends using this option to change the installation directory or downgrade McAfee Agent.

- 5. Enter the valid domain name, user name, and password associated with the user account. Select the **Remember my credentials for future deployments** check box to save credentials.
- 6. A default value is set for **Installation path**, **Number of attempts**, **Retry interval**, and **Cancel after** fields. Change values in these fields if you want to replace the default values.
- 7. Assign the appropriate Agent Handler to communicate with McAfee ePO server for deployment:
 - All Agent Handlers: All Agent Handlers can communicate with McAfee ePO server.
 - **Select Agent Handler**: Select a specific Agent Handler from the list that you prefer to communicate with McAfee ePO server.
- 8. Click **OK**. McAfee Agent is deployed.
- To verify that McAfee Agent is deployed on your endpoints, select Menu → Automation → Server Task Log, then select Deploy McAfee Agent → Subtasks.

Using a third-party tool

You can use a third-party deployment tool like Microsoft System Center Configuration Manager, IBM Tivoli, Novell Zenworks, BMC Client Automation or simple logon scripts to install McAfee Agent 5.7.x on Windows systems.

Task

- 1. Create McAfee Agent installation package.
 - a. On the McAfee ePO console, select **Menu** → **Systems** → **System Tree**, then select **New Systems**.
 - b. Select Create and download agent installation package.
 - c. Select the appropriate Agent version for Windows from the list.
 - d. Deselect **Embed Credentials in Package** checkbox to receive the default package.



You can specify the embedded credentials only for the Agent Embedded package. For more information about using embedded credentials in a McAfee Agent installer package, see KB65538.

- e. Assign the appropriate Agent Handler to communicate with McAfee ePO server for deployment:
 - All Agent Handlers: All Agent Handlers can communicate with McAfee ePO server.
 - **Select Agent Handler**: Select a specific Agent Handler from the list that you prefer to communicate with McAfee ePO server.

Additionally, you can select one more Agent Handler from **Secondary Agent Handler** if the agents are unable to communicate with the primary Agent Handler.

f. Click **OK**.

The installation package file FramePkg.exe is created.

- g. Right-click and save the file.
- 2. Embed credentials on systems not belonging to a domain by changing the local security policy on the target systems.
 - a. Log on to the target system with local administrator rights.

- b. On the command line interface, run SECPOL.MSC to open the Local Security Policy dialog.
- c. Select Security Settings → Local Policies → User Rights Assignment.
- d. In the **Policy** column of the details pane, double-click **Impersonate a client after authentication** to open the **Local Security Setting** dialog.
- e. Click Add User or Group to open the Select Users or Groups dialog.
- f. Select the user or user group, then click **Add**.
- 3. Use a third-party tool to distribute the installation package file FramePkg.exe to endpoint users.



By default, User Access Control is enabled on Windows Vista operating systems and later. You must disable User Access Control to allow endpoint user to deploy McAfee Agent manually on client systems.

Using Group Policy Object

You can configure a third-party tool such as Microsoft Group Policy Objects (GPO) to distribute the McAfee Agent installation package available on McAfee ePO.

Task

- 1. Download Framepkg.exe from McAfee ePO to a shared folder on a network server, where all systems have permissions.
- 2. Execute this command:

Framepkg.exe /gengpomsi /SiteInfo=<sharedpath>\Sitelist.xml /FrmInstLogLoc=<localtempDir>\<filename>.log The following files are extracted to your local drive.

- · MFEagent.msi
- Sitelist.xml
- srpubkey.bin
- · reqseckey.bin
- agentfipsmode
- sr2048pubkey.bin
- · req2048seckey.bin
- 3. Copy the extracted files to a shared UNC location specified in siteinfo path.
- 4. Create a Group Policy Object. (See Microsoft documentation for instructions).
- 5. Click Computer Configuration \rightarrow Policies \rightarrow Software Settings.
- 6. Right-click **Software installation**, then click **New** → **Package**.
- 7. When prompted for a package, browse to the shared UNC path, then select MFEAgent.msi.
- 8. Select the **Deployment Method** as **Assigned**.

Results



McAfee Agent does not support per-user installations.

Using logon scripts

You can install McAfee Agent 5.7.x using logon scripts on Windows systems. The logon script runs when user logs on to the network and checks if McAfee Agent is installed on the client system, and, if not, then installs it.

Before you begin

- **System Tree** groups represent a collection of systems. You must group and organize systems in your network. By default, all systems are added to the **Lost & Found** group, and you must move them manually to the required group.
- Refer to Windows operating system documentation to create a logon script.
- · We recommend this method when:
 - The domain names or sorting filters are assigned to your **System Tree** groups.
 - You already have a managed environment and want to make sure that new systems logging on to the network are managed and are running a current version of McAfee Agent.

Task

- 1. Create McAfee Agent installation package.
 - a. On the McAfee ePO console, select **Menu** → **Systems** → **System Tree**, then select **New Systems**.
 - b. Select Create and download agent installation package.
 - c. Select the appropriate Embedded Agent version for Windows from the list.
 - d. Specify the embedded credentials.
 - You can specify the embedded credentials only for Agent Embedded package for Windows. For Agent package for Windows, deselect the **Embed Credentials in Package** checkbox to receive the default package.
 - e. Assign the appropriate Agent Handler to communicate with McAfee ePO server for deployment:
 - All Agent Handlers: All Agent Handlers can communicate with McAfee ePO server.
 - **Select Agent Handler**: Select a specific Agent Handler from the list that you prefer to communicate with McAfee ePO server.

Additionally, you can select one more Agent Handler from **Secondary Agent Handler** if the agents are unable to communicate with the primary Agent Handler.

f. Click OK.

The installation package file FramePkg.exe is created.

g. Right-click and save the file.

- h. Copy the installation package file from the McAfee ePO console to a shared folder on a network server accessible by the target system.
 - Systems logging on to the network are automatically directed to this shared folder to run the installation package and install McAfee Agent. The default location for the installation package for Windows is: <Program Files>\McAfee\ePolicy Orchestrator\DB\Software\Current\EPOAGENT3000\Install\0409\FramePkg.exe.
- 2. Create a batch file ePO.bat that contain commands to execute on systems when user logs on to the network. The batch file checks for the registry entry and verify if McAfee Agent is installed in the shared folder.

This example shows the /install command-line option and checks the default installation path for McAfee Agent files.

For more information on installing, upgrading, and managing McAfee Agent using commands, see command-line options for McAfee Agent.

- 3. Save the batch file ePO.bat to the NETLOGON\$ folder of your primary domain controller (PDC) server.
 - The batch file runs from the PDC server every time a system logs on to the network.
- 4. Add a line to your logon script that calls the batch file on your PDC server.

For example: CALL \\<PDC>\NETLOGON\$\EPO.BAT

On a virtual machine using VDI mode

Globally Unique Identifier (GUID) is generated when McAfee Agent 5.7.x is installed on a managed system.

Installing McAfee Agent on a persistent VM instance results in communicating with McAfee ePO server using the same GUID. This results in duplication of the GUID.

Installing McAfee Agent on a non-persistent virtual image using the Virtual Desktop Infrastructure (VDI) mode avoids the duplication of the GUID. McAfee Agent deprovision the VM instance every time when it is shut down. This allows the McAfee ePO server to save the properties of the deprovisioned McAfee Agent in the database. Once deprovisioned in the database, McAfee Agent is not displayed on the McAfee ePO console.

You can install McAfee Agent in VDI mode on Windows operating systems using the following installer packages.

- · Using the URL-based installer
- · Using the custom installation package

See McAfee Agent deployment flow to VDI-mode systems (KB88533) for more information.

Using McAfee Smart Installer in VDI mode

You can install McAfee Agent 5.7.x in VDI mode on a non-persistent virtual image by using McAfee Smart Installer (URL-based installer). This avoids the duplication of the GUID.

Task

- 1. Download McAfee Agent extension and software packages.
- 2. On the McAfee ePO console, select **Menu** → **Systems** → **System Tree** , then select **New Systems**.
- 3. Select Create URL for client-side agent download.
- 4. Enter the URL name.
- 5. Select the appropriate Agent version for Windows operating systems from the list.
- 6. Assign a specific **Agent Handler** to communicate with McAfee ePO for deployment:
 - All Agent Handlers: Randomly select an Agent Handler to communicate with McAfee ePO.
 - Select Agent Handler: Select an Agent handler (primary) from the list.

Optionally, if the agents are unable to communicate with the primary agent handler, select **Secondary Agent Handler**.

- 7. Click OK. You can use the Agent Deployment URL to create the McAfeeSmartInstall.exe installer file.
- 8. Copy the installer file on the virtual image.
- 9. Run the following command to install McAfee Agent in VDI mode using a URL.

McAfeeSmartInstaller.exe -v

10. To verify if McAfee Agent is installed in VDI mode, select Menu → Systems → System Tree, then select the system. The System Information page displays the properties of the client system reported by McAfee Agent. The value of the system property VDI should be Yes.

Results

McAfee Agent is installed in VDI mode. It starts the agent-server communication and enforces all policies and tasks as configured on McAfee ePO.

Using an installation package in VDI mode

You can install McAfee Agent 5.7.x in VDI mode on a non-persistent virtual image by using the installation package. This avoids the duplication of the GUID.

Before you begin

Task

- 1. Download McAfee Agent extension and software packages.
- 2. On the McAfee ePO console, select **Menu** → **Systems** → **System Tree** , then select **New Systems**.
- 3. Select Create and download agent installation package.
- 4. Select the appropriate Agent version for Windows from the list.
- 5. Deselect **Embed Credentials in Package** checkbox to receive the default package.
 You can specify the embedded credentials only for Agent Embedded package for Windows.
- 6. Assign a specific **Agent Handler** to communicate with McAfee ePO for deployment:
 - · All Agent Handlers: Randomly select an Agent Handler to communicate with McAfee ePO.
 - Select Agent Handler: Select an Agent handler (primary) from the list.

Optionally, if the agents are unable to communicate with the primary agent handler, select **Secondary Agent Handler**.

7. Click OK.

The installation package file FramePkg.exe is created.

- 8. Right-click and save the file.
- 9. Copy the installer file on the virtual image.
- 10. Run the following command to install McAfee Agent in VDI mode using the installation package file.

framepkg.exe /Install=agent /enableVDImode

11. To verify if McAfee Agent is installed in VDI mode, select **Menu** → **Systems** → **System Tree**, then select the system. The **System Information** page displays the properties of the client system reported by McAfee Agent. The value of the system property **VDI** should be **Yes**.

Include McAfee Agent on an image

McAfee Agent Globally Unique Identifier (GUID) is a random value used by McAfee ePO and is generated when McAfee Agent 5.7.x is installed on a managed system. Installing McAfee Agent on an image without removing the GUID and deploying it on more than one system results in duplication of the GUID.

You can install McAfee Agent 5.7.x on a persistent virtual image by running the following command on the primary system image where McAfee Agent is installed to deploy on client systems. This avoids duplication of the GUID.

maconfig -enforce -noguid

(i) Important

Restart the McAfee Agent service on your system after running this command to generate a unique GUID.

From MVISION ePO

McAfee Smart Installer is a customized URL-based installer that can be created from the MVISION ePO console. You can install McAfee Agent 5.7.x on multiple client systems using McAfee Smart Installer. It initially downloads a light-weight file which connects to the MVISION ePO server and downloads selected product software and configuration files.

- 1. Create McAfee Smart Installer URL using one of the following methods.
 - · MVISION ePO Product Deployment
 - MVISION ePO System Tree
- 2. Copy the URL to your browser or click **Download Installer** to directly download the McAfee Smart Installer.
- 3. Install McAfee Agent using McAfee Smart Installer.

Create a McAfee Smart Installer URL from MVISION ePO System Tree

You can create a McAfee Smart Installer URL (Agent Deployment URL) on MVISION ePO System Tree and distribute the URL to the endpoint users to install McAfee Agent 5.7.x.

Task

- 1. On the MVISION ePO console, select **Menu** → **Systems** → **System Tree** , then select **New Systems**.
- 2. Enter the URL name.
- 3. Select the appropriate Agent version for Windows or Non-Windows (Mac or Linux) operating systems from the list.
- 4. Click OK. You can use the Agent Deployment URL to install Smart Installer or send the URL to your endpoint users.

After receiving the installation URL, a user can open browser to access the installation URL, and then download and run the installer.

From McAfee ePO Cloud

You can deploy agents to client systems from McAfee ePO Cloud using different methods.

Use any of the following methods to deploy the agent:

- Deploy McAfee Agent using McAfee Smart Installer.
- · Install URL-based McAfee Agent manually from the command line.
- Install McAfee Agent in Virtual Desktop Infrastructure (VDI) mode.
- · Create the Agent Deployment URL.

Command-line options for installing McAfee Agent on Windows

You can use the command-line options to install, upgrade, or manage the agent on Windows systems.

These command-line options are not case sensitive. The FramePkg.exe and FrmInst.exe files require administrator rights, so they must be run from an administrator command prompt or configured to always run as administrator.

FramePkg.exe and FrmInst.exe command-line options

Command	Description	
/Customprops	Allows you to set custom properties. Example: FRAMEPKG /INSTALL=AGENT /Customprops1="prop1" /Customprops2="prop2" / Customprops3="prop3"	
/DATADIR	Specifies the folder on the system to store McAfee Agent data files. The default location is: <documents and="" settings="">\All Users\Application Data\McAfee\Agent. If the operating system does not have a Documents and Settings folder, the default location is C:\ProgramData\McAfee\Agent. Example: FRAMEPKG /INSTALL=AGENT /DATADIR=D:\AgentData</documents>	
/DOMAIN /USERNAME /PASSWORD	Specifies a domain, and account credentials used to install McAfee Agent. The account must have rights to create and start services on a system. If left unspecified, the credentials of the currently logged-on account are used. If you want to use an account that is local to a system, use the system's name as the domain. Example: FRAMEPKG /INSTALL=AGENT /DOMAIN=mydomain.com /USERNAME=jdoe /PASSWORD=password	
/enableVDImode	Installs McAfee Agent in VDI mode.	
/FORCEINSTALL	Specifies that the existing McAfee Agent is uninstalled, then the new McAfee Agent is installed. Use this option only to change the installation directory or to downgrade McAfee Agent. When using this option, we recommend specifying a different directory for the new installation (/INSTDIR). Example: FRAMEPKG /INSTALL=AGENT /FORCEINSTALL /INSTDIR=D:\McAfeeAgent	
/INSTALL	/INSTALL=AGENT	Installs and enables McAfee Agent in managed mode. Example: FRAMEPKG /INSTALL=AGENT

Command	Description	Description		
	/INSTALL=UPDATER	Enables the AutoUpdate component if it has already been installed, and does not change whether McAfee Agent is enabled. This command-line option upgrades McAfee Agent. Use this command to install McAfee Agent in unmanaged mode.		
		Note: An Embedded credential package can't be used to install McAfee Agent in unmanaged mode.		
		Example: FRAMEPKG /INSTALL=UPDATER		
	/INSTALL=AGENT / FORCE32BITSERVICES	Installs McAfee Agent in a 32-bit mode on a 64-bit operating system. Example:		
	/INSTALL=AGENT /Relay	Allows the user to manually define the RelayServer information, such as IP address or DNS name, to the client system during the agent installation.		
		When the client system fails to connect to the McAfee ePO server directly or using the proxy server, it communicates using the RelayServer that is specified during the agent installation.		
		<pre>Example: FramePkg.exe /Install=Agent / Relay="<ip1>:Port1[;<ip2>:Port2;]"</ip2></ip1></pre>		
/INSTDIR	Specifies the installation folder on the system. You can use Windows system variables, such as <system_drive>. If not specified, the default location is: <drive>: \program files\mcafee\Agent</drive></system_drive>			
	Example: FRAMEPKG /INSTALL=AGENT /INSTDIR=C:\ePOAgent			
/REMOVE	Removes McAfee Agent if not in use. If in use, McAfee Agent changes to updater mode.			

Command	Description	
	Example: FRMINST /REMOVE=AGENT	
/FORCEUNINSTALL	Removes McAfee Agent forcibly from the client system.	
	Example: FrmInst.exe /FORCEUNINSTALL	
/RESETLANGUAGE	Resets McAfee Agent language to its default operating system language.	
/SILENT or /S	Installs McAfee Agent in non-interactive mode, hiding the installation from the user.	
	Example: Framepkg /Install=Agent /SILENT	
/SITEINFO	Specifies the folder path to a specific repository list (McAfee Agent installer, reqseckey.bin (the initial	
	request key), srpubkey.bin (the server public key), req2048seckey.bin, sr2048pubkey.bin, Sitelist.xml file, and agentfipsmode file).	
	Example: FRAMEPKG /INSTALL=AGENT /SITEINFO=C:\TMP\SITELIST.XML	
/USELANGUAGE	Specifies the locale ID of McAfee Agent that you want to install. Use the switch to change current	
	McAfee Agent language to any supported language. Example: FRAMEPKG /INSTALL=AGENT /USELANGUAGE=0404	
	EXAMPLE PRAPERTY / INSTABLE-AGENT / USEBANGUAGE-0404	
	Note: If errors occur during installation, all error messages are displayed in English regardless of the installed locale.	
	regardless of the installed locale.	
/keepguid	Retains the Agent GUID during force installation. This command is used with FramePkg.exe	
1- 0	installation method.	
	Example: FramePkg.exe /Install=Agent /ForceInstall /keepguid	
	Note: Use this command on McAfee Agent version 5.6.3 or later. This command is valid only	
	when it is used with the /ForceInstall option.	

Command-line options for installing URL-based McAfee Agent manually

You can override default installation parameters by manually installing the URL-based agent on supported operating systems.

Task

Run the following command on the client system with any of these parameters:

- On Windows, run McAfeeSmartInstall.exe
- On Macintosh, run McAfeeSmartInstall.sh
- On Linux, run McAfeeSmartInstall.sh

To know more about using command-line switches with McAfee Agent, see KB52707.

Parameter	Description
-d "Data path"	Overrides the path of McAfee Agent data files (Windows only). The default location is: <documents and="" settings="">\All Users\Application Data\McAfee\Agent. If the operating system does not have a Documents and Settings folder, the default location is C:\ProgramData\McAfee\Agent. Example: McAfeeSmartInstall.exe -d D:\McAfeeAgent\Data</documents>
-i "Install path"	Overrides the default folder where installation files are saved (Windows only). You can use Windows system variables, such as <system_drive>. If not specified, the default location is: <drive>:\Program Files\McAfee\Agent. Example: McAfeeSmartInstall.exe -i D:\McAfeeAgent</drive></system_drive>
-g	 Generates the debug log McAfeeSmartInstall_<date>_<time>.log.</time></date> On Windows client systems, the log file is saved in <documents and="" settings="">\<user>\Local \Temp\McAfeeLogs.</user></documents> On Macintosh client systems, the log file is saved in /tmp. On other non-Windows client systems, the log file is saved in the installation folder.
-a "Proxy address" -p "Proxy port"	Specifies the proxy server address and the port number (Windows, Linux, and Macintosh). If the proxy server details are not provided, the installer uses the default browser proxy server setting.

Parameter	Description
-k	Switches off the peer and certificate verification of the https server from where the installer downloads the configuration file.
-u "Proxy user name" -w "Proxy password"	Specifies the user name and password for the authenticated proxy server (Windows, Linux, and Macintosh).
-f	Forces McAfee Agent installation (Windows only).
-S	Installs McAfee Agent in silent mode (Windows and Macintosh only).
-V	Installs McAfee Agent in VDI mode.
-h	Uninstalls the existing agent and installs a new agent while retaining the Agent GUID. (Windows only) Example: McAfeeSmartInstall.exe -h
	Example, wichieesmartinstall.exe -n
-?	Displays the Help for command-line options.



All parameters are optional. If you don't specify a parameter, the installer uses the default value.

Create custom installation packages

Use custom installation packages to install the agent on systems that are not managed by McAfee ePO.

If you use a distribution method other than deployment capabilities (such as logon scripts or third-party deployment software), you can create a custom installation package (FramePkg.exe). For Windows systems, you can create the package with embedded administrator credentials. This is needed in a Windows environment if users do not have local administrator rights. The user account credentials you embed are used to install McAfee Agent.



Because an installer package created for this purpose has embedded credentials, access to it should be severely restricted. Installer packages with embedded credentials should only be used in specific situations where another deployment method is not available. For additional, important information about the use of embedded credentials, see KB65538.

Task

- 1. Select Menu → Systems → System Tree, then select New Systems.
- 2. Next to How to add systems, select Create and download agent installation package.
- 3. Select the appropriate **Agent version**.
- 4. Select or deselect **Embed Credentials in Package**. If selected, type the appropriate **Credentials for agent installation**. If you want these credentials to be remembered the next time you complete this task, click **Remember my credentials for future deployments**.
- 5. If you want the installer to use a specific Agent Handler, select it from the drop-down list. If not, select **All Agent Handlers**.
- 6. Click OK.
- 7. When prompted, select the file to be downloaded. Click to open the file, or right-click to save the file.
- 8. Distribute the custom installation package file as needed.

McAfee Agent with integrated McAfee Data Exchange Layer (DXL)

McAfee Agent 5.6.0 bundles the McAfee Data Exchange Layer client as a component.

The Data Exchange Layer client is automatically installed on managed systems and connects to a DXL broker in your environment. If the DXL broker is not present in your environment, the DXL client goes into an idle mode where it consumes minimal resources until brokers become present. DXL services run as part of McAfee Agent services.

For information about using the DXL client and installing the DXL broker, see McAfee Data Exchange Layer documents.

McAfee Agent installation package

You install the agent on client systems using the installation package generated when you install McAfee ePO or check in the agent package.

This file is a customized installation package for McAfee Agent that reports to your McAfee ePO. The package contains information needed for McAfee Agent to communicate with the server. Specifically, this package includes:

- · McAfee Agent installer
- · Sitelist.xml file
- srpubkey.bin (the server public key)
- reqseckey.bin (the initial request key)
- · req2048seckey.bin
- sr2048pubkey.bin
- · agentfipsmode file

By default, McAfee Agent installation packages are at <System Drive>\Program Files (x86)\McAfee\ePolicy Orchestrator\DB \Software\Current\<Product Id>\Install\0409. Product IDs for supported operating systems are listed in the following table.

Operating System	Product ID
Linux	EPOAGENT3700LYNX
Windows	EPOAGENT3000
Macintosh	EPOAGENT3700MACX

The Windows installation package is FramePkg.exe and the non-Windows package is install.sh.

This is the installation package that McAfee ePO uses to distribute and install McAfee Agent. FramePkg.exe files are created when:

- · You specifically create one in McAfee ePO
- McAfee Agent packages are checked in to any branch of the repository (**Previous**, **Current**, or **Evaluation**)
- · Encryption key changes

The default McAfee Agent installation package doesn't contain user credentials. When executed on the targeted system, the installation uses the account of the currently logged-on user.

You can create custom installation packages with embedded credentials if needed by your environment.

(i) Important

Because an installer package has embedded credentials, access to it must be severely restricted. Installer packages with embedded credentials must only be used in specific situations where another deployment method is not available. For additional, important information about the use of embedded credentials, see McAfee KB65538.

Install the agent on Linux and Macintosh systems

Install the agent manually on Linux and Macintosh systems using McAfee ePO or the custom agent installation URL.

On Linux and Macintosh systems, McAfee Agent is installed manually using an installation script (install.sh) that McAfee ePO creates when you check in the McAfee Agent software package in the McAfee ePO Master Repository and indicate the operating system in use. Ubuntu Linux client systems have a slightly different manual installation method, which is discussed in later sections in the document.



When you install McAfee Agent on Linux systems using the Sudo command or ePO push and use proxy to communicate between McAfee Agent and McAfee ePO, you need to define the proxy environment variables for Sudo. You can define them in the /etc/environment or /etc/sudoers file.

Deploying from McAfee ePO server

Deploying from McAfee ePO allows you to install McAfee Agent on multiple client systems at the same time.

Systems must already be added to the System Tree.



If you have not yet created the **System Tree** groups, you can deploy the McAfee Agent installation package to systems when you add groups and systems to the **System Tree**. But, if you are importing large domains or Active Directory containers, don't use this method. It generates significant network traffic.

- The user must have local administrator rights on all target systems. Domain administrator rights are required on a system to access the default Admin\$ shared folder. McAfee ePO service requires access to this shared folder to install McAfee Agent.
- McAfee ePO must be able to communicate with the target systems.

 Before beginning a large McAfee Agent deployment, make sure that the client systems are reachable from McAfee ePO. To test the connectivity between McAfee ePO and McAfee Agent, ping the client systems with IP address or host name depending on how the client systems are identified in McAfee ePO.



The ability to successfully use ping commands from McAfee ePO to managed systems is not required for McAfee Agent to communicate with the server. But it is a useful test to determine if you can deploy McAfee Agent to those client systems from McAfee ePO.

• The Admin\$ share folder on Windows target systems must be accessible from McAfee ePO. Verify that this is true on a sample of target systems. This test also validates your administrator credentials, because you cannot access remote Admin \$ shares without administrator rights.

From McAfee ePO, click **Windows Start** \rightarrow **Run**, then type the path to the target system's Admin\$ share, specifying system name or IP address. For example, type \\<System Name>\Admin\$.

If the systems are properly connected over the network, and your credentials have sufficient rights, and the Admin\$ share folder is present, a Windows Explorer dialog box appears.

• Enable SSH on the Linux and Macintosh client systems before installing McAfee Agent from McAfee ePO. Comment out the following line in the /etc/sudoers file on a Red Hat operating system.

Default requiretty

Remove the comment from the following line /etc/ssh/sshd_config file

PermitRootLogin Yes



You must have root permissions to install McAfee Agent on non-Windows systems.

- Enable the network access on Windows 7 Home client systems.
- Enable the file and print sharing.
- Enable the server services.
- · Enable the remote registry services.
- Temporarily disable the user account control on client systems to push McAfee Agent from McAfee ePO.

The push deployment feature can install McAfee Agent on many systems at the same time. You can only install a single version of McAfee Agent on a client system.

On unmanaged Windows systems

Install McAfee Agent 5.7.x on Windows systems that are not managed by McAfee ePO using the FramePkg_UPD.exe installer. When McAfee Agent is installed in unmanaged mode, the DXL client is automatically installed and in an idle state.

Before you begin

You must have administrator rights to install McAfee Agent on the client system.



When McAfee Agent 5.6.0 is installed on Windows systems in unmanaged mode, the DXL client is automatically installed and is in idle state.

Task

- 1. Download McAfee Agent installation package MAxxxWIN.zip for Windows from the Software Catalog on McAfee ePO.
- 2. Extract the package to a temporary location and copy FramePkg_UPD.exe to the client system.
- 3. Right-click FramePkg_UPD.exe and select **Run as administrator**.

On Linux systems

You can use multiple deployment methods to install McAfee Agent 5.7.x on your endpoints.

Installing McAfee Agent 5.7.x on Linux

Install		
McAfee Agent on	From	Using these methods
Physical machine	MVISION ePO	Install McAfee Agent 5.7.x using Smart Installer Install McAfee Agent 5.7.x on Windows, Macintosh, and Linux systems using a lightweight installer file.
	McAfee ePO (on- premises)	Deploy McAfee Agent 5.7.x from McAfee ePO Deploy McAfee Agent to the specified systems under Systems Tree using the Deploy Agents option.
		Install McAfee Agent 5.7.x using the installation package Install McAfee Agent on an individual client system by creating an Agent installation package from the McAfee ePO console.
		Install McAfee Agent 5.7.x on Ubuntu using Debian package Install McAfee Agent on an individual client system by creating an Agent installation package from the McAfee ePO console.
		Install McAfee Agent 5.7.x using Smart Installer Install McAfee Agent 5.7.x on Windows, Macintosh, and Linux systems using a lightweight installer file.
		Install McAfee Agent 5.7.x on Red Hat Linux using a third-party tool You can generate an RPM package and install McAfee Agent 5.7.x on Red Hat Linux systems using a third-party deployment tool such as YUM.
		Install McAfee Agent 5.7.x on Ubuntu using a third-party tool

Install McAfee Agent on	From	Using these methods
		You can generate a Debian package and install McAfee Agent 5.7.x on Ubuntu systems using a third-party deployment tool such as YUM.
		Install McAfee Agent 5.7.x using install scripts Install McAfee Agent using install scripts that runs when user logs on to the network.

From McAfee ePO On-Premises

You can use a deployment method in McAfee ePO (On-Premise) to install McAfee Agent on your endpoints.

- 1. Before the installation:
 - Verify that all endpoints meet the minimum requirements (KB51573).
 - Verify the list of products compatible with McAfee Agent 5.7.x (KB93915).
- 2. Install McAfee Agent extensions and software packages.
- 3. Deploy McAfee Agent 5.7.x using one of the following methods:
 - · Using McAfee Agent installation package
 - · Using McAfee Smart Installer
 - Remotely deploy McAfee Agent on the client machine
 - Using McAfee Agent Debian package (for Ubuntu)
 - · Using a third-party tool on Ubuntu systems
 - Using a third-party tool on Red Hat Linux systems
 - Using install scripts

Deploying McAfee Agent 5.7.x

Using McAfee Agent installation package

You can manually install McAfee Agent 5.7.x on Linux systems by creating an Agent installation package from the McAfee ePO console. If you want the endpoint users (with local administrator rights) to install McAfee Agent on their own systems, distribute the installation package file to them through email or shared network.

Task

1. On the McAfee ePO console, select **Menu** \rightarrow **Systems** \rightarrow **System Tree** .

- 2. Obtain the McAfee Agent installation file by executing one of the following:
 - · Creating an installation package:
 - Click New Systems.
 - □ Select Create and download agent installation package.
 - □ Select the appropriate McAfee Agent version for Linux from the list.
 - Click OK. The agentPackages.zip installation package containing install.sh file is created.
 - ☐ Save the file.
 - Copy the install.sh file directly from McAfee ePO. The path includes the name of the selected repository. For example, if checked in to the current branch of the McAfee ePO software repository, the path of the required files is:

C:\Program Files\McAfee\ePolicy Orchestrator\DB\Software\Current\EPOAGENT3700LYNX\Install\0409

- 3. Open **Terminal**, then enter the path where you have saved the install.sh file.
- 4. Run the following command, giving root credentials when requested.

```
sudo chmod +x install.sh
sudo ./install.sh -i
```

Deploy McAfee Agent on multiple systems

You can deploy McAfee Agent 5.7.x on multiple Linux systems at the same time using McAfee ePO. We recommend this method if you want to deploy McAfee Agent on multiple systems that are available under **System Tree**.

Before you begin

- · Enable SSH on Linux system.
- You must have root permissions to deploy McAfee Agent on Linux system.
- · You can deploy McAfee Agent using McAfee ePO on the following Linux-based operating systems.
 - Red Hat Enterprise Linux versions 5 and above
 - Ubuntu 11.04 and above
- Comment the following line in the /etc/sudoers file on the Red Hat system.

```
Default requiretty
```



You can deploy McAfee Agent only on the Linux system using this method. If you need to install on multiple operating systems or versions, repeat this task for each additional target operating system or version.

Task

- On the McAfee ePO console, select Menu → Systems → System Tree, then select the groups or systems where you want to deploy McAfee Agent.
- 2. At the bottom of the page, select **Actions** \rightarrow **Agent** \rightarrow **Deploy Agents**.
- 3. Select the appropriate Agent version for Linux from the list.
- 4. Select Install only on systems that do not already have an agent managed by this McAfee ePO server.
- 5. Enter the valid domain name, user name, and password associated with the user account. Select the **Remember my credentials for future deployments** check box to save credentials.
- 6. A default value is set for **Installation path**, **Number of attempts**, **Retry interval**, and **Cancel after** fields. Change values in these fields if you want to replace the default values.
- 7. Assign the appropriate **Agent Handler** to communicate with McAfee ePO server for deployment:
 - All Agent Handlers: All Agent Handlers can communicate with McAfee ePO server.
 - **Select Agent Handler**: Select a specific Agent Handler from the list that you prefer to communicate with McAfee ePO server.
- 8. Click **OK**. McAfee Agent is deployed.
- 9. To verify that McAfee Agent is deployed on your endpoints, select Menu → Automation → Server Task Log, then select Deploy McAfee Agent → Subtasks.

Using McAfee Agent Debian package

You can manually install McAfee Agent 5.7.x on Ubuntu systems by creating an Agent Debian (.deb) package from the McAfee ePO console.

Task

- 1. On the McAfee ePO console, select $Menu \rightarrow Systems \rightarrow System$ Tree, then select New Systems.
- 2. Select Create and download agent installation package.
- 3. Select the appropriate McAfee Agent version for Ubuntu (Linux) from the list.
- 4. Click **OK**. The **agentPackages.zip** installation package containing installdeb.sh file is created.
- 5. Save the file.
- 6. Open **Terminal**, then enter the path where you have saved the installdeb.sh file.
- 7. Run the following command, giving root credentials when requested.

```
$chmod +x ./installdeb.sh
$sudo ./installdeb.sh -i
```

Using a third-party tool on Ubuntu

You can generate a Debian package and install McAfee Agent 5.7.x on Ubuntu systems using a third-party deployment tool such as YUM.

Task

- 1. Create McAfee Agent installation package.
 - a. On the McAfee ePO console, select **Menu** → **Systems** → **System Tree**, then select **New Systems**.
 - b. Select Create and download agent installation package.
 - c. Select the appropriate McAfee Agent version for Ubuntu (Linux) from the list.
 - d. Click **OK**. The **agentPackages.zip** installation package containing installdeb.sh file is created.
 - e. Save the file.
- 2. Open **Terminal**, enter the path where you have saved the installdeb.sh file.
- 3. Generate the maprovision.deb file from install.sh using the option (-p). Run the following command by giving root credentials.

```
./install.sh -p
```

The maprovision.deb file is generated.

- 4. Create mfema.deb and mfert.deb files by executing one of the following:
 - a. Create files using install.sh file.
 - i. Copy the install.sh file to Ubuntu systems.
 - ii. Open Terminal, enter the path where you have saved the install.sh file.
 - iii. Run the following command to extract the installation package.

unzip install.sh

- iv. The following installation files are extracted. McAfee Agent 5.6.6 and above includes version information in the filename.
 - MFEma-<build_number>.i686.deb
 - MFEma-<build number>.x86 64.deb
 - MFEma-<build_number>.i686.deb



Use an appropriate MFEma installation package based on the operating systems used.

- MFEma-<build_number>.x86_64.deb for a 64-bit operating system
- MFEma-

 build_number>.i686.deb for a 32-bit operating system.
- b. Create files from the McAfee ePO Master Repository.

The files are available in the selected repository path. If the files are checked in to the current branch of the McAfee ePO software repository, the path of the required files is C:\Program Files\McAfee\ePolicy Orchestrator\DB\Software \Current\EPOAGENT3700LYNX\Install\0409. You can change the file path based on the branch selected.

- 5. Create the MFEdx-ma-

 -deb file:
 - a. Save the DXL.zip file to an Ubuntu system.

The DXL.zip file is available in the selected repository path. If the files are checked in to the current branch of the McAfee ePO software repository, the path of the required files is C:\Program Files\McAfee\ePolicy Orchestrator\DB \Software\Current\EPOAGENT3700LYNX\Install\0409. You can change the file path based on the branch selected.

- b. Open **Terminal**, enter the path where you have saved the DXL.zip file.
- c. Run the following command to extract the installation package.

```
unzip DXL.zip
```

- d. The following installation files are extracted.
 - MFEdx-ma-<build_number>.x86_64.deb
 - MFEdx-ma-<build_number>.i686.deb



Use an appropriate MFEdx-ma-
build_number> package based on the operating systems used.

- MFEdx-ma-<build number>.x86 64.deb for a 64-bit operating system
- MFEdx-ma-
build_number>.i686.deb for a 32-bit operating system.
- 6. Check in the MAProvision.rpm, MFEma.rpm, MFErt.rpm, and MFEdx-ma-

 deployment tool (such as YUM) repository.
- 7. Check in the mfema-<build_number>.i686.deb, mfema-<build_number>.x86_64.deb, mfert-<build_number>.i686.deb, and mfedx-ma-<build_number>.deb files into the third-party deployment tool (such as apt-get) repository.

Using a third-party tool on Red Hat Linux

You can generate an RPM package and install McAfee Agent 5.7.x on Red Hat Linux systems using a third-party deployment tool such as YUM.

Task

- 1. Create McAfee Agent installation package.
 - a. On the McAfee ePO console, select $Menu \rightarrow Systems \rightarrow System$ Tree, then select New Systems.
 - b. Select Create and download agent installation package.
 - c. Select the appropriate McAfee Agent version for Linux from the list.
 - d. Click **OK**. The agentPackages.zip installation package containing install.sh file is created.
 - e. Save the file.
- 2. Open **Terminal**, enter the path where you have saved the install.sh file.
- 3. Run the following command to check if the rpm-build package is installed on the local system.

```
rpm -q redhat-rpm-config
```

If the rpm-build package is not installed on the local system, run the following command to install it.

```
yum install rpm-build
```

If the unzip package is not installed on the local system, run the following command to install it.

```
yum install unzip
```

4. Generate the MAProvision.rpm file from install.sh using the option (-p). Run the following command by giving root credentials.

```
./install.sh -p
```

The MAProvision.rpm file is generated.



You can add the RelayServer information such as IP address or port information in the McAfee Agent provisioning package. This helps to communicate with McAfee ePO in isolated networks where direct communication with McAfee ePO is not allowed (even the first agent-server communication). McAfee Agent approves the policies configured in McAfee ePO after completing the first ASCI via relay IP. Run the command, giving root credentials when requested. For example:

```
./install.sh -p -R '<relayIP1>:<relayPort1>'
```

- 5. Create MFEma.rpm and MFErt.rpm files by executing one of the following:
 - a. Create files using install.sh file.
 - i. Copy the install.sh file to a Red Hat Linux system.
 - ii. Open **Terminal**, enter the path where you have saved the install.sh file.
 - iii. Run the following command to extract the installation package.

```
unzip install.sh
```

- iv. The following installation files are extracted.
 - MFEma.i686.rpm
 - MFEma.x86_64.rpm
 - MFErt.i686.rpm



Use an appropriate MFEma installation package based on the operating systems used.

- MFEma.x86_64.rpm for a 64-bit operating system
- MFEma.i686.rpm for a 32-bit operating system.

b. Create files from the McAfee ePO Master Repository.
 These files are available in the selected repository path. If the files are checked in to the current branch of the McAfee ePO software repository, the path of the required files is C:\Program Files\McAfee\ePolicy Orchestrator\DB\Software

\Current\EPOAGENT3700LYNX\Install\0409. You can change the file path based on the branch selected.

- 6. Create the MFEdx-ma-<build_number>.rpm file:
 - a. Save the DXL.zip file to a Red Hat Linux system.

The DXL.zip file is available in the selected repository path. If the files are checked in to the current branch of the McAfee ePO software repository, the path of the required files is C:\Program Files\McAfee\ePolicy Orchestrator\DB \Software\Current\EPOAGENT3700LYNX\Install\0409. You can change the file path based on the branch selected.

- b. Open **Terminal**, enter the path where you have saved the DXL.zip file.
- c. Run the following command to extract the installation package.

unzip DXL.zip

- d. The following installation files are extracted.
 - MFEdx-ma-<build_number>.x86_64.rpm
 - MFEdx-ma-<build_number>.i686.rpm



Use an appropriate MFEdx-ma-
build_number> package based on the operating systems used.

- MFEdx-ma-

 build number>.x86 64.rpm for a 64-bit operating system.
- MFEdx-ma-<build_number>.i686.rpm for a 32-bit operating system.
- 7. Check in the MAProvision.rpm, MFEma.rpm, MFErt.rpm, and MFEdx-ma-

 deployment tool (such as YUM) repository.
- 8. Deploy McAfee Agent in managed mode using the third-party software such as, yum install MAProvision.rpm.

Using install scripts

You can install, upgrade, or manage McAfee Agent 5.7.x on non-Windows operating systems such as Macintosh and Linux using the install.sh script.

Supported install.sh script options

Option	Function		Macintosh
-b	Upgrades the agent only. Server information is not updated	Yes	Yes
-h	Shows Help	Yes	Yes

Option	Function		Macintosh
-i	Performs a new installation	Yes	Yes
-p	Generates provisioning rpm/deb packages	Yes	No
-r	Runs macmnsvc as a root user during installation/upgrade	Yes	Yes
-R	Allows the user to manually specify the RelayServer		Yes
-u	Upgrades entire installation	Yes	Yes

Installing the SELinux RPM package

Download the Security-Enhanced Linux (SELinux) RPM package to your Linux system to run McAfee Agent processes in confinement mode. You can install this package on a standalone or managed Linux system after installing or upgrading to McAfee Agent 5.7.0 and later.

Use sestatus command to check whether SELinux is in enforcing, permissive, or disabled state. For information about the supported RHEL versions, see KB51573.

Below table lists the supported SELinux policy version on the supported RHEL version:



McAfee Agent SELinux installation fails for unsupported SELinux policy versions.

RHEL	SELinux Policy Version
7.1	3.13.1-23
7.2	3.13.1-60
7.3	3.13.1-102
7.4	3.13.1-166
7.5	3.13.1-192

RHEL	SELinux Policy Version
7.6	3.13.1-229
7.7	3.13.1-252
7.8	3.13.1-259
7.9	3.13.1-268
8.0	3.14.1-61
8.1	3.14.3-20
8.2	3.14.3-30
8.3	3.14.3-54



McAfee Agent SELinux package supports Endpoint Security for Linux SELinux package (RPM) version 10.7.3 and later.

Task

- 1. Log on to the McAfee product download site (https://www.mcafee.com/enterprise/en-in/downloads/my-products.html) using your Grant number and the registered email address.
- 2. Download the SELinux Package McAfeeAgent-selinux-5.7.0-ReleasePackages.tar.gz to a temporary directory on your Linux system.



The RPM zip contains MFEma-selinux-5.7.0-1.src.rpm, which can be used to modify McAfee Agent SELinux policies, rules and build the customized RPM.

3. Extract the package.

tar -zxvf McAfeeAgent-selinux-5.7.0-ReleasePackages.tar.gz

4. To navigate to the directory McAfeeAgent-selinux-5.7.0-ReleasePackages.

cd McAfeeAgent-selinux-5.7.0-ReleasePackages

5. Install SELinux RPM package on your system.

rpm -ivh MFEma-selinux-5.7.0-<build-number>.el7.noarch.rpm

• Run the following command for Red Hat 7.1 to 7.8 versions:

```
rpm -ivh MFEma-selinux-5.7.0-1.el7.noarch.rpm
```

Run the following command for Red Hat 8.0, 8.1, and 8.2 versions:

```
rpm -ivh MFEma-selinux-5.7.0-1.el8.noarch.rpm
```

The sample output on applying this command is:

```
# rpm -ivh MFEma-selinux-5.7.0-1.el8.noarch.rpm
Verifying... ############################# [100%]
Preparing... ############################ [100%]
MFEma-selinux is installing on - Red Hat Enterprise Linux release 8.0 (Ootpa)
Updating / installing..
1:MFEma-selinux-5.7.0-1.el8 ############################### [100%]
Installing MFEma-selinux
Successfully loaded SELinux policy (3.14.1-61) mfe_ma_rt.pp
Successfully loaded SELinux policy (3.14.1-61) mfe_ma.pp
```

Results

After installing the McAfee Agent SELinux policy successfully, the McAfee Agent service restarts in confined mode.

Verifying McAfee Agent processes are running in the SELinux policy

Check if McAfee Agent SELinux policy modules are loaded and McAfee Agent processes are running in SELinux confinement.

1. Verify the SELinux policy modules are loaded appropriately.

Test Agent processes in SELinux confinement

Check if McAfee Agent SELinux policy modules are loaded and McAfee Agent processes are running in SELinux confinement.

Task

1. Verify the SELinux policy modules are loaded appropriately.

```
# semodule -l | grep -i mfe
```

The sample output on applying this command is:

```
# # semodule -1 | grep mfe_ma
mfe_ma
mfe_ma_rt
```

2. Verify whether McAfee Agent processes are running in SELinux confinement.

```
# ps -eZf | grep self start
```

The sample output on applying this command is:

```
# ps -eZf | grep self start
system_u:system_r:mfe_ma_masvc_t:s0 root 32010 1 1 05:14 ? 00:00:00 /opt/McAfee/agent/bin/masvc
self start
system u:system r:mfe ma macmnsvc t:s0 mfe 32049 1 0 05:14 ? 00:00:00 /opt/McAfee/agent/bin/macmnsvc
self start
system u:system r:mfe ma macompatsvc t:s0 root 32175 1 0 05:14 ? 00:00:00 /opt/McAfee/agent/bin/
macompatsvc self_start
system u:system \overline{r}:mfe ma macompatsvc t:s0 root 32177 32175 0 05:14 ? 00:00:00 /opt/McAfee/agent/bin/
macompatsvc self start
system u:system \(\overline{\text{r}}\):mfe ma macompatsvc t:s0 root 32178 32177 0 05:14 ? 00:00:00 /opt/McAfee/agent/bin/
macompatsvc self start
system u:system r:mfe ma macompatsvc t:s0 root 32179 32177 0 05:14 ? 00:00:00 /opt/McAfee/agent/bin/
macompatsvc self start
system u:system \( \overline{\text{r}} \):mfe ma macompatsvc t:s0 root 32180 32177 0 05:14 ? 00:00:00 /opt/McAfee/agent/bin/
macompatsvc self start
system u:system r:mfe ma macompatsvc t:s0 root 32181 32177 0 05:14 ? 00:00:00 /opt/McAfee/agent/bin/
macompatsvc self start
system u:system \(\overline{\text{r}}\):mfe ma macompatsvc t:s0 root 32182 32177 0 05:14 ? 00:00:00 /opt/McAfee/agent/bin/
macompatsvc self_start
system u:system \( \overline{r} \):mfe ma macompatsvc t:s0 root 32183 32177 0 05:14 ? 00:00:00 /opt/McAfee/agent/bin/
macompatsvc self start
```

```
Failed dependencies:

selinux-policy >= 3.14.1-61 is needed by MFEma-selinux-5.7.0-10.el8.noarch
This is corrected by verifying the rpm is supported by linux os.
```

Uninstalling SELinux RPM package

On uninstalling the SELinux package, McAfee Agent processes will not be under SELinux confinement and the SELinux policies will be unloaded from your system.

Task

Run one of the following commands to uninstall the McAfee Agent SELinux RPM package:

• Run rpm -e MFEma-selinux

The sample output when you run the above command:

```
$ rpm -e MFEma-selinux
Uninstalling MFEma-selinux
Finished uninstallation
```

Or

- For RedHat 7.x versions: rpm -e MFEma-selinux-5.7.0-<build-number>.el7.noarch
- For RedHat 8.x versions: rpm -e MFEma-selinux-5.7.0-

 -build-number>.el8.noarch

The sample output when you run the above command:

```
$ rpm -e MFEma-selinux-5.7.0-1.el7.noarch Uninstalling MFEma-selinux Finished uninstallation
```

Results

McAfee Agent restarts in unconfined mode after uninstalling the SELinux RPM package.

On unmanaged non-Windows systems using install script

Install McAfee Agent 5.7.x on Linux (Debian or RPM package) and Macintosh systems that are not managed by McAfee ePO using the install_upd.sh script. This option is available only on McAfee ePO 5.6.4 and later versions. When McAfee Agent is installed in unmanaged mode, the DXL client is automatically installed and in an idle state.

Before you begin

You must have administrator rights to install McAfee Agent on the client system.

Task

- 1. Download McAfee Agent installation package MAxxxLNX.zip for Linux and MAxxxMAC.zip for Macintosh from the Software Catalog on McAfee ePO.
- 2. Extract the package to a temporary location and copy install_upd.sh to the client system.
- 3. Open **Terminal**, then enter the path where you have copied the script file.
- 4. Run the following command by giving root credentials when requested.

```
sudo chmod +x install_upd.sh
sudo ./install_upd.sh -i
```

On unmanaged Ubuntu systems

Generate a Debian package and install McAfee Agent 5.7.x on an unmanaged Ubuntu system that are not managed by McAfee ePO. You must manually install the DXL client while installing McAfee Agent in unmanaged mode on Ubuntu system.

Before you begin

You must have root permissions to install McAfee Agent on the client system.

Task

- 1. Download McAfee Agent installation package MAXXXLNX.zip for Linux from the Software Catalog on McAfee ePO.
- 2. Extract the following installer files to the client system.
 - mfema-<build_number>.i686.deb
 - mfema-<build_number>.x86_64.deb
 - mfert-<build number>.i686.deb

- DXL.zip file which contains the following installer files.
 - mfedx-ma-<build_number>.i686.deb
 - mfedx-ma-<build_number>.x86_64.deb



Use the appropriate MFEma and MFEdx-ma-

valid_number> packages based on the operating systems used. For example:

- mfema-<build_number>.x86_64.deb and mfedx-ma-<build_number>.x86_64.deb for a 64-bit operating system
- mfema-<build number>.i686.deb and mfedx-ma-<build number>.i686.deb for a 32-bit operating system.
- 3. Open **Terminal**, then enter the path where you have extracted the installer files.
- 4. Run the following commands to install McAfee Agent on the client system.
 - For a 64-bit operating system:

```
dpkg --install mfert-<build_number>.i686.deb
dpkg --install mfema-<build_number>.x86_64.deb
dpkg --install mfedx-ma-<build_number>.x86_64.deb
```

For a 32-bit operating system:

```
dpkg --install mfert-<build_number>.i686.deb
dpkg --install mfema-<build_number>.i686.deb
dpkg --install mfedx-ma-<build_number>.i686.deb
```

On unmanaged Red Hat Linux systems

Generate an RPM package and install McAfee Agent 5.7.x on an unmanaged Red Hat Linux system that is not managed by McAfee ePO. You must manually install the DXL client while installing McAfee Agent in unmanaged mode on Red Hat Linux system.

Before you begin

You must have root permissions to install McAfee Agent on the client system.

Task

- 1. Download McAfee Agent installation package MAxxxLNX.zip for Linux from the Software Catalog on McAfee ePO.
- 2. Extract the following installer files to the client system.
 - MFEma.i686.rpm
 - MFEma.x86 64.rpm
 - MFErt.i686.rpm
 - DXL.zip file which contains the following installer files.

- MFEdx-ma-<build_number>.i686.rpm
- MFEdx-ma-<build_number>.x86_64.rpm



Use the appropriate MFEma and MFEdx-ma-

-suild_number> packages based on the operating systems used. For example:

- MFEma.x86_64.rpm and MFEdx-ma-

 build_number>.x86_64.rpm for a 64-bit operating system
- MFEma.i686.rpm and MFEdx-ma-

 -build_number>.i686.rpm for a 32-bit operating system.
- 3. Open **Terminal**, then enter the path where you have extracted the installer files.
- 4. Run the following commands to install McAfee Agent on the client system.
 - For a 64-bit operating system:

```
rpm -ivh MFErt.i686.rpm
rpm -ivh MFEma.x86_64.rpm
rpm -ivh MFEdx-ma-<br/>build_number>.x86_64.rpm
```

• For a 32-bit operating system:

```
rpm -ivh MFErt.i686.rpm
rpm -ivh MFEma.i686.rpm
rpm -ivh MFEdx-ma-<build_number>.i686.rpm
```

On Macintosh systems

You can use multiple deployment methods to install McAfee Agent 5.7.x on your endpoints.

Installing McAfee Agent 5.7.x on Macintosh

Install McAfee Agent on	From	Using these methods
Physical machine	MVISION ePO	Install McAfee Agent 5.7.x using Smart Installer Install McAfee Agent 5.7.x on Windows, Macintosh, and Linux systems using a lightweight installer file.
	McAfee ePO (on- premises)	Deploy McAfee Agent 5.7.x from McAfee ePO Deploy McAfee Agent to the specified systems under Systems Tree using the Deploy Agents option.

Install McAfee Agent on	From	Using these methods
		Install McAfee Agent 5.7.x using the installation package Install McAfee Agent on an individual client system by creating an agent installation package from the McAfee ePO console.
		Install McAfee Agent 5.7.x using Smart Installer Install McAfee Agent 5.7.x on Windows, Macintosh, and Linux systems using a lightweight installer file.
		Install McAfee Agent 5.7.x using install scripts Install McAfee Agent using install scripts that runs when user logs on to the network.

From McAfee ePO On-Premises

You can use a deployment method in McAfee ePO (On-Premise) to install McAfee Agent on your endpoints.

- 1. Before the installation:
 - Verify that all endpoints meet the minimum requirements (KB51573).
 - Verify the list of products compatible with McAfee Agent 5.7.x (KB93915).
- 2. Install McAfee Agent extensions and software packages.
- 3. Deploy McAfee Agent 5.7.x using one of the following methods:
 - · Using McAfee Agent installation package
 - · Using McAfee Smart Installer
 - · Remotely deploy McAfee Agent on the client machine
 - · Using install scripts

Deploying McAfee Agent 5.7.x

Deploy McAfee Agent on multiple systems

You can deploy McAfee Agent 5.7.x on multiple Macintosh systems at the same time using McAfee ePO. We recommend this method if you want to deploy McAfee Agent on multiple systems that are available under **System Tree**.

Before you begin

- Enable SSH on Macintosh system.
- · You must have root permissions to deploy McAfee Agent on Macintosh system.
- You can deploy McAfee Agent using McAfee ePO on Macintosh OS X versions 10.9 and above.



You can deploy McAfee Agent only on the Macintosh system using this method. If you need to install on multiple operating systems or versions, repeat this task for each additional target operating system or version.

Task

- On the McAfee ePO console, select Menu → Systems → System Tree, then select the groups or systems where you want to deploy McAfee Agent.
- 2. At the bottom of the page, select **Actions** → **Agent** → **Deploy Agents**.
- 3. Select the appropriate Agent version for Macintosh from the list.
- 4. Select Install only on systems that do not already have an agent managed by this McAfee ePO server.
- 5. Enter the valid domain name, user name, and password associated with the user account. Select the **Remember my credentials for future deployments** check box to save credentials.
- 6. A default value is set for **Installation path**, **Number of attempts**, **Retry interval**, and **Cancel after** fields. Change values in these fields if you want to replace the default values.
- 7. Assign the appropriate **Agent Handler** to communicate with McAfee ePO server for deployment:
 - All Agent Handlers: All Agent Handlers can communicate with McAfee ePO server.
 - **Select Agent Handler**: Select a specific Agent Handler from the list that you prefer to communicate with McAfee ePO server.
- 8. Click **OK**. McAfee Agent is deployed.
- 9. To verify that McAfee Agent is deployed on your endpoints, select **Menu** → **Automation** → **Server Task Log**, then select **Deploy McAfee Agent** → **Subtasks**.

Using McAfee Agent installation package

You can manually install McAfee Agent 5.7.x on Macintosh systems by creating an Agent installation package from the McAfee ePO console. If you want the endpoint users (with local administrator rights) to install McAfee Agent on their own systems, distribute the installation package file to them through email or shared network.

Task

- 1. On the McAfee ePO console, select $Menu \rightarrow Systems \rightarrow System$ Tree .
- 2. Obtain the McAfee Agent installation file by executing one of the following:
 - · Creating an installation package:

- □ Click **New Systems**.
- Select Create and download agent installation package.
- \square Select the appropriate McAfee Agent version for Macintosh from the list.
- Click OK. The agentPackages.zip installation package containing install.shfile is created.
- Save the file.
- Copy the install.sh file directly from McAfee ePO. The path includes the name of the selected repository. For example, if checked in to the current branch of the McAfee ePO software repository, the path of the required files is:

C:\Program Files\McAfee\ePolicy Orchestrator\DB\Software\Current\EPOAGENT3700MACX\Install\0409

- 3. Open **Terminal**, then enter the path where you have saved the install.sh file.
- 4. Run the following commands, giving root credentials when requested:

```
sudo chmod +x install.sh sudo ./install.sh -i
```

On unmanaged Macintosh systems

Install McAfee Agent 5.7.x on Macintosh systems that are not managed by McAfee ePO by creating an Agent installation package. You must manually install the DXL client while installing McAfee Agent in unmanaged mode on Macintosh system.

Before you begin

You must have root permissions to install McAfee Agent on the client system.

Task

- 1. Download McAfee Agent installation package MAxxxMAC.zip for Macintosh from the Software Catalog on McAfee ePO.
- 2. Extract the following installer files to the client system.
 - MFEma.x86 64.dmg
 - · DXL.zip file which contains the following installer files.
 - MFEdx-ma-<build_number>.i686.pkg
 - MFEdx-ma-<build_number>.x86_64.pkg



Use the appropriate MFEma and MFEdx-ma-

build_number> packages based on the operating systems used. For example:

- MFEdx-ma-<build_number>.x86_64.pkg for a 64-bit operating system
- MFEdx-ma-<build_number>.i686.pkg for a 32-bit operating system.
- 3. Navigate to the location where you have extracted the files and double-click the MFEma.x86_64.dmg package to install McAfee Agent.

To install the DXL client, double-click the appropriate MFEdx-ma-

valid_number> package based on the operating system.

Remove McAfee Agent

You can uninstall McAfee Agent from client systems on McAfee ePO. The DXL client is automatically removed when McAfee Agent is uninstalled.

Remove McAfee Agent using the following methods:

- · Deleting the system from System Tree.
- Deleting the group of systems from System Tree.
- By running a query.
- · Using command-line options for Windows systems
- Using command-line options for Linux and Macintosh systems
- From the Control Panel for unmanaged systems



You cannot remove McAfee Agent using the **Product Deployment** task.

After removing McAfee Agent, if there are managed products on the system, McAfee Agent continues to run in updater mode to maintain those managed products.

Deleting system from the System Tree

You can remove McAfee Agent from a system by deleting it from the System Tree on McAfee ePO.

Task

- 1. On McAfee ePO, select **Menu** → **Systems** → **System Tree**, then select the systems from the list that you want to delete.
- 2. Select Actions → Directory Management → Delete.
- 3. Select Remove McAfee Agent on next agent-server communication, then click OK. McAfee Agent is removed from the system during the next Agent-server communication.

Deleting group of systems from the System Tree

You can remove McAfee Agent from a group of systems by deleting the group from System Tree.



When you delete a group, all its child groups and systems are also deleted.

- 1. On McAfee ePO, select **Menu** → **Systems** → **System Tree**, then select a group to be deleted.
- 2. At the bottom of the page, select **System Tree Actions** → **Delete Group**.
- 3. Select **Remove McAfee Agent on next agent-server communication from all systems**, then click **OK**. McAfee Agent is removed from the system during the next Agent-server communication.

Running a query

Remove the agents from systems listed in the results of a query.

Task

- 1. Run a query, then from the results page, select the systems to be deleted.
- 2. Select **Directory Management** from the drop-down list, then select **Delete** from the submenu.
- 3. Select Remove McAfee Agent on next agent-server communication, then click OK.

Using command-line options for Windows systems

You can remove McAfee Agent from client systems using the Windows command-line option.

Task

- 1. Open a command prompt on the client system.
- 2. Run the McAfee Agent installation program, FrmInst.exe, from the command line with the /REMOVE=AGENT option.

 If there are managed McAfee products installed on the client system, McAfee Agent continues to run in the updater mode to maintain those managed products. In this scenario, the DXL client does not get uninstalled.



To forcibly remove McAfee Agent from the Windows system, run the command Frminst.exe /FORCEUNINSTALL. In this scenario, the DXL client gets uninstalled automatically. If McAfee Agent is still not removed, remove it manually. For details, see KB65863.

Using command-line options for Linux and Macintosh systems

You must manually remove McAfee Agent from non-Windows systems.

The task involves:

- Removing McAfee Agent from the system.
- Removing the system names from the McAfee ePO **System Tree**.

Task

- 1. Open **Terminal** on the client system.
- 2. Run the command for your operating system to remove McAfee Agent from the system. Provide root credentials when requested.

Operating system	Commands
Linux	/opt/McAfee/agent/scripts/uninstall.sh Use below commands to remove individual packages. rpm -e MFEdx rpm -e MFEcma rpm -e MFErt
	Caution: Run the commands in the listed order. Run rpm -e MFEma-selinux to remove McAfee Agent SELinux RPM package.
	Note: Make sure to remove McAfee Agent SELinux RPM package before uninstalling McAfee Agent.
Debian	/opt/McAfee/agent/scripts/uninstall.sh Use below commands to remove individual packages. dpkgpurge mfedx dpkgpurge mfecma dpkgpurge mfert

Operating system	Commands
	⚠ Caution: Run the commands in the listed order.
Mac	/Library/McAfee/agent/scripts/uninstall.sh

- 3. On McAfee ePO, select **Menu** → **Systems** → **System Tree**, then select the systems where you have uninstalled McAfee Agent.
- 4. Select Actions → Directory Management → Delete.

From the Control Panel for unmanaged systems

You can remove McAfee Agent from unmanaged systems from the Control Panel.



In this scenario, the DXL client gets uninstalled automatically. You cannot uninstall McAfee Agent from the Control Panel in managed systems.

Task

- 1. Open **Control Panel** on the target system.
- 2. Select Programs and Features.
- 3. Right-click McAfee Agent program and select Uninstall.
- 4. Click Yes to confirm uninstall the Agent.



If there are McAfee products installed on the client system already, McAfee Agent continues to run in the updater mode. In this scenario, the DXL client is not uninstalled.

Removing the DXL client

The DXL client is automatically removed when McAfee Agent is removed.

Consider the following scenarios when removing the DXL client.

· When McAfee Agent is removed from the managed system, the DXL client gets automatically removed.

• While removing McAfee Agent from Windows systems, the DXL client is not uninstalled from the client system when the Agent mode changes from managed to updater.

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