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Sophos Enterprise Console help

Product version: 5.5

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1 About Sophos Enterprise Console

Sophos Enterprise Console is a single, automated console that manages and updates Sophos security software on computers running Windows, Mac OS X, Linux and UNIX operating systems, and in virtual environments with VMware vShield.

Enterprise Console enables you to do the following:

- Protect your network against malware, risky file types and websites, and malicious network traffic, as well as adware and other potentially unwanted applications.
- Control which websites users can browse to, further protecting the network against malware, and preventing users from browsing to inappropriate websites.
- Control which applications can run on the network.
- Manage client firewall protection on endpoint computers.
- Assess computers for missing patches.
- Reduce accidental data loss, such as unintentional transfer of sensitive data, from endpoint computers.
- Prevent users from using unauthorized external storage devices and wireless connection technologies on endpoint computers.
- Prevent users from re-configuring, disabling, or uninstalling Sophos security software.

Note: Some of the features above are not included with all licenses. If you want to use them, you might need to change your license. For more information about available licenses, see www.sophos.com/en-us/products/enduser-protection-suites/how-to-buy.aspx and www.sophos.com/en-us/products/server-security/how-to-buy.aspx.

2 Guide to the Enterprise Console interface

2.1 User interface layout

The Enterprise Console user interface consists of the following areas:

Toolbar

The toolbar contains shortcuts to the most common commands for using and configuring your Sophos security software.

For more information, see Toolbar buttons (page 7).

Dashboard

The **Dashboard** provides an at-a-glance view of your network's security status.

For more information, see Dashboard panels (page 9).

Computer list

The computer list is displayed at the bottom right. It has two views:

- **Endpoints** view displays the computers in the group that is selected in the **Groups** pane at the bottom left. For more information, see Navigating the Endpoints view (page 11).
- **Update managers** view displays the computers where Sophos Update Manager is installed. For more information, see Navigating the Update managers view (page 15).

2.2 Toolbar buttons

The following table describes the toolbar buttons. Some toolbar buttons are available only in specific circumstances. For example, the **Protect** button to install anti-virus and firewall software is only available if a group of computers is selected in the **Groups** pane in the **Endpoints** view.

Toolbar Button		Description
	**Discover computers**	Searches for computers on the network and adds them to the console. For more information, see Discovering computers on the network (page 38).

Toolbar Button		Description
	**Create group**	Creates a new group for computers. For more information, see Create a group (page 30).
	**View/Edit policy**	Opens the policy selected in the **Policies** pane for editing. For more information, see Edit a policy (page 36).
	**Protect**	Installs anti-virus and firewall software on the computers selected in the computer list. For more information, see Protect computers automatically (page 49).
	**Endpoints**	Switches to the **Endpoints** view in the computer list. The **Endpoints** view displays the computers in the group that is selected in the **Groups** pane. For more information, see Navigating the Endpoints view (page 11).
	**Update managers**	Switches to the **Update managers** view in the computer list. The **Update managers** view displays computers where Sophos Update Manager is installed. For more information, see Navigating the Update managers view (page 15).
	**Dashboard**	Shows or hides the **Dashboard**. The **Dashboard** provides an at-a-glance view of your network's security status. For more information, see Dashboard panels (page 9).
	**Reports**	Starts **Report Manager** so that you can generate reports about alerts and events on your network. For more information, see Generating reports (page 199).
	**Sophos Central**	Takes you to Sophos Central. For information about Sophos Central, see knowledgebase article 119598. For information about migrating to Sophos Central, see knowledgebase article 122264.
	**Sophos Mobile Control**	When the Sophos Mobile Control URL is configured, this opens the web console for Sophos Mobile Control, a device management solution for mobile devices (such as smartphones and tablets) that helps you to manage apps and security settings.

Toolbar Button		Description
		For more information, see Configure the Sophos Mobile Control URL (page 47).

2.3 Dashboard panels

The **Dashboard** contains the following panels:

Dashboard Panel	Description
Computers	Displays the total number of computers on the network and the number of connected, managed, and unmanaged computers. To view a list of managed, unmanaged, connected, or all computers, click a link in the **Computers** area.
Updates	Displays the status of update managers.
Computers with alerts	Displays the number and percentage of managed computers with alerts about: ▪ Known and unknown viruses and spyware ▪ Suspicious behavior and files ▪ Adware and other potentially unwanted applications To view a list of managed computers with outstanding alerts, click the panel title **Computers with alerts**.
Computers over event threshold	Displays the number of computers with events over the threshold within the last seven days. To view a list of computers with device control, data control, controlled application, or firewall events, click a link in the **Computers over event threshold** panel. **Note:** Depending on your license, some of the event types may not be displayed.
Policies	Displays the number and percentage of managed computers with group policy violations or policy comparison errors. It also includes computers that haven't yet responded to the changed policy sent to them from the console. To view a list of managed computers that differ from policy, click the panel title **Policies**.

Dashboard Panel	Description
Protection	Displays the number and percentage of managed and connected computers on which Sophos Endpoint Security and Control or Sophos Anti-Virus is out of date or uses unknown detection data. To view a list of managed connected out-of-date computers, click the panel title **Protection**.
Errors	Displays the number and percentage of managed computers with outstanding scanning, updating, or firewall errors. To view a list of managed computers with outstanding Sophos product errors, click the panel title **Errors**.

2.4 Security status icons

The following table describes the security status icons displayed in the **Dashboard** and the Enterprise Console status bar.

Security status icon	Description
	**Normal** The number of affected computers is below the warning level.
	**Warning** The warning level has been exceeded.
	**Critical** The critical level has been exceeded.

Dashboard panel health icons

A **Dashboard** panel health icon is displayed in the upper-right corner of a Dashboard panel. It shows the status of the particular security area represented by the panel.

A **Dashboard** panel health icon shows the status of a panel icon with the most severe status, that is:

- A panel health icon changes from **Normal** to **Warning** when a warning level is exceeded for at least one icon in the panel.

- A panel health icon changes from **Warning** to **Critical** when a critical level is exceeded for at least one icon in the panel.

The network health icon

The network health icon is displayed on the right side of the Enterprise Console status bar. It shows the overall security status of your network.

The network health icon shows the status of the **Dashboard** panel with the most severe status, that is:

- The network's overall health icon changes from **Normal** to **Warning** when a warning level is exceeded for at least one icon in the Dashboard.
- The network's overall health icon changes from **Warning** to **Critical** when a critical level is exceeded for at least one icon in the **Dashboard**.

When you first install or upgrade Enterprise Console, the **Dashboard** uses the default warning and critical levels. To configure your own warning and critical levels, see Configure the Dashboard (page 51).

You can also set up email alerts to be sent to your chosen recipients when a warning or critical level has been exceeded for a **Dashboard** panel. For instructions, see Set up network status email alerts (page 186).

2.5 Navigating the Endpoints view

Computer list

In the **Endpoints** view, the computer list displays the endpoint computers in the group that is selected in the **Groups** pane.

This view contains a number of tabs. The **Status** tab shows whether the computers are protected by on-access scanning, whether they are compliant with their group policies, which features are enabled, and whether the software is up to date. This tab also shows if there are any alerts. The other tabs give more detailed information on each of these subjects.

You can filter the computer list using the **View** filter. In the **View** drop-down list, select which computers you want to see. For example, select **Computers with potential problems** to display computers with problems.

You can also filter the computer list by the name of a detected item such as malware, potentially unwanted application, or suspicious file. For more information, see Filter computers by the name of a detected item (page 13).

You can search for computers by computer name, computer description or IP address. For more information, see Find a computer in Enterprise Console (page 14).

For an explanation of the icons displayed in the computer list, see Computer list icons (page 12).

You can copy or print data displayed in the computer list. For more information, see Copying or printing data from Enterprise Console (page 211).

Groups pane

In the **Groups** pane, you create groups and put networked computers in them. You can create groups yourself or you can import Active Directory containers, with or without computers, and use them as Enterprise Console computer groups.

For more information, see Creating and using groups (page 29).

The **Unassigned** group is for computers that are not yet in a group that you created.

Policies pane

In the **Policies** pane, you create and configure the policies applied to groups of computers. For more information, see Creating and using policies (page 32) and Configuring policies (page 81).

2.6 Computer list icons

Alerts

Icon	Explanation
	A red warning sign displayed in the **Alerts and errors** column on the **Status** tab means that a virus, worm, Trojan, spyware, or suspicious behavior has been detected.
	A yellow warning sign displayed in the **Alerts and errors** column on the **Status** tab indicates one of the following problems: ▪ A suspicious file has been detected. ▪ An adware or other potentially unwanted application has been detected. ▪ An error has occurred. A yellow warning sign displayed in the **Policy compliance** column indicates that the computer is not using the same policy or policies as other computers in its group.

If there are multiple alerts or errors on a computer, the icon of an alert that has the highest priority will be displayed in the **Alerts and errors** column. Alert types are listed below in descending order of priority.

1. Virus and spyware alerts
2. Suspicious behavior alerts
3. Suspicious file alerts
4. Adware and PUA alerts
5. Software application errors (for example, installation errors)

If several alerts with the same priority are received from the same computer, the most recent alert will be displayed in the computer list.

Protection disabled or out of date

A gray feature icon in the feature status column on the **Status** tab means that the feature is disabled. For example, a gray shield in the **On-access** column means that on-access scanning is inactive.

A clock icon in the **Up to date** column means that the security software is out of date.

Computer status

Icon	Explanation
	A computer sign with a green connector means that the computer is managed by Enterprise Console.
	A computer sign with a yellow hourglass means that installation of security software is pending.
	A computer sign with a yellow down arrow means that installation of security software is in progress.
	A gray computer sign means that the computer is not managed by Enterprise Console.
	A computer sign with a red cross means that the computer that is usually managed by Enterprise Console is disconnected from the network. (Unmanaged disconnected computers are not shown.)

2.7 Filter computers by the name of a detected item

You can filter the computer list by the name of a detected item such as malware, potentially unwanted application, or suspicious file. You can do so by configuring the filter "Managed computers affected by...". The filter is displayed in the **View** drop-down list along with the other computer list filters.

To configure the filter:

1. On the **Tools** menu, click **Configure Filters**.

2. In the **Configure Computer List Filter** dialog box, enter the name of a detected item you want to filter by. You can find the names of items detected on your network in:
   - Computer list view, **Alert and Error Details** tab, **Item detected** column.

     Please note that if a computer has multiple detected items, the **Item detected** column will display only the latest highest priority item, which may not be the one you filter by.
   - **Resolve alerts and errors** dialog box. To open the dialog box, select a computer or computers in the computer list or a group of computers in the **Groups** pane, right-click and click **Resolve Alerts and Errors**.
   - **Computer details** dialog box. To open the dialog box, double-click the affected computer. Then scroll down to the **Outstanding alerts and errors** section.
   - **Reports** (for example, **Alert summary** or **Alerts and events by item name**). To open the **Report Manager**, on the **Tools** menu, click **Manage Reports**.

   You can use wildcards. Use ? for any single character and * for any string of characters. For example, if you enter "Mal*" and then apply the filter, the computer list view will show computers infected with malware whose name begins with "Mal", such as "Mal/Conficker-A" and "Mal/Packer".

2.8 Find a computer in Enterprise Console

You can search for a computer or computers in Enterprise Console by:

- Computer name
- Computer description
- IP address

1. To find a computer, do either of the following:
   - Press CTRL+F.
   - On the **Edit** menu, click **Find a Computer**.
   - Click anywhere in the computer list, right-click, and then click **Find a Computer**.

2. In the **Find** dialog box, enter your search criteria.
   The **Find what** field is not case sensitive. Trailing wildcards are implicit.

   You can use the wildcards * and ?

   For example:

Search criteria	Search results
UKlapt	Finds any string beginning with “uklapt”, for example, UKlaptop-011, UKlaptop-155, uklaptop132.
Ukla*	Finds any string beginning with “ukla”. The wildcard is not needed as it is there implicitly; search returns the same results as in the previous example, UKlaptop-011, UKlaptop-155, uklaptop132.
***ukla**	Finds any string containing “ukla”, for example, UKlaptop-011, 055uklax, 056-Dukla-sales.
Ukl*t	Finds any string beginning with “ukl”, containing a “t”, and ending with any character, for example, UKlaptop-011, ukLite55.
?klap	Finds any string beginning with any single character followed by “klap” and ending with any character, for example, UKlaptop-011, uklapland33.
UKl??t	Finds any string beginning with “ukl”, followed by two characters, followed by “t”, and ending with any character, for example, UKlaptop-011, uklist101.

2.9 Navigating the Update managers view

Computer list

In the **Update managers** view, you set up automatic updating of Sophos security software from the Sophos website and view the status and details of your update managers.

The computer list displays the computers where Sophos Update Manager is installed.

Software subscriptions

You use the **Software Subscriptions** pane to create or edit software subscriptions that specify which versions of endpoint software are downloaded from Sophos for each platform.

3 Getting started with Sophos Enterprise Console

This is an overview of the tasks you need to perform to protect your network after you have installed Enterprise Console and completed the **Download Security Software Wizard**. For more information about using Enterprise Console, refer to the other materials and sections mentioned.

We recommend that you refer to the Sophos Enterprise Console policy setup guide for advice on best practices for using and managing Sophos security software. Sophos documentation is published at http://www.sophos.com/en-us/support/documentation.

If you haven't completed the **Download Security Software Wizard**, see Run the Download Security Software Wizard (page 71).

To protect your network, follow these steps:

1. **Create groups.**

   You can create groups yourself, one by one, or you can import Active Directory containers, with or without computers, and use them as Enterprise Console computer groups.

   If you want to import Active Directory containers, see Import containers and computers from Active Directory (page 38). We recommend that you first import containers from Active Directory without computers, then assign group policies to the groups, and then add computers to the groups, for example, by synchronizing the groups with Active Directory.

   For information about creating groups manually, see Creating and using groups (page 29).

2. **Set up policies.**

   Enterprise Console has a set of default policies that are essential to keep your network protected. You can use default **Updating** and **Anti-virus and HIPS** policies out of the box. To configure the firewall policy, run the **Firewall policy** wizard. See Set up a basic firewall policy (page 113).

3. **Discover computers on the network and add them to the console.**

   If you have imported containers and computers from Active Directory in step 1, you do not need to do anything. Otherwise, see Discovering computers on the network (page 38).

4. **Protect computers.**

   You can choose between two approaches to protecting your networked computers, depending on which suits you best.

   - **Using the Protect Computers Wizard**

     When you drag a computer from the **Unassigned** group and drop it onto another group, a wizard is launched to help you protect the computers. See Protect computers automatically (page 49) and other topics in the section Protecting computers (page 48).

   - **Protecting computers automatically during synchronization with Active Directory**

     If you chose to synchronize with Active Directory, you can also choose to protect your Windows computers automatically. You can do so in the **Synchronize with Active Directory Wizard** or **Synchronization properties** dialog box. For instructions, see Use synchronization to protect computers automatically (page 45).

5. **Check that computers are protected.**

   When installation is complete, look at the list of computers in the new group again. In the **On-access** column, you should see the word *Active*: this shows that the computer is protected by on-access scanning, and that it is now managed by Enterprise Console. For more information, see Checking whether your network is protected (page 51).

6. **Clean up computers.**

   If a virus, unwanted application, or other issue has been detected on your network, clean up affected computers as described in Clean up computers now (page 57).

Additional protection options

By default, Sophos Endpoint Security and Control detects malware (viruses, Trojans, worms, spyware), adware and other potentially unwanted applications, suspicious behavior, and malicious network traffic. It also blocks access to websites that are known to host malware and scans content downloaded from the internet. You can enable further security and productivity features, as described in Creating and using groups (page 29).

Administrative options

You can set up different *roles* in Enterprise Console, add rights to the roles, and then assign Windows users and groups to the roles. The System Administrator role that includes the Sophos Full Administrators Windows group has full rights and does not require setting up. For more information, see Managing roles and sub-estates (page 18).

You can split your IT estate into *sub-estates* and assign Enterprise Console groups of computers to the sub-estates. You can then control access to the sub-estates by assigning Windows users and groups to them. The **Default** sub-estate contains all Enterprise Console groups, including the **Unassigned** group. For more information about sub-estates, see Managing roles and sub-estates (page 18).

Tip: Check out videos that show how to set up and use Enterprise Console on the SophosGlobalSupport YouTube channel, the Sophos Enduser Protection section.

4 Setting up Enterprise Console

4.1 Managing roles and sub-estates

Important: If you already use role-based administration, you must have the **Role-based administration** right to set up roles and sub-estates. The System Administrator role that includes the Sophos Full Administrators Windows group has full rights and does not require setting up. For more information, see What are the preconfigured roles? (page 19) and What tasks do the rights authorize? (page 22).

You can set up role-based access to the console by setting up roles, adding rights to the roles, and then assigning Windows users and groups to the roles. For example, a Help Desk engineer can update or clean up computers, but cannot configure policies, which is the responsibility of an Administrator.

To open Enterprise Console, a user must be a member of the Sophos Console Administrators group and be assigned to at least one Enterprise Console role and one sub-estate. Members of the Sophos Full Administrators group have full access to Enterprise Console.

Note: If you want to allow a user to use a remote or additional Enterprise Console, see How can another user use Enterprise Console? (page 28)

You can create your own roles or use preconfigured roles.

You can assign a user as many roles as you like, by adding to the roles either the individual user or a Windows group the user belongs to.

If a user does not have rights to perform a certain task within the console, they can still view configuration settings pertaining to that task. A user who is not assigned any role cannot open Enterprise Console.

You can also restrict the computers and groups that users can perform operations on. You can split your IT estate into sub-estates and assign Enterprise Console groups of computers to the sub-estates. You can then control access to the sub-estates by assigning Windows users and groups to them. The **Default** sub-estate contains all Enterprise Console groups, including the **Unassigned** group.

A user can only see the sub-estate that they are assigned to. If a user has been assigned to more than one sub-estate, they can choose which sub-estate to view, one sub-estate at a time. The sub-estate that is open in Enterprise Console is the *active sub-estate*. A user cannot edit a policy that is applied outside their active sub-estate.

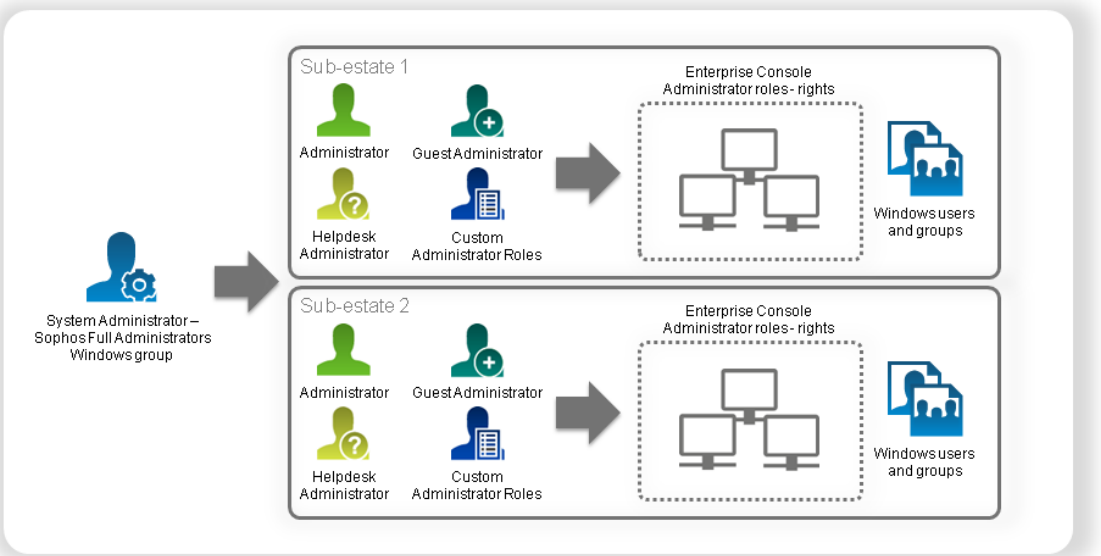


Figure 1: Roles and sub-estates

4.1.1 What are the preconfigured roles?

There are four preconfigured roles in Enterprise Console:

Role	Description
System Administrator	A preconfigured role that has full rights to manage Sophos security software on the network and roles in Enterprise Console. The System Administrator role cannot be edited or deleted.
Administrator	A preconfigured role that has rights to manage Sophos security software on the network, but cannot manage roles in Enterprise Console. The Administrator role can be renamed, edited, or deleted.
Helpdesk	A preconfigured role that has remediation rights only, for example, to clean up or update computers. The Helpdesk role can be renamed, edited, or deleted.
Guest	A preconfigured role that has read-only access to Enterprise Console. The Guest role can be renamed, edited, or deleted.

You can edit the Administrator, Helpdesk and Guest roles, or create your own roles as described in Create a role (page 20).

4.1.2 Create a role

If you already use role-based administration, you must have the **Role-based administration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

1. On the **Tools** menu, click **Manage Roles and Sub-Estates**.
2. In the **Manage roles and sub-estates** dialog box, on the **Manage roles** tab, click **Create**.

   The **Create role** dialog box appears.

3. In the **Role name** field, enter a name for the role.
4. In the **Rights** pane, select the right or rights you want to assign to the role and click **Add**.
5. In the **Users and groups** pane, click **Add**.
6. In the **Select User or Group** dialog box, enter the name of a Windows user or group you want to assign to the role. Click **OK**.

   If necessary, assign more users or groups to the role, as described in steps 5 and 6.

4.1.3 Delete a role

If you already use role-based administration, you must have the **Role-based administration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

1. On the **Tools** menu, click **Manage Roles and Sub-Estates**.
2. In the **Manage roles and sub-estates** dialog box, on the **Manage roles** tab, select the role you want to delete and click **Delete**.

   Note: The preconfigured System Administrator role cannot be deleted.

4.1.4 Edit a role

If you already use role-based administration, you must have the **Role-based administration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

1. On the **Tools** menu, click **Manage Roles and Sub-Estates**.
2. In the **Manage roles and sub-estates** dialog box, on the **Manage roles** tab, select the role you want to edit and click **Edit**.

   The **Edit role** dialog box appears.

3. In the **Rights** pane, assign rights to the role or remove existing rights as appropriate.
4. In the **Users and groups** pane, add Windows users or groups to the role or remove existing users or groups as appropriate.

4.1.5 Grant rights to a role

If you already use role-based administration, you must have the **Role-based administration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

1. On the **Tools** menu, click **Manage Roles and Sub-Estates**.

2. In the **Manage roles and sub-estates** dialog box, on the **Manage roles** tab, select the role you want to add a right to and click **Edit**.

   The **Edit role** dialog box appears.

3. In the **Rights** pane, in the **Available rights** list, select a right and click **Add**.

4.1.6 Create a sub-estate

If you already use role-based administration, you must have the **Role-based administration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

1. On the **Tools** menu, click **Manage Roles and Sub-Estates**.
2. In the **Manage roles and sub-estates** dialog box, on the **Manage sub-estates** tab, click **Create**.

   The **Create sub-estate** dialog box appears.

3. In the **Sub-estate name** field, enter a name for the sub-estate.
4. In the **Enterprise Console groups** pane, select the groups you want to add to the sub-estate.
5. In the **Users and groups** pane, click **Add** to add Windows users or groups to the sub-estate.

4.1.7 Change active sub-estate

If you have been assigned to more than one sub-estate, you can choose which sub-estate you want to view when opening Enterprise Console, or you can switch among the sub-estates in Enterprise Console.

You can only view one sub-estate at a time. When you change your active sub-estate, Enterprise Console is reloaded with a new sub-estate.

To change active sub-estate:

1. On the **Tools** menu, click **Select Active Sub-Estate**.
2. In the **Select Active Sub-Estate** dialog box, select the sub-estate you want to open and click **OK**.

4.1.8 Edit a sub-estate

If you already use role-based administration, you must have the **Role-based administration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

1. On the **Tools** menu, click **Manage Roles and Sub-Estates**.
2. In the **Manage roles and sub-estates** dialog box, on the **Manage sub-estates** tab, select the sub-estate you want to edit and click **Edit**.
3. In the **Edit sub-estate** dialog box, change the name of the sub-estate, change which Enterprise Console groups are included in the sub-estate, or change which Windows users and groups have access to the sub-estate, as appropriate. Click **OK**.

4.1.9 Copy a sub-estate

If you already use role-based administration, you must have the **Role-based administration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

1. On the **Tools** menu, click **Manage Roles and Sub-Estates**.
2. In the **Manage roles and sub-estates** dialog box, on the **Manage sub-estates** tab, select the sub-estate you want to copy and click **Copy**.

   A copy of the sub-estate appears in the list of sub-estates.

3. Select the newly created sub-estate and click **Edit**. Rename the sub-estate. Change the groups that are included in the sub-estate and/or Windows users and groups that have access to it, if you want to.

4.1.10 Delete a sub-estate

If you already use role-based administration, you must have the **Role-based administration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

1. On the **Tools** menu, click **Manage Roles and Sub-Estates**.
2. In the **Manage roles and sub-estates** dialog box, on the **Manage sub-estates** tab, select the sub-estate you want to delete and click **Delete**.

   You cannot delete the **Default** sub-estate.

4.1.11 View user or group roles and sub-estates

To view the roles and sub-estates a Windows user or group has been assigned to:

1. On the **Tools** menu, click **Manage roles and sub-estates**.
2. In the **Manage roles and sub-estates** dialog box, go to the **User and Group View** tab and click the **Select user or group** button.
3. In the **Select User or Group** dialog box, select a user or group whose roles and sub-estates you want to view and click **OK**.

4.1.12 What tasks do the rights authorize?

Note: Depending on your license, some of the rights may not be applicable.

Right	Tasks
Auditing	Enable auditing, disable auditing
Computer search, protection and groups	Start search, stop search and find domains for Network search, IP range search and Active Directory search

Right	Tasks
	Import computers and groups from Active Directory; import groups from Active Directory
	Import computers from a file
	Delete a computer
	Protect a computer
	Synchronize a group with Active Directory
	Change group synchronization properties
	Remove group synchronization
	Move a computer
	Create a group
	Rename a group
	Move a group
	Delete a group
	Assign a policy to a group
Data control customization	Create a data control rule
	Edit a data control rule
	Copy a data control rule
	Delete a data control rule
	Exclude files from data control scanning
	Create a Content Control List
	Edit a Content Control List
	Copy a Content Control List

Right	Tasks
	Delete a Content Control List
Data control events	Display the data control event viewer
	Display data control events in computer details
Policy setting - anti-virus and HIPS	Create an anti-virus and HIPS policy
	Duplicate an anti-virus and HIPS policy
	Rename an anti-virus and HIPS policy
	Edit an anti-virus and HIPS policy
	Restore default anti-virus and HIPS settings
	Delete an anti-virus and HIPS policy
	Add or remove entry from threat master list
Policy setting - application control	Create an application control policy
	Duplicate an application control policy
	Rename an application control policy
	Edit an application control policy
	Restore default application control settings
	Delete an application control policy
Policy setting - data control	Create a data control policy
	Duplicate a data control policy
	Rename a data control policy
	Edit a data control policy
	Restore default data control settings
	Delete a data control policy

Right	Tasks
Policy setting - device control	Create a device control policy
	Duplicate a device control policy
	Rename a device control policy
	Edit a device control policy
	Restore default device control settings
	Delete a device control policy
Policy setting - firewall	Create a firewall policy
	Duplicate a firewall policy
	Rename a firewall policy
	Edit a firewall policy
	Restore default firewall settings
	Delete a firewall policy
Policy setting - patch	Create a patch policy
	Duplicate a patch policy
	Rename a patch policy
	Edit a patch policy
	Restore default patch settings
	Delete a patch policy
Policy setting - tamper protection	Create a tamper protection policy
	Duplicate a tamper protection policy
	Rename a tamper protection policy
	Edit a tamper protection policy

Right	Tasks
	Restore default tamper protection settings
	Delete a tamper protection policy
Policy setting - updating	Create an updating policy
	Duplicate an updating policy
	Rename an updating policy
	Edit an updating policy
	Restore default updating settings
	Delete an updating policy
	Create a subscription
	Edit a subscription
	Rename a subscription
	Duplicate a subscription
	Delete a subscription
	Configure update managers
Policy setting - web control	Create a web control policy
	Duplicate a web control policy
	Rename a web control policy
	Edit a web control policy
	Reset a default web control policy
	Delete a web control policy
Policy setting - exploit prevention	Create an exploit prevention policy
	Duplicate an exploit prevention policy

Right	Tasks
	Rename an exploit prevention policy
	Edit an exploit prevention policy
	Add an exploit mitigation exclusion
	Delete an exploit mitigation exclusion
	Reset an exploit prevention policy
	Delete an exploit prevention policy
Remediation - cleanup	Clean up detected items
	Acknowledge alerts
	Acknowledge errors
Remediation - updating and scanning	Update computers now
	Run a full system scan of a computer
	Make computers comply with the group policy
	Make update manager comply with configuration
	Instruct update manager to update now
Report configuration	Create, edit, or delete a report
Role-based administration	Create a role
	Rename a role
	Delete a role
	Modify the rights of a role
	Add a user or group to a role
	Remove a user or group from a role

Right	Tasks
	Sub-estate management: create a sub-estate; rename a sub-estate; delete a sub-estate; add a sub-estate root group; remove a sub-estate root group; add a user or group to a sub-estate; remove a user or group from a sub-estate
System configuration	Modify SMTP server settings; test SMTP server settings; modify email alert recipients
	Configure dashboard warning and critical levels
	Configure reporting: configure database alert purging; set the company name displayed in reports
	Configure reporting to Sophos: enable or disable reporting to Sophos; modify the username; modify the contact email address
	Configure the use of fixed version software packages
Web events	Display the web event viewer
	Display web events in computer details dialog box

4.1.13 How can another user use Enterprise Console?

Members of the Sophos Full Administrators group have full access to Enterprise Console.

You can allow other users to use Enterprise Console. To open Enterprise Console, a user must be:

- A member of the Sophos Console Administrators group.
- Assigned to at least one Enterprise Console role.
- Assigned to at least one Enterprise Console sub-estate.

If you want to assign a user to the Sophos Console Administrators group, use Windows tools to add that user to the group.

To assign a user to an Enterprise Console role or sub-estate, on the **Tools** menu, click **Manage Roles and Sub-Estates**. For more information about roles and sub-estates, see Managing roles and sub-estates (page 18).

To use a remote or additional Enterprise Console, a user must be:

- A member of the Sophos Console Administrators group on the server where the Enterprise Console management server is installed.

- A member of the Distributed COM Users group on the server where the Enterprise Console management server is installed. (The Distributed COM Users group is located in the Builtin container of the Active Directory Users and Computers tool.)
- Assigned to at least one Enterprise Console role.
- Assigned to at least one Enterprise Console sub-estate.

4.2 Creating and using groups

You must create groups and place computers in them before you can protect and manage those computers.

4.2.1 What are groups for?

Groups are useful because you can:

- Have computers in different groups updated from different sources or on different schedules.
- Use different anti-virus and HIPS, application control, firewall, and other policies for different groups.
- Manage computers more easily.

Tip: You can create groups within groups and apply a specific set of policies to each group and subgroup.

4.2.2 What is a group?

A group is a folder that holds a number of computers.

You can create groups yourself or you can import Active Directory containers, with or without computers, and use them as computer groups in Enterprise Console. You can also set up synchronization with Active Directory so that new computers and containers as well as other changes in Active Directory are copied into Enterprise Console automatically.

Each group has settings for updating, anti-virus and HIPS protection, firewall protection, and so on. All the computers in a group should usually use these settings, which are called a “policy.”

A group can contain subgroups.

4.2.3 What is the Unassigned group?

The **Unassigned** group is a group where Enterprise Console holds computers before you put them into groups.

You cannot:

- Apply policies to the **Unassigned** group.
- Create subgroups in the **Unassigned** group.
- Move or delete the **Unassigned** group.

4.2.4 Create a group

If you use role-based administration, you must have the **Computer search, protection and groups** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

To create a new group for computers:

1. In the **Endpoints** view, in the **Groups** pane (on the left-hand side of the console), select where you want to create the group.

   Click the computer name at the top if you want to create a new top-level group. Click an existing group if you want to create a subgroup.

2. On the toolbar, click the **Create group** icon.

   A “New Group” is added to the list, with its name highlighted.

3. Type a name for the group.

Updating, anti-virus and HIPS, application control, firewall, patch, data control, device control, tamper protection, and web control policies are applied to the new group automatically. You can edit these policies, or apply different policies. See Edit a policy (page 36) or Assign a policy to a group (page 36).

Note: If the new group is a subgroup, it initially uses the same settings as the group it is within.

4.2.5 Add computers to a group

If you use role-based administration, you must have the **Computer search, protection and groups** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

1. Select the computers that you want to add to a group. For example, click the **Unassigned** group and select computers there.
2. Drag and drop the computers onto the new group.

   If you move unprotected computers from the **Unassigned** group to a group that has automatic updating set up, a wizard is launched to help you protect them.

   If you move computers from one group to another, they will use the same policies as the computers already in the group they are moved to.

4.2.6 Delete computers from a group

If you use role-based administration, you must have the **Computer search, protection and groups** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

You can delete computers from a group, for example, if you want to remove entries for computers that are no longer on the network.

Important: If you delete computers that are still on the network, they will no longer be listed or managed by the console.

If you've upgraded from an earlier version of Enterprise Console and have computers that are encrypted with legacy Enterprise Console–managed full disk encryption, do not delete these computers from the console. Encryption recovery may not be possible in this case.

To delete computers:

1. Select the computers that you want to delete.
2. Right-click and select **Delete**.

If you want to see the computers again, click the **Discover computers** icon on the toolbar. These computers will not be shown as managed until they are restarted.

4.2.7 Cut and paste a group

If you use role-based administration, you must have the **Computer search, protection and groups** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

1. Select the group you want to cut and paste. On the **Edit** menu, click **Cut**.
2. Select the group where you want to place the group. On the **Edit** menu, click **Paste**.

4.2.8 Delete a group

If you use role-based administration, you must have the **Computer search, protection and groups** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

Any computers that were in the deleted group will be placed in the **Unassigned** group.

1. Select the group you want to delete.
2. Right-click and select **Delete**. When prompted, confirm that you want to delete the group and, if the group has any subgroups, its subgroups.

4.2.9 Rename a group

If you use role-based administration, you must have the **Computer search, protection and groups** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

1. Select the group you want to rename.
2. Right-click and select **Rename**.

4.2.10 Check which policies a group uses

To see which policies have been assigned to a group:

- In the **Groups** pane, right-click the group. Select **View/Edit Group Policy Details**.

  In the group details dialog box, you can see the policies currently used.

4.3 Creating and using policies

A policy is a collection of settings applied to all the computers in a group.

When you install Enterprise Console, default policies that offer a basic level of security are created for you. These policies are applied to any groups you create. You can edit the default policies or create new policies.

Note: Some features will be unavailable if your license does not include them.

You can create more than one policy of each type.

You can apply the same policy to more than one group.

4.3.1 What policies are available?

Note: Some features will be unavailable if your license does not include them.

- The **Updating** policy specifies how computers are updated with new security software.
- The **Anti-virus and HIPS** policy specifies how the security software scans computers for viruses, Trojans, worms, spyware, adware, potentially unwanted applications, suspicious behavior and suspicious files, and how it cleans them up.
- The **Application control** policy specifies which applications are blocked and which are allowed on your computers.
- The **Firewall** policy specifies how the firewall protects computers.
- The **Data control** policy specifies rules for monitoring or restricting the transfer of files, based on file content, filename, or file type.
- The **Device control** policy specifies which storage and networking devices are not authorized for use on workstations.
- The **Patch** policy specifies whether patch assessment is enabled and how often computers are assessed for missing patches.
- The **Tamper protection** policy specifies the password that allows authorized endpoint users to re-configure, disable or uninstall Sophos security software.
- The **Web control** policy specifies which websites can be browsed to by users. A notification is displayed to users for sites that are configured as "block" or "warn."
- The **Exploit prevention** policy specifies which applications, functions and processes are protected against exploitation, such as protecting document files from ransomware (CryptoGuard) or protecting critical functions in web browsers (Safe Browsing).

4.3.2 What are the default policies?

When you install Enterprise Console, default policies are created for you.

Note: Some features will be unavailable if your license does not include them.

Updating policy

The default updating policy in a fresh installation of Enterprise Console provides:

- Automatic updating of computers every 10 minutes from the default location. The default location is a UNC share `\\<ComputerName>\SophosUpdate`, where ComputerName is the name of the computer where the update manager is installed.

Anti-virus and HIPS policy

The default anti-virus and HIPS policy in a fresh installation of Enterprise Console provides:

- On-access scanning for viruses, Trojans, worms, spyware, and adware and other potentially unwanted applications (but not suspicious files).
- Detection of buffer overflows, malicious and suspicious behavior of programs running on the system, and malicious network traffic.
- Blocking of access to websites that are known to host malware.
- Scanning of content downloaded from the internet.
- Security alerts displayed on the desktop of the affected computer and added to the event log.

For a full list of the default settings for the Anti-virus and HIPS policy in a fresh installation of Enterprise Console, go to knowledgebase article 27267.

Application control policy

By default, all applications and application types are allowed. On-access scanning for applications you may want to control on your network is disabled.

Firewall policy

By default, the Sophos Client Firewall is enabled and blocks all non-essential traffic. Before you use it throughout your network, you should configure it to allow the applications you want to use. See Set up a basic firewall policy (page 113).

For a full list of the default firewall settings, see knowledgebase article 57757.

Data control policy

By default, data control is turned off and no rules are specified to monitor or restrict the transfer of files to the internet or storage devices.

Device control policy

By default, device control is turned off and all devices are allowed.

Patch policy

By default, patch assessment is turned off. For new patch policies, assessment is turned on. Once patch assessment is turned on, computers are assessed daily for missing patches (unless you have changed the patch assessment interval).

Tamper protection policy

By default, tamper protection is turned off and no password is specified to allow authorized endpoint users to re-configure, disable or uninstall Sophos security software.

Web control policy

By default, web control is turned off, and users can visit any site that is not restricted as part of Enterprise Console's web protection. See Web protection (page 102).

Exploit prevention policy

By default, exploit prevention is turned on. See Exploit prevention policy (page 177).

4.3.3 Do I need to create my own policies?

When you install Enterprise Console,“default” policies are created for you. These policies are applied to any groups you create.

The default policies offer a basic level of security, but to use features like network access control or application control you need to create new policies or change the default policies.

Note: When you change the default policy, the change applies to all new policies you create.

Note: If you use role-based administration, you must have a respective **Policy setting** right to create or edit a policy. For example, you must have the **Policy setting - anti-virus and HIPS** right to create or edit an anti-virus and HIPS policy. For more information, see Managing roles and sub-estates (page 18).

Updating policy

The default updating policy sets endpoints to check for updates to the recommended subscription every 10 minutes from the default software distribution UNC share. To change subscriptions, update locations and other settings, configure update policies as described in Configuring the updating policy (page 71).

Anti-virus and HIPS

The default anti-virus and HIPS policy protects computers against viruses and other malware. However, to enable detection of other unwanted/suspicious applications or behavior, you may

want to create new policies, or change the default policy. See Anti-virus and HIPS policy (page 81).

Application control

To define and block unauthorized applications, configure application control policies as described in Application control policy (page 141).

Firewall policy

To allow bona-fide applications access to a network, configure firewall policies as described in Set up a basic firewall policy (page 113).

Data control

By default, data control is turned off. To restrict data leakage, configure data control policies as described in Data control policy (page 144).

Device control

By default, device control is turned off. To restrict allowed hardware devices, configure device control policies as described in Device control policy (page 159).

Patch

By default, patch assessment is turned off. For new patch policies, assessment is turned on. Once patch assessment is turned on, computers are assessed daily for missing patches (unless you have changed the patch assessment interval). To turn patch assessment on or off or to change the assessment interval, configure patch policies as described in Patch policy (page 168).

Tamper protection

By default, tamper protection is turned off. To enable tamper protection, configure tamper policies as described in Tamper protection policy (page 166).

Web control

By default, web control is turned off. To turn on web control, and configure web control policies, see Web control policy (page 169).

Exploit prevention

By default, exploit prevention is turned on. To configure exploit prevention policies, see Exploit prevention policy (page 177).

4.3.4 Create a policy

If you use role-based administration, you must have a respective **Policy setting** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

To create a policy:

1. In the **Endpoints** view, in the **Policies** pane, right-click the type of policy you want to create, for example, “Updating,” and select **Create policy**.

   A “New Policy” is added to the list, with its name highlighted.

2. Type a new name for the policy.
3. Double-click the new policy. Enter the settings you want.

   For the instructions on how to choose the settings, see the section on configuring the relevant policy.

You have created a policy that can now be applied to groups.

4.3.5 Assign a policy to a group

If you use role-based administration, you must have the **Computer search, protection and groups** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

1. In the **Policies** pane, highlight the policy.
2. Click the policy and drag it onto the group to which you want to apply the policy. When prompted, confirm that you want to continue.

Note: Alternatively, you can right-click a group and select **View/Edit Group Policy Details**. You can then select policies for that group from drop-down menus.

4.3.6 Edit a policy

If you use role-based administration:

- You must have a respective **Policy setting** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To edit a policy for a group or groups of computers:

1. In the **Policies** pane, double-click the policy you want to edit.
2. Edit the settings.

For instructions on how to configure different policies, see the respective sections.

4.3.7 Rename a policy

If you use role-based administration:

- You must have a respective **Policy setting** right to perform this task.
- You cannot rename a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Note: You cannot rename a “Default” policy.

To rename a policy:

1. In the **Policies** pane, select the policy you want to rename.
2. Right-click and select **Rename policy**.

4.3.8 Delete a policy

If you use role-based administration:

- You must have a respective **Policy setting** right to perform this task.
- You cannot delete a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Note: You cannot delete a “Default” policy.

To delete a policy:

1. In the **Policies** pane, right-click the policy you want to delete and select **Delete Policy**.
2. Any groups that use the deleted policy will revert to using the default policy.

4.3.9 See which groups use a policy

To see which groups a particular policy has been applied to:

- In the **Policies** pane, right-click the policy and select **View Groups Using Policy**.

  A list of the groups that use the policy is displayed.

4.3.10 Check whether computers use the group policy

You can check whether all the computers in a group comply with the policies for that group.

1. Select the group which you want to check.
2. In the computer list, **Endpoints** view, on the **Status** tab, look in the **Policy compliance** column.
   - If you see the words “Same as policy”, the computer complies with the policies for its group.
   - If you see a yellow warning sign and the words “Differs from policy”, the computer is not using the same policy or policies as other computers in its group.

For more detailed information about the status of the security features on the computer and policies applied to the computer, see the respective tab in the **Endpoints** view, for example, the **Anti-Virus Details** tab.

If you want your computers to comply with their group policies, see Make computers use the group policy (page 38).

4.3.11 Make computers use the group policy

If you use role-based administration, you must have the **Remediation - updating and scanning** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

If you find computers that do not comply with the policies for their group, you can apply the group policies to that computer.

1. Select the computer(s) that do not comply with the group policy.
2. Right-click and select **Comply with**. Then select the appropriate policy type, for example, **Group anti-virus and HIPS policy**.

4.4 Discovering computers on the network

To manage computers in Enterprise Console, you first have to add them to Enterprise Console. You can use the “Discover computers” function and choose among several options that allow you to search for networked computers and add them to Enterprise Console. There are the following options:

- Import containers and computers from Active Directory (page 38)
- Discover computers with Active Directory (page 39)
- Discover computers by browsing the network (page 39)
- Discover computers by IP range (page 40)
- Import computers from a file (page 40)

If you use role-based administration, you must have the **Computer search, protection and groups** right to add computers to the console. For more information, see Managing roles and sub-estates (page 18).

4.4.1 Import containers and computers from Active Directory

If you use role-based administration, you must have the **Computer search, protection and groups** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

Importing groups from Active Directory retrieves the Active Directory container structure and copies it into Enterprise Console as a computer group structure. You can import the group structure only or groups and computers. If you choose the latter, computers found in Active Directory are placed in their respective group, and not in the **Unassigned** group.

You can have both “normal” groups that you create and manage yourself and groups imported from Active Directory. You can also synchronize the imported groups with Active Directory.

To import groups from Active Directory:

1. On the toolbar, click the **Discover computers** icon.
2. In the **Discover Computers** dialog box, in the **Import from Active Directory** pane, select **Import** and click **OK**.

   Alternatively, select a group you want to import your Active Directory container(s) into, right-click and select **Import from Active Directory**.

   The **Import from Active Directory Wizard** starts.

3. Follow the instructions in the wizard. When asked to choose what to import, select **Computers and containers** or **Containers only**, depending on what you want to import.

After you have imported containers from Active Directory, apply policies to the groups. See What policies are available? (page 32).

After you have applied group policies to the groups, you can synchronize the groups with Active Directory, if you want to. For instructions, see Synchronize with Active Directory (page 43).

4.4.2 Discover computers with Active Directory

If you use role-based administration, you must have the **Computer search, protection and groups** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

You can use Active Directory to discover networked computers and add them to the **Unassigned** group.

1. On the toolbar, click the **Discover computers** icon.
2. In the **Discover Computers** dialog box, select **Discover with Active Directory** and click **OK**.
3. You are prompted to enter a username and password. You need to do this if you have computers (for example, Windows XP Service Pack 2) that cannot be accessed without account details.

   The account must be a domain administrator's account, or have full administrative rights over the target XP computers.

   If you are using a domain account, you *must* enter the username in the form domain\user.

4. In the **Discover Computers** dialog box, select the domains you want to search. Click **OK**.
5. Click the **Unassigned** group to see the computers that have been found.

To begin managing computers, select them and drag them to a group.

4.4.3 Discover computers by browsing the network

If you use role-based administration, you must have the **Computer search, protection and groups** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

To add a list of computers found in Windows domains and workgroups to the **Unassigned** group:

1. On the toolbar, click the **Discover computers** icon.
2. In the **Discover Computers** dialog box, select **Discover on the network** and click **OK**.

3. In the **Credentials** dialog box, enter a username and password of an account that has sufficient rights to retrieve computer information.

   The account must be a domain administrator's account or have full administrative rights over the target computers. If you are using a domain account, you *must* enter the username in the form domain\user.

   You can skip this step if your target computers can be accessed without account details.

4. In the **Discover Computers** dialog box, select the domains or workgroups you want to search. Click **OK**.
5. Click the **Unassigned** group to see the computers that have been found.

To begin managing computers, select them and drag them to a group.

4.4.4 Discover computers by IP range

If you use role-based administration, you must have the **Computer search, protection and groups** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

You can use a range of IP addresses to discover networked computers and add them to the **Unassigned** group.

Note: You cannot use IPv6 addresses.

1. On the toolbar, click the **Discover computers** icon.
2. In the **Discover Computers** dialog box, select **Discover by IP range** and click **OK**.
3. In the **Credentials** dialog box, you are prompted to enter a username and password. You need to do this if you have computers (for example, Windows XP Service Pack 2) that cannot be accessed without account details.

   The account must be a domain administrator's account, or have full administrative rights over the target XP machines.

   If you are using a domain account, you *must* enter the username in the form domain\user.

   In the **SNMP** pane, you can enter the SNMP community name.

4. In the **Discover Computers** dialog box, enter the **Start of IP Range** and **End of IP Range**. Click **OK**.
5. Click the **Unassigned** group to see the computers that have been found.

To begin managing computers, select them and drag them to a group.

4.4.5 Import computers from a file

If you use role-based administration, you must have the **Computer search, protection and groups** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

To enable Enterprise Console to list your computers, you can import the computer names from a file. You can create the file using entries like this:

```
[GroupName1]
 Domain1|Windows7|ComputerName1
 Domain1|Windows2008ServerR2|ComputerName2
```

Note: You do not have to specify which group the computers will be put in. If you enter **[ ]** (with no space between the brackets) for the group name, computers will be put in the **Unassigned** group.

Valid operating system names are: WindowsXP, Windows2003, WindowsVista, Windows7, WindowsServer2008, Windows2008ServerR2, Windows8, WindowsServer2012, Windows81, WindowsServer2012R2, Windows10, WindowsServer2016, MACOSX, Linux, and Unix.

The domain name and the operating system are both optional. So an entry can look like this:

```
[GroupName1]
 ComputerName1
```

You import computer names as follows:

1. On the **File** menu, click **Import Computers from File**.
2. In the browser window, select the file.
3. Click the **Unassigned** group to see the computers that have been found.
4. To begin managing computers, select them and drag them to a group.

4.5 Synchronizing with Active Directory

This section gives an overview of Active Directory synchronization.

What does Active Directory synchronization do for me?

With Active Directory synchronization, you can synchronize Enterprise Console groups with Active Directory containers. New computers and containers discovered in Active Directory are copied into Enterprise Console automatically. You can also choose to protect discovered Windows workstations automatically. This allows you to minimize the time in which computers can become infected and reduce the amount of work you need to do to organize and protect computers.

Note: Computers running Windows server operating systems, Mac OS, Linux, or UNIX are not protected automatically. You must protect such computers manually.

After you have set up synchronization, you can set up email alerts to be sent to your chosen recipients about new computers and containers discovered during future synchronizations. If you choose to protect computers in synchronized Enterprise Console groups automatically, you can also set up alerts about automatic protection failures.

How does Active Directory synchronization work?

In Enterprise Console, you can have both “normal,” unsynchronized groups that you manage yourself and groups synchronized with Active Directory.

When setting up synchronization, you select or create a synchronization point: an Enterprise Console group to be synchronized with an Active Directory container. All computers and subgroups contained in the Active Directory are copied into Enterprise Console and kept synchronized with Active Directory.

Note: To learn more about synchronization points, see What is a synchronization point? (page 43) To learn more about synchronized groups, see What is a synchronized group? (page 43)

After you set up synchronization with Active Directory, the synchronized part of Enterprise Console group structure matches exactly the Active Directory container it is synchronized with. This means the following:

- If a new computer is added to the Active Directory container, then it also appears in Enterprise Console.
- If a computer is removed from Active Directory or is moved into an unsynchronized container, then the computer is moved to the **Unassigned** group in Enterprise Console.

  Note: When a computer is moved to the **Unassigned** group, it stops receiving new policies.

- If a computer is moved from one synchronized container to another, then the computer is moved from one Enterprise Console group to the other.
- If a computer already exists in an Enterprise Console group when it is first synchronized, then it is moved from that group to the synchronized group that matches its location in Active Directory.
- When a computer is moved into a new group with different policies, then new policies are sent to the computer.

By default, synchronization occurs every 60 minutes. You may change the synchronization interval if required.

How do I approach synchronization?

It is your decision what groups to synchronize with Active Directory and how many synchronization points to set up. Consider whether the size of groups that will be created will be manageable. You should be able to deploy software, scan and clean up computers easily. This is especially important for the initial deployment.

Note: If you have a complex Active Directory structure and want to synchronize domain local groups or nested Active Directory groups, please see knowledgebase article 122529 for information about enabling this functionality.

The recommended approach is as follows:

1. Import the group structure (without computers), using the **Import from Active Directory** function. For instructions, see Import containers and computers from Active Directory (page 38).
2. Review the imported group structure and choose your synchronization points.

3. Set up group policies and apply them to the groups and subgroups. For instructions, see Create a policy (page 36) and Assign a policy to a group (page 36).
4. Synchronize your chosen synchronization points, one at a time, with Active Directory. For instructions, see Synchronize with Active Directory (page 43).

4.5.1 What is a synchronization point?

A *synchronization point* is an Enterprise Console group that points to a container (or subtree) in Active Directory. A synchronization point can contain synchronized groups imported from Active Directory.

In the **Groups** pane, a synchronization point appears as follows:

You *can* move, rename, or delete a synchronization point. You can also change policies and synchronization settings, including automatic protection settings, for a synchronization point.

You *cannot* create or delete subgroups in a synchronization point, or move other groups into it. You cannot move computers into or from the synchronization point.

4.5.2 What is a synchronized group?

A *synchronized group* is a subgroup of a synchronization point, imported from Active Directory.

In the **Groups** pane, a synchronized group appears as follows:

You *can* change policies assigned to a synchronized group.

You *cannot* change any synchronized group settings other than group policies. You cannot rename, move, or delete a synchronized group. You cannot move computers or groups into or from the group. You cannot create or delete subgroups in the group. You cannot change synchronization settings for the group.

4.5.3 Synchronize with Active Directory

Before you perform this task:

- If you use role-based administration, you must have the **Computer search, protection and groups** right. For more information, see Managing roles and sub-estates (page 18).
- If you want to protect computers in synchronized groups automatically, make sure you have prepared the computers as described in Prepare for installation of security software (page 48).
- If you have a complex Active Directory structure and want to synchronize domain local groups or nested Active Directory groups, enable this functionality as described in knowledgebase article 122529.

To synchronize with Active Directory:

1. Select a group that will become your synchronization point, right-click and select **Synchronize with Active Directory**.

   The **Synchronize with Active Directory** wizard starts.

2. On the **Overview** page of the wizard, click **Next**.
3. On the **Choose an Enterprise Console group** page, select or create an Enterprise Console group that you want keep synchronized with Active Directory (synchronization point). Click **Next**.
4. On the **Choose an Active Directory container** page, select an Active Directory container which you want to synchronize the group with. Enter the name of the container (for example, LDAP://CN=Computers,DC=domain_name,DC=local) or click **Browse** to browse to the container in Active Directory. Click **Next**.

   Important: If a computer exists in more than one synchronized Active Directory container, it causes a problem, with messages being exchanged continually between the computer and Enterprise Console. Each computer should be listed only once in Enterprise Console.

5. If you want to protect Windows workstations automatically, on the page **Protect Computers Automatically**, select the check box **Install Sophos security software automatically**, and then select the software you want to install.

   Note: For a list of system requirements for the software, see the system requirements page on the Sophos website (http://www.sophos.com/en-us/products/all-system-requirements.aspx).

   - Before installing **Firewall** on computers, make sure you have configured the firewall to allow the traffic, applications, and processes you want to use. By default, the firewall is enabled and blocks all non-essential traffic. See Firewall policy (page 113).
   - Leave **Third-Party Security Software Detection** selected if you want to have another vendor's software removed automatically. If you need to remove another vendor's updating tool, see Remove third-party security software (page 48).

   All Windows workstations discovered during this and future synchronizations will be protected automatically, in compliance with their respective group policies.

   Important: Computers running Windows server operating systems, Mac OS, Linux, or UNIX will not be protected automatically. You must protect such computers manually, as described in the Sophos Enterprise Console advanced startup guide.

   Note: You can enable or disable automatic protection later, in the **Synchronization properties** dialog box. For instructions, see View and edit synchronization properties (page 46).

   Click **Next**.

6. If you chose to protect computers automatically, on the **Enter Active Directory Credentials** page, enter the details of an administrator account that will be used to install software on the computers. Click **Next**.
7. On the **Choose the Synchronization Interval** page, choose how often you want to synchronize the Enterprise Console group with the Active Directory container. The default is 60 minutes.

   Note: You can change the synchronization interval later, in the **Synchronization properties** dialog box. For instructions, see View and edit synchronization properties (page 46).

8. On the **Confirm Your Choices** page, check the details, and then click **Next** to proceed.

9. On the last page of wizard, you can view the details of the groups and computers that have been synchronized.

   You can also set up email alerts to be sent to your chosen recipients about new computers and groups discovered during future synchronizations. If you chose to protect computers in synchronized groups automatically, you can also set up alerts about automatic protection failures. To open the **Configure Email Alerts** dialog box after you click **Finish**, select the check box on the last page of the wizard. For instructions, see Set up Active Directory synchronization email alerts (page 187).

   To close the wizard, click **Finish**.

4.5.4 Use synchronization to protect computers automatically

Before you perform this task:

- If you use role-based administration, you must have the **Computer search, protection and groups** right. For more information, see Managing roles and sub-estates (page 18).
- Make sure you have prepared computers for automatic installation of the security software as described in Prepare for installation of security software (page 48).

Windows workstations can be protected automatically when discovered during synchronization with Active Directory.

Important: Computers running Windows server operating systems, Mac OS, Linux, or UNIX will not be protected automatically. You must protect such computers manually as described in the Sophos Enterprise Console advanced startup guide.

You can protect computers in synchronized groups automatically either when setting up synchronization (see Synchronize with Active Directory (page 43)), or by editing the synchronization properties later.

The instructions below tell you how to protect computers by editing the synchronization properties.

1. In the **Groups** pane, select the group (synchronization point) for which you want to enable automatic protection. Right-click the group and select **Synchronization Properties**.
2. In the **Synchronization Properties** dialog box, select the **Install Sophos security software automatically** check box, and then select the software you want to install.
   - Before installing **Firewall** on computers, make sure you have configured the firewall to allow the traffic, applications, and processes you want to use. By default, the firewall is enabled and blocks all non-essential traffic. See Firewall policy (page 113).
   - Leave **Third-Party Security Software Detection** selected if you want to have another vendor's software removed automatically. If you need to remove another vendor's updating tool, see Remove third-party security software (page 48).
3. Enter the username and password of an administrator account that will be used to install software on the computers. Click **OK**.

Should you want to disable automatic protection later, in the **Synchronization Properties** dialog box, clear the **Install Sophos security software automatically** check box.

4.5.5 View and edit synchronization properties

Before you perform this task:

- If you use role-based administration, you must have the **Computer search, protection and groups** right. For more information, see Managing roles and sub-estates (page 18).
- If you want to protect computers in synchronized groups automatically, make sure you have prepared the computers as described in Prepare for installation of security software (page 48).
- If you have a complex Active Directory structure and want to synchronize domain local groups or nested Active Directory groups, enable this functionality as described in knowledgebase article 122529.

To view and edit synchronization properties:

1. In the **Groups** pane, select the group (synchronization point) for which you want to edit synchronization properties. Right-click the group and select **Synchronization Properties**.

   The **Synchronization Properties** dialog box appears.

2. In the **Active Directory container** field, you can see the container which the group is synchronized with. If you want to synchronize the group with a different container, remove synchronization and run the **Synchronize with Active Directory** wizard again. See Turn synchronization on or off (page 47) and Synchronize with Active Directory (page 43).
3. In the **Synchronization interval** field, set the frequency of synchronization. The default is 60 minutes. The minimum is 5 minutes.
4. Select the **Install Sophos security software automatically** check box if you want to protect all newly discovered Windows workstations automatically, in compliance with their respective group policies. Under **Features**, the anti-virus protection is selected by default. If you want to have other Sophos security software installed, select the relevant check boxes. Enter the username and password of an administrator account that will be used to install software on the computers.

Note: Only Windows workstations can be protected automatically. Computers running Windows server operating systems, Mac OS, Linux, or UNIX cannot be protected automatically. You must protect such computers manually, as described in the Sophos Enterprise Console advanced startup guide.

4.5.6 Synchronize with Active Directory now

Before you perform this task:

- If you use role-based administration, you must have the **Computer search, protection and groups** right. For more information, see Managing roles and sub-estates (page 18).
- If you want to protect computers in synchronized groups automatically, make sure you have prepared the computers as described in Prepare for installation of security software (page 48).
- If you have a complex Active Directory structure and want to synchronize domain local groups or nested Active Directory groups, enable this functionality as described in knowledgebase article 122529.

You can synchronize Enterprise Console groups (synchronization points) with Active Directory containers immediately, without waiting for the next scheduled synchronization.

To synchronize with Active Directory immediately:

1. In the **Groups** pane, select the group (synchronization point) which you want to synchronize with Active Directory. Right-click the group and select **Synchronization Properties**.
2. In the **Synchronization Properties** dialog box, make changes as appropriate and click **OK**.

4.5.7 Turn synchronization on or off

Before you perform this task:

- If you use role-based administration, you must have the **Computer search, protection and groups** right. For more information, see Managing roles and sub-estates (page 18).
- If you want to protect computers in synchronized groups automatically, make sure you have prepared the computers as described in Prepare for installation of security software (page 48).
- If you have a complex Active Directory structure and want to synchronize domain local groups or nested Active Directory groups, enable this functionality as described in knowledgebase article 122529.

To turn synchronization with Active Directory on or off:

- To turn the synchronization on, run the **Synchronize with Active Directory** wizard as described in Synchronize with Active Directory (page 43).
- To turn the synchronization off, select the group (synchronization point) which you do not want to synchronize with Active Directory anymore, right-click and select **Remove Synchronization**. Click **Yes** to confirm.

4.6 Configure the Sophos Mobile Control URL

Sophos Mobile Control is a device management solution for mobile devices such as smartphones and tablets. Sophos Mobile Control helps to keep corporate data safe by managing apps and security settings.

You can open the Sophos Mobile Control web console from Enterprise Console by clicking the **Sophos Mobile Control** toolbar button. To do this, you first need to configure the Sophos Mobile Control URL.

1. On the **Tools** menu, click **Configure Mobile Control URL**.
2. In the **Sophos Mobile Control URL** dialog box, enter the URL of the Sophos Mobile Control web console and click **OK**.

5 Protecting computers

You can install Sophos protection software in the following ways:

- To protect computers automatically, use the protect computer wizard provided in Enterprise Console, see Protect computers automatically (page 49).
- Alternatively, you can protect computers automatically using Active Directory synchronization, see Synchronizing with Active Directory (page 41).
- To protect computers manually, Enterprise Console helps to locate the required software, see Locate installers for protecting computers manually (page 50). Then go to the respective computer and install the security software manually.

5.1 Prepare for installation of security software

As well as ensuring that computers meet the general system requirements, you must perform further steps before you can install software on them automatically.

Note: Automatic installation is not possible on Mac, Linux and UNIX computers.

If you use Active Directory, you can prepare your computers using a Group Policy Object (GPO). If you use workgroups, you must configure computers locally.

For instructions, see the Sophos endpoint deployment guide. To watch deployment videos, go to knowledgebase article 111180.

5.2 Remove third-party security software

If you want to remove any previously installed security software, do the following BEFORE selecting the **Third-Party Security Software Detection** in the **Protect Computers Wizard** and installing it:

- If computers are running another vendor's anti-virus software, ensure that its user interface is closed.
- If computers are running another vendor's firewall or HIPS product, ensure that it is turned off or configured to allow the Sophos installer to run.
- If you want to remove not just the other vendor's software but also the other vendor's update tool (to prevent it from reinstalling the software automatically), follow the steps below. If computers have no update tool installed, you can disregard the steps below.

Note: You have to locally restart any computers from which you remove third-party anti-virus software.

Note: HitmanPro.Alert may already be installed either as a standalone product or from Sophos Central. You should remove HitmanPro.Alert before applying on-premise management from Sophos Enterprise Console.

If computers have another vendor's update tool installed and you wish to remove the update tool, you will need to modify the configuration file before selecting the **Third-Party Security Software Detection** option in the **Protect Computers Wizard**.

Note: If computers are running another vendor's firewall or HIPS product, you may need to leave that vendor's update tool intact. See that vendor's documentation for clarification.

To modify the configuration file:

1. From the Central Installation Directory, find the data.zip file.
2. Extract the crt.cfg configuration file from data.zip.
3. Edit the crt.cfg file to change the line reading "RemoveUpdateTools=0" to "RemoveUpdateTools=1".
4. Save your changes and save crt.cfg to the same directory that contains data.zip. Do not put crt.cfg back into data.zip or it will be overwritten the next time the data.zip file is updated.

When you run the **Protect Computers Wizard** and select **Third-Party Security Software Detection**, the modified configuration file will now remove any third-party security update tools as well as third-party security software.

5.3 Protect computers automatically

Before you protect computers from the console:

- You must apply an updating policy to the group before you can protect computers in that group.
- Make sure you have prepared computers for automatic installation of the security software as described in Prepare for installation of security software (page 48).
- If you use role-based administration, you must have the **Computer search, protection and groups** right to protect computers. For more information, see Managing roles and sub-estates (page 18).

Automatic installation is not possible on Mac, Linux and UNIX computers. Use manual installation instead. For the instructions, see the Sophos Enterprise Console advanced startup guide.

If you chose to synchronize with Active Directory and protect the computers automatically, you *do not* need to follow the steps below. For details, see Synchronizing with Active Directory (page 41) and other related topics.

To protect computers automatically:

1. Depending on whether or not the computers you want to protect are already in a group, do one of the following:
   - If the computers you want to protect are in the **Unassigned** group, drag the computers onto a group.
   - If the computers you want to protect are already in a group, select the computers, right-click and click **Protect Computers**.

   The **Protect Computers Wizard** is launched. Follow the instructions in the wizard.
2. On the **Select features** page, select the features you want.

   Note: For a list of system requirements for the features, see the system requirements page on the Sophos website (http://www.sophos.com/en-us/products/all-system-requirements).

Some features, including anti-virus protection, are always selected and must be installed. You can also select to install the features listed below. Some of the features are available only if your license includes them.

- **Firewall**

  Before installing the firewall on computers, make sure you have configured the firewall to allow the traffic, applications, and processes you want to use. By default, the firewall is enabled and blocks all non-essential traffic. See Firewall policy (page 113).

- **Patch**
- **Exploit Prevention, Sophos Clean**

  This protects against ransomware and exploits. It is selected by default if your license includes this feature.

  Note: If you upgrade your license to include Exploit Prevention (with Sophos Clean), it is not automatically installed on computers you already manage. You need to reprotect the computers to install it.

- **Third-Party Security Software Detection**

  Leave **Third-Party Security Software Detection** selected if you want to have another vendor's software removed automatically. The Third-Party Security Software Detection uninstalls only products with the same functionality as those you install. If you need to remove another vendor's updating tool, see Remove third-party security software (page 48).

3. On the **Protection summary** page, any problems with installation are shown in the **Protection issues** column. Troubleshoot the installation (see Sophos Endpoint Security and Control installation failed (page 215)), or carry out manual installation on these computers (see the Sophos Enterprise Console advanced startup guide). Click **Next**.
4. On the **Credentials** page, enter details of an account which can be used to install software.

   This account is typically a domain administrator account. It must:

   - Have local administrator rights on computers you want to protect.
   - Be able to log on to the computer where you installed the management server.
   - Have read access to the Primary server location specified in the **Updating** policy. See Configure update servers (page 73).

   Note: If you are using a domain account, you *must* enter the username in the form **`domain\user`**.

   If the computers are on different domains covered by the same Active Directory schema, use the Enterprise Administrator account in Active Directory instead.

5.4 Locate installers for protecting computers manually

If Enterprise Console is unable to install anti-virus, firewall, or patch features on certain computers automatically, you can perform the installation manually.

To locate the installers:

1. On the **View** menu, click **Bootstrap Locations**.

2. In the **Bootstrap Locations** dialog box, for each software subscription, you will see the locations that contain the software installers, as well as platforms that the software is supported on and the software versions. Make a note of the location for the installer that you need.

For information about how to install security software manually on different operating systems, see the Sophos Enterprise Console advanced startup guide.

5.5 Checking whether your network is protected

For an overview of the network's security status, use the Dashboard. For more information, see Dashboard panels (page 9) and Configure the Dashboard (page 51).

You can identify computers with a problem by using the computer list and computer list filters. For example, you can see which computers do not have the firewall or patch features installed, or have alerts that need attention. For more information, see Check that computers are protected (page 52), Check that computers are up to date (page 52), and Find computers with problems (page 53).

You can also check whether all the computers in a group comply with the policies for that group, as described in Check whether computers use the group policy (page 37).

5.5.1 Configure the Dashboard

If you use role-based administration, you must have the **System configuration** right to configure the Dashboard. For more information, see Managing roles and sub-estates (page 18).

The Dashboard displays warning or critical status indicators based on the percentage of managed computers that have outstanding alerts or errors, or on the time since the last update from Sophos.

You can set up the warning and critical levels you want to use.

1. On the **Tools** menu, click **Configure Dashboard**.
2. In the **Configure Dashboard** dialog box, change the threshold values in the **Warning level** and **Critical level** text boxes as described below.

   a) Under **Computers with outstanding alerts**, **Computers with Sophos product errors**, and **Policy and protection**, enter a percentage of managed computers affected by a particular problem, that will trigger the change of the respective indicator to “warning” or “critical.”

   b) Under **Computers with events**, enter the number of events occurred within a seven-day period that will trigger an alert displayed on the Dashboard.

   c) Under **Latest protection from Sophos**, enter the time since last successful update from Sophos in hours, that will trigger the change of the “Updates” indicator to “warning” or “critical.” Click **OK**.

   If you set a level to zero, warnings are triggered as soon as the first alert is received.

You can also set up email alerts to be sent to your chosen recipients when a warning or critical threshold has been exceeded. For instructions, see Set up network status email alerts (page 186).

5.5.2 Check that computers are protected

Computers are protected if they are running on-access scanning and the firewall (if you have installed it). For full protection, the software must also be up to date.

Note: You may have chosen not to use on-access scanning on certain types of computer, for example, file servers. In this case, ensure that the computers use scheduled scans and that they are up to date.

To check that computers are protected:

1. Select the group of computers you want to check.
2. If you want to check computers in subgroups of the group, select **At this level and below** in the drop-down list.
3. In the list of computers, on the **Status** tab, look in the **On-access** column.

   If you see "Active," the computer is running on-access scanning. If you see a gray shield, it is not.

4. If you installed the firewall, look in the **Firewall enabled** column.

   If you see "Yes," the firewall is enabled. If you see a gray firewall sign and the word "No," the firewall is disabled.

5. If you use other features, such as application control, data control, or patch, check the status in the respective column.

For information about how to check that computers are up to date, see Check that computers are up to date (page 52).

For information about how to find computers with problems using the computer list filters, see Find computers with problems (page 53).

5.5.3 Check that computers are up to date

If you set up Enterprise Console as recommended, computers should receive updates automatically.

To check that computers are up to date:

1. Select the group of computers you want to check.
2. If you want to check computers in any subgroups, select **At this level and below** in the drop-down list.
3. On the **Status** tab, look in the **Up to date** column, or go to the **Update details** tab.
   - If you see "Yes" in the **Up to date** column, the computer is up to date.
   - If you see a clock icon, the computer is out of date. The text indicates how long the computer has been out of date.

For information about updating such out-of-date computers, see Update out-of-date computers (page 79).

5.5.4 Find computers with problems

To display a list of computers that are not properly protected or have other protection-related problems:

1. Select the group of computers you want to check.
2. In the **View** drop-down list, select which computers you want to find, for example, **Computers with potential problems**.

   You can also select a subentry of an entry, to display computers affected by a specific problem (for example, computers that differ from group policy, computers with outstanding alerts, or computers where an installation error has occurred).
3. If the group contains subgroups, select also whether you want to find computers **At this level only** or **At this level and below**.

   Any computers that have protection problems will be listed.

You can also filter the computer list by the name of a detected item such as malware, potentially unwanted application, or suspicious file. For more information, see Filter computers by the name of a detected item (page 13).

For information about dealing with protection problems, see Computers are not running on-access scanning (page 213) and other topics in the Troubleshooting (page 213) section.

5.6 Dealing with alerts and errors

If a virus or spyware, a suspicious item, an adware or other potentially unwanted application is detected, alert icons are displayed on the **Status** tab in the **Endpoints** view.

For a key to the alert icons, see What do the alert icons mean? (page 53) The other topics in this section give advice on dealing with alerts.

Note: Warnings are also displayed in the console if software is disabled or out of date. For information on this, see Checking whether your network is protected (page 51).

For more details about an alert, for example, the name of the detected item, click the **Alert and Error Details** tab.

For information about update manager alerts, see Monitoring the update manager (page 78).

5.6.1 What do the alert icons mean?

Icon	Explanation
	A red warning sign displayed in the **Alerts and errors** column means that a virus, worm, Trojan, spyware, or suspicious behavior has been detected.

Icon	Explanation
	A yellow warning sign displayed in the **Alerts and errors** column indicates one of the following problems: ▪ A suspicious file has been detected. ▪ An adware or other potentially unwanted application has been detected. ▪ An error has occurred. A yellow warning sign displayed in the **Policy compliance** column indicates that the computer is not using the same policy or policies as other computers in its group.

If there are multiple alerts or errors on a computer, the icon of an alert that has the highest priority will be displayed in the **Alerts and errors** column. Alert types are listed below in descending order of priority.

1. Virus and spyware alerts
2. Suspicious behavior alerts
3. Suspicious file alerts
4. Adware and PUA alerts
5. Software application errors (for example, installation errors)

5.6.2 Deal with alerts about detected items

If you use role-based administration, you must have the **Remediation - cleanup** right to clean up detected items or clear alerts from the console. For more information, see Managing roles and sub-estates (page 18).

To take action against alerts displayed in the console:

1. In the **Endpoints** view, select the computer(s) for which you want to see alerts. Right-click and select **Resolve Alerts and Errors**.

   The **Resolve alerts and errors** dialog box is displayed.

2. The action you can take against an alert depends on the cleanup status of the alert. Look in the **Cleanup status** column and decide what action you want to take.

Tip: You can sort alerts by clicking on a column heading. For example, to sort alerts by cleanup status, click the **Cleanup status** column heading.

Cleanup status	Description and actions to take
Cleanable	You can remove the item. To do this, select the alert or alerts and click **Cleanup**.
Threat type not cleanable	This type of detected item, for example, suspicious file, suspicious behavior or malicious network traffic, cannot be cleaned up from the console. You have to decide whether you want to allow or block the item. If you do not trust the item, you can

Cleanup status	Description and actions to take
	send it to Sophos for analysis. For more information, see Find information about detected items (page 55).
Not cleanable	This item cannot be cleaned up from the console. For more information about the item and actions you can take against it, see Find information about detected items (page 55).
Full scan required	This item may be cleanable, but a full scan of the endpoint is required before the cleanup can be carried out. For instructions, see Scan computers now (page 57).
Restart required	The item has been partially removed, but the endpoint needs to be restarted to complete the cleanup. **Note:** Endpoints must be restarted locally, not from Enterprise Console.
Cleanup failed	The item could not be removed. Manual cleanup may be required. For more information, see Deal with detected items if cleanup fails (page 58).
Cleanup in progress (started <time>)	Cleanup is in progress.
Cleanup timed out (started <time>)	Cleanup has timed out. The item may not have been cleaned up. This may happen, for example, when the endpoint is disconnected from the network or the network is busy. You may try to clean up the item again later.

If you decided to allow an item, see Authorize adware and PUAs (page 108) or Authorize suspicious items (page 110).

5.6.3 Find information about detected items

If you want to learn more about a threat or other item detected on an endpoint and reported in the console, or need advice on what action to take against the item, follow these steps:

1. In the **Endpoints** view, in the computer list, double-click the affected computer.
2. In the **Computer details** dialog box, scroll down to the **Outstanding alerts and errors** section. In the list of detected items, click the name of the item you are interested in.

   This connects you to the Sophos website, where you can read a description of the item and advice on what actions to take against it.

Note: Alternatively, you can go to the **Security analyses** page on the Sophos website (http://www.sophos.com/en-us/threat-center/threat-analyses/viruses-and-spyware.aspx), select the type of item you want to find, and type the name of the item in the search box.

5.6.4 Deal with alerts about ransomware

If you use role-based administration, you must have the **Remediation - cleanup** right to clean up detected items or clear alerts from the console. For more information, see Managing roles and sub-estates (page 18).

CryptoGuard blocks the process on the endpoint that has generated the ransomware alert. The block is only removed when you acknowledge the alert.

Note: If the endpoint is restarted the block is removed. A new ransomware alert is generated if the infected process restarts.

Remember: You must manually run Sophos Clean on the computer triggering the detection. If you do not, the computer will trigger the alert and the process will be re-blocked every time it runs.

To take action against ransomware alerts displayed in the console:

1. In the **Endpoints** view, select the computer(s) for which you want to see alerts. Right-click and select **Resolve Alerts and Errors**.

   The **Resolve alerts and errors** dialog box is displayed.

2. Select the ransomware alerts you want to clear and click **Acknowledge**.

   Acknowledged (cleared) alerts are no longer displayed in the console. This removes the block on the process.

5.6.5 Clear endpoint alerts or errors from the console

If you use role-based administration, you must have the **Remediation - cleanup** right to clear alerts or errors from the console. For more information, see Managing roles and sub-estates (page 18).

If you are taking action to deal with an alert, or are sure that a computer is safe, you can clear the alert sign displayed in the console.

Note: You cannot clear alerts about installation errors. These are cleared only when Sophos Endpoint Security and Control is installed successfully on the computer.

1. In the **Endpoints** view, select the computer(s) for which you want to clear alerts. Right-click and select **Resolve Alerts and Errors**.

   The **Resolve alerts and errors** dialog box is displayed.

2. To clear alerts or Sophos product errors from the console, go to the Alerts or Errors tab, respectively, select the alerts or errors you want to clear and click **Acknowledge**.

   Acknowledged (cleared) alerts are no longer displayed in the console.

For information about clearing update manager alerts from the console, see Clear update manager alerts from the console (page 79).

5.7 Scanning and cleaning up computers now

5.7.1 Scan computers now

You can scan a computer or computers immediately, without waiting for the next scheduled scan.

If you use role-based administration, you must have the **Remediation - updating and scanning** right to scan computers. For more information, see Managing roles and sub-estates (page 18).

Note: Only Windows, Linux and UNIX computers can perform immediate full system scans originated from the console.

To scan computers immediately:

1. Select the computers in the computer list or a group in the **Groups** pane. Right-click and select **Full system scan**.

   Alternatively, on the **Actions** menu, select **Full system scan**.

2. In the **Full system scan** dialog box, review the details of the computers to be scanned and click **OK** to start the scan.

Note: If the scan detects components of a threat in memory, the scan stops and an alert is sent to Enterprise Console. This is because further scanning could enable the threat to spread. You must clean up the threat before running the scan again.

5.7.2 Clean up computers now

You can immediately clean up Windows or Mac computers that are infected with a virus or have unwanted applications on them.

If you use role-based administration, you must have the **Remediation - cleanup** right to clean up computers. For more information, see Managing roles and sub-estates (page 18).

Note: To clean up Linux or UNIX computers, you can either set up automatic cleanup from the console (see Set up automatic cleanup for on-access scanning (page 86)) or clean up the computers individually as described in Deal with detected items if cleanup fails (page 58).

If an item (for example, a Trojan or potentially unwanted application) has been “partially detected”, before cleaning up the affected computer you will need to carry out a full system scan of the computer to find all the components of the partially detected item. In the computer list, **Endpoints** view, right-click the affected computer and click **Full System Scan**. For more information, see Partially detected item (page 216).

To clean up computers immediately:

1. In the computer list, **Endpoints** view, right-click the computer(s) that you want to clean up and then click **Resolve Alerts and Errors**.
2. In the **Resolve Alerts and Errors** dialog box, on the **Alerts** tab, select the check box for each item you want to clean up, or click **Select all**. Click **Cleanup**.

If the cleanup is successful, the alerts shown in the list of computers will no longer be displayed.

If any alerts remain, you should clean up computers manually. See Deal with detected items if cleanup fails (page 58).

Note: Cleanup of some viruses causes a full system scan to be run on the affected computers, which tries to clean up *all* the viruses. This might take a long time. The alerts are updated at the end of the scan.

5.7.3 Deal with detected items if cleanup fails

If you cannot clean up computers from the console, you can perform the cleanup manually.

1. In the computer list, double-click the infected computer.
2. In the **Computer details** dialog box, scroll down to the **Outstanding alerts and errors** section. In the list of detected items, click the name of the item you want to remove from the computer.

   This connects you to the Sophos website, where you can read advice on how to clean up the computer.

3. Go to the computer and carry out the cleanup manually.

   Note: The Sophos website provides special downloadable disinfectors for certain viruses and worms.

6 Updating computers

6.1 Configuring the update manager

An update manager enables you to set up automatic updating of Sophos security software from a Sophos website. An update manager is installed with and managed from Enterprise Console.

You can install additional update managers. For example, if you have a complex network with several locations, you may want to install an additional update manager at a remote location. For information, see Add an additional update manager (page 65).

6.1.1 How does an update manager work?

Once you have configured an update manager, it:

- Connects at a scheduled frequency to a data distribution warehouse at Sophos or on your network.
- Downloads updates to the threat detection data and updates for the security software to which the administrator has subscribed.
- Places the updated software in one or more network shares in a form suitable for installation on endpoint computers.

The computers update automatically from the shares, provided the Sophos software installed on them has been configured to do so, for example, by applying an updating policy.

6.1.2 View or edit update manager configuration

If you use role-based administration, you must have the **Policy setting - updating** right to configure an update manager. For more information, see Managing roles and sub-estates (page 18).

1. If you are in the **Endpoints** view, click the **Update managers** button on the toolbar to display the **Update managers** view.
2. In the list of update managers, select the update manager whose configuration you want to view or edit. Right-click and click **View/Edit configuration**.

   Note: Alternatively, select the update manager, go to the **Actions** menu, point to **Update manager**, and then click **View/Edit configuration**.

   The **Configure update manager** dialog box appears.

3. Edit the configuration as described in the following topics:
   - Select an update source for an update manager (page 60).
   - Select which software to download (page 61).
   - Specify where the software is placed (page 62).
   - Create or edit an update schedule (page 63).
   - Configure the update manager log (page 64).
   - Configure the self-updating of an update manager (page 64).

For information about clearing update manager alerts from the console, see Clear update manager alerts from the console (page 79).

After you configure the update manager, you can configure your updating policies and apply them to the endpoint computers.

6.1.3 Select an update source for an update manager

If you use role-based administration, you must have the **Policy setting - updating** right to configure an update manager. For more information, see Managing roles and sub-estates (page 18).

You need to select a source from which an update manager will download security software and updates for distribution across the network.

You can select several sources. The first source in the list is the primary source. Additional sources in the list are optional alternate locations that the update manager uses if it cannot collect an update from the primary source.

1. If you are in the **Endpoints** view, click the **Update managers** button on the toolbar to display the **Update managers** view.
2. In the list of update managers, select the update manager for which you want to select an update source. Right-click and click **View/Edit configuration**.
3. In the **Configure update manager** dialog box, on the **Sources** tab, click **Add**.
4. In the **Source details** dialog box, in the **Address** field, enter the address of the source. The address can be a UNC or HTTP path.

   If you want to download software and updates directly from Sophos, select **Sophos**.

5. If necessary, in the **Username** and **Password** fields, enter the username and password for the account that will be used to access the update source.
   - If the update source is Sophos, enter the download credentials supplied by Sophos.
   - If the update source is the default update share created by an update manager located higher in the updating hierarchy, the **Username** and **Password** fields will be pre-populated.

     The default update share is a UNC share `\\<ComputerName>\SophosUpdate`, where ComputerName is the name of the computer where the update manager is installed.

   - If the update source is a non-default update share on your network, enter credentials for the account that has read rights to the share. If the **Username** needs to be qualified to indicate the domain, use the form domain\username.

6. If you access the update source via a proxy server, select **Use a proxy server to connect**. Then enter the proxy server **Address** and **Port** number. Enter a **Username** and **Password** that give access to the proxy server. If the username needs to be qualified to indicate the domain, use the form domain\username. Click OK.

   The new source appears in the list in the **Configure update manager** dialog box.

If you have already installed an update manager on a different computer, the share where that update manager downloads software and updates will appear on the list of addresses. You can select it as a source for the update manager you are configuring. Then you can move the address that you want to be the primary one to the top of the list, using the **Move up** and **Move down** buttons to the right of the list.

6.1.4 Select which software to download

If you use role-based administration, you must have the **Policy setting - updating** right to configure an update manager. For more information, see Managing roles and sub-estates (page 18).

You need to select the subscriptions that the update manager will keep up to date.

1. If you are in the **Endpoints** view, click the **Update managers** button on the toolbar to display the **Update managers** view.
2. In the list of update managers, select the update manager for which you want to select the software to download. Right-click and click **View/Edit configuration**.
3. In the **Configure update manager** dialog box, on the **Subscriptions** tab, select a software subscription in the list of available subscriptions.

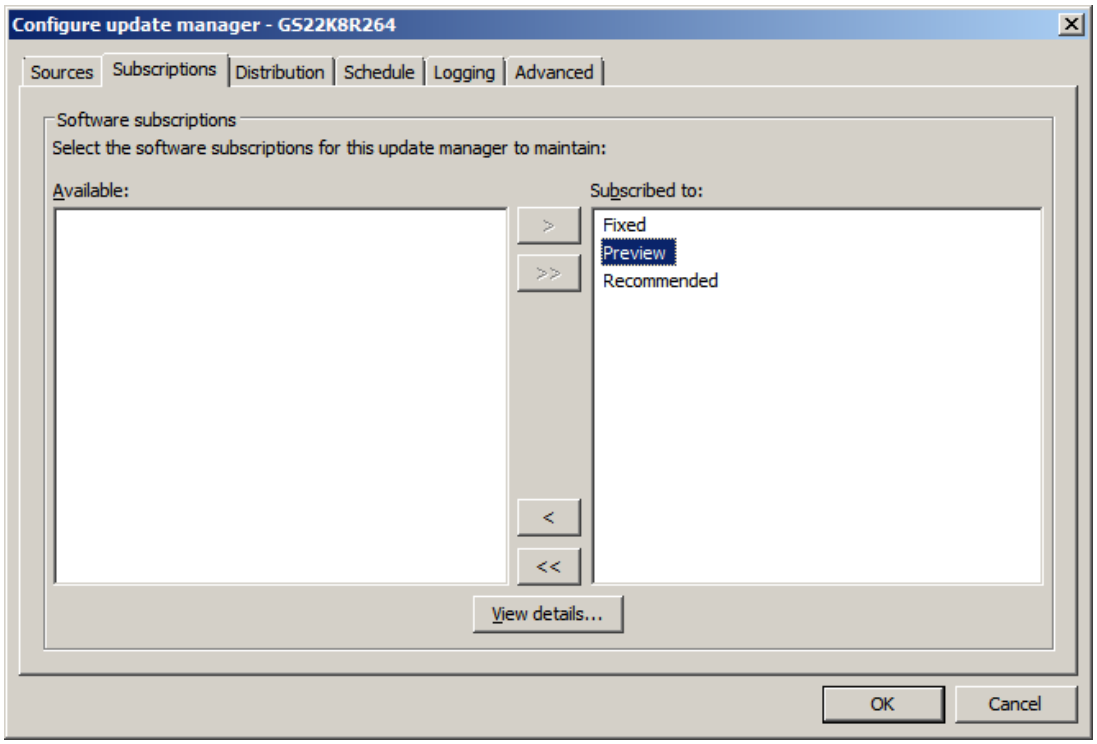
   To view the details of the subscription, for example, what software is included in the subscription, click **View details**.

4. To move the selected subscription to the “Subscribed to” list, click the “Add” button.

   To move all subscriptions to the “Subscribed to” list, click the “Add all” button.



6.1.5 Specify where the software is placed

If you use role-based administration, you must have the **Policy setting - updating** right to configure an update manager. For more information, see Managing roles and sub-estates (page 18).

After you have selected which software to download, you can specify where it should be placed on the network. By default, the software is placed in a UNC share `\\<ComputerName>\SophosUpdate`, where ComputerName is the name of the computer where the update manager is installed.

You can distribute downloaded software to additional shares on your network. To do this, add an existing network share to the list of available shares and then move it to the list of update shares as described below. Ensure that the Update Manager user account (**SophosUpdateMgr**) has read rights to the shares.

Note: You created the Update Manager user account before you installed Enterprise Console. For more information about the account, see Enterprise Console startup documentation.

To specify where the software is placed:

1. If you are in the **Endpoints** view, click the **Update managers** button on the toolbar to display the **Update managers** view.
2. In the list of update managers, select the update manager for which you want to select network shares for distributing the software. Right-click and click **View/Edit configuration**.
3. In the **Configure update manager** dialog box, on the **Distribution** tab, select a software subscription from the list.
4. Select a share from the “Available” shares list and move it to the “Update to” list by clicking the “Add” button (>).

   The default share `\\<ComputerName>\SophosUpdate` is always present in the “Update to” list. You cannot remove this share from the list.

   The “Available” shares list includes all the shares that Enterprise Console knows about and that are not already being used by another update manager.

   You can add an existing share to or remove a share from the “Available” shares list, using the “Add” button (>) or “Remove” button (<).

5. If you want to enter a description for a share or credentials needed to write to the share, select the share and click **Configure**. In the **Share Manager** dialog box, enter the description and credentials.

   If you want to enter the same credentials for multiple shares, select the shares in the “Update to” list and click **Configure**. In the **Configure multiple shares** dialog box, enter credentials that will be used to write to the shares.

6.1.6 Create or edit an update schedule

If you use role-based administration, you must have the **Policy setting - updating** right to configure an update manager. For more information, see Managing roles and sub-estates (page 18).

By default, an update manager checks the Sophos databank for **threat detection data** updates every 10 minutes.

You can change this update interval. The minimum is 5 minutes and the maximum 1440 minutes (24 hours). We recommend an update interval of 10 minutes for threat detection data, so that you receive protection from new threats promptly after the detection data is published by Sophos.

By default, an update manager checks the Sophos databank for **software** updates every 60 minutes.

You can change this update interval. The minimum is 10 minutes and the maximum 1440 minutes (24 hours).

For software updates, you can either specify an update interval that is used every hour of every day, or you can create more sophisticated schedules, in which each day can be specified independently and each day can be divided into periods with different update intervals.

Note: You can create a different schedule for each day of the week. Only a single schedule can be associated with a day of the week.

1. If you are in the **Endpoints** view, click the **Update managers** button on the toolbar to display the **Update managers** view.
2. In the list of update managers, select the update manager for which you want to create an update schedule. Right-click and click **View/Edit configuration**.
3. In the **Configure update manager** dialog box, on the **Schedule** tab, enter the interval between threat detection data updates.
4. Enter the interval between software updates.
   - If you want to specify an update interval that is used every hour of every day, select the **Check for updates every n minutes** option and enter the interval in minutes.
   - If you want to create a more sophisticated schedule, or different schedules for different days of the week, select the **Set up and manage scheduled updates** option and click **Add**.

     In the **Update schedule** dialog box, enter a name for the schedule, select the days of the week, and update intervals.

6.1.7 Configure the update manager log

If you use role-based administration, you must have the **Policy setting - updating** right to configure an update manager. For more information, see Managing roles and sub-estates (page 18).

1. If you are in the **Endpoints** view, click the **Update managers** button on the toolbar to display the **Update managers** view.
2. In the list of update managers, select the update manager for which you want to configure the log. Right-click and click **View/Edit configuration**.
3. In the **Configure update manager** dialog box, on the **Logging** tab, select the number of days you want to keep the log for and the log's maximum size.

6.1.8 Configure the self-updating of an update manager

If you use role-based administration, you must have the **Policy setting - updating** right to configure an update manager. For more information, see Managing roles and sub-estates (page 18).

1. If you are in the **Endpoints** view, click the **Update managers** button on the toolbar to display the **Update managers** view.
2. In the list of update managers, select the update manager for which you want to configure self-updating. Right-click and click **View/Edit configuration**.
3. In the **Configure update manager** dialog box, on the **Advanced** tab, select an update manager version you want to keep up to date with.
   For example, if you select “recommended”, the update manager will always be upgraded to the version that is labeled as such at Sophos. The actual update manager version will change.

6.1.9 Make an update manager check for updates immediately

If you use role-based administration, you must have the **Remediation - updating and scanning** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

After you have configured an update manager, it checks for updates and downloads them from its update source to the update shares it maintains automatically, according to the specified schedule. If you want an update manager to check for and download threat detection data updates, software updates for endpoint computers and software updates for the update manager itself immediately, follow these steps:

1. If you are in the **Endpoints** view, click the **Update managers** button on the toolbar to display the **Update managers** view.
2. In the list of update managers, select the update manager which you want to update. Right-click and click **Update Now**.

6.1.10 Make an update manager comply with the configuration settings

If you use role-based administration, you must have the **Remediation - updating and scanning** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

1. If you are in the **Endpoints** view, click the **Update managers** button on the toolbar to display the **Update managers** view.
2. In the list of update managers, select the update manager which you want to comply with the configuration settings. Right-click and click **Comply with Configuration**.

6.1.11 Add an additional update manager

Sophos Update Manager (SUM) is always installed on the computer where you install Enterprise Console. If you selected **Custom Setup** during the installation, this is the computer where the management server is installed.

You can add one or more additional update managers to your network. You may want to do this to reduce the load on the update manager that is already installed and distribute updates more efficiently. You can install an additional update manager on a computer that does not yet have an update manager installed.

Important: Do not remove the update manager installed on the same computer as the Enterprise Console management server. Enterprise Console cannot protect the network fully until this update manager is configured with an update source. This will enable Enterprise Console to receive necessary updates (for example, information about the versions of security software that endpoint computers should be running, new and updated Content Control Lists for data control, or the list of new controlled devices and applications).

To enable an additional update manager to download security software from Sophos or another update manager via HTTP, open TCP port 80 (outbound) on the computer on which you want to install the additional update manager. To enable the update manager to download security software from another update manager via a UNC path, open the following outbound ports on the computer: UDP port 137, UDP port 138, TCP port 139, and TCP port 445.

If the computer is running a version of Windows that includes the Network Discovery feature, and the feature is turned off, turn it on and restart the computer.

If User Account Control (UAC) is enabled on the computer, turn off UAC and restart the computer. You can turn UAC on again after you have installed the update manager and subscribed to Sophos updates.

If the computer is in a domain, log on as a domain administrator.

If the computer is in a workgroup, log on as a local administrator.

The update manager installer is located on the computer where Enterprise Console management server is installed, in the shared folder `\\Servername\SUMInstallSet`. To view the location of the installer, go to the **View** menu and click **Sophos Update Manager Installer Location**.

You can install Sophos Update Manager using Windows Remote Desktop.

To install an additional update manager:

1. Run the Sophos Update Manager installer **Setup.exe**.

   An installation wizard is launched.

2. On the **Welcome** page of the wizard, click **Next**.
3. On the **License Agreement** page, read the license agreement and click **I accept the terms in the license agreement** if you agree to the terms. Click **Next**.
4. On the **Destination folder** page, accept the default or click **Change** and enter a new destination folder. Click **Next**.
5. On the **Sophos Update Manager Account** page, select an account that endpoint computers will use to access the default update share created by the update manager. (The default update share is `\\<ComputerName>\SophosUpdate`, where ComputerName is the name of the computer where the update manager is installed.) This account must have read rights to the share and does not need to have administrative rights.

   You can select the default user, select an existing user, or create a new user.

   By default, the installer will create the **SophosUpdateMgr** account with read rights to the default update share and no interactive logon rights.

   If you want to add more update shares later, select an existing account or create a new account that has read rights to those shares. Otherwise, ensure that the **SophosUpdateMgr** account has read rights to the shares.

6. On the **Sophos Update Manager Account Details** page, depending on the option you selected on the previous page, enter a password for the default user, details for the new user, or select an existing account.

   The password for the account must comply with your password policy.

7. On the **Ready to Install the Program** page, click **Install**.
8. When installation is complete, click **Finish**.

The computer where you installed Sophos Update Manager should now appear in Enterprise Console, **Update managers** view. (On the **View** menu, click **Update Managers**.)

To configure the update manager, select it, right-click, and then click **View/Edit Configuration**.

6.1.12 Publish security software on a web server

You might want to publish Sophos security software on a web server for computers to access via HTTP.

To publish security software on a web server:

1. To find out the path of the shared folder to which the security software has been downloaded, known as the bootstrap location:

   a) In Enterprise Console, on the **View** menu, click **Bootstrap Locations**.

      In the **Bootstrap Locations** dialog box, the **Location** column displays the bootstrap location for each platform.

   b) Make a note of the path up to but not including the `CIDs` folder. For example: `\\server name\SophosUpdate`

2. Make the bootstrap location, including subfolders, available on the web server. For instructions, see Sophos knowledgebase article 38238.

6.2 Configuring software subscriptions

A software subscription specifies which versions of endpoint software are downloaded from Sophos for each platform.

The **Download Security Software Wizard** sets up a default subscription called “Recommended.” This subscription includes the recommended versions of any selected software.

If you want to add software to your subscription or subscribe to a version other than the recommended one, configure the subscription as described in Subscribe to security software (page 69).

If you haven't completed the wizard after you installed Enterprise Console, see Run the Download Security Software Wizard (page 71).

6.2.1 What types of updating are available?

For each platform (for example, Windows), there are several software packages representing different types of updating and containing different versions of endpoint software. You can choose which software package to download from Sophos for further deployment to endpoint computers by selecting one of the following updating types in the subscription.

Updating type	Description
Recommended	This is the default package. If you use this package, Sophos updates your software regularly (usually every month) with: ▪ Fixes for issues discovered by customers. ▪ New features that are ready for general availability. If you install Enterprise Console for the first time and accept the default settings, this is the version that you will be on.

Updating type	Description
Preview	This package is aimed at IT and security administrators. If you use this version, you receive new features before they are released in the Recommended version. This means that you can test and evaluate them, perhaps on a test network, before they become generally available. **Note:** Sometimes the Preview package gives you the same software as Recommended. This happens when no new features are ready to be tested in customer environments.
Extended	The Extended version is aimed at customers who have a strict or conservative process for installing updated software on their network. If you use this version, you receive the same updates as the Recommended channel but with a delay of several months. This means that any issues in the product have been identified and fixed long before it is installed on your network.
Previous Recommended	The previous version of the currently recommended package. This version can be useful for you if you want a little longer to test new software before you roll it out to your network.
Previous Extended	The previous version of the current extended package. This version can be useful for you if you want a little longer to test new software before you roll it out to your network.
Fixed versions	See Fixed version software packages (page 68).

Note: We may change the packages over time. For more information about currently available software packages, see Sophos knowledgebase article 119216.

The **Download Security Software Wizard** sets up a subscription that specifies the recommended versions of any selected software.

The actual versions downloaded will usually change each month. To check what actual software versions are downloaded, in the **Software Subscription** dialog box, select the package you want to check and click **Details**.

6.2.2 Fixed version software packages

A **fixed version** is a version that is updated with new threat detection data, but not with the latest software version each month. An example of a fixed version of Sophos Endpoint Security and Control for Windows is "10.3.15 VE3.60.0". It consists of a three-part version identifier—major release identifier (10), minor release identifier (3), and maintenance release identifier (15)—and threat detection engine version (VE3.60.0).

Using fixed packages

By default, the use of fixed version software packages is disabled (under **Tools** > **Configure Use of Fixed Packages**). They are not displayed in the **Software Subscription** dialog box and you cannot subscribe to them.

Tip: If you are subscribed to a fixed software version, we recommend that, to ensure best protection, you change your subscription to a "recommended" package. For more information about software packages, see What types of updating are available? (page 67)

If you haven't used fixed version software packages before but want to do so, you can enable the use of fixed packages under **Tools** > **Configure Use of Fixed Packages**. When the use of fixed packages is enabled, they are displayed in the **Software Subscription** dialog box and you can subscribe to them.

Note: If you use role-based administration, you must have the **System configuration** right to configure the use of fixed packages.

If you disable the use of fixed packages while you are still subscribed to a fixed package, you will still be subscribed to that package and it will continue to be downloaded until you unsubscribe from it. However, you won't be able to view or re-subscribe to another fixed package.

If you have remote consoles, changing this configuration option in one of them will take effect in all consoles. If you have enabled the use of fixed packages in the registry as described in Sophos knowledgebase article 117348, the registry setting will take effect only on the computer where it has been configured, and it will take precedence over the configuration option in the console.

Lifecycle of fixed packages

Fixed versions are downloaded for as long as they are available from Sophos. If a fixed version is due to retire, you will see an alert in the **Update managers** view next to any update managers that are subscribed to that version. If email alerting is active, the administrator will also receive an email alert.

When a subscribed fixed version is retired, if you do not change your subscription before support ends you are automatically subscribed to a newer Fixed Extended package. For more information see this article.

For more information about Sophos Endpoint Lifecycle Policy, see Sophos knowledgebase article 112580.

6.2.3 Subscribe to security software

If you use role-based administration:

- You must have the **Policy setting - updating** right to edit a software subscription.
- You cannot edit a subscription if it is applied to an updating policy that is applied outside your active sub-estate.

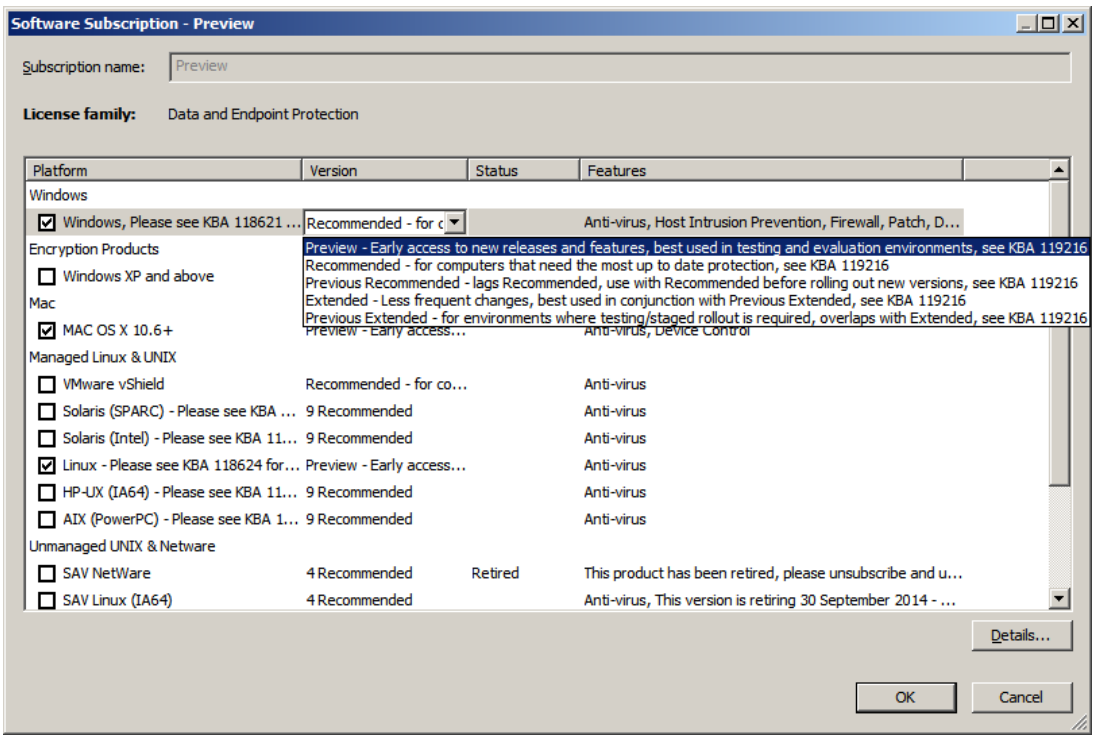
For more information about role-based administration, see Managing roles and sub-estates (page 18).

To subscribe to security software:

1. On the **View** menu, click **Update Managers**.
2. In the **Software Subscriptions** pane, double-click the subscription you want to change, or click the **Add** button at the top of the pane to create a new subscription.

   The **Software Subscription** dialog box appears.

   Alternatively, if you want to create a copy of an existing subscription, select the subscription, right-click and click **Duplicate Subscription**. Type a new name for the subscription and then double-click it to open the **Software Subscription** dialog box.
3. In the **Software Subscription** dialog box, edit the name of the subscription, if you wish.
4. Select the platforms for which you want to download the software.
5. By default, you are subscribed to a "Recommended" package. You can also select a non-default package (for example, if you want to preview new features). To do so, click in the **Version** field next to the platform you want to change the package for and then click again. In the drop-down list of available versions, select the version you want to download (for example, "Preview").



   To learn what other packages are available, see What types of updating are available? (page 67)

After you have subscribed to the security software, you can set up subscription email alerts. For more information about subscription email alerts, see Set up software subscription alerts (page 180).

If you created a new software subscription, configure the update manager to maintain it as described in View or edit update manager configuration (page 59).

6.2.4 Run the Download Security Software Wizard

If you use role-based administration, you must have the **Policy setting - updating** right to run the **Download Security Software Wizard**. For more information, see Managing roles and sub-estates (page 18).

If you haven't completed the **Download Security Software Wizard** after you installed Enterprise Console, do the following:

- On the **Actions** menu, click **Run the Download Security Software Wizard**.

  The **Download Security Software Wizard** guides you through selecting and downloading software.

Note: After you have successfully completed the wizard, the **Run the Download Security Software Wizard** option will disappear from the **Actions** menu.

6.2.5 See which updating policies use the software subscription

To see which updating polices use a particular software subscription:

- Select the subscription, right-click and then click **View Subscription Usage**.

  In the **Software Subscription Usage** dialog box, you see a list of updating polices that use the subscription.

6.3 Configuring the updating policy

Updating policies enable you to keep your computers up to date with your chosen security software. Enterprise Console checks for updates and updates computers, if necessary, at a specified interval.

The default updating policy enables you to install and update the software specified in the “Recommended” subscription.

If you want to change the default updating policy or create a new updating policy, follow the instructions in the following topics:

- Select a subscription (page 72)
- Configure update servers (page 73)
- Schedule updates (page 77)
- Select a different source for initial installation (page 77)
- Log updates (page 78)

Note: If you use role-based administration:

- You must have the **Policy setting - updating** right to configure an updating policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information about role-based administration, see Managing roles and sub-estates (page 18).

6.3.1 Select a subscription

If you use role-based administration:

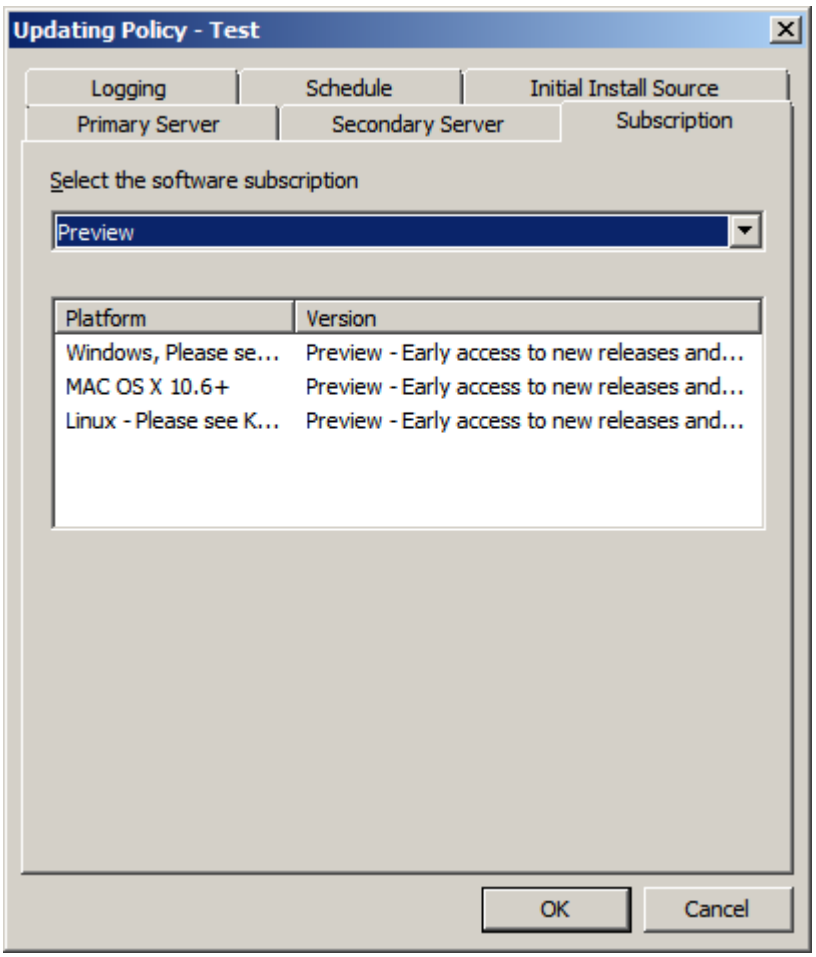
- You must have the **Policy setting - updating** right to configure an updating policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

A subscription specifies which versions of endpoint software are downloaded from Sophos for each platform. The default subscription includes the latest software for Windows.

To select a subscription:

1. Check which updating policy is used by the group(s) of computers you want to configure. See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Updating**. Then double-click the policy you want to change.
3. In the **Updating policy** dialog box, click the **Subscription** tab and select the subscription for the software you want to keep up to date.



6.3.2 Configure update servers

By default, computers update from a single primary source UNC share, `\\<ComputerName>\SophosUpdate`, where `<ComputerName>` is the name of the Update Manager's computer. You can also specify an alternative secondary source for updates, enable location roaming, and enable bandwidth throttling.

If endpoint computers cannot contact their primary source, they attempt to update from their secondary source (if one has been specified). We recommend that you always specify a secondary source.

Both primary and secondary update server locations may be either UNC shares or HTTP URLs from any accessible Update Manager on your network. The secondary update server location may alternatively be set to get updates directly from Sophos over the internet via HTTP.

Note: Update Managers may have multiple distribution shares available, depending on how you have set them up.

6.3.2.1 Primary server

The primary server is set up automatically with the default primary server location. By default, computers update from a single primary source UNC share, `\\<ComputerName>\SophosUpdate`, where `<ComputerName>` is the name of the computer where Sophos Update Manager is installed.

To access the share, the computers use the Sophos Update Manager credentials that you entered during the installation of Enterprise Console. If you followed recommendations in the Enterprise Console startup guide, the account is named "SophosUpdateMgr".

If you need to change the credentials, see Change primary server credentials (page 75).

If you access the update source via a proxy server, click **Proxy details** and enter the proxy server details.

If you want to enable location roaming, see Location roaming for laptops (page 73).

You can also enable bandwidth throttling to limit the amount of bandwidth the computers can use when updating. On the **Primary Server** tab in the updating policy, click the **Advanced** button. In the **Advanced Settings** dialog box, select the **Limit amount of bandwidth used** check box, and then use the slider control to specify the maximum bandwidth in Kbits/second.

6.3.2.2 Location roaming for laptops

Some laptop users may roam extensively or internationally within an organization. When location roaming is enabled (on an updating policy for roaming laptops), roaming laptops attempt to locate and update from the nearest update server location by querying other (fixed) endpoints on the local network they are connected to, minimizing update delays and bandwidth costs.

A roaming laptop gets update server locations and credentials by querying fixed computers on the same local network. If multiple locations are returned, the laptop determines which is nearest and uses that. If none work, the laptop uses the primary (then secondary) location(s) defined in its updating policy.

Note: When fixed computers send update locations and credentials to the laptop, passwords are obscured both in transmission and storage. However, accounts set up for endpoints to read

update server locations should always be as restrictive as possible, allowing only read-only access. See Specify where the software is placed (page 62).

If you want to know in more detail how location roaming works, see How does location roaming work? (page 74)

Location roaming is only usable where:

- There is a single common Enterprise Console for both roaming and fixed endpoints.
- The fixed endpoints use the same software subscription as the roaming laptops.
- There is a primary update location specified in the updating policy used by the roaming laptops.
- Any third-party firewalls are configured to allow update location queries and responses. The port used is normally UDP port 51235 but is configurable; for details see Sophos knowledgebase article 110371.

You enable location roaming as part of specifying sources for updates. Location roaming should only be enabled on groups of machines that frequently move from office to office. For information on how to enable location roaming, see Change primary server credentials (page 75).

For frequently asked questions about location roaming, see Sophos knowledgebase article 112830.

6.3.2.2.1 How does location roaming work?

Location roaming is a method of intelligent updating for roaming laptops where updates are performed from a "best" update location and updating does not rely solely on the primary and secondary update locations specified in the laptops' updating policy.

When location roaming is enabled, the following happens:

1. When a laptop changes its location, the Sophos AutoUpdate component of Endpoint Security and Control installed on the laptop determines that the MAC address of the default gateway on the connected network has changed since the last update. It then sends an ICMP broadcast over the local subnet to neighboring AutoUpdate installations, using UDP port 51235 by default.
2. The neighboring AutoUpdate installations reply with their updating policy, using the same port. Only the primary update location is sent in the response.

   All Endpoint Security and Control installations listen for broadcasts regardless of whether location roaming is enabled or not.

   Sensitive information in replies is obfuscated and fields are hashed for integrity.

   Reply messages have a randomized reply time, to avoid message storms. The replies are also ICMP broadcasts, so any other machine that would have replied with the same details will also receive the broadcast and know not to respond.

3. AutoUpdate chooses the "best" location from the locations received and checks whether the sender is managed by the same Enterprise Console and the subscription ID matches the one used by AutoUpdate on the laptop.

   The "best" update location is determined based on the amount of hops required to access the update location.

4. An update is then attempted and, if successful, the location is cached.

   A maximum of four accessible update locations with the same subscription ID and the lowest hop count are stored on the laptop (in the file `iustatus.xml` in the following location: `C:\Program Files\Sophos\AutoUpdate\data\status\iustatus.xml`).

These update locations are checked every time AutoUpdate performs an update.

Note: If you need to revert back to using the primary and secondary update locations specified in the updating policy (for example, if you wish to roll out customizations from the update location specified in the policy), you will need to disable location roaming.

6.3.2.2.2 Enable location roaming

If you use role-based administration:

- You must have the **Policy setting - updating** right to configure an updating policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You should only enable location roaming on groups of machines that frequently move from office to office.

To enable location roaming:

1. In the **Policies** pane, double-click **Updating**. Then double-click the updating policy you want to change.
2. In the **Updating Policy** dialog box, on the **Primary Server** tab, select the **Allow location roaming** check box.
3. In the **Groups** pane, select a group that uses the updating policy you just changed. Right-click and select **Comply with**, **Group updating policy**.

   Repeat this step for each group that uses this updating policy.

Note: If you later need to revert back to using the primary and secondary update locations specified in the updating policy, disable location roaming.

6.3.2.3 Change primary server credentials

If you use role-based administration:

- You must have the **Policy setting - updating** right to configure an updating policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To change the primary server credentials:

1. In the **Policies** pane, double-click **Updating**. Then double-click the updating policy you want to change.
2. In the **Updating Policy** dialog box, on the **Primary Server** tab, enter new credentials that will be used to access the server. Change other details, if appropriate.

   Note: If your primary update source is a folder on your website and you are using Internet Information Services (IIS) with anonymous authentication, you will still need to enter credentials on the **Primary Server** tab. Use the credentials for the "initial install source" UNC share, even if you don't need them to access the webserver. If you leave the **Username** and **Password** fields on the **Primary Server** tab blank, you will not be able to protect endpoint computers from the console.

3. In the **Groups** pane, select a group that uses the updating policy you just changed. Right-click and select **Comply with**, **Group updating policy**.

   Repeat this step for each group that uses this updating policy.

6.3.2.4 Set the secondary update server

If you use role-based administration:

- You must have the **Policy setting - updating** right to configure an updating policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To set the secondary update server location:

1. Check which updating policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Updating**, then double-click the policy you want to change.
3. In the **Updating Policy** dialog box, click the **Secondary Server** tab, and then select the **Specify secondary server details** check box.
4. In the **Address (HTTP or UNC)** box, do one of the following:
   - Enter the HTTP URL or UNC network path of the update server share.
   - Select **Sophos**.

   Important: If you choose an HTTP URL or a share that is not maintained by a managed Update Manager, Enterprise Console cannot check that the specified software subscription is available. You must manually ensure that the share contains the specified software subscription, otherwise computers will not be updated.

5. If the policy includes Mac endpoints and you specified a UNC path in the **Address** field, under **Select a file-sharing protocol for Mac OS X**, select a protocol for Macs to access the update share.
6. If necessary, in the **Username** field, enter the username for the account that will be used to access the server, and then enter and confirm the password. For Sophos HTTP, this is your subscription credentials.

   This account should have only read-only (browsing) access rights to the share you entered in the address field above.

   Note: If the username needs to be qualified to indicate the domain, use the form domain\username. For information about how to check a Windows user account, see Sophos knowledgebase article 11637.

7. To throttle bandwidth, click **Advanced**. In the **Advanced settings** dialog box, select the **Limit amount of bandwidth used** check box, and then use the slider control to specify the maximum bandwidth in Kbits/second.
8. If you access the update source via a proxy server, click **Proxy details**. In the **Proxy details** dialog box, select the **Access the server via a proxy** check box, and then enter the proxy server **Address** and **Port** number. Enter a **Username** and **Password** that give access to the proxy server. If the username needs to be qualified to indicate the domain, use the form domain\username.

   Note: Some internet service providers require HTTP requests to be sent to a proxy server.

9. Click **OK** to close the **Updating Policy** dialog box.
10. In the **Groups** pane, right-click a group that uses the updating policy you just changed, and then click **Comply with** > **Group Updating Policy**.

    Repeat this step for each group that uses this updating policy.

6.3.3 Schedule updates

If you use role-based administration:

- You must have the **Policy setting - updating** right to configure an updating policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

By default, endpoint computers check for updates in the network share every 5 minutes.

Note: If the computers download updates directly from Sophos, this update interval does not apply. Computers running Sophos PureMessage can check for updates every 15 minutes. Computers that are not running Sophos PureMessage will update every 60 minutes.

To specify the update interval:

1. Check which updating policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Updating**. Then double-click the policy you want to change.
3. In the **Updating policy** dialog box, on the **Schedule** tab, leave **Enable networked computers to use Sophos updates automatically** selected. Enter the interval between software updates (in minutes).
4. If the computers update via a dial-up connection to the internet, select **Check for updates on dial-up**.

   Computers will then attempt to update whenever they connect to the internet.

6.3.4 Select a different source for initial installation

If you use role-based administration:

- You must have the **Policy setting - updating** right to configure an updating policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

By default, security software is installed on computers and then kept updated from the source specified on the **Primary server** tab. You can specify a different source for initial installation.

Note:

This setting applies only to Windows.

If your primary server is an HTTP (web) address, and you want to perform installation on the computers from the console, you must specify a first-time install source.

To make the initial installation from a different source:

1. Check which updating policy is used by the group(s) of computers you want to configure.
   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Updating**. Then double-click the policy you want to change.
3. In the **Updating policy** dialog box, on the **Initial install source** tab, clear the **Use primary server address** check box. Then enter the address of the source you want to use.

6.3.5 Log updates

If you use role-based administration:

- You must have the **Policy setting - updating** right to configure an updating policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

By default, computers log their updating activity. The default maximum log size is 1 MB. The default log level is normal.

To change the logging settings:

1. Check which updating policy is used by the group(s) of computers you want to configure.
   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Updating**. Then double-click the policy you want to change.
3. In the **Updating policy** dialog box, on the **Logging** tab, leave **Log Sophos AutoUpdate activity** selected. In the **Maximum log size** field, specify a maximum size for the log in MB.
4. In the **Log level** field, select **Normal** or **Verbose** logging.
   Verbose logging provides information on many more activities than usual, so the log will grow faster. Use this setting only when detailed logging is needed for troubleshooting.

6.4 Monitoring the update manager

Check the update manager status on the Dashboard

The status of the update managers is displayed in the **Updates** panel on the **Dashboard**. This will tell you when the last update was downloaded from Sophos and display a warning if the time since the last update exceeds the warning or critical threshold.

Note: The **Updates** section of the dashboard does not report an alert or error if an update manager is temporarily unable to update. Alerts and errors are only generated if the time since the last update of the update manager exceeds the warning or critical threshold set in Configure the Dashboard (page 51).

Check the update manager alerts and errors

Update manager alerts and errors are displayed in the **Update managers** view, **Alerts** and **Errors** columns, respectively.

If you subscribed to a fixed version of software, an alert will be displayed when that version is nearing retirement or is retired. An alert will also be displayed if your product license has changed.

To view update manager alerts and errors:

1. If you are in the **Endpoints** view, click the **Update managers** button on the toolbar to display the **Update managers** view.
2. In the list of update managers, look in the **Alerts** and **Errors** columns for any possible problems.
3. If there is an alert or error displayed next to an update manager, right-click that update manager and click **View Update Manager Details**.

   In the **Update manager details** dialog box, you can see the time of the last threat detection data and software updates, status of the subscription or subscriptions that the update manager keeps up to date, and update manager status.

4. To learn more about a particular update manager status and for information on how to resolve it, follow the link in the **Description** column.

If you need to check or change your subscription, for example, if the product you are subscribed to is nearing retirement, or your product license has changed and the new license does not include that product, see Subscribe to security software (page 69).

If new features become available as a result of a license change, you may need to configure new policies before you can use the features. You can find help with configuring the new policies in the Configuring policies (page 81) section.

Subscribe to email alerts

You can set up email alerts to be sent to your chosen recipients when the product version you are subscribed to is nearing retirement or is retired, or when your Sophos product features change as a result of a license change. For more information, see Set up software subscription alerts (page 180).

6.4.1 Clear update manager alerts from the console

If you use role-based administration, you must have the **Remediation - cleanup** right to clear alerts from the console. For more information, see Managing roles and sub-estates (page 18).

To clear update manager alerts from the console:

1. In the **Update managers** view, select the update manager(s) for which you want to clear alerts. Right-click and select **Acknowledge Alerts**.

   The **Update manager alerts** dialog box is displayed.

2. To clear alerts from the console, select the alerts you want to clear and click **Acknowledge**.

   Acknowledged (cleared) alerts are no longer displayed in the console.

6.5 Update out-of-date computers

If you use role-based administration, you must have the **Remediation - updating and scanning** right to update computers. For more information, see Managing roles and sub-estates (page 18).

After you have set up the updating policies and applied them to your networked computers, the computers are kept up to date automatically. You do not need to update computers manually unless there is a problem with updating.

If in the **Endpoints** view, in the computer list, you see a clock icon next to a computer in the **Up to date** column on the **Status** tab, the computer has out-of-date security software. The text indicates how long the computer has been out of date.

A computer can be out of date for one of two reasons:

- That computer has failed to fetch an update from the server.
- The server itself does not have the latest Sophos software.

To diagnose the problem and update the computers:

1. In the **Endpoints** view, select the group that contains out-of-date computers.
2. On the **Status** tab, click the **Up to date** column heading to sort computers by how up to date they are.
3. Click the **Update details** tab and look in the **Primary server** column.

   This shows you the directory that each computer updates from.

4. Now look at the computers that update from one particular directory.
   - *If some are out of date, but others are not*, the problem is with individual computers. Select them, right-click and click **Update Computers Now**.
   - *If all are out of date*, the problem could be with the directory. On the **View** menu, click **Update Managers**. Select the update manager that maintains the directory that you suspect to be out of date, right-click and click **Update Now**. Then on the **View** menu, click **Endpoints**. Select the out-of-date computers, right-click and click **Update Computers Now**.

   If you have several update managers and are not sure which one maintains the out-of-date directory, use the Updating Hierarchy report to see which shares are maintained by each update manager. To view the Updating Hierarchy report, on the **Tools** menu, click **Manage Reports**. In the **Report Manager** dialog box, select **Updating hierarchy** and click **Run**. Look in the “Shares managed by update managers” section of the report.

7 Configuring policies

7.1 Anti-virus and HIPS policy

An anti-virus and HIPS policy enables you to do the following:

- Detect known and unknown viruses, Trojans, worms, and spyware automatically as soon as users attempt to copy, move, or open files that contain them.
- Scan for adware and other potentially unwanted applications.
- Scan computers for suspicious files and rootkits.
- Detect malicious network traffic, that is, communications between endpoint computers and command and control servers involved in botnet or other malware attacks.
- Automatically clean up computers as soon as a virus or other threat is found.

  For information about changing the settings for automatic cleanup, see Set up automatic cleanup for on-access scanning (page 86).

- Analyze the behavior of the programs running on the system.

  For more information, see Behavior monitoring (page 96).

- Scan computers at set times.

  For more information, see Create a scheduled scan (page 90).

You can use different scanning settings for each group of computers. For detailed information about configuring scanning settings, see the following topics:

- Configure on-access scanning (page 83)
- Configure scanning settings for a scheduled scan (page 91)

For information about scanning and cleanup options that do not take effect on Mac, Linux or UNIX, see Settings not applicable on Mac, Linux or UNIX (page 81).

For information about scanning and cleanup options that do not apply to Sophos Anti-Virus for VMware vShield, see Sophos knowledgebase article 121745. For Sophos Anti-Virus for VMware vShield, version 2.x, see also the *Sophos Anti-Virus for VMware vShield configuration guide* available at www.sophos.com/en-us/support/documentation/sophos-anti-virus-for-vmware-vshield.

7.1.1 Settings not applicable on Mac, Linux or UNIX

While all types of scan and cleanup on Windows computers can be fully managed from Enterprise Console, there are a number of settings that do not take effect on Mac, Linux or UNIX computers.

Mac OS X

For information about anti-virus and HIPS policy settings that apply to Macs, see Sophos knowledgebase article 118859.

Linux

The following automatic cleanup options do not apply to Linux computers and will be ignored by them.

Automatic cleanup options for on-access scanning:

- **Deny access and move to default location**
- **Deny access and move to**

Automatic cleanup options for scheduled scanning:

- **Move to default location**
- **Move to**

For more information about automatic cleanup settings, see Automatic cleanup settings for on-access scanning (page 86) and Automatic cleanup settings for scheduled scanning (page 93).

For more information about anti-virus and HIPS policy settings that apply to Linux computers, see Sophos knowledgebase article 117344.

UNIX

- Enterprise Console cannot perform on-access scans on UNIX computers.

  You can configure scheduled scans, alerting, logging, and updating centrally from Enterprise Console.

  Note: These features also include some parameters that cannot be set using Enterprise Console. You can set these parameters from the Sophos Anti-Virus command-line interface on each UNIX computer locally. Enterprise Console ignores them.

  You can also configure on-demand scans from the Sophos Anti-Virus command-line interface on each UNIX computer locally.

  For more information about setting additional parameters or configuring Sophos Anti-Virus for UNIX locally, see the Sophos Anti-Virus for UNIX configuration guide.

- The following automatic cleanup options for scheduled scanning do not apply to UNIX computers and will be ignored by them.
  - **Move to default location**
  - **Move to**

  For more information about automatic cleanup options for scheduled scanning, see Automatic cleanup settings for scheduled scanning (page 93).

For more information about anti-virus and HIPS policy settings that apply to UNIX computers, see Sophos knowledgebase article 117344.

7.1.2 On-access scanning

7.1.2.1 About on-access scanning best protection

This section contains recommendations to help you get the best from on-access scanning.

We recommend that you use the default on-access scan settings, as they represent the best balance between protecting your computer against threats and overall system performance. For information about the recommended on-access scan settings, see Sophos support knowledgebase article 114345 (http://www.sophos.com/en-us/support/knowledgebase/114345.aspx).

We recommend that you refer to the Sophos Enterprise Console policy setup guide for advice on best practices for using and managing Sophos security software. Sophos documentation is published at http://www.sophos.com/en-us/support/documentation.

7.1.2.2 Configure on-access scanning

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Caution: On-access scanning may not detect viruses if certain encryption software is installed. Change the startup processes to ensure that files are decrypted when on-access scanning begins. For more information on how to use anti-virus and HIPS policy with encryption software, see Sophos support knowledgebase article 12790.

To configure on-access scanning:

1. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS Policy** dialog box is displayed.

4. In the **On-access scanning** panel, beside **Enable on-access scanning**, click **Configure**.

5. To change when on-access scanning occurs, under **Check files on**, set the options as described below.

Option	Description
Read	▪ Scan files when they are copied, moved, or opened. ▪ Scan programs when they are started.
Rename	Scan files when they are renamed.
Write	Scan files when they are saved or created.

6. Under **Scan for**, set the options as described below.

Option	Description
Adware and PUAs	▪ Adware displays advertising (for example, pop-up messages) that may affect user productivity and system efficiency. ▪ PUAs (Potentially Unwanted Applications) are not malicious, but are generally considered unsuitable for business networks.
Suspicious files	Suspicious files display certain characteristics (for example, dynamic decompression code) that are commonly, but not exclusively, found in malware. However, these characteristics are not sufficiently strong for the file to be identified as a new piece of malware. **Note:** This option applies only to Sophos Endpoint Security and Control for Windows.

7. Under **Other scanning options**, set the options as described below.

Option	Description
Allow access to drives with infected boot sectors	Allow access to an infected bootable removable medium or device such as a bootable CD, floppy disk, or USB flash drive. Use this option only if advised to by Sophos technical support.
Scan inside archive files	Scan the contents of archives or compressed files before they are downloaded or emailed from managed computers. We recommend that you leave this option turned **off**, as it makes scanning significantly slower. Users will still be protected against any threats in archives or compressed files, as any components of an archive or compressed file that may be malware will be blocked by on-access scanning: ▪ When users open a file extracted from the archive file, the extracted file is scanned. ▪ Files compressed with dynamic compression utilities such as PKLite, LZEXE, and Diet are scanned.
Scan system memory	Run an hourly background scan that detects malware hiding in the computer's system memory (the memory that is used by the operating system).

7.1.2.3 Turn on-access scanning on or off

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

By default, Sophos Endpoint Security and Control scans files as the user attempts to access them, and denies access unless the file is clean.

You may decide to turn off on-access scanning on Exchange servers or other servers where performance might be affected. In this case, put the servers in a special group and change the anti-virus and HIPS policy used for that group as shown below.

To turn on-access scanning on or off:

1. Check which anti-virus and HIPS policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**. Then double-click the policy you want to change.

   The **Anti-Virus and HIPS policy** dialog box is displayed.

3. In the **On-access scanning** panel, select or clear the **Enable on-access scanning** check box.

Important: If you turn off on-access scanning on a server, we recommend that you set up scheduled scans on the relevant computers. For instructions on how to set up scheduled scans, see Create a scheduled scan (page 90)

7.1.2.4 Set up automatic cleanup for on-access scanning

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

By default, Sophos Endpoint Security and Control automatically cleans up computers as soon as a virus or other threat is found. You can change the settings for automatic cleanup as described below.

1. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS Policy** dialog box is displayed.

4. In the **On-access scanning** panel, beside **Enable on-access scanning**, click **Configure**.
5. In the **On-access scan settings** dialog box, click the **Cleanup** tab.
6. Set the options as described in Automatic cleanup settings for on-access scanning (page 86).

7.1.2.5 Automatic cleanup settings for on-access scanning

Viruses/spyware

Select or clear the **Automatically clean up items that contain a virus/spyware** check box.

You can also specify what should be done with the items if cleanup fails:

- **Deny access only**
- **Delete**
- **Deny access and move to default location**
- **Deny access and move to (enter a full UNC path)**

Note: The **Deny access and move to default location** and **Deny access and move to** settings do not apply to Linux or UNIX computers and will be ignored by them.

Suspicious files

Note: These settings apply only to Windows computers.

You can specify what should be done with suspicious files when they are detected:

- **Deny access only**
- **Delete**
- **Deny access and move to default location**
- **Deny access and move to (enter a full UNC path)**

7.1.2.6 Specify on-access scanning file extensions

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can specify which file extensions are scanned during on-access scanning.

1. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS Policy** dialog box is displayed.
4. In the **On-access scanning** panel, beside **Enable on-access scanning**, click **Configure**.

5. Click the **Extensions** tab, and then configure the options as described below.

Scan all files	Scan all files regardless of the filename extension. If you turn on this option, the other options on the **Extensions** tab are turned off. Scanning all files will affect computer performance, so we recommend that you only turn on this option as part of a weekly scheduled scan.
Scan only executable and other vulnerable files	▪ Check all files with executable file extensions (for example, .exe, .bat, .pif) or files that have the possibility of being infected (for example, .doc, .chm, .pdf). ▪ Quickly check the structure of all files, and then scan them if their format is that of an executable file.
Additional file type extensions to be scanned	To scan additional file types, click **Add**, and then type a file extension such as **PDF** in the **Extension** box. You can use the wildcard ? to match any single character. To stop scanning a file type, select its extension in the list, and then click **Remove**. To change a file type, select its extension in the list, and then click **Edit**.
Scan files with no extension	Files with no extension could be malware, so we recommend that you leave this option turned on.
Exclude	To exclude specific file types from on-access scanning, click **Add**, and then type a file extension such as **PDF** in the **Extension** box. To start scanning a file type, select its extension in the list, and then click **Remove**. To change a file type, select its extension in the list, and then click **Rename**.

7.1.2.7 Exclude items from on-access scanning

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can exclude items from on-access scanning.

Note:

These options apply only to Windows, Mac OS X, and Linux.

Enterprise Console cannot perform on-access scans on UNIX computers.

1. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**. Then double-click the policy you want to change.

   The **Anti-virus and HIPS Policy** dialog box is displayed.

3. In the **On-access scanning** panel, click the **Configure** button.
4. Click the tab for **Windows Exclusions**, **Mac Exclusions**, or **Linux/UNIX Exclusions**. To add items to the list, click **Add** and enter the full path in the **Exclude Item** dialog box.

   The items you can exclude from scanning differ on each type of computer. See Items that can be excluded from scanning (page 106).

   To exclude files that are not stored on local drives, select the **Exclude remote files** check box. You might select this if you want to increase speed of access to such files and you trust the available remote file locations.

Important: If you select **Exclude remote files** on the **Windows Exclusions** tab, data control will not scan files uploaded or attached from a network location using a monitored application, for example, an email client, a web browser, or an instant messaging (IM) client. This is because data control uses the same set of exclusions as the Sophos Anti-Virus on-access scanner (InterCheck ™). If remote file scanning is disabled, it will not send any remote files for a data control check. This restriction does not apply to storage device monitoring.

You can export the list of Windows exclusions to a file and then import it into another policy. For more information, see Import or export on-access scanning exclusions (page 89).

7.1.2.8 Import or export on-access scanning exclusions

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can export the list of Windows exclusions for on-access scanning to a file, and then import it into another policy.

1. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS Policy** dialog box is displayed.

4. In the **On-access scanning** panel, beside **Enable on-access scanning**, click **Configure**.

5. On the **Windows Exclusions** tab, click either **Export** or **Import**.

7.1.3 On-demand and scheduled scanning

In the **On-demand scanning** panel of the **Anti-virus and HIPS** policy, you can:

- Set up scheduled scans.
- Configure scanning options such as extensions and exclusions for all types of on-demand scan—scheduled scans, the full system scan, and default on-demand scans on individual computers.

7.1.3.1 Create a scheduled scan

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To have computers scanned by Sophos Endpoint Security and Control at set times, you can create a scheduled scan.

1. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS Policy** dialog box is displayed.
4. In the **On-demand scanning** panel, under **Set up and manage scheduled scans**, click **Add**.

   The **Scheduled scan settings** dialog box is displayed.
5. In the **Scan name** box, type a name for the scan.
6. Under **What to scan**, select the check boxes for items to scan. By default, all local hard disks and UNIX mounted filesystems are scanned.
7. Under **When scan occurs**, select the check boxes for the day(s) on which the scan should run.
8. To specify the time(s) when the scan will run, click **Add**.
   - To change a time, select it in the **Times when the scan will run** list, and then click **Edit**.
   - To delete a time, select it in the **Times when the scan will run** list, and then click **Remove**.

Note: If the scan detects components of a threat in memory, and you have not set up automatic cleanup for the scan, the scan stops and an alert is sent to Enterprise Console. This is because further scanning could enable the threat to spread. You must clean up the threat before running the scan again.

To change the scanning and cleanup settings, see the following topics:

- Configure scanning settings for a scheduled scan (page 91)

- Set up automatic cleanup for scheduled scanning (page 92)

7.1.3.2 Configure scanning settings for a scheduled scan

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To configure the scanning settings for a scheduled scan:

1. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS Policy** dialog box is displayed.
4. In the **Set up and manage scheduled scans** list, select the scan, and then click **Edit**.
5. In the **Scheduled scan settings** dialog box, click **Configure**.
6. Under **Scan files for**, configure the settings as described below.

Option	Description
Adware and PUAs	▪ Adware displays advertising (for example, pop-up messages) that may affect user productivity and system efficiency. ▪ PUAs (Potentially Unwanted Applications) are not malicious, but are generally considered unsuitable for business networks.
Suspicious files	Suspicious files display certain characteristics (for example, dynamic decompression code) that are commonly, but not exclusively, found in malware. However, these characteristics are not sufficiently strong for the file to be identified as a new piece of malware. **Note:** This setting applies only to Sophos Endpoint Security and Control for Windows.
Rootkits	A rootkit is a Trojan or technology that is used to hide the presence of a malicious object (process, file, registry key, or network port) from the computer user or administrator.

7. Under **Other scanning options**, set the options as described below.

Option	Description
Scan inside archive files	Scan the contents of archives and other compressed files. We don't recommend that you scan inside archive files during a scheduled scan, as it will add a significant amount of time to the scan. We recommend instead that you use on-access scanning (on-read and on-write) to protect your network. Any malware components of an unpacked archive will be blocked by the on-read and on-write scanners when they are accessed. If you would like to scan all archives on a few computers using a scheduled scan, we recommend that you do the following: ▪ Create an extra scheduled scan. ▪ In the **Configure** > **On-demand scan settings** dialog box, on the **Extensions** tab, add only the archive extensions to the list of extensions to be scanned. ▪ Make sure that **Scan all files** is disabled. This will allow you to scan the archive files whilst making the scan as short as possible.
Scan system memory	Detect malware hiding in the computer's system memory (the memory that is used by the operating system).
Run scan at lower priority	On Windows Vista and above, run the scheduled scan with lower priority so that it has minimal impact on user applications.

For detailed advice about adjusting the default scanning settings for a scheduled scan, see Sophos knowledgebase article 63985.

7.1.3.3 Set up automatic cleanup for scheduled scanning

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

By default, Sophos Endpoint Security and Control automatically cleans up computers as soon as a virus or other threat is found. You can change the settings for automatic cleanup as described below.

1. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS Policy** dialog box is displayed.

4. In the **Set up and manage scheduled scans** list, select the scan, and then click **Edit**.
5. Beside **Change scanning and cleanup settings**, click **Configure**.

   The **Scanning and cleanup settings** dialog box is displayed.

6. Click the **Cleanup** tab.
7. Set the options as described in Automatic cleanup settings for scheduled scanning (page 93).

7.1.3.4 Automatic cleanup settings for scheduled scanning

Viruses/spyware

Select or clear the **Automatically clean up items that contain a virus/spyware** check box.

You can also specify what should be done with the items if cleanup fails:

- **Log only**
- **Delete**
- **Move to default location**
- **Move to (enter a full UNC path)**

Notes

- Moving an executable file reduces the likelihood of it being run.
- You cannot automatically move a multi-component infection.

Adware and PUA

Select **Automatically clean up adware and PUA**.

Note

- This setting applies only to Windows computers.

Suspicious files

You can specify what should be done with suspicious files when they are detected:

- **Log only**
- **Delete**
- **Move to default location**
- **Move to (enter a full UNC path)**

Notes

- These settings apply only to Windows computers.
- Moving an executable file reduces the likelihood of it being run.
- You cannot automatically move a multi-component infection.

7.1.3.5 Specify file extensions for on-demand and scheduled scanning

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can specify which file extensions are scanned during on-demand and scheduled scanning.

1. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS Policy** dialog box is displayed.
4. In the **On-demand scanning** panel, click **Configure**.

   The **On-demand scan settings** dialog box is displayed.

5. On the **Extensions** tab, configure the options as described below.

Scan all files	Scan all files regardless of the filename extension. If you turn on this option, the other options on the **Extensions** tab are turned off. Scanning all files will affect computer performance, so we recommend that you only turn on this option as part of a weekly scheduled scan.
Scan only executable and other vulnerable files	▪ Check all files with executable file extensions (for example, .exe, .bat, .pif) or files that have the possibility of being infected (for example, .doc, .chm, .pdf). ▪ Quickly check the structure of all files, and then scan them if their format is that of an executable file.
Additional file type extensions to be scanned	To scan additional file types, click **Add**, and then type a file extension such as **PDF** in the **Extension** box. You can use the wildcard ? to match any single character. To stop scanning a file type, select its extension in the list, and then click **Remove**. To change a file type, select its extension in the list, and then click **Edit**.
Scan files with no extension	Files with no extension could be malware, so we recommend that you leave this option turned on.
Exclude	To exclude specific file types from scheduled scanning, click **Add**, and then type a file extension such as **PDF** in the **Extension** box. To start scanning a file type, select its extension in the list, and then click **Remove**. To change a file type, select its extension in the list, and then click **Rename**.

For detailed advice about configuring the extension settings for scheduled scanning, see Sophos knowledgebase article 63985.

7.1.3.6 Exclude items from on-demand and scheduled scanning

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can exclude items from on-demand and scheduled scanning.

Note:

The “excluded items” settings for scheduled scans also apply to full system scans run from the console and "scan my computer" scans run on networked computers. See Scan computers now (page 57).

1. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**. Then double-click the policy you want to change.
3. The **Anti-virus and HIPS policy** dialog box is displayed. In the **On-demand scanning** panel, click **Configure**.
4. Click the **Windows Exclusions**, **Linux/UNIX Exclusions**, or **Mac Exclusions** tab. To add items to the list, click **Add** and enter the full path in the **Exclude item** dialog box.

   The items you can exclude from scanning differ on each type of computer. See Items that can be excluded from scanning (page 106).

You can export the list of Windows exclusions to a file and then import it into another policy. For more information, see Import or export Windows exclusions for on-demand and scheduled scanning (page 96).

7.1.3.7 Import or export Windows exclusions for on-demand and scheduled scanning

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can export the list of Windows exclusions for on-demand and scheduled scanning to a file, and then import it into another policy.

1. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS Policy** dialog box is displayed.

4. In the **On-demand scanning** panel, click **Configure**.
5. On the **Windows Exclusions** tab, click either **Export** or **Import**.

7.1.4 Behavior monitoring

As part of on-access scanning, Sophos Behavior Monitoring protects Windows computers from unidentified or "zero-day" threats and suspicious behavior.

Run-time detection can intercept threats that cannot be detected before execution. Behavior monitoring uses the following run-time detection methods to intercept threats:

- Malicious and suspicious behavior detection
- Malicious traffic detection
- Buffer overflow detection

Malicious and suspicious behavior detection

Suspicious behavior detection uses Sophos's Host Intrusion Prevention System (HIPS) to dynamically analyze the behavior of all programs running on the computer to detect and block activity that appears to be malicious. Suspicious behavior may include changes to the registry that could allow a virus to run automatically when the computer is restarted.

Suspicious behavior detection watches all system processes for signs of active malware, such as suspicious writes to the registry or file copy actions. It can be set to warn the administrator and/or block the process.

Malicious behavior detection dynamically analyzes all programs running on the computer to detect and block activity that is known to be malicious.

Malicious traffic detection

Malicious traffic detection detects communications between endpoint computers and command and control servers involved in botnet or other malware attacks.

Note: Malicious traffic detection requires Sophos Live Protection to be enabled in order to perform lookups and obtain the data. (By default, Sophos Live Protection is enabled.)

Buffer overflow detection

Buffer overflow detection is important for dealing with zero-day exploits.

It dynamically analyzes the behavior of programs running on the system in order to detect when an attempt is made to exploit a running process using buffer overflow techniques. It will catch attacks targeting security vulnerabilities in both operating system software and applications.

7.1.4.1 Turn behavior monitoring on or off

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

By default, behavior monitoring is enabled.

To turn behavior monitoring on or off:

1. Check which anti-virus and HIPS policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS policy** dialog box is displayed.

4. In the **On-access scanning** panel, select or clear the **Enable behavior monitoring** check box.

7.1.4.2 Detect malicious behavior

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Malicious behavior detection is the dynamic analysis of all programs running on the computer to detect and block activity that is known to be malicious.

By default, malicious behavior detection is enabled.

To change the settings for detecting and reporting malicious behavior:

1. Check which anti-virus and HIPS policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS policy** dialog box is displayed.

4. In the **On-access scanning** panel, make sure the **Enable behavior monitoring** check box is selected.
5. Beside **Enable behavior monitoring**, click **Configure**.
6. In the **Configure Behavior Monitoring** dialog box:
   - To alert the administrator and block malicious behavior, select the **Detect malicious behavior** check box.
   - To disable malicious behavior detection, clear the **Detect malicious behavior** check box.

     Note: If you disable malicious behavior detection, malicious traffic detection and suspicious behavior detection will also be disabled.

7.1.4.3 Detect malicious traffic

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.

- You cannot edit a policy if it is applied outside your active sub-estate.

  For more information, see Managing roles and sub-estates (page 18).

- Malicious traffic detection requires Sophos Live Protection to be enabled. (By default, Sophos Live Protection is enabled.)

Malicious traffic detection detects communications between endpoint computers and command and control servers involved in botnet or other malware attacks.

Note: Malicious traffic detection uses the same set of exclusions as the Sophos Anti-Virus on-access scanner (InterCheck ™). For information about configuring on-access scanning exclusions, see Exclude items from on-access scanning (page 88).

By default, malicious traffic detection is enabled for new installations of Enterprise Console 5.3 or later. If you upgraded from an earlier version of Enterprise Console, you need to enable malicious traffic detection to benefit from the feature.

To change the settings for detecting malicious traffic:

1. Check which anti-virus and HIPS policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS policy** dialog box is displayed.

4. In the **On-access scanning** panel, make sure the **Enable behavior monitoring** check box is selected.
5. Beside **Enable behavior monitoring**, click **Configure**.
6. In the **Configure Behavior Monitoring** dialog box, make sure the **Detect malicious behavior** check box is selected.
7. To turn malicious traffic detection on or off, select or clear the **Detect malicious traffic** check box.

7.1.4.4 Detect suspicious behavior

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Suspicious behavior detection watches all system processes for signs of active malware, such as suspicious writes to the registry or file copy actions. It can be set to warn the administrator and/or block the process.

By default, suspicious behavior is detected and reported, but not blocked.

To change the settings for detecting and reporting suspicious behavior:

1. Check which anti-virus and HIPS policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS policy** dialog box is displayed.

4. In the **On-access scanning** panel, make sure the **Enable behavior monitoring** check box is selected.
5. Beside **Enable behavior monitoring**, click **Configure**.
6. In the **Configure Behavior Monitoring** dialog box, make sure the **Detect malicious behavior** check box is selected.
   - To alert the administrator and block suspicious processes, select the **Detect suspicious behavior** check box and clear the **Alert only, do not block suspicious behavior** check box.
   - To alert the administrator, but not block suspicious processes, select both the **Detect suspicious behavior** check box and the **Alert only, do not block suspicious behavior** check box.

For the strongest protection, we advise you to enable suspicious file detection. See Configure on-access scanning (page 83).

7.1.4.5 Detect buffer overflows

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Buffer overflow detection dynamically analyzes the behavior of programs running on the system in order to detect when an attempt is made to exploit a running process using buffer overflow techniques.

By default, buffer overflows are detected and blocked.

To change the settings for detecting and reporting buffer overflow attacks:

1. Check which anti-virus and HIPS policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS policy** dialog box is displayed.

4. In the **On-access scanning** panel, make sure the **Enable behavior monitoring** check box is selected.
5. Beside **Enable behavior monitoring**, click **Configure**. In the **Configure Behavior Monitoring** dialog box:
   - To alert the administrator and block buffer overflows, select the **Detect buffer overflows** check box and clear the **Alert only, do not block** check box.

- To alert the administrator, but not block buffer overflows, select both the **Detect buffer overflows** check box and the **Alert only, do not block** check box.

7.1.5 Sophos Live Protection

Sophos Live Protection uses in-the-cloud technology to instantly decide whether a suspicious file is a threat and take action specified in the anti-virus and HIPS policy.

Live Protection improves detection of new malware without the risk of unwanted detections. This is achieved by doing an instant lookup against the very latest known malicious files. When new malware is identified, Sophos can send out updates within seconds.

To take full advantage of Live Protection, you must ensure that the following options are enabled.

- **Enable Live Protection**

  If on-access scanning on an endpoint computer has identified a file as suspicious, but cannot further identify it as either clean or malicious based on the threat identity (IDE) files stored on the computer, certain file characteristics such as checksum are sent to Sophos to assist with further analysis. The in-the-cloud checking performs an instant lookup of a suspicious file in the SophosLabs database. If the file is identified as clean or malicious, the decision is sent back to the computer and the status of the file is automatically updated.

  Important: The Malicious Traffic Detection and Download Reputation features require Live Protection to be enabled in order to perform instant lookups in the SophosLabs online database and obtain the latest threat or reputation data.

- **Enable Live Protection for on-demand scanning**

  If you want on-demand scans to use the same in-the-cloud checking as on-access scanning, select this option.

- **Automatically send file samples to Sophos**

  If a file is deemed potentially malicious but cannot be positively identified as malicious based on its characteristics alone, Live Protection allows Sophos to request a sample of the file. When Live Protection is enabled, if this option is enabled and Sophos does not already hold a sample of the file, the file is submitted automatically.

  Submission of such sample files helps Sophos to continuously enhance detection of malware without the risk of false positives.

  Note: The maximum sample size is 10 MB. The timeout for sample upload is 30 seconds. It is not recommended to automatically send samples over a slow connection (less than 56 Kbps).

Important: You must ensure that Sophos domain to which the file data is sent is trusted in your web filtering solution. For details, see support knowledgebase article 62637 (http://www.sophos.com/en-us/support/knowledgebase/62637.aspx).

If you use a Sophos web filtering solution, for example the WS1000 Web Appliance, you do not need to do anything - Sophos domains are already trusted.

7.1.5.1 Turn Sophos Live Protection on or off

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Sophos Live Protection checks suspicious files against the latest information in the SophosLabs database.

By default, Live Protection sends file data such as checksums to Sophos for checking, but does not send sample files for analysis. To take full advantage of Live Protection, you should select the option to send sample files.

To turn Live Protection options on or off:

1. Check which anti-virus and HIPS policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**. Then double-click the policy you want to change.
3. In the **Anti-virus and HIPS Policy** dialog box, click the **Sophos Live Protection** button.
4. In the **Sophos Live Protection** dialog box:
   - Select or clear the **Enable Live Protection**check box. This turns Live Protection on or off for on-access scanning.

     Important: The Malicious Traffic Detection and Download Reputation features require Live Protection to be enabled in order to perform instant lookups in the SophosLabs online database and obtain the latest threat or reputation data.

   - Select or clear the **Enable Live Protection for on-demand scanning** check box. This turns Live Protection on or off for on-demand scans.
   - Select or clear the **Automatically send file samples to Sophos** check box.

     The samples can be sent only when Live Protection is enabled.

   Note: When a file sample is sent to Sophos for online scanning, the file data (the checksum etc.) is always sent with the sample.

7.1.6 Web protection

Web protection provides enhanced protection against web threats. It includes the following features:

- Live URL filtering
- Scanning of downloaded content
- Checking of the reputation of downloaded files

Live URL filtering

Live URL filtering blocks access to websites that are known to host malware. This feature works by performing a real-time lookup against Sophos's online database of infected websites.

Note: If you want to have more control over which websites users are allowed to access, for example, if you wish to protect users from visiting websites for which your organization could be legally liable, use the Web Control feature. For more information, see Web control policy (page 169).

Content scanning

Content scanning scans data and files downloaded from the internet (or intranet) and proactively detects malicious content. This feature scans content hosted at any location, including locations not listed in the database of infected websites.

Download reputation

Download reputation is calculated based on the file's age, source, prevalence, deep content analysis and other characteristics.

Note: Download reputation is supported only on Windows 7 and later.

By default, an alert will be displayed when you attempt to download a file with low or unknown reputation. We recommend that you do not download such files. If you trust the file's source and publisher, you can choose to download the file. Your action and the file's URL will be recorded in the scanning log.

Note: Download reputation is calculated based on the data in the SophosLabs' in-the-cloud database and requires Sophos Live Protection to be enabled in order to perform lookups and obtain the data. (By default, Sophos Live Protection is enabled.)

For more information about download reputation, see knowledgebase article 121319.

Web protection configuration settings

By default, web protection is enabled: access to malicious websites is blocked, downloaded content is scanned and the reputation of downloaded files is checked.

For more information about the web protection settings and how to change them, see Configure web protection options (page 104).

Supported web browsers

Web protection is supported on the following web browsers:

- Internet Explorer
- Edge
- Google Chrome

- Firefox (except for download reputation)
- Safari (except for download reputation)
- Opera

Web content accessed via an unsupported browser is not filtered and will not be blocked.

Web protection events

When access to a malicious website is blocked, an event is logged that can be viewed in the Web Event Viewer and in the **Computer details** of the endpoint computer where the event occurred. If you use the Web Control feature, both web protection and web control events are displayed in the Web Event Viewer and **Computer details**. See View web events (page 195) and View latest web events on a computer (page 197).

7.1.6.1 Configure web protection options

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To turn web protection on or off:

1. Check which anti-virus and HIPS policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.
4. In the **Anti-virus and HIPS** policy dialog box, click the **Web Protection** button.
5. In the **Web Protection** dialog box, under **Malware protection**, next to **Block access to malicious websites**, select **On** or **Off** to block or unblock access to malicious websites. This option is enabled by default.

   For information on how to authorize specific websites, see Authorize websites (page 112).

6. To enable or disable scanning of downloaded data and files, next to **Content scanning**, select **As on-access scanning**, **On**, or **Off**.

   By default, **As on-access scanning** is selected, that is, content scanning is disabled or enabled simultaneously with on-access scanning.

7. To change what happens when a user attempts to download a file with low or unknown reputation, under **Download reputation**, next to **Action**, select either **Prompt user** (default) or **Log only**.

Note: Download reputation requires Sophos Live Protection to be enabled. (By default, Sophos Live Protection is enabled.)

- If you select **Prompt user**, every time a user attempts to download a low reputation file, an alert will be displayed, informing about this and asking whether to block or allow the download. We recommend that users do not download such files. If they trust the file's source and publisher, they can choose to download the file. The choice to block or allow the download and the file's URL will be recorded in the scanning log and logged as a web event in Enterprise Console.
- If you select **Log only**, no alert will be displayed; the download will be allowed and recorded in the scanning log and logged as a web event in Enterprise Console.

8. To choose how rigorous you want reputation scanning to be, next to **Threshold**, select **Recommended** (default) or **Strict**.
   - If you select **Recommended**, an alert will be displayed and/or a log record and event created every time a user attempts to download a file with low or unknown reputation.
   - If you select **Strict**, an alert will be displayed and/or a log record and event created every time a user attempts to download a file with low, unknown, or medium reputation.

7.1.7 Scanned file types and exclusions

By default, Sophos Endpoint Security and Control scans file types that are vulnerable to viruses. The file types that are scanned by default not only differ between operating systems, but also change as the product is updated.

To see a list of the file types that are scanned by default, go to a computer with the relevant operating system, open Sophos Endpoint Security and Control or Sophos Anti-Virus, and then look for the extensions configuration page.

You can also choose to scan additional file types or exempt some file types from scanning.

Windows

To see a list of the file types scanned by default on a Windows computer:

1. Open Sophos Endpoint Security and Control.
2. Under **Anti-virus and HIPS**, click **Configure anti-virus and HIPS**, and then click **On-demand extensions and exclusions**.

For information about scanning additional file types or exempting some file types from scanning on a Windows computer, see the following topics:

- Specify on-access scanning file extensions (page 87)
- Specify file extensions for on-demand and scheduled scanning (page 94)

Mac OS X

Sophos Anti-Virus for Mac OS X scans all file extensions during on-access scanning. To change the settings for scheduled scanning, see Specify file extensions for on-demand and scheduled scanning (page 94).

Linux or UNIX

To make changes on a Linux computer, use the **savconfig** and **savscan** commands as described in the Sophos Anti-Virus for Linux configuration guide.

To make changes on a UNIX computer, use the **savscan** command as described in the Sophos Anti-Virus for UNIX configuration guide.

7.1.7.1 Items that can be excluded from scanning

On each type of computer, there are different limitations on the items that you can exclude from scanning.

Windows

On Windows, you can exclude drives, folders and files.

You can use the wildcards * and ?

The wildcard ? can be used only in a filename or extension. It generally matches any single character. However, when used at the end of a filename or extension, it matches any single character or no characters. For example file??.txt matches file.txt, file1.txt and file12.txt but not file123.txt.

The wildcard * can be used only in a filename or extension, in the form [filename].* or *.[extension]. For example, file*.txt, file.txt* and file.*txt are invalid.

For more information and examples, see Specifying scanning exclusions for Windows (page 107).

Mac OS X

On Mac OS X, you can exclude files, folders, and volumes.

You can specify which items are excluded by prefixing or suffixing the exclusion with a slash or suffixing the exclusion with a double slash.

For more information, see the *Sophos Anti-Virus for Mac OS X Help*.

Linux or UNIX

On Linux and UNIX, you can exclude directories and files.

You can specify any POSIX path, whether it is a file or a directory, for example, /folder/file. You may use the wildcards ? and *.

Note: Enterprise Console only supports path-based Linux and UNIX exclusions. You can also set up other types of exclusion directly on the managed computers. Then you can use regular expressions, exclude file types and filesystems. For information on how to do this, see the Sophos Anti-Virus for Linux configuration guide or the Sophos Anti-Virus for UNIX configuration guide.

If you set up another path-based exclusion on a managed Linux or UNIX computer, this computer will be reported to the console as differing from the group policy.

For information about excluding items from scanning, see the following topics:

- Exclude items from on-access scanning (page 88)
- Exclude items from on-demand and scheduled scanning (page 95)

7.1.7.2 Specifying scanning exclusions for Windows

Standard naming conventions

Sophos Anti-Virus validates the paths and file names of scanning exclusion items against standard Windows naming conventions. For example, a folder name may contain spaces but may not contain ***only*** spaces.

Multiple file extensions

File names with multiple extensions are treated as if the last extension is the extension and the rest are part of the file name:

`MySample.txt.doc` = file name `MySample.txt` + extension `.doc`.

Excluding specific files, folders, or drives

Exclusion type	Description	Examples	Comments

Specific file	Specify both the path and file name to exclude a specific file. The path can include a drive letter or network share name.	`C:\Documents\CV.doc`
		`\\Server\Users\Documents\CV.doc`
		`\\Server\Users\Documents\CV.doc`
			To make sure that exclusions are always applied correctly, add both the long and 8.3-compliant file and folder names:
			`C:\Program Files\Sophos\Sophos Anti-Virus`
			`C:\Progra~1\Sophos\Sophos~1`
			For more information, see knowledgebase article 13045.

All files with the same name	Specify a file name without a path to exclude all files with that name wherever they are located in the file system.	`spacer.gif`	

Exclusion type	Description	Examples	Comments
Everything on a drive or network share	Specify a drive letter or network share name to exclude everything on that drive or network share.	`C:` `\\Server\<sharename>\`	When you specify a network share, include a trailing slash after the share name.
Specific folder	Specify a folder path including a drive letter or network share name to exclude everything in that folder and below.	`D:\Tools\logs\`	Include a trailing slash after the folder name.
All folders with the same name	Specify a folder path without a drive letter or network share name to exclude everything from that folder and below on ***any*** drive or network share.	`\Tools\logs\` (excludes the following folders: `C:\Tools\logs\`, `\\Server\Tools\logs\`)	You must specify the entire path up to the drive letter or network share name. In this example, specifying `\logs\` would not exclude any files.

Wildcards

You can use the ? and * wildcards.

Use the ? wildcard in a file name or extension to match any single character.

At the end of a file name or extension, the ? wildcard matches any single character or no characters. For example, `file??.txt` matches `file.txt`, `file1.txt`, and `file12.txt`, but not `file123.txt`.

Use the * wildcard in a file name or extension, in the form `[file name].*` or `*.[extension]`:

Correct

`file.*`

`*.txt`

Incorrect

`file*.txt`

`file.txt*`

`file.*txt`

7.1.8 Authorizing items for use

7.1.8.1 Authorize adware and PUAs

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.

- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

If you have enabled Sophos Endpoint Security and Control to detect adware and other potentially unwanted applications (PUAs), it may prevent the use of an application that you require.

To authorize an adware or PUA application:

1. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS Policy** dialog box is displayed.

4. Click **Authorization**.

   The **Authorization Manager** dialog box is displayed.

5. On the **Adware and PUAs** tab, in the **Known adware and PUAs** list, select the application you want to authorize.

   If you cannot see the application that you want to authorize, you can add it to the list of known adware and PUAs yourself. For information on how to do this, see Pre-authorize adware and PUAs (page 109).

6. Click **Add**.

The adware or PUA appears in the **Authorized adware and PUAs** list.

7.1.8.2 Pre-authorize adware and PUAs

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

If you want to allow an application to be used that Sophos Endpoint Security and Control has not yet classified as an adware or PUA, you can pre-authorize it by adding it to the list of authorized adware and PUAs yourself.

1. Go to the Sophos **Adware and PUAs** web page (http://www.sophos.com/en-us/threat-center/threat-analyses/adware-and-puas.aspx).
2. Find, and then copy, the name of the application that you want to pre-authorize.
3. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

4. In the **Policies** pane, double-click **Anti-virus and HIPS**.
5. Double-click the policy you want to change.

   The **Anti-Virus and HIPS Policy** dialog box is displayed.

6. Click **Authorization**.

   The **Authorization Manager** dialog box is displayed.

7. On the **Adware and PUAs** tab, click **New entry**.
8. In the **Add New Adware or PUA** dialog box, paste the application name that you copied in step 2.

The adware or PUA appears in the **Authorized adware and PUAs** list.

If you have made a mistake or simply want to remove an application from the **Authorization Manager**, delete it from the list of known adware and PUAs:

1. In the **Authorized adware and PUAs** list, select the application.
2. Click **Remove**.
3. In the **Known adware or PUAs** list, select the application.
4. Click **Delete entry**.

7.1.8.3 Block authorized adware and PUAs

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To prevent currently-authorized adware and PUAs from running on computers:

1. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**. Then double-click the policy you want to change.
3. In the **Anti-Virus and HIPS Policy** dialog box, click the **Authorization** button.
4. On the **Adware or PUAs** tab, in the **Authorized adware and PUAs** list, select the application you want to block.
5. Click **Remove**.

7.1.8.4 Authorize suspicious items

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

If you have enabled one or more HIPS options (for example, suspicious behavior detection, buffer overflow detection, or suspicious file detection), but you want to use some of the items detected, you can authorize them as follows:

1. Check which anti-virus and HIPS policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS Policy** dialog box is displayed.

4. Click **Authorization**.

   The **Authorization Manager** dialog box is displayed.

5. Click the tab for the type of behavior that has been detected.

   In this example, we'll use **Buffer Overflow**.

6. In the **Known applications** list, select the application you want to authorize.

   If you cannot see the application you want to authorize, you can add it to the list of authorized applications yourself. For information on how to do this, see Pre-authorize potentially suspicious items (page 111).

7. Click **Add**.

The suspicious application appears in the **Authorized applications** list.

7.1.8.5 Pre-authorize potentially suspicious items

If you want to allow the use of an application or file that Sophos Endpoint Security and Control has not yet classified as suspicious, you can pre-authorize it by adding it to the list of authorized items yourself.

1. Check which anti-virus and HIPS policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS Policy** dialog box is displayed.

4. Click **Authorization**.

   The **Authorization Manager** dialog box is displayed.

5. Click the tab for the type of behavior that has been detected.

   In this example, we'll use **Buffer Overflow**.

6. Click **New entry**.

   The **Open** dialog box is displayed.

7. Browse to the application, and then double-click it.

The suspicious application appears in the **Authorized applications** list.

If you have made a mistake or simply want to remove an application from the **Authorization Manager**, delete it from the list of known files:

1. In the **Authorization Manager** dialog box, click the tab for the type of behavior that has been detected.

   In this example, we'll use **Suspicious Files**.

2. In the **Authorized files** list, select the file.
3. Click **Remove**.
4. In the **Known files** list, select the file.
5. Click **Delete entry**.

7.1.8.6 Authorize websites

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

If you want to authorize a website that Sophos has classified as malicious, you can add it to the list of authorized sites. Authorizing a website will prevent URLs from that website being verified with Sophos's online web filtering service.

Caution: Authorizing a website that Sophos has classified as malicious could expose your users to threats. Make sure that it is safe to visit the website before you authorize it.

To authorize a website:

1. Check which anti-virus and HIPS policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Anti-virus and HIPS**.
3. Double-click the policy you want to change.

   The **Anti-Virus and HIPS Policy** dialog box is displayed.

4. Click **Authorization**.

   The **Authorization Manager** dialog box is displayed.

5. On the **Websites** tab, click **Add**.
   - To edit a website entry, select it in the **Authorized websites** list, and then click **Edit**.
   - To delete a website entry, select it in the **Authorized websites** list, and then click **Remove**.

The website appears in the **Authorized websites** list.

Notes

- If you have download scanning enabled and your users visit a website that contains a threat, access to the site will be blocked even if it is listed as an authorized website.

- If you use the web control feature, when you authorize a website that is blocked by your **Web control** policy, the website will still be blocked. To allow access to the website, you will need to exempt it from web control filtering as well as authorize in the anti-virus and HIPS policy. For more information about web control, see Web control policy (page 169).

7.2 Firewall policy

The **Firewall** policy specifies how the firewall protects computers.

By default, the Sophos Client Firewall is enabled and blocks all non-essential traffic. Before you use it throughout your network, you should configure it to allow the applications you want to use. See Set up a basic firewall policy (page 113).

For a full list of the default firewall settings, see knowledgebase article 57757.

Note: A number of features have been removed from Sophos Client Firewall 3.0 for Windows 8 and later and are available only to computers running Windows 7 or earlier. These features are:

- Interactive mode
- Hidden process detection
- Modified memory detection
- Rawsocket applications (rawsockets are treated the same as other connections)
- Non-stateful rules
- The option **Concurrent connections** for TCP rules
- The option **Where the local port is equal to the remote port**

7.2.1 Basic firewall configuration

7.2.1.1 Set up a basic firewall policy

By default, the firewall is enabled and blocks all non-essential traffic. Therefore, you should configure it to allow the applications you want to use, and test it before installing it on all computers. See the Sophos Enterprise Console policy setup guide for detailed advice.

For more information about the default firewall settings, see Sophos knowledgebase article 57757.

For information about preventing network bridging, see Device control policy (page 159).

Important: When you apply a new or updated policy to computers, applications that were allowed before may be blocked briefly until the new policy is fully applied. You should notify your users about this before you apply new policies.

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information about role-based administration, see Managing roles and sub-estates (page 18).

To set up a basic firewall policy:

1. In the **Policies** pane, double-click **Firewall**.
2. Double-click the **Default** policy to edit it.

   The **Firewall Policy** wizard appears. Follow the instructions on the screen. There is additional information on some of the options below.

3. On the **Configure firewall** page, select the type of location:
   - Select **Single location** for computers that are always on the network, for example, desktops.
   - Select **Dual location** if you want the firewall to use different settings according to the location where computers are used, for example, in the office (on the network) and out of office (off the network). You may want to set up dual location for laptops.
4. On the **Operational mode** page, select how the firewall will handle inbound and outbound traffic:

Mode	Description
Block inbound and outbound traffic	▪ Default level. Offers the highest security. ▪ Only allows essential traffic through the firewall and authenticates the identity of applications using checksums. ▪ To allow applications commonly used in your organization to communicate through the firewall, click **Trust**. For more information, see About trusting applications (page 120).
Block inbound and allow outbound traffic	▪ Offers a lower security level than **Block inbound and outbound traffic**. ▪ Allows your computers to access the network and internet without you having to create special rules. ▪ All applications are allowed to communicate through the firewall.
Monitor	▪ Applies to network traffic the rules that you have set up. If traffic has no matching rule, it is reported to the console, and only allowed if it is outbound. ▪ Enables you to collect information about your network, and to then create suitable rules before deploying the firewall to your computers. For more information, see About using monitor mode (page 115).

5. On the **File and printer sharing** page, select **Allow file and printer sharing** if you want to allow computers to share local printers and folders on the network.

After you have set up the firewall, you can view firewall events (for example, applications blocked by the firewall) in the **Firewall - Event Viewer**. For details, see View firewall events (page 191).

The number of computers with events over a specified threshold within the last seven days is also displayed on the Dashboard.

7.2.1.2 About using monitor mode

You can enable monitor mode on test computers and use the Firewall Event Viewer to view which traffic, applications, and processes are being used.

You can then use the Event Viewer to create rules that allow or block reported traffic, applications, and processes, as described in Create a firewall event rule (page 118).

Note: When you create a rule using the Firewall Event Viewer and add it to the firewall policy, the firewall mode changes from **Monitor** to **Custom**.

If you do not want to allow unknown traffic by default, you can use *interactive mode*.

In interactive mode, the firewall prompts the user to allow or block any applications and traffic for which it does not have a rule. For details, see Interactive mode (page 119).

7.2.1.3 Add and trust an application

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Trusted applications are allowed full and unconditional network access, including access to the internet.

To add an application to the firewall policy and trust it:

1. Check which firewall policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Firewall**, and then double-click the policy you want to change.
3. On the **Operational mode** page of the **Firewall Policy** wizard, click **Trust**.

   The **Firewall Policy** dialog box appears.
4. Click **Add**.

   The **Firewall policy - Add trusted application** dialog box appears.
5. In the **Search period** field, click the drop-down arrow and select the period for which you want to display application events.

   You can either select a fixed period, for example, **Within 24 hours**, or select **Custom** and specify your own time period by selecting the starting and ending dates and times.
6. If you want to view application events of a certain type, in the **Event type** field, click the drop-down arrow and select the event type.

7. If you want to view application events for a certain file, in the **File name** field, enter the file name.

   If you leave this field empty, application events for all files will be displayed.

   You can use wildcards in this field. Use ? for any single character and * for any string of characters.
8. Click **Search** to display a list of application events.
9. Select an application event, and then click **OK**.

The application is added to the firewall policy and marked as **Trusted**.

7.2.1.4 Allow all traffic on a LAN

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To allow all traffic between computers on a LAN (Local Area Network):

1. Check which firewall policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Firewall**, and then double-click the policy you want to change.
3. On the **File and printer sharing** page of the **Firewall Policy** wizard, select **Use custom settings**, and then click **Custom**.
4. In the **LAN settings** list, select the **Trusted** check box for a network.

Note: If you allow all traffic between the computers on a LAN, you also allow file and printer sharing on it.

7.2.1.5 Allow file and printer sharing

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To allow computers to share local printers and folders on the network:

1. Check which firewall policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Firewall**, and then double-click the policy you want to change.
3. On the **File and printer sharing** page of the **Firewall Policy** wizard, select **Allow file and printer** sharing.

7.2.1.6 Allow flexible control of file and printer sharing

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

If you want more flexible control of file and printer sharing on your networks (for example, uni-directional NetBIOS traffic), you can do the following:

- Allow file and printer sharing on other LANs (Local Area Networks) than those in the **LAN settings** list. This allows NetBIOS traffic on those LANs to be processed by the firewall rules.
- Create high-priority global rules which allow communication to/from hosts with the appropriate NetBIOS ports and protocols. We recommend that you create global rules to explicitly block all unwanted file and printer sharing traffic rather than let it be handled by the default rule.

To allow file and printer sharing on other LANs than those in the **LAN settings** list:

1. Check which firewall policy is used by the group(s) of computers you want to configure.
   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Firewall**, and then double-click the policy you want to change.
3. On the **File and printer sharing** page of the **Firewall Policy** wizard, select **Use custom settings**, and then click **Custom**.
4. Clear the **Block file and printer sharing for other networks** check box.

7.2.1.7 Block unwanted file and printer sharing

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To block file and printer sharing on LANs other than those specified in the **LAN settings** list on the **LAN** tab:

1. Check which firewall policy is used by the group(s) of computers you want to configure.
   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Firewall**, and then double-click the policy you want to change.
3. On the **File and printer sharing** page of the **Firewall Policy** wizard, select **Use custom settings**, and then click **Custom**.
4. Select the **Block file and printer sharing for other networks** check box.

7.2.1.8 Create a firewall event rule

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can create rules for all firewall events except the “modified memory” events.

To create a firewall event rule:

1. On the **Events** menu, click **Firewall Events**.
2. In the **Firewall - Event Viewer** dialog box, select an event for the application you want to create a rule for and click **Create Rule**.
3. In the dialog box that appears, select an option that you want to apply to the application.
4. Select which location you want to apply the rule to (primary, secondary, or both). If you select to apply the rule to the secondary location or both locations, the rule will be added only to policies which have a secondary location configured. Click **OK**.

   Note: The “new application” and “modified application” events are location independent (they add checksums which are shared between both locations). You cannot select a location for these events.

5. From the list of firewall policies, select a policy or policies which you want to apply the rule to. Click **OK**.

   Note: You cannot add a rule to a policy that is applied outside your active sub-estate.

Note: If you want to create an application rule directly from a firewall policy, using the advanced firewall policy configuration pages, see Create an application rule from a firewall policy (page 133).

7.2.1.9 Temporarily disable the firewall

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

By default, the firewall is enabled. Occasionally, you may need to temporarily disable the firewall for maintenance or troubleshooting, and then re-enable it.

To turn the firewall off for a group of computers:

1. Check which firewall policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Firewall**. Then double-click the policy you want to change.

   The **Firewall Policy** wizard appears.

3. On the welcome page of the wizard, do one of the following:
   - If you want to turn the firewall off for all locations you have set up (primary location and secondary location, if you configured one), click **Next**. On the **Configure firewall** page, select **Allow all traffic (the firewall is turned off)**. Complete the wizard.
   - If you want to turn the firewall off for one of the locations (primary or secondary), click the **Advanced firewall policy** button. In the **Firewall Policy** dialog box that appears, select **Allow all traffic** next to **Primary location** or **Secondary location**. Click **OK**. Complete the **Firewall Policy** wizard.

If you disable the firewall, your computers are unprotected until you re-enable it. To enable the firewall, clear the **Allow all traffic** check box.

7.2.2 Advanced firewall configuration

7.2.2.1 Open the advanced configuration pages

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

If you want to have greater control over the firewall settings and the ability to fine-tune them, you can use the advanced firewall policy configuration pages to configure the firewall.

To open the advanced firewall configuration pages:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.

7.2.2.2 Interactive mode

On computers running Windows 7 or earlier, you can enable interactive mode. The firewall then displays a learning dialog on the endpoint computer each time an unknown application or service requests network access. The learning dialog asks the user whether to allow or block the traffic, or whether to create a rule for that type of traffic.

Note: On Windows 8 and later, interactive mode is not available. You must add specific policy rules to allow or block applications. You can use the **Firewall - Event Viewer** to manage application rules interactively, as described in Create a firewall event rule (page 118).

7.2.2.2.1 Enable interactive mode

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

The firewall can work in interactive mode, asking the user how to deal with detected traffic. For more information, see Interactive mode (page 119).

To put the firewall in interactive mode on a group of computers:

1. Check which firewall policy is used by the group(s) of computers you want to configure.
   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Firewall**, and then double-click the policy you want to change.
3. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
4. Under **Configurations**, click **Configure** next to the location that you want to configure.
5. On the **General** tab, under **Working mode**, click **Interactive**.

7.2.2.2.2 Change to a non-interactive mode

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

There are two non-interactive modes:

- Allow by default
- Block by default

In the non-interactive modes, the firewall deals with network traffic automatically using your rules. Network traffic which has no matching rule is either all allowed (if it is outbound) or all blocked.

To change to a non-interactive mode on a group of computers:

1. In the **Policies** pane, double-click **Firewall**, and then double-click the policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location that you want to configure.
4. Click the **General** tab.
5. Under **Working mode**, click **Allow by default** or **Block by default**.

7.2.2.3 Configuring the firewall

7.2.2.3.1 About trusting applications

To help provide security for your computers, the firewall blocks traffic from unrecognised applications on your computers. However, applications commonly used in your organization may be blocked, thus preventing users from performing their everyday tasks.

You can *trust* these applications, so that they can communicate through the firewall. Trusted applications are allowed full and unconditional access to the network and the internet.

Note: For greater security, you can apply one or more application rules to specify the conditions under which the application can run. For information on how to do this, see Application rules (page 132).

7.2.2.3.2 Add an application to a firewall policy

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To add an application to a firewall policy:

1. Check which firewall policy is used by the group(s) of computers you want to configure.
   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Firewall**, and then double-click the policy you want to change.
3. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
4. Under **Configurations**, click **Configure** next to the location that you want to configure.
5. Click the **Applications** tab.
6. Click **Add**.

   The **Firewall Policy - Add application** dialog box appears.
7. In the **Search period** field, click the drop-down arrow and select the period for which you want to display application events.

   You can either select a fixed period, for example, **Within 24 hours**, or select **Custom** and specify your own time period by selecting the starting and ending dates and times.
8. If you want to view application events of a certain type, in the **Event type** field, click the drop-down arrow and select the event type.
9. If you want to view application events for a certain file, in the **File name** field, enter the file name.

   If you leave this field empty, application events for all files will be displayed.

   You can use wildcards in this field. Use ? for any single character and * for any string of characters.
10. Click **Search** to display a list of application events.
11. Select an application event, and then click **OK**.

- The application is added to the firewall policy and marked as **Trusted**.
- The application's checksum is added to the list of allowed checksums.

7.2.2.3.3 Remove an application from a firewall policy

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To remove an application from a firewall policy:

1. Check which firewall policy is used by the group(s) of computers you want to configure.
   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Firewall**, and then double-click the policy you want to change.
3. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
4. Under **Configurations**, click **Configure** next to the location that you want to configure.
5. Click the **Applications** tab.
6. Select the application in the list, and then click **Remove**.

7.2.2.3.4 Trust an application

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To trust an application on a group of computers:

1. Check which firewall policy is used by the group(s) of computers you want to configure.
   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Firewall**, and then double-click the policy you want to change.
3. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
4. Under **Configurations**, click **Configure** next to the location that you want to configure.
5. Click the **Applications** tab.
   If the application is not in the list, follow the instructions in Add an application to a firewall policy (page 121) to add it.
6. Select the application in the list, and then click **Trust**.

- The application is added to the firewall policy and marked as **Trusted**.
- The application's checksum is added to the list of allowed checksums.

Trusted applications are allowed full and unconditional network access, including access to the internet. For greater security, you can apply one or more *application rules* to specify the conditions under which the application can run.

- Create an application rule (page 132)
- Apply preset application rules (page 135)

7.2.2.3.5 Trust an application using the Firewall Event Viewer

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

If the firewall reports an unknown application or blocks an application on your networked computers, an event is displayed in the Firewall Event Viewer. This topic describes how to trust an application from the Firewall Event Viewer and apply the new rule to your chosen firewall policies.

To find details of reported or blocked applications in the Firewall Event Viewer, and trust them or create new rules for them:

1. On the **Events** menu, click **Firewall Events**.
2. In the **Firewall - Event Viewer** dialog box, select the entry for the application you want to trust or create a rule for, and then click **Create Rule**.
3. In the dialog box that appears, select whether to trust the application or create a rule for it using an existing preset.
4. From the list of firewall policies, select the firewall policies to which you want to apply the rule. To apply the rule to all policies, click **Select All** and then click **OK**.

- If you are using checksums, you may have to add the application's checksum to the list of allowed checksums. See Add an application checksum (page 125).
- You can also add an application as trusted directly in a firewall policy, using the advanced firewall policy configuration pages. See Create an application rule from a firewall policy (page 133).

7.2.2.3.6 Block an application

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To block an application on a group of computers:

1. Check which firewall policy is used by the group(s) of computers you want to configure.
   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Firewall**, and then double-click the policy you want to change.
3. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
4. Under **Configurations**, click **Configure** next to the location that you want to configure.
5. Click the **Applications** tab.
   If the application is not in the list, follow the instructions in Add an application to a firewall policy (page 121) to add it.
6. Select the application in the list, and then click **Block**.

7.2.2.3.7 Allow applications to launch hidden processes

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

An application sometimes launches another hidden process to perform some network access for it.

Malicious applications can use this technique to evade firewalls: they launch a trusted application to access the network rather than doing so themselves.

To allow applications to launch hidden processes, follow these steps.

Note: This option is not available on Windows 8 and later as it is handled automatically by the Sophos Anti-Virus HIPS technology.

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **Processes** tab.
5. In the upper area, click **Add**.

   The **Firewall Policy - Add application** dialog box appears.

6. In the **Search period** field, click the drop-down arrow and select the period for which you want to display application events.

   You can either select a fixed period, for example, **Within 24 hours**, or select **Custom** and specify your own time period by selecting the starting and ending dates and times.

7. If you want to view application events for a certain file, in the **File name** field, enter the file name.

   If you leave this field empty, application events for all files will be displayed.

   You can use wildcards in this field. Use ? for any single character and * for any string of characters.

8. Click **Search** to display a list of application events.
9. Select an application event, and then click **OK**.

If you enable interactive mode, the firewall can display a learning dialog on the endpoint computer when it detects a new launcher. For details, see Enable interactive mode (page 119). The interactive mode is not available on Windows 8 and later.

7.2.2.3.8 Allow applications to use rawsockets

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Some applications can access a network through rawsockets, which gives them control over all aspects of the data they send over the network.

Malicious applications can exploit rawsockets by faking their IP address or send deliberately corrupt messages.

To allow applications to access the network through rawsockets, follow these steps.

Note: This option is not available on Windows 8 and later. The firewall will treat rawsockets in the same way as ordinary sockets.

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.

4. Click the **Processes** tab.
5. In the lower area, click **Add**.

   The **Firewall Policy - Add application** dialog box appears.

6. In the **Search period** field, click the drop-down arrow and select the period for which you want to display application events.

   You can either select a fixed period, for example, **Within 24 hours**, or select **Custom** and specify your own time period by selecting the starting and ending dates and times.

7. If you want to view application events for a certain file, in the **File name** field, enter the file name.

   If you leave this field empty, application events for all files will be displayed.

   You can use wildcards in this field. Use ? for any single character and * for any string of characters.

8. Click **Search** to display a list of application events.
9. Select an application event, and then click **OK**.

If you enable interactive mode, the firewall can display a learning dialog on the endpoint computer when a rawsocket is detected. For details, see Enable interactive mode (page 119).

7.2.2.3.9 Add an application checksum

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Each version of an application has a unique checksum. The firewall can use this checksum to decide whether an application is allowed or not.

By default, the firewall checks the checksum of each application that runs. If the checksum is unknown or has changed, the firewall blocks it.

To add a checksum to the list of allowed checksums:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Click the **Checksums** tab.
4. Click **Add**.

   The **Firewall Policy - Add application checksum** dialog box appears.

5. In the **Search period** field, click the drop-down arrow and select the period for which you want to display application events.

   You can either select a fixed period, for example, **Within 24 hours**, or select **Custom** and specify your own time period by selecting the starting and ending dates and times.

6. In the **Event type** field, click the drop-down arrow and select whether you want to add a checksum for a modified application or a new application.

7. If you want to view application events for a certain file, in the **File name** field, enter the file name.

   If you leave this field empty, application events for all files will be displayed.

   You can use wildcards in this field. Use ? for any single character and * for any string of characters.

8. Click **Search** to display a list of application events.
9. Select the application event for which you want to add a checksum, and then click **OK**.

The application checksum is added to the list of allowed checksums in the **Firewall Policy** dialog box.

If you enable interactive mode, the firewall can display a learning dialog on the endpoint computer when it detects a new or modified application. For details, see Enable interactive mode (page 119).

7.2.2.3.10 Turn blocking of modified processes on or off

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Malware may attempt to evade the firewall by modifying a process in memory that has been initiated by a trusted program, and then using the modified process to access the network on its behalf.

You can configure the firewall to detect and block processes that have been modified in memory.

To turn blocking of modified processes on or off:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. On the **General** tab, under **Blocking**, clear the **Block processes if memory is modified by another application** check box to turn blocking of modified processes off.

   To turn blocking of modified processes on, select the check box.

If the firewall detects that a process has been modified in memory, it adds rules to prevent the modified process from accessing the network.

Notes

- We do not recommend that you turn blocking of modified processes off permanently. You should turn it off only when you need to.
- Blocking of modified processes is not supported on 64-bit versions of Windows and on Windows 8 and later. On Windows 8 and later it is handled automatically by the Sophos Anti-Virus HIPS technology.
- Only the modified process is blocked. The modifying program is not blocked from accessing the network.

7.2.2.3.11 Turn the use of checksums on or off

By default, the firewall uses checksums to authenticate applications. When you trust or block applications, they are identified by their checksums automatically (you can also manually add checksums). If the application does not match a checksum, it is blocked.

If you disable this option, applications are identified by their filename.

To turn the use of checksums to authenticate applications on or off:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. On the **General** tab, under **Blocking**, select or clear the **Use checksums to authenticate applications** check box.

7.2.2.3.12 Allow or block IPv6 packets

To allow or block IPv6 packets:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. On the **General** tab, under **Blocking**, clear or select the **Block IPv6 packets** check box.

7.2.2.3.13 Filter ICMP messages

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Internet Control Message Protocol (ICMP) messages allow the computers on a network to share error and status information. You can allow or block specific types of incoming or outgoing ICMP message.

You should only filter ICMP messages if you are familiar with networking protocols. For explanations of the ICMP message types, see Explanation of ICMP message types (page 128).

To filter ICMP messages:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. On the **ICMP** tab, select the **In** or **Out** check box to allow incoming or outgoing messages of the specified type.

7.2.2.3.14 Explanation of ICMP message types

Echo Request, Echo Reply	Used to test destination accessibility and status. A host sends an **Echo Request** and listens for a corresponding **Echo Reply**. This is most commonly done using the **`ping`** command.
Destination Unreachable, Echo Reply	Sent by a router when it cannot deliver an IP datagram. A datagram is the unit of data, or packet, transmitted in a TCP/IP network.
Source Quench	Sent by a host or router if it is receiving data too quickly for it to handle. The message is a request that the source reduce its rate of datagram transmission.
Redirect Message	Sent by a router if it receives a datagram that should have been sent to a different router. The message contains the address to which the source should direct future datagrams. This is used to optimize the routing of network traffic.
Router Advertisement, Router Solicitation	Allow hosts to discover the existence of routers. Routers periodically broadcast their IP addresses via **Router Advertisement** messages. Hosts may also request a router address by broadcasting a **Router Solicitation** message to which a router replies with a **Router Advertisement**.
Time Exceeded	Sent by a router if the datagram has reached the maximum limit of routers through which it can travel.
Parameter Problem	Sent by a router if a problem occurs during the transmission of a datagram such that it cannot complete processing. One potential source of such a problem is invalid datagram header.
Timestamp Request, Timestamp Reply	Used to synchronize the clocks between hosts and to estimate transit time.
Information Request, Information Reply	Obsolete. These messages were used earlier by hosts to determine their inter-network addresses, but are now considered outdated and should not be used.
Address Mask Request, Address Mask Reply	Used to find the mask of the subnet (i.e. what address bits define the network). A host sends an **Address Mask Request** to a router and receives an **Address Mask Reply** in return.

7.2.2.4 Firewall rules

Global rules

Global rules apply to all network communications and to applications even if they have application rules.

Application rules

You can have one or more rules for an application. You can either use preset rules created by Sophos or create custom rules to give you fine control over the access allowed for an application.

For information about the settings for the default global and application rules, see Sophos knowledgebase article 57757.

7.2.2.4.1 The order in which rules are applied

For connections that use rawsockets, only the global rules are checked.

For connections that do *not* use rawsockets, various rules are checked, depending on whether the connection is to a network address that is listed on the **LAN** tab or not.

If the network address is listed on the **LAN** tab, the following rules are checked:

- If the address has been marked as **Trusted**, all traffic on the connection is allowed with no further checks.
- If the address has been marked as **NetBIOS**, file and printer sharing on any connection that meets the following criteria is allowed:

Connection	Port	Range
TCP	Remote	137-139 or 445
TCP	Local	137-139 or 445
UDP	Remote	137 or 138
UDP	Local	137 or 138

If the network address is *not* listed on the **LAN** tab, other firewall rules are checked in the following order:

1. Any **NetBIOS** traffic that has not been allowed using the **LAN** tab is dealt with according to the setting of the **Block file and printer sharing for other networks** check box:
   - If the check box is selected, the traffic is blocked.
   - If the check box is cleared, the traffic is processed by the remaining rules.
2. The high-priority global rules are checked, in the order in which they are listed.
3. If the connection has not already had rules applied to it, the application rules are checked.
4. If the connection has still not been handled, the normal-priority global rules are checked, in the order in which they are listed.
5. If no rules have been found to handle the connection:
   - In **Allow by default** mode, the traffic is allowed (if it is outbound).
   - In **Block by default** mode, the traffic is blocked.
   - In **Interactive** mode, the user is asked to decide. This mode is not available on Windows 8 and later.

Note: If you have not changed the working mode, the firewall will be in **Block by default** mode.

7.2.2.4.2 Local network detection

Note: This feature is not available on Windows 8 and later.

You can assign the local network for a computer to firewall rules.

When the firewall starts, it determines the computer's local network, and then monitors for any changes whilst it is running. If any change is detected, the firewall updates any local network rules with the new local network address range.

Caution: We strongly advise caution when using local network rules as part of secondary configurations. If the computer is a laptop, and it is used out of the office, it may connect to an unknown local network. If this happens, firewall rules in the secondary configuration that use the local network as an address may inadvertently allow unknown traffic.

7.2.2.4.3 Global rules

7.2.2.4.3.1 Create a global rule

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Important: We recommend that you create global rules only if you are familiar with networking protocols.

Global rules apply to all network communications and to applications which do not already have a rule.

To create a global rule:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **Global Rules** tab.
5. Click **Add**.
6. Under **Rule name**, type a name for the rule.

   The rule name must be unique within the list of rules. Two global rules cannot have the same name.
7. To apply the rule before any application rules or normal priority global rules, select the **High priority rule** check box.

   For information on the order in which rules are applied, see The order in which rules are applied (page 129).
8. Under **Select the events the rule will handle**, select the conditions that the connection must match for the rule to apply.
9. Under **Select the actions with which the rule will respond**, select either **Allow it** or **Block it**.

10. Do one of the following:
    - To allow other connections to and from the same remote address while the initial connection exists, select **Concurrent connections**.

      Note: This option is only available for TCP rules, which are stateful by default.
    - To intelligently allow replies from the remote computer based on the initial connection, select **Stateful inspection**.

      Note: This option is only available for UDP and IP rules.

    Note:

    On Windows 8 and later, these options do not apply as **Stateful inspection** is always used and **Concurrent connections** are not supported.
11. Under **Rule description**, click an underlined value. For example, if you click the **Stateful TCP** link, the **Select Protocol** dialog box opens.

7.2.2.4.3.2 Edit a global rule

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Important: We recommend that you change global rules only if you are familiar with networking protocols.

To edit a global rule:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **Global Rules** tab.
5. In the **Rule** list, select the rule that you want to edit.
6. Click **Edit**.

   For information on the global rule settings, see Sophos knowledgebase article 57757.

7.2.2.4.3.3 Copy a global rule

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To copy a global rule and append it to the list of rules:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.

3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **Global Rules** tab.
5. In the **Rule** list, select the rule that you want to copy.
6. Click **Copy**.

7.2.2.4.3.4 Delete a global rule

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **Global Rules** tab.
5. In the **Rule** list, select the rule that you want to delete.
6. Click **Remove**.

7.2.2.4.3.5 Change the order in which global rules are applied

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Global rules are applied in the order in which they appear from top to bottom in the list of rules.

To change the order in which the global rules are applied:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **Global Rules** tab.
5. In the **Rule** list, click the rule that you want to move up or down in the list.
6. Click **Move Up** or **Move Down**.

7.2.2.4.4 Application rules

7.2.2.4.4.1 Create an application rule

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To create a custom rule which allows fine control over the access allowed for an application:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **Applications** tab.
5. Select the application in the list, and then click **Custom**.
6. In the **Application Rules** dialog box, click **Add**.
7. Under **Rule name**, type a name for the rule.

   The rule name must be unique within the list of rules. Two application rules cannot have the same name, but two applications can each have a rule with the same name.
8. Under **Select the events the rule will handle**, select the conditions that the connection must match for the rule to apply.
9. Under **Select the actions with which the rule will respond**, select either **Allow it** or **Block it**.
10. Do one of the following:

    - To allow other connections to and from the same remote address while the initial connection exists, select **Concurrent connections**.

      Note: This option is only available for TCP rules, which are stateful by default.

    - To intelligently allow replies from the remote computer based on the initial connection, select **Stateful inspection**.

      Note: This option is only available for UDP and IP rules.

    Note:

    On Windows 8 and later, these options do not apply as **Stateful inspection** is always used and **Concurrent connections** are not supported.
11. Under **Rule description**, click an underlined value. For example, if you click the **Stateful TCP** link, the **Select Protocol** dialog box opens.

7.2.2.4.4.2 Create an application rule from a firewall policy

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can create an application rule directly from a firewall policy using the advanced firewall policy configuration pages.

To create an application rule from a firewall policy:

1. Double-click the policy you want to change.
2. On the welcome page of the **Firewall Policy** wizard, click the **Advanced firewall policy** button.

3. In the **Firewall Policy** dialog box that appears, click **Configure** next to the location for which you want to configure the firewall.
4. Do one of the following:
   - If you want to add an application to the firewall policy, in the dialog box that appears, go to the **Applications** tab and click **Add**.
   - If you want to allow an application to launch hidden processes, go to the **Processes** tab and click **Add** in the upper area.
   - If you want to allow an application to access the network using rawsockets, go to the **Processes** tab and click **Add** in the lower area.

   The **Firewall policy - Add application** dialog box appears.
5. If you are adding an application, in the **Event type** box, select whether you want to add a modified application, a new application, or an application for which there is no application rule set up in the firewall policy.
6. Select an entry for the application you want to add or allow to launch hidden processes or use rawsockets, and click **OK**.

   The application is added to the firewall policy.

If you added an application on the **Applications** tab, the application is added as trusted. If you want, you can block it or create a custom rule for it.

7.2.2.4.4.3 Edit an application rule

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **Applications** tab.
5. Select the application in the list, and then click **Custom**.
6. In the **Application Rules dialog box**, click **Edit**.
7. Under **Rule name**, type a name for the rule.

   The rule name must be unique within the list of rules. Two application rules cannot have the same name, but two applications can each have a rule with the same name.
8. Under **Select the events the rule will handle**, select the conditions that the connection must match for the rule to apply.
9. Under **Select the actions with which the rule will respond**, select either **Allow it** or **Block it**.

10. Do one of the following:
    - To allow other connections to and from the same remote address while the initial connection exists, select **Concurrent connections**.

      Note: This option is only available for TCP rules, which are stateful by default.
    - To intelligently allow replies from the remote computer based on the initial connection, select **Stateful inspection**.

      Note: This option is only available for UDP and IP rules.

    Note:

    On Windows 8 and later, these options do not apply as **Stateful inspection** is always used and **Concurrent connections** are not supported.
11. Under **Rule description**, click an underlined value. For example, if you click the **Stateful TCP** link, the **Select Protocol** dialog box opens.

7.2.2.4.4.4 Apply preset application rules

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

A preset is a set of application rules created by Sophos. To append preset rules to the list of rules for an application:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **Applications** tab.
5. Select the application in the list, and then click **Custom**.
6. Point to **Add rules from preset**, and then click a preset.

7.2.2.4.4.5 Copy an application rule

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To copy an application rule and append it to the list of rules:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **Applications** tab.

5. Select the application in the list, and then click **Custom**.
6. In the **Application Rules** dialog box, select the rule you want to copy and click **Copy**.

7.2.2.4.4.6 Delete an application rule

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **Applications** tab.
5. Select the application in the list, and then click **Custom**.
6. In the **Application Rules** dialog box, select the rule you want to remove and click **Remove**.

7.2.2.4.4.7 Change the order in which application rules are applied

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Application rules are applied in the order in which they appear from top to bottom in the list of rules.

To change the order in which the application rules are applied:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **Applications** tab.
5. Select the application in the list, and then click **Custom**.
6. In the **Application Rules** dialog box, in the **Rule** list, click the rule that you want to move up or down in the list.
7. Click **Move Up** or **Move Down**.

7.2.2.5 Location awareness

Location awareness is a feature of Sophos Client Firewall that assigns a firewall configuration to each network adapter on a computer, depending on the current location of the computer's network adapters.

The most common scenario in which this feature is used is where an employee has a company laptop and works from home. They are using two network connections simultaneously:

- For work use, they connect to the office network through a VPN client and a **virtual network adapter**.
- For personal use, they connect to their ISP through a network cable and a **physical network adapter**.

In this scenario, you need the office configuration to be applied to the virtual office connection and the non-office, generally more restrictive, configuration to be applied to the non-office ISP connection.

Note: The non-office configuration requires sufficient rules to allow the "virtual" office connection to be established.

7.2.2.5.1 About setting up location awareness

1. Define the list of gateway MAC addresses or domain names of your primary locations. Typically, these are your office networks.
2. Create the firewall configuration to be used for your primary locations. Typically, this configuration is less restrictive.
3. Create a secondary firewall configuration. Typically, this configuration is more restrictive.
4. Choose a configuration to apply.

Depending on the detection method you are using, the firewall obtains the DNS or gateway address for each computer's network adapters, and then matches it against your list of addresses.

- If any of the addresses in your list matches the address of a network adapter, the adapter is assigned the configuration for the **primary location**.
- If none of the addresses in your list matches the address of a network adapter, the adapter is assigned the policy for the **secondary location**.

Important: The secondary configuration switches from **Interactive** mode to **Block by default** mode on a computer when both the following conditions are met:

- Both locations are active.
- The primary configuration is *not* interactive.

7.2.2.5.2 Define your primary locations

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **Location detection** tab.

5. Under **Detection method**, click **Configure** next to the method that you want to use to define your primary locations:

Identify location by DNS	You create a list of domain names and expected IP addresses that correspond to your primary locations.
Identify location by gateway MAC address	You create a list of gateway MAC addresses that correspond to your primary locations.

6. Follow the instructions on the screen.

7.2.2.5.3 Create a secondary configuration

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Select the **Add configuration for a second location** check box.

Now set up your secondary configuration. For information on how to do this, see Configuring the firewall (page 120).

Caution: We strongly advise caution when using local network rules as part of secondary configurations. If the computer is a laptop, and it is used out of the office, it may connect to an unknown local network. If this happens, firewall rules in the secondary configuration that use the local network as an address may inadvertently allow unknown traffic.

7.2.2.5.4 Choose a configuration to apply

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. On the **General** tab, under **Applied location**, click one of the following options:

Option	Description
Apply the configuration for the detected location	The firewall applies either the primary or secondary configuration to each network connection according to the detection settings for location awareness (as described in About setting up location awareness (page 137)).
Apply the configuration for the primary location	The firewall applies the primary configuration to all network connections.
Apply the configuration for the secondary location	The firewall applies the secondary configuration to all network connections.

7.2.2.6 Firewall reporting

By default, the firewall on an endpoint computer reports state changes, events, and errors to Enterprise Console.

Firewall state changes

The firewall regards the following as state changes:

- Changes to the working mode
- Changes to the software version
- Changes to whether the firewall is configured to allow all traffic
- Changes to whether the firewall complies with policy

When you are working in interactive mode, your firewall configuration may deliberately differ from the policy applied by Enterprise Console. In that case, you can choose **not** to send "differs from policy" alerts to Enterprise Console when you make changes to certain parts of your firewall configuration.

For more information, see Turn reporting of local changes on or off (page 139).

Firewall events

An *event* is when the endpoint computer's operating system, or an unknown application on the endpoint computer, tries to communicate with another computer over a network connection.

You can prevent the firewall from reporting events to Enterprise Console.

For more information, see Turn off reporting of unknown network traffic (page 140).

7.2.2.6.1 Turn reporting of local changes on or off

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

If the firewall configuration on endpoint computers differs from policy, you can **turn reporting of local changes off**.

Note: This option is not supported on Windows 8 and later.

Turning reporting of local changes off stops the firewall sending "differs from policy" alerts to Enterprise Console about changes made to the global rules, applications, processes, or checksums. You may want to do this, for example, when the endpoint computers are in interactive mode, since these are settings that can be changed by using the learning dialogs.

If the firewall configuration on endpoint computers is intended to conform to policy, you should **turn reporting of local changes on**.

To turn reporting of local changes off:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.

4. Click the **General** tab.
5. Under **Reporting**, do one of the following:
   - To turn reporting of local changes on, select the **Display an alert in the management console if local changes are made to the global rules, applications, processes or checksums** check box.
   - To turn reporting of local changes off, clear the **Display an alert in the management console if local changes are made to the global rules, applications, processes or checksums** check box.

7.2.2.6.2 Turn off reporting of unknown network traffic

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can prevent the firewall on endpoint computers from reporting unknown network traffic to Enterprise Console. The firewall regards traffic as unknown if there is no rule for it.

To prevent the firewall on endpoint computers from reporting unknown network traffic to Enterprise Console:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **General** tab.
5. Under **Blocking**, select the **Use checksums to authenticate applications** check box.
6. Under **Reporting**, clear the **Report unknown applications and traffic to the management console** check box.

7.2.2.6.3 Turn off reporting of firewall errors

Important: We do not recommend that you turn off reporting of firewall errors permanently. You should turn off reporting only when you need to.

To prevent the firewall on endpoint computers from reporting errors to Enterprise Console:

1. Double-click the firewall policy you want to change.
2. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
3. Under **Configurations**, click **Configure** next to the location for which you want to configure the firewall.
4. Click the **General** tab.
5. Under **Reporting**, clear the **Report errors to the management console** check box.

7.2.2.7 Import or export firewall configuration

Note: If you use role-based administration:

- You must have the **Policy setting - firewall** right to configure a firewall policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can import or export the firewall general settings and rules as a configuration file (*.conf). You can use this feature to do the following:

- Back up and restore your firewall configuration.
- Import application rules created on one computer and use them to create a policy for other computers running the same set of applications.
- Merge configurations created on several different computers to create a policy that is valid for one or more groups of computers on the network.

To import or export firewall configuration:

1. Check which firewall policy is used by the group(s) of computers you want to configure.
   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Firewall**, and then double-click the policy you want to import to or export from.
3. On the **Welcome** page of the **Firewall Policy** wizard, click **Advanced firewall policy**.
4. In the **Firewall Policy** dialog box, on the **General** tab, under **Managing configuration**, click **Import** or **Export**.

7.3 Application control policy

Enterprise Console enables you to detect and block "controlled applications", that is, legitimate applications that are not a security threat, but that you decide are unsuitable for use in your office environment. Such applications may include instant messaging (IM) clients, Voice over Internet Protocol (VoIP) clients, digital imaging software, media players, or browser plug-ins.

Note: This option applies only to Sophos Endpoint Security and Control for Windows.

Applications can be blocked or authorized for different groups of computers with complete flexibility. For example, VoIP can be switched off for office-based desktop computers, yet authorized for remote computers.

The list of controlled applications is supplied by Sophos and updated regularly. You cannot add new applications to the list, but you can submit a request to Sophos to include a new legitimate application you would like to control on your network.

For details, see knowledgebase article 63656.

This section describes how to select the applications you want to control on your network and set up scanning for controlled applications.

Note: If you use role-based administration:

- You must have the **Policy setting - application control** right to configure an application control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information about role-based administration, see Managing roles and sub-estates (page 18).

Application control events

When an application control event occurs, for example, a controlled application has been detected on the network, the event is written in the application control event log that can be viewed from Enterprise Console. For details, see View application control events (page 189).

The number of computers with events over a specified threshold within the last seven days is displayed on the Dashboard.

You can also set up alerts to be sent to your chosen recipients when an application control event has occurred. For details, see Set up application control alerts and messages (page 183).

7.3.1 Select the applications you want to control

If you use role-based administration:

- You must have the **Policy setting - application control** right to configure an application control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

By default, all applications are allowed. You can select the applications you want to control as follows:

1. Check which application control policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Application control**. Then double-click the policy you want to change.
3. In the **Application control policy** dialog box, click the **Authorization** tab.
4. Select an **Application type**, for example, **File sharing**.

   A full list of the applications included in that group is displayed in the **Authorized** list below.

   - To block an application, select it and move it to the **Blocked** list by clicking the “Add” button.

   - To block any new applications that Sophos adds to that type in the future, move **All added by Sophos in the future** to the **Blocked** list.
   - To block all applications of that type, move all applications from the **Authorized** list to the **Blocked** list by clicking the “Add all” button.

5. On the **Scanning** tab of the **Application control policy** dialog box, make sure that scanning for controlled applications is enabled. (See Scan for applications you want to control (page 143) for details.) Click **OK**.

7.3.2 Scan for applications you want to control

If you use role-based administration:

- You must have the **Policy setting - application control** right to configure an application control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can configure Sophos Endpoint Security and Control to scan for applications you want to control on your network on access.

1. Check which application control policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Application control**. Then double-click the policy you want to change.

   The **Application control policy** dialog box is displayed.

3. On the **Scanning** tab, set the options as follows:
   - To enable on-access scanning, select the **Enable on-access scanning** check box. If you want to detect applications but do not want to block them on access, select the **Detect but allow to run** check box.
   - To enable on-demand and scheduled scanning, select the **Enable on-demand and scheduled scanning** check box.

   Note: Your anti-virus and HIPS policy settings determine which files are scanned (that is, the extensions and exclusions).

If you want to remove controlled applications found on your networked computers, follow the instructions in Uninstall controlled applications you do not want (page 143).

You can also have alerts sent to particular users if a controlled application is found on any of the computers in the group. For instructions, see Set up application control alerts and messages (page 183).

7.3.3 Uninstall controlled applications you do not want

Before you uninstall controlled applications, ensure that on-access scanning for controlled applications is disabled. This type of scanning blocks the programs used to install and uninstall applications, so it may interfere with uninstallation.

You can remove an application in one of two ways:

- Go to each computer and run the uninstaller for that product. You can usually do this by opening the Windows Control Panel and using Add/Remove Programs.
- At the server, use your usual script or administration tool to run the uninstaller for that product on your networked computers.

Now you can enable on-access scanning for controlled applications.

7.4 Data control policy

Note: This feature is not included with all licenses. If you want to use it, you might need to change your license. For more information, see http://www.sophos.com/en-us/products/complete/comparison.aspx.

Data control enables you to reduce accidental data loss from workstations by monitoring and restricting the transfer of files containing sensitive data. You do this by creating data control rules and then adding the rules to the **Data control** policies.

You can monitor and control the transfer of files to specified storage devices (e.g. removable storage device or optical drive) or by specified applications (e.g. email client or web browser).

To enable you to quickly define and roll out a data control policy, SophosLabs maintain a library of sensitive data definitions (Content Control Lists). The main focus for this library is personally identifiable information, but it also covers other common data structures. You can use Content Control Lists in Enterprise Console, as described further in this section.

7.4.1 How does data control work?

Data control identifies accidental data loss that is typically caused by employees mishandling sensitive data. For example, a user sends a file containing sensitive data home via web-based email.

Data control enables you to monitor and control the transfer of files from computers to storage devices and applications connected to the internet.

- **Storage devices:** Data control intercepts all files copied onto monitored storage devices using Windows Explorer (this includes the Windows desktop). However, direct saves from within applications, such as Microsoft Word, or transfers made using the command prompt are not intercepted.

  It is possible to force all transfers onto monitored storage devices to be made using Windows Explorer by using either the **Allow transfer on acceptance by user and log event** action or the **Block transfer and log event** action. In either case, any attempt to save directly from within an application or transfer files using the command prompt are blocked by data control, and a desktop alert is displayed to the user requesting that they use Windows Explorer to complete the transfer.

  When a data control policy only contains rules with the **Allow file transfer and log event** action, direct saves from within applications and transfers using the command prompt are not intercepted. This behavior enables users to use storage devices without any restrictions. However, data control events are still logged for transfers made using Windows Explorer.

  Note: This restriction does not apply to application monitoring.

- **Applications:** To ensure only file uploads by users are monitored, some system file locations are excluded from data control monitoring. This significantly reduces the risk of data control events being generated by applications opening configuration files as opposed to users uploading files.

  Important: If you experience erroneous events generated by an application opening configuration files, the problem can usually be solved by adding custom location exclusions

or by configuring a data control rule to be less sensitive. For more information, see Sophos knowledgebase article 113024.

Note: On-access scanning exclusions do not always apply to data control.

When does data control use on-access scanning exclusions?

Depending on how and where you copy or move files, data control may or may not take into account the on-access scanning exclusions you have set up in the anti-virus and HIPS policy.

Data control **uses** on-access scanning exclusions when files are uploaded or attached using a monitored application, for example, an email client, a web browser, or an instant messaging (IM) client. For information about configuring on-access scanning exclusions, see Exclude items from on-access scanning (page 88).

Important: If you have excluded remote files from on-access scanning, data control won't scan files that you upload or attach from a network location to a monitored application, for example, email or web browser. See also Data control does not scan uploaded or attached files (page 219).

Data control **doesn't use** on-access scanning exclusions when files are copied or moved using Windows Explorer. So the exclusions won't work, for example, if you copy files to a storage device such as a USB, or copy or move files to a network location. All files will be scanned, even though you may have excluded remote files from on-access scanning.

Note: If you are copying or moving **archive** files to a network location, the process may take some time, for example over a minute per 100 MB of data, depending on your network connection. This is because scanning of archive files takes longer than scanning of non-archived files.

Data control policies

Data control enables you to monitor and control the transfer of files by defining data control policies and applying them to groups of computers on your network.

Important: Data control is not supported on Windows 2008 Server Core and must be disabled on computers running this operating system. To exclude Windows 2008 Server Core computers from data control scanning, put them in a group that has a data control policy with data control scanning disabled. For details, see Turn data control on or off (page 148).

Data control policies include one or more rules that specify conditions and actions to be taken when the rule is matched. A data control rule can be included in multiple policies.

When a data control policy contains several rules, a file that matches *any* of the rules in the data control policy violates the policy.

Data control rule conditions

The data control rule conditions include destination, file name and extension, file type, or file content.

Destination includes devices (for example, removable storage devices, such as USB flash drives) and applications (for example, internet browsers and email clients).

The matching of file content is defined using a Content Control List. This is an XML based description of structured data. SophosLabs provide an extensive set of Content Control Lists which can be used within your data control rules.

For more information about data control rules and conditions applied to files, see About data control rules (page 147).

For more information about Content Control Lists (CCLs) that define file content, see About Content Control Lists (page 147).

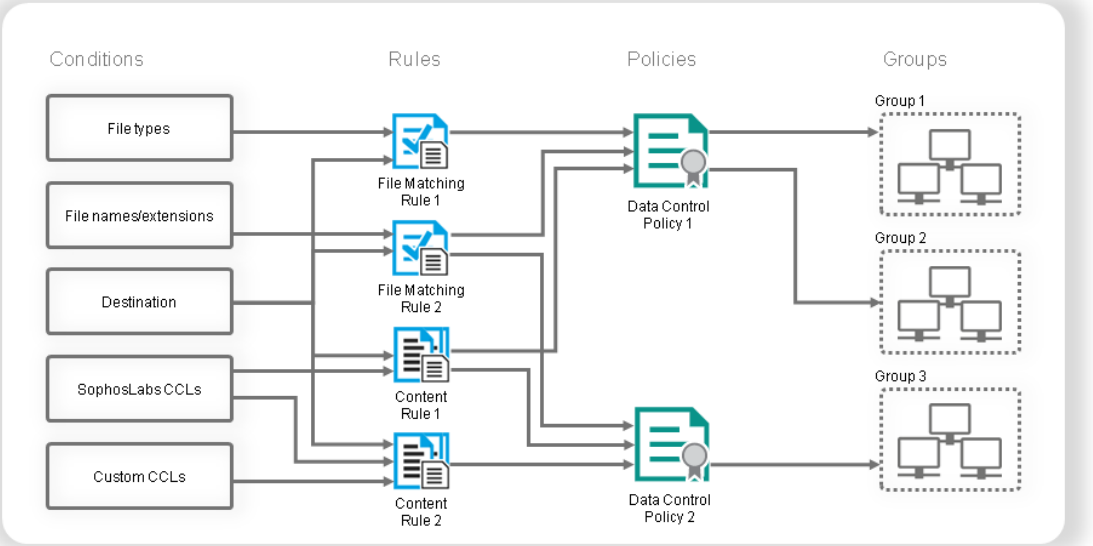


Figure 2: Data Control

Data control rule actions

When data control detects all the conditions specified in a rule, the rule is matched, and data control takes the action specified in the rule and logs the event. You can specify one of the following actions:

- Allow file transfer and log event
- Allow transfer on acceptance by user and log event
- Block transfer and log event

If a file matches two data control rules that specify different actions, the rule that specifies the most restrictive action is applied. Data control rules that block file transfer take priority over the rules that allow file transfer on user acceptance. Rules that allow file transfer on user acceptance take priority over the rules that allow file transfer.

By default, when the rule is matched and file transfer is blocked or user confirmation of file transfer is required, a message is displayed on the endpoint computer's desktop. The rule that has been matched is included in the message. You can add your own custom messages to the standard messages for user confirmation of file transfer and for blocked file transfer. For more information, see Set up data control alerts and messages (page 184).

7.4.2 About data control rules

Data control rules specify conditions for data control scanning to detect, actions to be taken if rules are matched, and any files to be excluded from scanning.

You can create your own rules or use the sample rules provided. We provide a number of preconfigured data control rules that you can use unmodified or customize to your own needs. These rules are provided as examples only and are not updated.

There are two types of data control rule: *file matching rule* and *content rule*.

File matching rules

A *file matching rule* specifies action to be taken if a user attempts to transfer a file with the specified file name or of the specified file type (true file type category, e.g. a spreadsheet) to the specified destination, for example, block the transfer of databases to removable storage devices.

Data control includes true file type definitions for over 150 different file formats. We may add additional true file types from time to time. The newly added types will be automatically added to any data control rules that use the relevant true file type category.

File types not covered by a true file type definition can be identified using their file extensions.

Content rules

A *content rule* is a rule that contains one or more Content Control Lists and specifies action to be taken if a user attempts to transfer data that matches all the Content Control Lists in the rule to the specified destination.

7.4.3 About Content Control Lists

A *Content Control List (CCL)* is a set of conditions that describe structured file content. A Content Control List may describe a single type of data (for example, a postal address or social security number) or a combination of data types (for example, a project name near to the term "confidential").

You can use *SophosLabs Content Control Lists* that are provided by Sophos or create your own Content Control Lists.

SophosLabs Content Control Lists provide expert definitions for common financial and personally identifiable data types, for example, credit card numbers, social security numbers, postal addresses, or email addresses. Advanced techniques, such as checksums, are used in SophosLabs Content Control Lists to increase the accuracy of sensitive data detection.

You cannot edit SophosLabs Content Control Lists, but you can submit a request to Sophos to create a new SophosLabs Content Control List. For details, see Sophos knowledgebase article 51976.

Note: Double-byte characters (for example, Japanese or Chinese characters) are not officially supported in the current version of Content Control Lists. However, you can enter double-byte characters in the Content Control List editor.

Setting up the quantity for SophosLabs Content Control Lists

Most SophosLabs Content Control Lists have *quantity* assigned to them.

A *quantity* is the volume of the Content Control List key data type that must be found in a file before the Content Control List is matched. You can edit the quantity of a SophosLabs Content Control List in a content rule that includes that Content Control List.

Using quantity, you can fine-tune your data control rules and avoid blocking documents that do not contain sensitive information (for example, a document containing one postal address or one or two telephone numbers, possibly in the letterhead, footer or signature). If you search for a single postal address, thousands of documents may match the rule and trigger a data control event. However, if you want to prevent the loss of a customer list, you may want to only detect the transfer of documents containing, for example, more than 50 postal addresses. In other cases, however, it may be advisable to search for a single instance of content, for example, a credit card number.

7.4.4 About data control events

When a data control event occurs, for example, the copying of a file containing sensitive data to a USB flash drive, the event is sent to Enterprise Console and can be viewed in the **Data Control - Event Viewer**. The event is also logged locally on the endpoint computer and can be viewed, with the appropriate permissions, in Sophos Endpoint Security and Control.

Note: An endpoint computer can send to Enterprise Console a maximum of 50 data control events per hour. All events are logged locally on the endpoint computer.

In the **Data Control - Event Viewer** dialog box, you can use filters to display only the events you are interested in. You can also export the list of data control events to a file. For details, see View data control events (page 189) and Export the list of events to a file (page 198).

The number of computers with data control events over a specified threshold within the last seven days is displayed on the Dashboard. For information on how to set up the threshold, see Configure the Dashboard (page 51).

You can also set up alerts to be sent to your chosen recipients when a data control event has occurred. For details, see Set up data control alerts and messages (page 184).

7.4.5 Turn data control on or off

If you use role-based administration:

- You must have the **Policy setting - data control** right to configure a data control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

By default, data control is turned off and no rules are specified to monitor or restrict the transfer of files over the network.

To turn data control on:

1. Check which data control policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Data control**. Then double-click the policy you want to change.

   The **Data control policy** dialog box is displayed.

3. On the **Policy Rules** tab, select the **Enable data control scanning** check box.
4. Click the **Add Rule** button. In the **Data Control Rule Management** dialog box, select the rules you want to add to the policy and click **OK**.

   Important: If you do not add any data control rules, data control will not monitor or restrict the transfer of files until you do so.

If you later want to disable data control scanning, clear the **Enable data control scanning** check box.

7.4.6 Create a file matching rule

If you use role-based administration:

- You must have the **Data control customization** right to create or edit data control rules.
- You must have the **Policy setting - data control** right to set up data control policies.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

For an overview of file matching rules, see About data control rules (page 147).

To create a file matching rule and add it to a data control policy:

1. Check which data control policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

   Alternatively, you can create a rule from the **Tools** menu and add it to a policy or policies later. On the **Tools** menu, point to **Manage Data Control**, and then click **Data control rules** and perform steps 4 to 10.

2. In the **Policies** pane, double-click **Data control**. Then double-click the policy you want to change.
3. In the **Data control policy** dialog box, on the **Policy Rules** tab, make sure the **Enable data control scanning** check box is selected and click **Manage Rules**.
4. In the **Data Control Rule Management** dialog box, click the **Add File Matching Rule** button.
5. In the **Create a File Matching Rule** dialog box, under **Rule name**, type a name for the rule.
6. Under **Rule description (optional)**, enter the rule's description, if you wish.

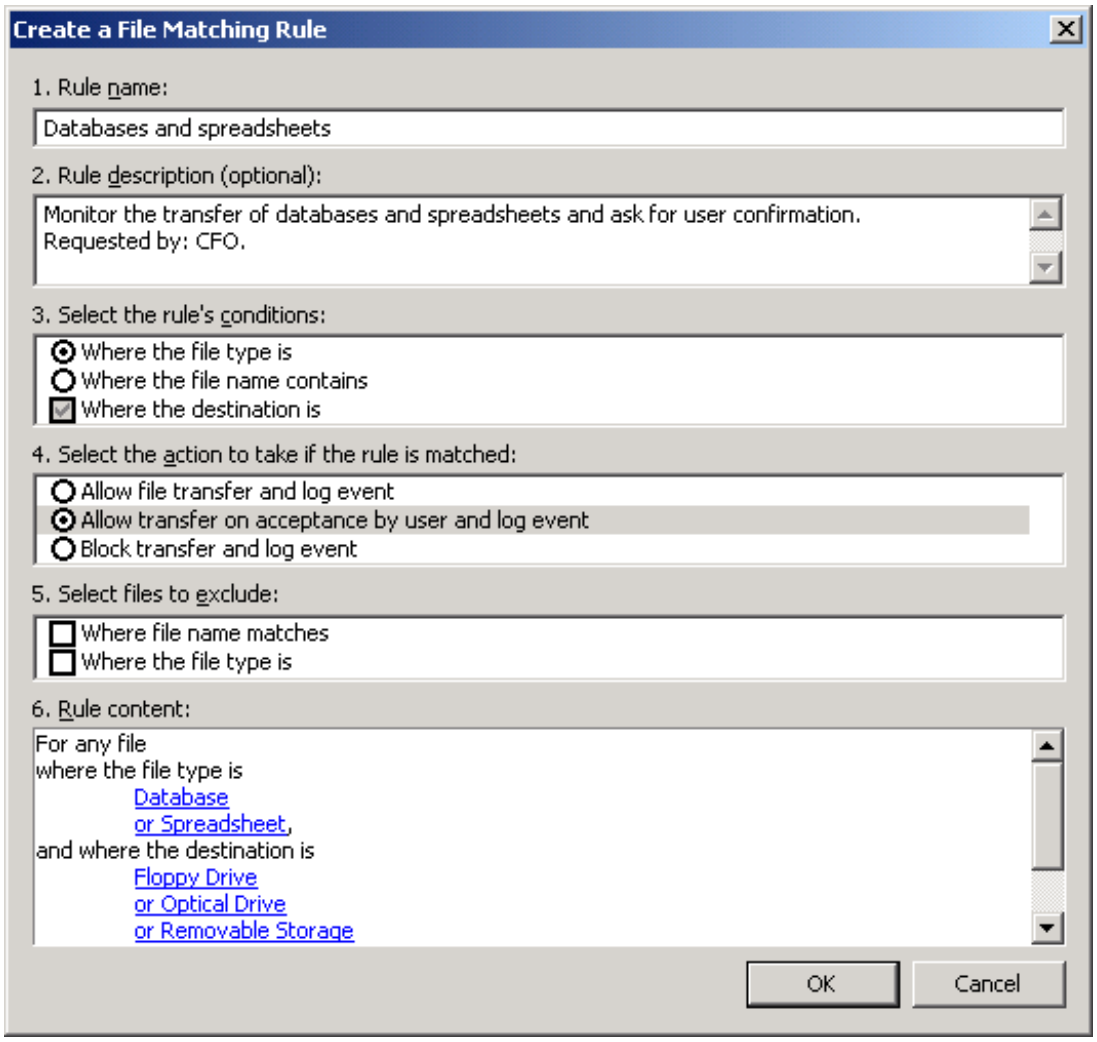
7. Under **Select the rule's conditions**, select conditions for the rule.

   The destination condition is preselected and must be included in the rule.

   By default, all file types are scanned. If you want to scan only certain file types, select **Where the file type is**. You can then set up this condition as described in step 10.

8. Under **Select the action to take if the rule is matched**, select the action.
9. If you want to exclude some files from data control scanning, under **Select files to exclude**, select the **Where file name matches** or **Where the file type is** check box.
10. Under **Rule content**, click each underlined value and set up the rule's conditions.
    For example, if you click **Select destination**, the **Match Destination Type Condition** dialog box opens, where you can select the devices and/or applications to which you want to restrict the transfer of data.

    Select or enter conditions for each underlined value.



    Click **OK**.

    The new rule appears in the **Data Control Rule Management** dialog box.

11. To add the rule to the policy, select the check box next to the rule's name and click **OK**.

    The rule is added to the data control policy.

You can set up alerts and messages that will be sent to the user when a rule in the data control policy is matched. See Set up data control alerts and messages (page 184).

7.4.7 Create a content rule

If you use role-based administration:

- You must have the **Data control customization** right to create or edit data control rules and Content Control Lists.
- You must have the **Policy setting - data control** right to set up data control policies.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

For an overview of content rules and Content Control Lists, see About data control rules (page 147).

To create a content rule and add it to a data control policy:

1. Check which data control policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

   Alternatively, you can create a rule from the **Tools** menu and add it to a policy or policies later. On the **Tools** menu, point to **Manage Data Control**, and then click **Data control rules** and perform steps 4 to 13.
2. In the **Policies** pane, double-click **Data control**. Then double-click the policy you want to change.
3. In the **Data control policy** dialog box, on the **Policy Rules** tab, make sure the **Enable data control scanning** check box is selected and click **Manage Rules**.
4. In the **Data Control Rule Management** dialog box, click the **Add Content Rule** button.
5. In the **Create a Content Rule** dialog box, under **Rule name**, type a name for the rule.
6. Under **Rule description (optional)**, enter the rule's description, if you wish.
7. Under **Select the rule's conditions**, the file content and destination conditions are already selected. You must set up both conditions for a content rule.
8. Under **Select the action to take if the rule is matched**, select the action.
9. If you want to exclude some files from data control scanning, under **Select files to exclude**, select the **Where file name matches** or **Where the file type is** check box.
10. Under **Rule content**, click the "select file content" underlined value.

11. In the **Content Control List Management** dialog box, select the Content Control Lists you want to include in the rule.

    If you want to add SophosLabs Content Control Lists, select one for each country you need.

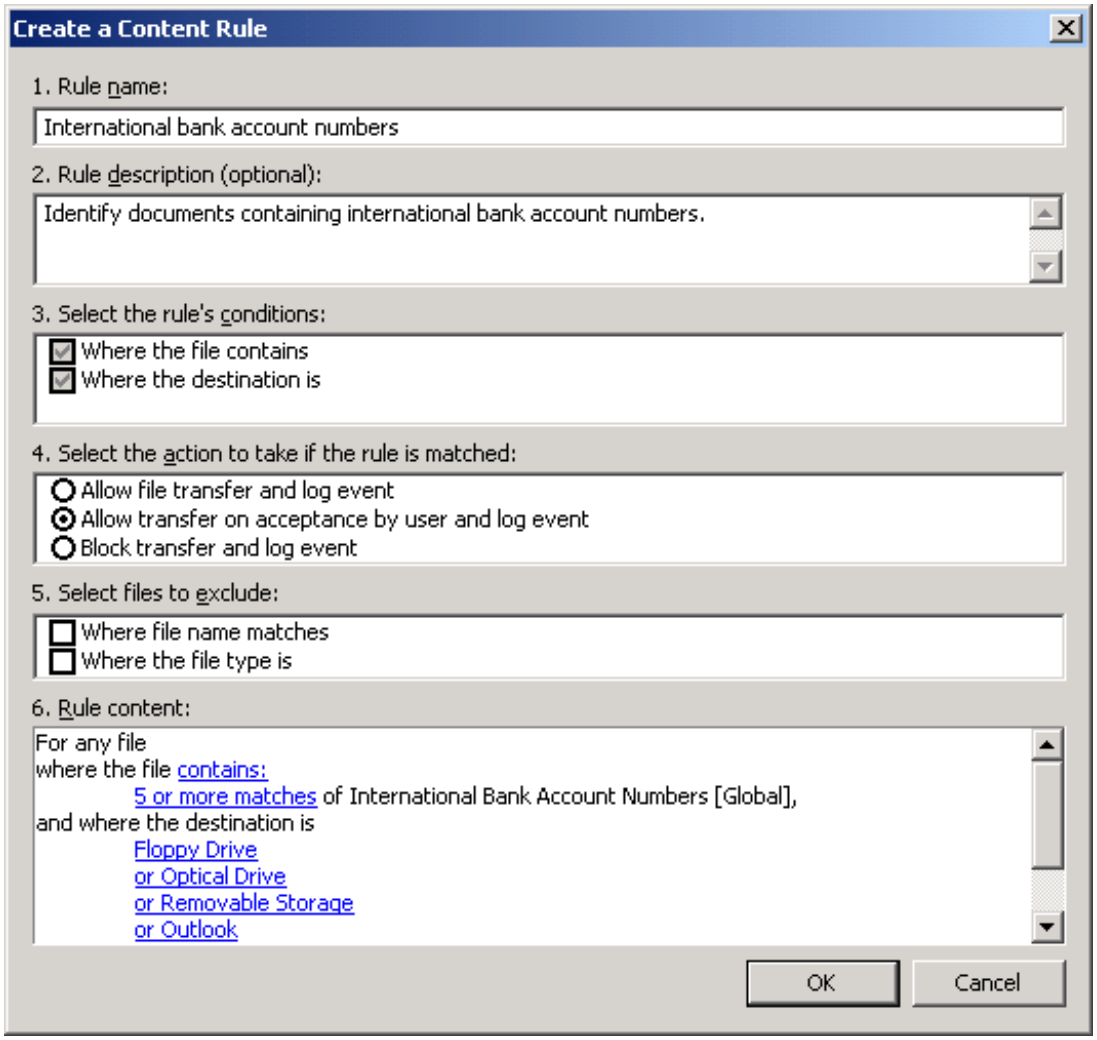
    Tip: Do not select a global Content Control List if you do not need support for all countries. Instead, select Content Control Lists only for the countries you need. This can significantly reduce scanning time as well as reduce the risk of unwanted, coincidental matches.

    If you want to create a new Content Control List, see Create or edit a simple Content Control List (page 155) or Create or edit an advanced Content Control List (page 157).

    Click **OK**.

12. If you want to change quantity assigned to a SophosLabs Content Control List, under **Rule content**, click the “quantity” underlined value (“*n* or more matches”) that you want to change. In the **Quantity editor** dialog box, enter a new quantity. For more information, see Setting up the quantity for SophosLabs Content Control Lists (page 148).

13. Under **Rule content**, select or enter conditions for the rest of the underlined values.



Click **OK**.

The new rule appears in the **Data Control Rule Management** dialog box.

14. To add the rule to the policy, select the check box next to the rule' name and click **OK**.

The rule is added to the data control policy.

You can set up alerts and messages that will be sent to the user when a rule in the data control policy is matched. See Set up data control alerts and messages (page 184).

7.4.8 Add a data control rule to a policy

If you use role-based administration:

- You must have the **Policy setting - data control** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To add a data control rule to a policy:

1. Check which data control policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Data control**. Then double-click the policy you want to change.

   The **Data control policy** dialog box is displayed.

3. On the **Policy Rules** tab, click **Add Rule**.

   The **Data Control Rule Management** dialog box is displayed.

4. Select the rules you want to add to the policy and click **OK**.

7.4.9 Remove a data control rule from a policy

If you use role-based administration:

- You must have the **Policy setting - data control** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To remove a data control rule from a policy:

1. Check which data control policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Data control**. Then double-click the policy you want to change.

   The **Data control policy** dialog box is displayed.

3. On the **Policy Rules** tab, select the rule you want to remove and click **Remove Rule**.

7.4.10 Exclude files or file types from data control

If you use role-based administration, you must have the **Data control customization** right to exclude files from data control. For more information, see Managing roles and sub-estates (page 18).

You can exclude files and file types from data control by setting up exclusions in a data control rule.

To exclude a file or file type from data control, exclude it in a rule with the highest priority (that is, specifying the most restrictive action).

To exclude files or file types from data control:

1. On the **Tools** menu, point to **Manage Data Control**, and then click **Data Control Rules**.

2. In the **Data Control Rule Management** dialog box, select the rule you want to edit and click **Edit**, or create a new rule by clicking the **Add file matching rule** or **Add content rule** button.
3. To exclude files from data control, in the **Rule Editor** dialog box, under **Select files to exclude**, select the **Where file name matches** check box.
4. Under **Rule content**, click the underlined value to specify excluded file names.
5. In the **Exclude File Name Condition** dialog box, click **Add** and specify the names of the files you want to exclude.

   You can use the wildcards * and ?

   The wildcard ? can be used only in a filename or extension. It generally matches any single character. However, when used at the end of a filename or extension, it matches any single character or no characters. For example file??.txt matches file.txt, file1.txt and file12.txt but not file123.txt.

   The wildcard * can be used only in a filename or extension, in the form [filename].* or *.[extension]. For example, file*.txt, file.txt* and file.*txt are invalid.

6. To exclude file types from data control, in the **Rule Editor** dialog box, under **Select files to exclude**, select the **Where the file type is** check box.
7. Under **Rule content**, click the underlined value to specify excluded file types.
8. In the **Exclude File Type Condition** dialog box, select the file types you want to exclude and click **OK**.

7.4.11 Import or export a data control rule

If you use role-based administration, you must have the **Data control customization** right to import or export a data control rule. For more information, see Managing roles and sub-estates (page 18).

Data control rules can be imported into or exported from Enterprise Console as XML files.

To import or export a data control rule:

1. On the **Tools** menu, point to **Manage Data Control**, and then click **Data control rules**.
2. In the **Data Control Rule Management** dialog box, click **Import** or **Export**.
   - If you want to import a rule, in the **Import** dialog box, browse to the rule you want to import, select it and click **Open**.
   - If you want to export a rule, in the **Export** dialog box, browse to select a destination for the file, type a name for the file and click **Save**.

7.4.12 Create or edit a simple Content Control List

If you use role-based administration, you must have the **Data control customization** right to create a Content Control List. For more information, see Managing roles and sub-estates (page 18).

For an overview of Content Control Lists, see About Content Control Lists (page 147).

To create or edit a Content Control List:

1. On the **Tools** menu, point to **Manage Data Control**, and then click **Data Control Content Control Lists**.
2. In the **Content Control List Management** dialog box, click **Add** to create a new Content Control List, or select an existing Content Control List and click **Edit**.
3. In the **Add Content Control List** dialog box, in the **Name** field, enter a name for the Content Control List.
4. In the **Description** field, enter a description for the Content Control List, if you wish.
5. If you want to add tags or edit the tags assigned to the Content Control List, click **Change** next to the **Tags** field.

   You can assign tags to identify the Content Control List's type and region where it applies.
6. In the **Edit Content Control List Tags** dialog box, in the **Available tags** list, select the tags you want to assign and move them to the **Selected tags** list. Click **OK**.
7. In the **Scan for content matching** section, select a search condition (“Any of these terms”, “All of these terms”, or “Exactly this phrase”) and enter the search terms you want to find in documents, separated by a space. Click **OK**.

   Note: The search is case insensitive.

   Quotation marks are not supported in simple Content Control Lists. Use the “Exactly this phrase” condition to scan for an exact phrase.

   To create more complex expressions, use the advanced Content Control List editor as described in Create or edit an advanced Content Control List (page 157).

The new content control list appears in the **Content Control List Management** dialog box.

Examples

Search condition	Example	Description
Match any term	confidential secret	Matches documents containing either "confidential" or "secret".
Match all terms	project confidential	Matches documents containing both "project" and "confidential".
Exact match	for internal use only	Matches documents containing the phrase "for internal use only".

Now you can add the new Content Control List to a content rule.

7.4.13 Create or edit an advanced Content Control List

If you use role-based administration, you must have the **Data control customization** right to create a Content Control List. For more information, see Managing roles and sub-estates (page 18).

For an overview of Content Control Lists, see About Content Control Lists (page 147).

You can create a Content Control List that consists of one or more regular expressions and a trigger score. To do this, use the advanced editor.

To create or edit a Content Control List using the advanced editor:

1. On the **Tools** menu, point to **Manage Data Control**, and then click **Data Control Content Control Lists**.
2. In the **Content Control List Management** dialog box, click **Add** to create a new Content Control List, or select an existing Content Control List and click **Edit**.
3. In the **Add Content Control List** dialog box, in the **Name** field, enter a name for the Content Control List.
4. In the **Description** field, enter a description for the Content Control List, if you wish.
5. If you want to add tags or edit the tags assigned to the Content Control List, click **Change** next to the **Tags** field.

   You can assign tags to identify the Content Control List's type and region where it applies.
6. In the **Edit Content Control List Tags** dialog box, in the **Available tags** list, select the tags you want to assign and move them to the **Selected tags** list. Click **OK**.
7. Click the **Advanced** button.
8. In the **Advanced** pane, click **Create** to create a new expression, or select an existing expression and click **Edit**.
9. In the **Content Control List - Advanced** dialog box, enter a Perl 5 regular expression.

   For a description of Perl 5 regular expressions, refer to Perl documentation or visit http://www.boost.org/doc/libs/1_34_1/libs/regex/doc/syntax_perl.html.
10. In the **Expression score** field, enter the number that will be added to the total score for a Content Control List when the regular expression is matched.
11. In the **Maximum count** field, enter the maximum number of matches for the regular expression that can be counted towards the total score.
    For example, an expression with the score of 5 and the maximum count of 2 can add the maximum of 10 to the total score of the Content Control List. If the expression is found 3 times, it still adds 10 to the total score.

    Click **OK**.
12. Repeat steps 5 to 11 if you want to add more regular expressions to the Content Control List.

13. In the **Trigger score** field, enter the number of times a regular expression must be matched before the Content Control List is matched.

    For example, consider a Content Control List that has the trigger score of 8 and consists of 3 expressions (A, B, and C) with the following scores and maximum counts:

Expression	Score	Maximum count
Expression A	5	2
Expression B	3	1
Expression C	1	5

    This Content Control List is matched if data control finds 2 matches of expression A or 1 match of expression A and 1 match of expression B, or 1 match of expression B and 5 matches of expression C.

    Click **OK**.

The new Content Control List appears in the **Content Control List Management** dialog box.

Regular expression example

(?i)\b[a-ceghj-npr-tw-z][a-ceghj-npr-tw-z]\s?\d{2}\s?\d{2}\s?\d{2}\s?[abcd]?\b

This regular expression matches UK National Insurance numbers, for example, AA 11 11 11 A.

(?i)	Makes the match case-insensitive.
\b	Matches a boundary between a word character and a non-word character.
[a-ceghj-npr-tw-z]	Matches any single character in the range of characters (A to C E G H J to N P R to T W to Z).
?	Matches the preceding element zero or one time.
\s?	Matches zero or one whitespace.
\d{2}	Matches two digits.
[abcd]	Matches any single character from the list (A, B, C, or D).

Now you can add the new Content Control List to a content rule.

7.4.14 Import or export a Content Control List

If you use role-based administration, you must have the **Data control customization** right to import or export a Content Control List. For more information, see Managing roles and sub-estates (page 18).

Content Control Lists can be imported into or exported from Enterprise Console as XML files. You can share Content Control Lists between Sophos products that support them.

Note: SophosLabs Content Control Lists cannot be exported.

To import or export a Content Control List:

1. On the **Tools** menu, point to **Manage Data Control**, and then click **Data control content control lists**.
2. In the **Content Control List Management** dialog box, click **Import** or **Export**.
   - If you want to import a Content Control List, in the **Import** dialog box, browse to the Content Control List you want to import, select it and click **Open**.
   - If you want to export a Content Control List, in the **Export** dialog box, browse to select a destination for the file, type a name for the file and click **Save**.

7.5 Device control policy

Note: This feature is not included with all licenses. If you want to use it, you might need to change your license. For more information, see http://www.sophos.com/en-us/products/complete/comparison.aspx.

Important: Sophos device control should not be deployed alongside device control software from other vendors.

Device control enables you to prevent users from using unauthorized external hardware devices, removable storage media, and wireless connection technologies on their computers. This can help to significantly reduce your exposure to accidental data loss and restrict the ability of users to introduce software from outside of your network environment.

Removable storage devices, optical disk drives, and floppy disk drives can also be set to provide read-only access.

Using device control, you can also significantly reduce the risk of network bridging between a corporate network and a non-corporate network. The **Block bridged** mode is available for both wireless and modem types of device. The mode works by disabling either wireless or modem network adapters when an endpoint is connected to a physical network (typically through an Ethernet connection). Once the endpoint is disconnected from the physical network, the wireless or modem network adapters are seamlessly re-enabled.

By default, device control is turned off and all devices are allowed.

If you want to enable device control for the first time, we recommend that you:

- Select device types to control.
- Detect devices without blocking them.
- Use device control events to decide which device types to block and which, if any, devices should be exempt.

- Detect and block devices or allow read-only access to storage devices.

For more information about the recommended settings for device control, see the Sophos Enterprise Console policy setup guide.

Note: If you use role-based administration:

- You must have the **Policy setting - device control** right to configure a device control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

7.5.1 About device control events

When a device control event occurs, for example, a removable storage device has been blocked, the event is sent to Enterprise Console and can be viewed in the **Device Control - Event Viewer** dialog box.

Note: If you set optical disk drives to "Read only", events for these disk drives are not sent to Enterprise Console or logged locally. This prevents unwanted reports of events.

In the **Device Control - Event Viewer** dialog box, you can use filters to display only the events you are interested in. You can also export the list of device control events to a file. For details, see View device control events (page 190) and Export the list of events to a file (page 198).

You can use device control events to add exemptions for specific devices or device models to the device control policies. For more information about exempting devices, see Exempt a device from a single policy (page 164) or Exempt a device from all policies (page 163).

The number of computers with device control events over a specified threshold within the last seven days is displayed on the Dashboard. For information on how to set up the threshold, see Configure the Dashboard (page 51).

You can also set up alerts to be sent to your chosen recipients when a device control event has occurred. For details, see Set up device control alerts and messages (page 185).

7.5.2 What types of device can be controlled?

Device control enables you to block the following types of device: *storage*, *network*, *short range*, and *media*.

Storage

- Removable storage devices (for example, USB flash drives, PC Card readers, and external hard disk drives)
- Optical media drives (CD-ROM/DVD/Blu-ray drives)
- Floppy disk drives
- Secure removable storage devices (for example, hardware-encrypted USB flash drives)

For a list of supported secure removable storage devices, see Sophos knowledgebase article 63102.

Tip: Using the secure removable storage category, you can easily allow the use of supported secure removable storage devices while blocking other removable storage devices.

Network

- Modems
- Wireless (Wi-Fi interfaces, 802.11 standard)

For network interfaces, you can also select the **Block bridged** mode that helps to significantly reduce the risk of network bridging between a corporate network and a non-corporate network. The mode works by disabling either wireless or modem network adapters when an endpoint is connected to a physical network (typically through an Ethernet connection). Once the endpoint is disconnected from the physical network, the wireless or modem network adapters are seamlessly re-enabled.

Short Range

- Bluetooth interfaces
- Infrared (IrDA infrared interfaces)

Device control blocks both internal and external devices and interfaces. For example, a policy which blocks Bluetooth interfaces will block both of the following:

- The built-in Bluetooth interface in a computer
- Any USB-based Bluetooth adapters plugged into the computer

Media

- MTP/PTP

  This includes mobile phones, tablets, digital cameras, media players and other devices that connect to a computer using Media Transfer Protocol (MTP) or Picture Transfer Protocol (PTP).

7.5.3 Select device types to control

If you use role-based administration:

- You must have the **Policy setting - device control** right to edit a device control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Important: You should not block Wi-Fi connections on computers that are managed by Enterprise Console via Wi-Fi.

1. Check which device control policy is used by the group(s) of computers you want to configure. See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Device control**. Then double-click the policy you want to change.

3. In the **Device control policy** dialog box, on the **Configuration** tab, under **Storage**, select the type of storage device you want to control.
4. Click in the **Status** column next to the device type, and then click the drop-down arrow that appears. Select the type of access that you want to allow.

   By default, devices have full access. For removable storage devices, optical disk drives and floppy disk drives, you can change that to “Blocked” or “Read only.” For secure removable storage devices, you can change that to “Blocked.”
5. Under **Network**, select the type of network device you want to block.
6. Click in the **Status** column next to the type of network device, and then click the drop-down arrow that appears.
   - Select “Blocked” if you want to block the device type.
   - Select “Block bridged” if you want to prevent network bridging between a corporate network and a non-corporate network. The device type will be blocked when an endpoint is connected to a physical network (typically through an Ethernet connection). Once the endpoint is disconnected from the physical network, the device type will be re-enabled.
7. Under **Short Range**, select the type of short-range device you want to block. In the **Status** column next to the device type, select “Blocked.”

   Click **OK**.
8. To block media devices that connect to a computer using Media Transfer Protocol (MTP) or Picture Transfer Protocol (PTP), such as mobile phones, tablets, digital cameras or media players, under **Media**, select **MTP/PTP**. In the **Status** column, select “Blocked.”

7.5.4 Detect devices without blocking them

If you use role-based administration:

- You must have the **Policy setting - device control** right to edit a device control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can detect devices without blocking them. This is useful if you intend to block devices in future, but want to detect and exempt the devices you need first.

To detect devices without blocking them, enable device control scanning in a device control policy and turn on the *detection-only* mode. Change the status of the devices you want to detect to “Blocked.” This will generate events for devices used on endpoint computers when the policy would have been infringed, but the devices will not be blocked.

For information about viewing device control events, see View device control events (page 190).

To detect devices without blocking them:

1. Check which device control policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Device control**. Then double-click the policy you want to change.
3. In the **Device control policy** dialog box, on the **Configuration** tab, select **Enable device control scanning**.

4. Select **Detect but do not block devices**.
5. If you haven't done so already, change the status of devices you want to detect to "Blocked." (For details, see Select device types to control (page 161).)

   Click **OK**.

7.5.5 Detect and block devices

If you use role-based administration:

- You must have the **Policy setting - device control** right to edit a device control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

1. Check which device control policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Device control**. Then double-click the policy you want to change.
3. In the **Device control policy** dialog box, on the **Configuration** tab, select the **Enable device control scanning** check box.
4. Clear the **Detect but do not block devices** check box.
5. If you haven't done so already, change the status of devices you want to block to "Blocked." (For details, see Select device types to control (page 161).)

   Click **OK**.

7.5.6 Exempt a device from all policies

If you use role-based administration:

- You must have the **Policy setting - device control** right to edit a device control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can exempt a device from all policies, including the default one. That exception will then be added to all new policies you create.

You can exempt a device instance ("this device only") or a specific device model ("all devices with this model ID"). Do not set multiple exemptions for the same device at both the model ID and device instance levels. If both are defined, the device instance level will take precedence.

To exempt a device from all device control policies:

1. On the **Events** menu, click **Device Control Events**.

   The **Device Control - Event Viewer** dialog box appears.
2. If you want to display only certain events, in the **Search criteria** pane, set the filters as appropriate and click **Search** to display the events.

   For more information, see View device control events (page 190).

3. Select the entry for the device that you want to exempt from the policies, and then click **Exempt Device**.

   The **Exempt device** dialog box appears. Under **Device details**, you see the type, model, model ID and device ID of the device. Under **Exemption details**, **Scope**, you see the words "All policies."

   Note: If there is no event for the device you want to exempt, for example, an integral CD or DVD drive on an endpoint computer, go to the computer containing the device and enable the device in the Device Manager. (To access Device Manager, right-click **My Computer**, click **Manage**, and then click **Device Manager**.) This will generate a new "block" event that will appear in the **Device Control - Event Viewer** dialog box. You can then exempt the device as described earlier in this step.

4. Select whether you want to exempt this device only or all devices with this model ID.
5. Select whether you want to allow full access or read-only access to the device.
6. In the **Comment** field, enter a comment, if you wish. For example, you can specify who requested to exempt the device.
7. Click **OK**.

7.5.7 Exempt a device from a single policy

If you use role-based administration:

- You must have the **Policy setting - device control** right to edit a device control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can exempt a specific device from a device control policy.

You can exempt a device instance ("this device only") or a specific device model ("all devices with this model ID"). Do not set multiple exemptions for the same device at both the model ID and device instance levels. If both are defined, the device instance level will take precedence.

To exempt a device from a policy:

1. Check which device control policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Device control**. Then double-click the policy you want to change.
3. In the **Device control policy** dialog box, on the **Configuration** tab, click **Add exemption**.

   The **Device Control - Event Viewer** dialog box appears.

4. If you want to display only certain events, in the **Search criteria** pane, set the filters as appropriate and click **Search** to display the events.

   For more information, see View device control events (page 190).

5. Select the entry for the device that you want to exempt from the policy, and then click **Exempt Device**.

   The **Exempt device** dialog box appears. Under **Device details**, you see the type, model, model ID and device ID of the device. Under **Exemption details**, **Scope**, you see the words "This policy only."

   Note: If there is no event for the device you want to exempt, for example, an integral CD or DVD drive on an endpoint computer, go to the computer containing the device and enable the device in the Device Manager. (To access Device Manager, right-click **My Computer**, click **Manage**, and then click **Device Manager**.) This will generate a new "block" event that will appear in the **Device Control - Event Viewer** dialog box. You can then exempt the device as described earlier in this step.

6. Select whether you want to exempt this device only or all devices with this model ID.
7. Select whether you want to allow full access or read-only access to the device.
8. In the **Comment** field, enter a comment, if you wish. For example, you can specify who requested to exempt the device.
9. Click **OK**.

7.5.8 View or edit the list of exempt devices

If you use role-based administration:

- You must have the **Policy setting - device control** right to edit a device control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To view or edit the list of exempt devices:

1. Check which device control policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Device control**. Then double-click the policy you want to change.
3. In the **Device control policy** dialog box, on the **Configuration** tab, select the type of device for which you want to view exemptions, for example, optical drive. Click **View Exemptions**.

   The **<Device type> exemptions** dialog box is displayed. If an exemption is for all devices with that model ID, the **Device ID** field is blank.

4. If you want to edit the list of exempt devices, do one of the following:
   - If you want to add an exemption, click **Add**. For more information, see Exempt a device from a single policy (page 164).
   - If you want to edit an exemption, select the exemption and click **Edit**. Edit the settings in the **Exempt device** dialog box as appropriate.
   - If you want to remove an exemption, select the exempt device and click **Remove**.

     This will remove the exempt device from the policy you are editing. If you want to remove the device from other policies, repeat the steps in this task for each policy.

7.6 Tamper protection policy

Tamper protection enables you to prevent unauthorized users (local administrators and users with limited technical knowledge) and known malware from uninstalling Sophos security software or disabling it through the Sophos Endpoint Security and Control interface.

Note: Tamper protection is not designed to protect against users with extensive technical knowledge. Nor does it protect against malware which has been specifically designed to subvert the operating system to avoid detection. This type of malware is only detected by scanning for threats and suspicious behavior. (For more information, see Anti-virus and HIPS policy (page 81).)

After you enable tamper protection and create a tamper-protection password, a member of the SophosAdministrator group on the endpoint who does not know the password will not be able to:

- Re-configure on-access scanning or suspicious behavior detection settings in Sophos Endpoint Security and Control.
- Disable tamper protection.
- Uninstall the Sophos Endpoint Security and Control components (Sophos Anti-Virus, Sophos Client Firewall, Sophos AutoUpdate, or Sophos Remote Management System).

If you want to enable SophosAdministrators to perform these tasks, you must provide them with the tamper protection password so that they can authenticate themselves with tamper protection first.

Tamper protection does not affect members of the SophosUser and SophosPowerUser groups. When tamper protection is enabled, they will be able to perform all tasks that they are usually authorized to perform, without the need to enter the tamper protection password.

Note: If you use role-based administration:

- You must have the **Policy setting - tamper protection** right to configure a tamper protection policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Tamper protection events

When a tamper protection event occurs, for example, an unauthorized attempt to uninstall Sophos Anti-Virus from an endpoint computer has been prevented, the event is written in the event log that can be viewed from Enterprise Console. For details, see View tamper protection events (page 191).

There are two types of tamper protection event:

- Successful tamper protection authentication events, showing the name of the authenticated user and the time of authentication.
- Failed attempts to tamper, showing the name of the targeted Sophos product or component, the time of the attempt, and the details of the user responsible for the attempt.

7.6.1 Turn tamper protection on or off

If you use role-based administration:

- You must have the **Policy setting - tamper protection** right to configure a tamper protection policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To turn tamper protection on or off:

1. Check which tamper protection policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Tamper protection**. Then double-click the policy you want to change.
3. In the **Tamper Protection Policy** dialog box, select or clear the **Enable tamper protection** check box.

   If you want to enable tamper protection for the first time, click **Set** under the **Password** box. In the **Tamper Protection Password** dialog box, enter and confirm a password.

   Tip: We recommend that the password should be at least eight characters long and contain mixed-case letters and numbers.

7.6.2 Change the tamper protection password

If you use role-based administration:

- You must have the **Policy setting - tamper protection** right to configure a tamper protection policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To change the tamper protection password:

1. Check which tamper protection policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Tamper protection**. Then double-click the policy you want to change.
3. In the **Tamper Protection Policy** dialog box, click **Change** under the **Password** box. In the **Tamper Protection Password** dialog box, enter and confirm a new password.

   Tip: The password should be at least eight characters long and contain mixed-case letters and numbers.

7.7 Patch policy

Note: This feature is not included with all licenses. If you want to use it, you might need to change your license. For more information, see http://www.sophos.com/en-us/products/complete/comparison.aspx.

Enterprise Console enables you to check that your computers have the most up-to-date security patches installed.

SophosLabs provides ratings that help you determine the most critical security patch issues so that you can resolve them quickly. SophosLabs ratings take the latest exploits into account and therefore may differ from a vendor's severity level.

Before using patch, you must install the patch agent on your networked computers so that they can perform patch assessments and communicate status to Enterprise Console. You can install this using the **Protect Computers Wizard**. See Protect computers automatically (page 49).

This section assumes that you have installed the patch agent.

Note: If you use role-based administration:

- You must have the **Policy setting - patch** right to configure a patch policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information about role-based administration, see Managing roles and sub-estates (page 18).

7.7.1 How does patch assessment work?

Patch assessment is disabled in the default policy. Once patch assessment is enabled, computers begin an assessment. This can take several minutes. Subsequent assessments occur at the interval set in policy, which is daily by default.

Note: If computers run an assessment before Enterprise Console has downloaded patch data from Sophos for the first time, the Patch Event viewer displays no results. The download can take several hours. To check if this has completed, see the **Patch updates** field in **Events > Patch Assessment Events**.

If the patch agent cannot update from Enterprise Console, for any reason, it will continue to assess computers against the previously downloaded patch detections.

Computers are only assessed for security patches on software that is installed on the computer. If a new patch is released that supersedes an older patch, then patch assessment will no longer check for the presence of the older patch. Only the new patch will be assessed.

7.7.1.1 What are superseded patches?

If a vendor releases a patch that replaces an earlier patch, the new patch is called a superseding patch. The patch it replaces is referred to as the superseded patch.

Sophos recommends you install the superseding patch to keep your computers up-to-date.

Example: If you search for virusX and see that the fix for the virus is available in patch P01, which is superseded by patch P02, Sophos recommends you install P02.

7.7.2 About patch assessment events

When a patch assessment event occurs, for example, a computer is missing a patch, the event is sent to Enterprise Console and can be viewed in the **Patch Assessment - Event Viewer**.

In the **Patch Assessment - Event Viewer**, you can use filters to display only the events you are interested in. You can also export the list of patch assessment events to a file. For details, see View patch assessment events (page 193) and Export the list of events to a file (page 198).

7.7.3 Turn patch assessment on or off

If you use role-based administration:

- You must have the **Policy setting - patch** right to configure a patch policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To turn patch assessment on or off:

1. Check which patch policy is used by the group(s) of computers you want to configure.
   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Patch**. Then double-click the policy you want to change.
3. In the **Patch Policy** dialog box, select or clear the **Enable patch assessments** check box, and click **OK**.

7.7.4 Select the patch assessment interval

If you use role-based administration:

- You must have the **Policy setting - patch** right to configure a patch policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

To set the patch assessment interval:

1. Check which patch policy is used by the group(s) of computers you want to configure.
   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Patch**. Then double-click the policy you want to change.
3. In the **Patch Policy** dialog box, click the drop-down arrow of the **Assess for missing patches** field, and select the appropriate interval. Click **OK**.
   To assess at this interval, patch assessment must be enabled in the policy.

7.8 Web control policy

Note: This feature is not included with all licenses. If you want to use it, you might need to change your license. For more information, see http://www.sophos.com/en-us/products/complete/comparison.aspx.

By default, the web control policy is turned off in Enterprise Console. Selecting **Enable web control** allows you to choose one of the following policy options:

- **Inappropriate Website Control**: This basic web control option includes 14 essential site categories. It is designed to protect users from visiting websites for which your organization could be legally liable. For more information, see Inappropriate Website Control (page 170).
- **Full Web Control**: This option applies a comprehensive, full-featured policy that covers more than 50 website categories. It requires a Sophos Web Appliance, Sophos Management Appliance, or Sophos UTM appliance (version 9.2 or later) to synchronize with endpoints to distribute policy updates and collect web activity data. For more information, see Full Web Control (page 174).

When using Inappropriate Website Control, you can either edit an existing web control policy, or create a new policy. For more information, see Create a policy (page 36). You can set the various site categories to “Block,” “Warn,” or “Allow.” Web control status and web events are displayed in Enterprise Console. For more information about web events, see View web events (page 195).

If, instead, you are using the Full Web Control policy, Enterprise Console requires the location of the Web, UTM, or Management Appliance from which the full web-filtering policy is configured, together with a shared key to secure communication between the appliance and Enterprise Console. When the Full Web Control policy is selected, most of the reporting and monitoring is shifted to the appliance; however, websites scanned and assessed by Sophos Endpoint Security and Control's live URL-filtering (Web Protection (page 102)) are displayed in Enterprise Console as web events.

For more information about web control, see the Endpoint web control overview guide.

Note: If you use role-based administration:

- You must have the **Policy setting - web control** right to edit a web control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information about role-based administration, see Managing roles and sub-estates (page 18).

7.8.1 Inappropriate Website Control

Note: This feature is not included with all licenses. If you want to use it, you might need to customize your license. For more information, see http://www.sophos.com/en-us/products/complete/comparison.aspx.

With this basic form of website control, you can filter the web activity of users, based on 14 website categories. There is a default action for each category (described in About website categories (page 171)), but, if necessary, you can select a different action, as described in Select a website category action (page 173).

Users can be blocked from visiting restricted websites. An event is triggered that is shown to the user and sent to Enterprise Console.

Alternatively, users can be warned by means of a notification when visiting controlled websites; even if the user does not proceed, a warning event is triggered. If the user proceeds and views a site despite the warning, a second event is triggered and sent to Enterprise Console.

Note: Although HTTP and HTTPS sites are both filtered in all supported web browsers, user notifications are different, depending on whether the URL is HTTP or HTTPS. With HTTP sites,

users see notification pages for sites in categories set to “Block” or “Warn.” For HTTPS, users only see “Block” notifications, and they are displayed as a balloon tip in the Windows System Tray. HTTPS “Warn” actions are neither displayed to the user nor are they logged. Instead, users are allowed to continue to the requested page, and the event is logged as a “Proceed” in Enterprise Console.

If you select the “Allow” action for a website category, users can access all websites within this category, unless website exceptions are specified. “Allow” events are not logged when **Inappropriate Website Control** is selected.

Note: Allowed sites are still scanned and assessed by Sophos Endpoint Security and Control's live URL-filtering (Web protection) feature.

7.8.1.1 Turn on Inappropriate Website Control

Perform the following steps to turn on web control in Enterprise Console and use Inappropriate Website Control.

Note: If you use role-based administration:

- You must have the **Policy setting - web control** right to edit a web control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information about role-based administration, see Managing roles and sub-estates (page 18).

To turn on Inappropriate Website Control:

1. Check which web control policy is used by the group(s) of computers you want to configure. For more information, see Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Web control**. Then double-click the policy you want to change.

   The **Web Control Policy** dialog box is displayed.
3. On the **General** tab, select **Enable web control**.

   The **Inappropriate Website Control** policy is displayed. Although there is a default action for each of the 14 site categories, you can set a different action. For more information, see Select a website category action (page 173).

7.8.1.2 About website categories

By selecting **Inappropriate Website Control**, you can configure 14 website categories, controlling the internet content that users can access through a web browser. For more information, see Inappropriate Website Control (page 170).

The website categories described below are filtered. The default action for each category is indicated in brackets. Each category can be configured as **Block**, **Warn**, or **Allow**. Selecting **Allow** gives users access to all sites within that category. To change the action, see Select a website category action (page 173).

- **Adult Sexually Explicit (Block)**: This category includes sites for adult products including sex toys, CD-ROMs, and videos; child pornography and pedophilia (including the IWF list); adult services including video-conferencing, escort services, and strip clubs; erotic stories and textual descriptions of sexual acts; explicit cartoons and animation; online groups, including newsgroups

and forums that are sexually explicit in nature; sexually-oriented or erotic sites with full or partial nudity; depictions or images of sexual acts, including with animals or inanimate objects used in a sexual manner; sexually exploitive or sexually violent text or graphics; bondage, fetishes, genital piercing; naturist sites that feature nudity; and erotic or fetish photography that depicts nudity.

Note: We do not include sites regarding sexual health, breast cancer, or sexually transmitted diseases (except those with graphic examples).

- **Alcohol and Tobacco (Warn)**: This category includes sites that promote or distribute alcohol or tobacco products for free or for a charge.
- **Anonymizer Proxies (Block)**: This category includes sites for remote proxies or anonymous surfing, search engine caches that circumvent filtering, and web-based translation sites that circumvent filtering.
- **Criminal Activity (Block)**: This category includes sites for advocating, instructing, or giving advice on performing illegal acts; tips on evading law enforcement; and lock-picking and burglary techniques.
- **Gambling (Warn)**: This category includes sites of online gambling or lottery websites that invite the use of real or virtual money; information or advice for placing wagers, participating in lotteries, gambling, or running numbers; virtual casinos and offshore gambling ventures; sports picks and betting pools; and virtual sports and fantasy leagues that offer large rewards or request significant wagers.
- **Hacking (Block)**: This category includes sites for the promotion, instruction, or advice on the questionable or illegal use of equipment and software for purpose of hacking passwords, creating viruses, gaining access to other computers and computerized communication systems; sites that provide instruction or work-arounds for filtering software; cracked software and information sites; warez; pirated software and multimedia download sites; and computer crime sites.
- **Illegal Drugs (Block)**: This category includes sites for recipes, instructions or kits for manufacturing or growing illicit substances for purposes other than industrial usage; glamorizing, encouraging, or instructing on the use of or masking the use of alcohol, tobacco, illegal drugs, or other substances that are illegal to minors; information on "legal highs", including glue sniffing, misuse of prescription drugs, or abuse of other legal substances; distributing illegal drugs free or for a charge; and displaying, selling, or detailing the use of drug paraphernalia.
- **Intolerance and Hate (Block)** : This category includes sites that advocate or incite degradation or attack of specified populations or institutions based on associations such as religion, race, nationality, gender, age, disability, or sexual orientation; sites that promote a political or social agenda that is supremacist in nature and exclusionary of others based on their race, religion, nationality, gender, age, disability, or sexual orientation; holocaust revisionist or denial sites and other revisionist sites that encourage hate; coercion or recruitment for membership in a gang[1] or cult [2]; militancy and extremist sites; and flagrantly insensitive or offensive material, including those with a lack of recognition or respect for opposing opinions and beliefs.

  Note: We do not include news, historical, or press incidents that may include the above criteria (except in graphic examples).

  [1]A gang is defined as a group whose primary activities are the commission of felonious criminal acts, which has a common name or identifying sign or symbol, and whose members individually or collectively engage in criminal activity in the name of the group.

[2] A cult is defined as a group whose followers have been deceptively and manipulatively recruited and retained through undue influence such that followers' personalities and behavior are altered; a group in which leadership is all-powerful, ideology is totalistic, and the will of the individual is subordinate to the group; and a group that sets itself outside of society.

- **Phishing and Fraud (Block)**: This category includes sites involved in phishing and telephone scams, service theft advice sites, and plagiarism and cheating sites, including the sale of research papers.
- **Spam URLs (Block)**: This category includes URLs found in spam, particularly on these topics: computing, finance and stocks, entertainment, games, health and medicine, humor and novelties, personal and dating, products and services, shopping, and travel.
- **Spyware (Block)**: This category includes sites that provide or promote information gathering or tracking that is unknown to, or done without the explicit consent of, the end user or the organization, including sites that carry malicious executables or viruses, third party monitoring, and other unsolicited commercial software, spyware, and malware "phone home" destinations.
- **Tasteless and Offensive (Warn)**: This category includes sites that feature offensive or violent language, including through jokes, comics, or satire, and excessive use of profanity or obscene gesticulation.
- **Violence (Warn)**: This category includes sites portraying, describing or advocating physical assault against humans, animals, or institutions; depicting torture, mutilation, gore, or horrific death; advocating, encouraging, or depicting self-endangerment, or suicide, including through eating disorders or addictions; instructions, recipes, or kits for making bombs or other harmful or destructive devices; sites promoting terrorism; and excessively violent sports or games, including videos and online games.

  Note: We do not block news, historical, or press incidents that may include the above criteria, except those that include graphic examples.

- **Weapons (Warn)**: This category includes sites with online purchasing or ordering information, including lists of prices and dealer locations; any page or site predominantly containing, or providing links to, content related to the sale of guns, weapons, ammunition or poisonous substances; displaying or detailing the use of guns, weapons, ammunition or poisonous substances; and clubs which offer training on machine guns, automatics, other assault weapons, and sniper training.

  Note: Weapons are defined as something (as a club, knife, or gun) used to injure, defeat, or destroy.

7.8.1.3 Select a website category action

With web control turned on and the **Inappropriate Website Control** policy selected, you can configure the action for each website category. You can also create a new policy that is based on the default policy. For more information, see Create a policy (page 36).

To select a site category action:

1. On the **General** tab, on the drop-down list next to the site category or categories that you want to configure, select one of the following:
   - **Block**: Prevents users from viewing sites in this category. If it is an HTTP web page, a block notification is displayed to the user, explaining why the site was blocked. If it is an HTTPS page, a balloon tip is displayed to the users in the Windows System Tray.
   - **Warn**: Warns users that they are at risk of violating their organization's web use policy, but allows them to proceed. If it is an HTTP page, a warn notification is displayed to users, cautioning them about proceeding to the site. If it is an HTTPS page, the user does not receive a notification, and is allowed to continue to the website. The event is logged as a “Proceed” in Enterprise Console.
   - **Allow**: Lets users view sites in this category. The event is not logged.
2. Click **OK**.

7.8.1.4 Manage website exceptions

If you have selected the **Inappropriate Website Control** policy, you can create exceptions to the “Block” and “Warn” actions. You can exempt websites from filtering by adding them to the “Websites to Allow” or “Websites to Block” list. Entries can take the form of IP addresses and domain names. You can also edit existing website entries, and remove websites from a list.

Note: If there are conflicting or overlapping entries in the 'Block' and 'Allow' lists, the entries in the Block list will always take precedence. For example, if the same IP address is included in the Block list and the Allow list, the website is blocked. Furthermore, if a domain is included in the Block list, but a subdomain of that same domain is included in the Allow list, the Allow entry is ignored, and the domain and all of its subdomains are blocked.

To add a website exception:

1. On the **Website Exceptions** tab, click the **Add** button next to the **Websites to Allow** or **Websites to Block** text box.
2. In the **Add Website to Allow** dialog box, click **Domain name**, **IP address with subnet mask**, or **IP address**. Examples of each format are displayed above the associated text box.
3. In the text box, enter the domain name or IP address for the website you want to allow or block.
4. Click **OK**.

If you want to edit a website or remove it from a list, select the website, and click **Edit** or **Remove** accordingly.

7.8.2 Full Web Control

Note: This feature is not included with all licenses. If you want to use it, you might need to customize your license. For more information, see http://www.sophos.com/en-us/products/complete/comparison.aspx.

If you have a Sophos Web Appliance, Sophos Management Appliance, or Sophos UTM appliance (version 9.2 or later) you can distribute an appliance-based policy to your users by way of Enterprise Console.

Endpoint computers communicate with Enterprise Console in the same way as when the Inappropriate Website Control policy is selected, but the web-filtering rules and web activity logs are synchronized with the appliance that you specify. The policy is stored on endpoint computers and applied, based on the latest Sophos data.

Users are blocked, warned or allowed, according to the web control policy. You can view user activity data using the **Reports** and **Search** features on the Web Appliance or Management Appliance, or **Logging & Reporting > Web Protection** option on the UTM appliance. Web control events are all recorded on the appliance; however, sites scanned and assessed by Sophos Endpoint Security and Control's live URL-filtering (Web protection) are recorded as web events in Enterprise Console.

Note: Although HTTP and HTTPS sites are both filtered in all supported web browsers, in a Web Appliance or Management Appliance user notifications are different, depending on whether the URL is HTTP or HTTPS. With HTTP sites, users see notification pages for sites in categories set to “Block” or “Warn.” For HTTPS, users only see “Block” notifications, and they are displayed as a balloon tip in the Windows System Tray. HTTPS “Warn” actions are not displayed to users, nor are they logged. Instead, users are allowed to continue to the requested page, and it is logged as a “Proceed” event in the Web Appliance or Management Appliance.

UTM appliance uses a central cloud-based service called Sophos LiveConnect for protecting and monitoring endpoint computers. LiveConnect allows you to always manage all of your endpoints, whether they are on your local network, at remote sites, or with traveling users—policy updates are distributed to users, and reporting data from endpoint computers is uploaded, even when users are not connected from within the network.

When using Web Appliance or Management Appliance, endpoints can communicate with the appliance either directly or through Sophos LiveConnect.

With **Full Web Control** selected, a full-featured policy takes effect. Full Web Control offers the following benefits over basic web control, depending on the appliance you use:

- Users are warned or blocked, based on over 50 categories of URLs.
- Differentiated “Special Hours” policies can be applied.
- Numerous additional policies can be used as per-user or per-group exceptions to the default and Special Hours policies.
- Detailed logs and reports are available on the Web Appliance, Management Appliance, or UTM appliance.
- LiveConnect allows distribution of policy updates and uploading of report data, even when users connect remotely.
- Users can submit feedback regarding the handling of blocked URLs.
- Customized notification pages that include your logo, and text that is specific to your organization, can be displayed to users. For more information, see the Sophos Web Appliance documentation.
- Users are automatically restricted from browsing to inappropriate sites from within popular search engines when SafeSearch is enabled.

For more information on configuring a full Web Appliance policy, see the Sophos Web Appliance documentation available at http://wsa.sophos.com/docs/wsa/.

The UTM appliance documentation is available at http://www.sophos.com/en-us/support/documentation/sophos-utm.aspx.

7.8.2.1 Turn on Full Web Control

Note: The following procedure assumes that you have a Sophos Web Appliance, Sophos Management Appliance, or Sophos UTM appliance (version 9.2 or later) that is configured, fully functioning, and using endpoint web control.

By default, the web control policy is turned off. Perform the following steps to enable web control and use the Full Web Control policy.

Note: If you use role-based administration:

- You must have the **Policy setting - web control** right to edit a web control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information about role-based administration, see Managing roles and sub-estates (page 18).

To turn on Full Web Control:

1. Check which web control policy is used by the group(s) of computers you want to configure. For more information, see Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Web control**. Then double-click the policy you want to change.

   The **Web Control Policy** dialog box is displayed.
3. On the **General** tab, click **Enable web control**.
4. Select **Full Web Control**.
5. In the **Settings** panel, enter the **Appliance Hostname** and **Security Key for Policy Exchange**.
   - For a Web Appliance or Management Appliance, you must provide a fully qualified hostname. The security key must match the one that is displayed on the **Endpoint Web Control** page of the appliance.
   - For UTM, enter the Hostname and the Shared Key of the Sophos LiveConnect broker used by UTM. They can be found in the UTM administrative interface WebAdmin, on the **Endpoint Protection** > **Computer Management** > **Advanced** tab, in the **Sophos LiveConnect – Registration** section under **SEC Information**.

   For more information, see the Sophos Web Appliance documentation available at http://wsa.sophos.com/docs/wsa/ or UTM appliance documentation available at http://www.sophos.com/en-us/support/documentation/sophos-utm.aspx.
6. Optionally, select **Block browsing if the website category cannot be determined**. If an endpoint computer is unable to retrieve data about website categorization, URLs that cannot be categorized are blocked until the service is restored.

   This check box is not selected by default, which allows users to continue browsing if the categorization service fails.
7. Click **OK**.

   Enterprise Console reconfigures endpoint computers to communicate with the Web Appliance, Management Appliance, or Sophos LiveConnect broker used by UTM.

7.9 Exploit prevention policy

Note: This feature is not included with all licenses. If you want to use it, you might need to change your license. For more information, see http://www.sophos.com/en-us/products/complete/comparison.aspx.

Exploit prevention lets you:

- Protect document files from ransomware (CryptoGuard).
- Protect critical functions in web browsers (Safe Browsing).
- Mitigate exploits. This protects the applications most vulnerable to exploitation by malware, such as Java applications.
- Protect against process hollowing attacks.
- Protect against loading .DLL files from untrusted folders.
- Protect against processor branch tracing.

By default, exploit prevention and all exploit prevention options are turned on.

Important: If you upgrade your license to include Exploit Prevention, it is not automatically installed on the computers you already manage. You need to reprotect the computers to install it. See Protect computers automatically (page 49).

You can exclude applications from exploit prevention. Note that they will still be protected by CryptoGuard and Safe Browsing.

For more information about the recommended settings for exploit prevention, see the Sophos Enterprise Console policy setup guide.

Note: If you use role-based administration:

- You must have the **Policy setting - exploit prevention** right to configure an exploit prevention policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

HitmanPro.Alert and policy updates

HitmanPro.Alert detects applications, on endpoints, that need protection. It reports the detected application to the Sophos Enterprise Console server. The server collates the applications that require protection and every 120 minutes merges the new application data into the policy. The server distributes the updated policy to the endpoints and provides the list of applications to be protected.

7.9.1 Turn exploit prevention on or off

If you use role-based administration:

- You must have the **Policy setting - exploit prevention** right to configure an exploit prevention policy.

- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Note: By default, exploit prevention is turned on and all exploit prevention options are turned on.

To turn exploit prevention on or off:

1. Check which exploit prevention policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Exploit prevention**. Then double-click the policy you want to change.
3. In the **Protection Settings** tab of the **Exploit Prevention Policy** dialog box, select or clear the **Enable exploit prevention** check box.
4. Select or clear the **Protect document files from ransomware (Cryptoguard)** check box.

   You can also choose whether to protect against remotely run ransomware (only on 64-bit endpoints).
5. Select or clear the **Protect critical functions in web browsers (Safe Browsing)** check box.
6. Select or clear the **Mitigate exploits in vulnerable applications** check box.

   You can also choose the types of applications you want to protect against exploitation, for example Microsoft Office applications.
7. Select or clear the **Prevent process hollowing attacks** check box.
8. Select or clear the **Prevent DLLs from loading from untrusted folders** check box.
9. Select or clear the **CPU branch tracing** check box.
10. Click **OK**.

You can exclude applications from exploit prevention. Note that they will still be protected by CryptoGuard and Safe Browsing, if these options are selected. See Exclude applications from exploit prevention (page 178).

7.9.2 Exclude applications from exploit prevention

If you use role-based administration:

- You must have the **Policy setting - exploit prevention** right to configure an exploit prevention policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Important: Vulnerable applications are protected by default. You should be careful when excluding applications from exploit prevention. They will still be protected by CryptoGuard and Safe Browsing, see Turn exploit prevention on or off (page 177).

You can exclude applications from exploit prevention. You can also protect previously excluded applications.

To exclude applications:

1. Check which exploit prevention policy is used by the group(s) of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Exploit prevention**. Then double-click the policy you want to change.
3. In the **Exclusions** tab of the **Exploit Prevention Policy** dialog box, select the applications you want to exclude in **Protected Applications** list and click **Exclude**.

   This moves the selected applications to the **Excluded Applications list**

4. To protect previous excluded applications, select the applications you want to include in **Excluded Applications** list and click **Include**.
5. Click **OK**.

8 Setting up alerts and messages

There are several alerting methods used in Enterprise Console.

- **Alerts displayed in the console**

  If an item that requires attention is found on a computer, or an error has occurred, Sophos Endpoint Security and Control sends an alert to Enterprise Console. The alert is displayed in the computer list. For more information about dealing with such alerts, see Deal with alerts about detected items (page 54).

  These alerts are always displayed. You do not need to set them up.

- **Events displayed in the console**

  When an application control, firewall, patch assessment, web, data control, device control or tamper protection event occurs on an endpoint computer, for example, an application has been blocked by the firewall, that event is sent to Enterprise Console and can be viewed in the respective event viewer.

- **Alerts and messages sent by the console to your chosen recipients**

  By default, when an item is found on a computer, a message is displayed on the computer desktop and an entry is added to the Windows event log. When an application control, data control, or device control event occurs, a message is displayed on the computer desktop.

  Note: Optional user-defined desktop messages are not displayed on computers running Windows 8 or later.

  You can also set up email alerts or SNMP messages for administrators.

  Note: If you want to use authenticated SMTP for email alerts, see Sophos knowledgebase article 113780.

This section describes how to set up alerts to be sent to your chosen recipients.

8.1 Set up software subscription alerts

If you use role-based administration, you must have the **System configuration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

Enterprise Console displays alerts raised by the update manager in the **Alerts** column in the **Update managers** view. If you subscribed to a fixed version of software, an alert will be displayed when that version is nearing retirement or is retired. An alert will also be displayed if your product license has changed.

If you are subscribed to a fixed version of software and have chosen to **Automatically upgrade fixed version software when it is no longer supported by Sophos**, your subscription will be upgraded automatically.

If you have chosen not to be upgraded automatically, you will be instructed to change your subscription.

Important: Running unsupported software leaves you unprotected against new security threats. We recommend that you upgrade to a supported version as soon as possible.

You can also set up email alerts to be sent to your chosen recipients when the product version you are subscribed to is nearing retirement or is retired.

1. On the **Tools** menu, select **Configure email alerts**.

   The **Configure email alerts** dialog box is displayed.

2. If SMTP settings have not been configured, or if you want to view or change the settings, click **Configure**.

   In the **Configure SMTP settings** dialog box, enter the details as described below.

   a) In the **Server address** text box, type the host name or IP address of the SMTP server.

   b) In the **Sender** text box, type an email address to which bounces and non-delivery reports can be sent.

   c) Click **Test** to test the connection.

3. In the **Recipients** panel, click **Add**.

   The **Add a new email alert recipient** dialog box appears.

4. In the **Email address** field, enter the address of your recipient.
5. In the **Language** field, select the language in which email alerts should be sent.
6. In the **Subscriptions** pane, select “Software subscriptions” email alerts you want to send to this recipient. There are three alerts you can subscribe to:

   - A software subscription includes a version of a product that is shortly to be retired at Sophos.
   - A software subscription includes a version of a product which is no longer available.

     This alert is sent if the product you are subscribed to has been retired, or your license has changed and the new license does not include that product.

   - The Sophos license information has been updated. Product features may have changed.

8.2 Set up anti-virus and HIPS email alerts

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can have email alerts sent to particular users if a virus, suspicious behavior, an unwanted application or an error is encountered on any of the computers in a group.

Important: Mac OS X computers can send email alerts to only one address.

1. In the **Policies** pane, double-click the anti-virus and HIPS policy you want to change.
2. In the **Anti-virus and HIPS policy** dialog box, click **Messaging**.
3. In the **Messaging** dialog box, go to the **Email alerting** tab and select **Enable email alerting**.

4. In the **Messages to send** panel, select the events for which you want to send email alerts.

   Note: The **Suspicious behavior detection**, **Suspicious file detection**, **Adware and PUA detection and cleanup**, and **Other errors** settings apply only to Windows computers.

5. In the **Recipients** panel, click **Add** or **Remove** to add or remove, respectively, email addresses to which email alerts should be sent. Click **Rename** to change an email address you have added.

   Important: Mac OS X computers will send messages only to the first recipient in the list.

6. Click **Configure SMTP** to change the settings for the SMTP server and the language of the email alerts.
7. In the **Configure SMTP settings** dialog box, enter the details as described below.
   - In the **SMTP server** text box, type the host name or IP address of the SMTP server. Click **Test** to send a test email alert.
   - In the **SMTP sender address** text box, type an email address to which bounces and non-delivery reports can be sent.
   - In the **SMTP reply-to address** text box, you can type in the text box an email address to which replies to email alerts can be sent. Email alerts are sent from an unattended mailbox.
   - In the **Language** panel, click the drop-down arrow, and select the language in which email alerts should be sent.

8.3 Set up anti-virus and HIPS SNMP messaging

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can have SNMP messages sent to particular users if a virus or error is encountered on any of the computers in the group.

Note: These settings apply only to Windows computers.

1. In the **Policies** pane, double-click the anti-virus and HIPS policy you want to change.
2. In the **Anti-virus and HIPS policy** dialog box, click **Messaging**.
3. In the **Messaging** dialog box, go to the **SNMP messaging** tab and select **Enable SNMP messaging**.
4. In the **Messages to send** panel, select the types of event for which you want Sophos Endpoint Security and Control to send SNMP messages.
5. In the **SNMP trap destination** text box, enter the IP address of the recipient.
6. In the **SNMP community name** text box, enter the SNMP community name.

8.4 Configure anti-virus and HIPS desktop messaging

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

By default, desktop messages are displayed on the computer on which a virus, suspicious item or potentially unwanted application is found. You can configure these messages.

1. In the **Policies** pane, double-click the anti-virus and HIPS policy you want to change.
2. In the **Anti-virus and HIPS policy** dialog box, click **Messaging**.
3. In the **Messaging** dialog box, click the **Desktop messaging** tab.

   By default, **Enable desktop messaging** and all the options in the **Messages to send** panel are selected. Edit these settings, if appropriate.

   Note: The **Suspicious behavior detection**, **Suspicious file detection**, and **Adware and PUA detection** settings apply only to Windows computers.

4. In the **User-defined message** text box, you can type a message that will be added to the end of the standard message.

   Note: User-defined desktop messages are not displayed on computers running Windows 8 or later.

8.5 Set up application control alerts and messages

If you use role-based administration:

- You must have the **Policy setting - application control** right to configure an application control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

You can send messages to particular users when a controlled application is found.

1. In the **Policies** pane, double-click the application control policy you want to change.
2. In the **Application control policy** dialog box, go to the **Messaging** tab.

   In the **Messaging** panel, the **Enable desktop messaging** check box is enabled by default. When an unauthorized controlled application is detected by on-access scan and blocked, a desktop message will be displayed to the user informing them that the application has been blocked.

3. In the **Message text** box, type a message that will be added to the end of the standard desktop message.

   Note: User-defined desktop messages are not displayed on computers running Windows 8 or later.

4. If you want to send email alerts about detected controlled applications, select the **Enable email alerting** check box.
5. Select the **Enable SNMP messaging** check box, if you want to send SNMP messages.

   Note: Your anti-virus and HIPS policy settings determine email and SNMP messaging configuration and recipients. For more information, see Set up anti-virus and HIPS SNMP messaging (page 182).

8.6 Set up data control alerts and messages

If you use role-based administration:

- You must have the **Policy setting - data control** right to configure a data control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Enterprise Console uses events and messages to report when the transfer of sensitive data is detected or blocked.

For information about data control policies and events, see Data control policy (page 144).

When data control is enabled, the following events and messages are logged or displayed by default:

- Data control events are logged on the workstation.
- Data control events are sent to Enterprise Console and can be viewed in the **Data Control - Event Viewer**. (To open the event viewer, on the **Events** menu, click **Data Control Events**.)

  Note: Each computer can send to Enterprise Console a maximum of 50 data control events per hour.

- The number of computers with data control events over a specified threshold within the last seven days is displayed on the Dashboard.
- Desktop messages are displayed on the workstation.

You can also configure Enterprise Console to send the following messages:

Email alerts	An email message is sent to the recipients that you specify.
SNMP messages	An SNMP message is sent to the recipients specified in your anti-virus and HIPS policy settings.

To set up data control messaging:

1. Check which data control policy is used by the group or groups of computers you want to configure.

   See Check which policies a group uses (page 31).

2. In the **Policies** pane, double-click **Data control**. Then double-click the policy you want to change.

   The **Data control policy** dialog box is displayed.

3. In the **Data control policy** dialog box, go to the **Messaging** tab. Desktop messaging is enabled by default and **Include matched rules in messages** is selected.
4. Type messages that will be added to the standard messages for user confirmation of file transfer and for blocked file transfer, if you wish.

   You can enter a maximum of 100 characters. You can also add an HTML link to the message, for example, About Sophos.

   Note: User-defined desktop messages are not displayed on computers running Windows 8 or later.

5. To enable email alerting, select the **Enable email alerting** check box. In the **Email recipients** field, enter the email addresses of the recipients. Separate each address with a semicolon (;).
6. To enable SNMP messaging, select the **Enable SNMP messaging** check box.

   The email server and SNMP trap settings are configured via the anti-virus and HIPS policy.

8.7 Set up device control alerts and messages

If you use role-based administration:

- You must have the **Policy setting - device control** right to edit a device control policy.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

Enterprise Console uses events and messages to report when a controlled device is detected or blocked.

For information about device control policies and events, see Device control policy (page 159).

When device control is enabled, the following events and messages are logged or displayed by default:

- Device control events are logged on the workstation.
- Device control events are sent to Enterprise Console and can be viewed in the **Device Control - Event Viewer**. (To open the event viewer, on the **Events** menu, click **Device Control Events**.)
- The number of computers with device control events over a specified threshold within the last seven days is displayed on the Dashboard.
- Desktop messages are displayed on the workstation.

You can also configure Enterprise Console to send the following messages:

Email alerts	An email message is sent to the recipients that you specify.
SNMP messages	An SNMP message is sent to the recipients specified in your anti-virus and HIPS policy settings.

To set up device control messaging:

1. Check which device control policy is used by the group(s) of computers you want to configure.
   See Check which policies a group uses (page 31).
2. In the **Policies** pane, double-click **Device control**. Then double-click the policy you want to change.
3. In the **Device control policy** dialog box, on the **Messaging** tab, desktop messaging is enabled by default. To further configure messaging, do the following:
   - *To enter a message text for desktop messaging*, in the **Message text** box, type a message that will be added to the end of the standard message.

     You can enter a maximum of 100 characters. You can also add an HTML link to the message, for example, About Sophos.

     Note: User-defined desktop messages are not displayed on computers running Windows 8 or later.
   - *To enable email alerting*, select the **Enable email alerting** check box. In the **Email recipients** field, enter the email addresses of the recipients. Separate each address with a semicolon (;).
   - *To enable SNMP messaging*, select the **Enable SNMP messaging** check box.

   The email server and SNMP trap settings are configured via the anti-virus and HIPS policy.

8.8 Set up network status email alerts

If you use role-based administration, you must have the **System configuration** right to configure the network status email alerts. For more information, see Managing roles and sub-estates (page 18).

You can set up email alerts to be sent to your chosen recipients when a warning or critical level has been exceeded for a dashboard section.

1. On the **Tools** menu, select **Configure email alerts**.

   The **Configure email alerts** dialog box is displayed.
2. If SMTP settings have not been configured, or if you want to view or change the settings, click **Configure**. In the **Configure SMTP settings** dialog box, enter the details as described below.
   a) In the **Server address** text box, type the host name or IP address of the SMTP server.
   b) In the **Sender** text box, type an email address to which bounces and non-delivery reports can be sent.
   c) Click **Test** to test the connection.
3. In the **Recipients** panel, click **Add**.

   The **Add a new email alert recipient** dialog box appears.
4. In the **Email address** field, enter the address of your recipient.
5. In the **Language** field, select the language in which email alerts should be sent.
6. In the **Subscriptions** pane, select “warning level exceeded” and “critical level exceeded” email alerts you want to send to this recipient.

8.9 Set up Active Directory synchronization email alerts

If you use role-based administration, you must have the **System configuration** right to configure the Active Directory synchronization email alerts. For more information, see Managing roles and sub-estates (page 18).

You can set up email alerts to be sent to your chosen recipients about new computers and groups discovered during synchronizations with Active Directory. If you choose to protect computers in synchronized groups automatically, you can also set up alerts about automatic protection failures.

1. On the **Tools** menu, select **Configure email alerts**.

   The **Configure email alerts** dialog box is displayed.

2. If SMTP settings have not been configured, or if you want to view or change the settings, click **Configure**.

   In the **Configure SMTP settings** dialog box, enter the details as described below.

   a) In the **Server address** text box, type the host name or IP address of the SMTP server.

   b) In the **Sender** text box, type an email address to which bounces and non-delivery reports can be sent.

   c) Click **Test** to test the connection.

3. In the **Recipients** panel, click **Add**.

   The **Add a new email alert recipient** dialog box appears.

4. In the **Email address** field, enter the address of your recipient.
5. In the **Language** field, select the language in which email alerts should be sent.
6. In the **Subscriptions** pane, select “Active Directory synchronization” email alerts you want to send to this recipient.

   “Active Directory synchronization” email alerts:

   - New groups discovered
   - New computers discovered
   - Automatic computer protection has failed

8.10 Configure Windows event logging

If you use role-based administration:

- You must have the **Policy setting - anti-virus and HIPS** right to perform this task.
- You cannot edit a policy if it is applied outside your active sub-estate.

For more information, see Managing roles and sub-estates (page 18).

By default, Sophos Endpoint Security and Control adds alerts to the Windows event log when a virus or spyware is detected or cleaned up, suspicious behavior or file is detected, or adware or PUA is detected or cleaned up.

To edit these settings:

1. In the **Policies** pane, double-click the anti-virus and HIPS policy you want to change.
2. In the **Anti-virus and HIPS policy** dialog box, click **Messaging**.
3. In the **Messaging** dialog box, go to the **Event log** tab.

   By default, event logging is enabled. Edit the settings, if appropriate.

   Scanning errors include instances when Sophos Endpoint Security and Control is denied access to an item that it attempts to scan.

8.11 Turn sending feedback to Sophos on or off

If you use role-based administration, you must have the **System configuration** right to turn sending feedback to Sophos on or off. For more information, see Managing roles and sub-estates (page 18).

Enterprise Console will send Sophos a report periodically. These reports will help Sophos to understand how its products are being used and help to improve our products and services. More details about the types of information collected and the way in which your information is processed can be found in the Sophos End User License Agreement (EULA) and the Sophos Privacy Policy located here: http://www.sophos.com/legal.

Some of the information reported is optional and some is mandatory, as further described in the EULA and the Privacy Policy. You can opt out of the optional information reporting at any time by changing the **Feedback to Sophos** setting.

By default, sending feedback to Sophos is enabled. You are given the option of disabling it when installing or upgrading the console, in the Sophos Enterprise Console installation wizard.

If you want to turn sending feedback to Sophos on or off after the installation, do the following:

1. On the **Tools** menu, click **Feedback to Sophos**.
2. In the **Feedback to Sophos** dialog box, you can enable or disable sending feedback to Sophos.
   - *If you want to enable sending feedback to Sophos,* read the agreement and select the **I agree** check box if you agree to the terms.
   - *If you want to disable sending feedback to Sophos,* clear the **I agree** check box.

9 Viewing events

When an application control, data control, device control, firewall, patch assessment, tamper protection, web control or exploit prevention event occurs on an endpoint computer, for example, an application has been blocked by the firewall, that event is sent to Enterprise Console and can be viewed in the respective event viewer.

Using the event viewers, you can investigate events that have occurred on the network. You can also generate a list of events based on a filter you configure, for example, a list of all data control events for the past seven days generated by a certain user.

The number of computers with events over a specified threshold within the last seven days is displayed on the Dashboard (except for tamper protection events). For information on how to set up the threshold, see Configure the Dashboard (page 51).

You can also set up alerts to be sent to your chosen recipients when an event has occurred. For more information, see Setting up alerts and messages (page 180).

9.1 View application control events

To view application control events:

1. On the **Events** menu, click **Application Control Events**.

   The **Application Control - Event Viewer** dialog box appears.

2. In the **Search period** field, click the drop-down arrow and select the period for which you want to display the events.

   You can either select a fixed period, for example, **Within 24 hours**, or select **Custom** and specify your own time period by selecting the starting and ending dates and times.

3. If you want to view events for a certain user or computer, enter the name in the respective field.

   If you leave the fields empty, events for all users and computers will be displayed.

   You can use wildcards in these fields. Use ? for any single character and * for any string of characters.

4. If you want to view events for a certain application type, in the **Application type** field, click the drop-down arrow and select the application type.

   By default, the event viewer displays events for all application types.

5. Click **Search** to display a list of events.

You can export the list of application control events to a file. For details, see Export the list of events to a file (page 198).

9.2 View data control events

Note: This feature will be unavailable if your license doesn't include Data Control.

If you use role-based administration, you must have the **Data control events** right to view data control events in Enterprise Console. For more information about role-based administration, see Managing roles and sub-estates (page 18).

To view data control events:

1. On the **Events** menu, click **Data Control Events**.

   The **Data Control - Event Viewer** dialog box appears.

2. In the **Search period** field, click the drop-down arrow and select the period for which you want to display the events.

   You can either select a fixed period, for example, **Within 24 hours**, or select **Custom** and specify your own time period by selecting the starting and ending dates and times.

3. If you want to view events for a certain user, computer, or file, enter the name in the respective field.

   If you leave the fields empty, events for all users, computers, and files will be displayed.

   You can use wildcards in these fields. Use ? for any single character and * for any string of characters.

4. If you want to view events for a certain rule, in the **Rule name** field, click the drop-down arrow and select the rule name.

   By default, the event viewer displays events for all rules.

5. If you want to view events for a certain file type, in the **File type** field, click the drop-down arrow and select the file type.

   By default, the event viewer displays events for all file types.

6. Click **Search** to display a list of events.

You can export the list of data control events to a file. For details, see Export the list of events to a file (page 198).

9.3 View device control events

To view device control events:

1. On the **Events** menu, click **Device Control Events**.

   The **Device Control - Event Viewer** dialog box appears.

2. In the **Search period** field, click the drop-down arrow and select the period for which you want to display the events.

   You can either select a fixed period, for example, **Within 24 hours**, or select **Custom** and specify your own time period by selecting the starting and ending dates and times.

3. If you want to view events for a certain device type, in the **Device type** field, click the drop-down arrow and select the device type.

   By default, the event viewer displays events for all device types.

   Note: If you set optical disk drives to "Read only", events for these devices are not seen in the event viewer.

4. If you want to view events for a certain user or computer, enter the name in the respective field.

   If you leave the fields empty, events for all users and computers will be displayed.

   You can use wildcards in these fields. Use ? for any single character and * for any string of characters.

5. Click **Search** to display a list of events.

In the **Device Control - Event Viewer** dialog box, you can exempt a device from the device control policies. For details, see Exempt a device from all policies (page 163).

You can export the list of device control events to a file. For details, see Export the list of events to a file (page 198).

9.4 View firewall events

Firewall events are sent only once from an endpoint computer to the console. Identical events from different endpoints are grouped together in the **Firewall - Event Viewer**. In the **Count** column, you can see the total number of times that an event has been sent from different endpoints.

To view firewall events:

1. On the **Events** menu, click **Firewall Events**.

   The **Firewall - Event Viewer** dialog box appears.

2. In the **Search period** field, click the drop-down arrow and select the period for which you want to display the events.

   You can either select a fixed period, for example, **Within 24 hours**, or select **Custom** and specify your own time period by selecting the starting and ending dates and times.

3. If you want to view events of a certain type, in the **Event type** field, click the drop-down arrow and select the event type.

   By default, the event viewer displays all types of events.

4. If you want to view events for a certain file, in the **File name** field, enter the file name.

   If you leave this field empty, events for all files will be displayed.

   You can use wildcards in this field. Use ? for any single character and * for any string of characters.

5. Click **Search** to display a list of events.

In the **Firewall - Event Viewer** dialog box, you can create a firewall rule as described in Create a firewall event rule (page 118).

You can export the list of firewall events to a file. For details, see Export the list of events to a file (page 198).

9.5 View tamper protection events

There are two types of tamper protection event:

- Successful tamper protection authentication events, showing the name of the authenticated user and the time of authentication.

- Failed attempts to tamper, showing the name of the targeted Sophos product or component, the time of the attempt, and the details of the user responsible for the attempt.

To view tamper protection events:

1. On the **Events** menu, click **Tamper Protection Events**.

   The **Tamper Protection - Event Viewer** dialog box appears.

2. In the **Search period** field, click the drop-down arrow and select the period for which you want to display the events.

   You can either select a fixed period, for example, **Within 24 hours**, or select **Custom** and specify your own time period by selecting the starting and ending dates and times.

3. If you want to view events of a certain type, in the **Event type** field, click the drop-down arrow and select the type of event.

   By default, the event viewer displays events of all types.

4. If you want to view events for a certain user or computer, enter the name in the respective field.

   If you leave the fields empty, events for all users and computers will be displayed.

   You can use wildcards in these fields. Use ? for any single character and * for any string of characters.

5. Click **Search** to display a list of events.

You can export the list of events to a file. For details, see Export the list of events to a file (page 198).

9.6 Patch assessment events

Note: This feature will be unavailable if your license doesn't include Patch Assessment.

The **Patch Assessment - Event Viewer** contains information about security patches and results of patch assessments.

The **Patch updates** field displays the download status of patch information. It displays one of the following status messages:

- **Not downloaded** indicates patch information is not downloaded or you do not have the license to use the Patch feature.
- **Downloading** indicates the first download, after install, is in progress.
- **OK** indicates patch information is up-to-date.
- **Out of date** indicates that there has not been a fully successful update of patch data in the past 72 hours. Typically this status is displayed if SEC is not up-to-date, due to issues with network connectivity. It may also be displayed if you change your license from a SEC that has the Patch feature, to another without it. It is possible that a partial update may have occurred when this status message is displayed.

The **Patch Assessment - Event Viewer** has the following tabs:

Patches by rating

This tab by default displays missing patches. Each patch is displayed, along with a count of the computers missing the patch, and the threats and vulnerabilities linked to the patch. You can use filters to show a full list of all the supported patches with a count of the number of computers missing them.

Computers missing patches

This tab displays patch assessment status by computer. Each computer is displayed, along with its missing patches. Computers are listed multiple times if missing more than one patch.

9.6.1 View patch assessment events

To view patch assessment events:

1. On the **Events** menu, click **Patch Assessment Events**.

   The **Patch Assessment - Event Viewer** dialog box appears.

2. Click on one of the tabs **Patches by rating** or **Computers missing patches**. For more information about tabs, see Patch assessment events (page 192).
3. In the search panel, if you want to view events for a certain patch by its name, computer, threat, or vulnerability, enter the information in the respective field. Available criteria are based on the information displayed in the tab.

   If you leave the fields empty, events for all patch names, patch IDs, and computer names will be displayed.

   You can use wildcards in these fields. Use ? for any single character and * for any string of characters.

4. If you want to view events for a certain patch by its status, rating, vendor, group, or release date, click the drop-down arrow of the respective field and select the appropriate option. Available criteria are based on the information displayed in the tab.

   By default, the event viewer displays events for the threat ratings, vendors, groups, threats, and patch names for the missing patches.

5. Click **Search** to display a list of patch assessment events.

   For information on results that are displayed, see Search result categories (page 194).

You can right-click on an individual hyperlink to copy its name, or use Ctrl+C to copy a patch assessment event row to the Clipboard.

You can export the list of patch assessment events. For details, see Export the list of events to a file (page 198).

You can view details about a specific patch by clicking the provided link. For more information, see View patch, threat, or vulnerability details (page 194).

9.6.2 View patch, threat, or vulnerability details

To view patch, threat, or vulnerability details:

1. On the **Events** menu, click **Patch Assessment Events**.

   The **Patch Assessment - Event Viewer** dialog box appears.

2. Click on one of the tabs **Patches by rating** or **Computers missing patches**, select the required options, and click **Search** to display a list of events.

   For information on results that are displayed, see Search result categories (page 194).

3. Click the patch name for which you want to view additional details.
4. In the **Patch Detail** dialog box, you can view a description of the patch and information about the threats and vulnerabilities it protects against. If available, you can:
   - Click the patch name to open a web browser and view vendor information about a patch.
   - Click the threat to open a web browser and view the Sophos threat analysis and recommendations.
   - Click the vulnerability to open a web browser and view common vulnerabilities and exposures (CVE) information.
   - Click the patch name in the **Previously addressed by** column to open a web browser and view vendor information about a patch that has been superseded.

The list is sorted alphabetically by threat and then by vulnerability.

9.6.3 Search result categories

The search results are displayed in different categories based on the tab:

- Patches by rating (page 194)
- Computers missing patches (page 195)

9.6.3.1 Patches by rating

The search results are displayed based on the following categories:

- **Threats**: A threat can be a virus, Trojan, worm, spyware, malicious website as well as adware and other potentially unwanted applications. You can click on the threat name to view the Sophos threat analysis and recommendations in a web browser.
- **Vulnerabilities**: A vulnerability is a software weakness which can be exploited by an attacker. The potential damage that could be caused by the exploitation is dependant upon the nature of the vulnerability, and the affected software. Patches are provided to fix vulnerabilities so that exploitation is no longer possible. You can click on the vulnerability name to view common vulnerabilities and exposures (CVE) information in a web browser.
- **Rating**: Patches are rated by SophosLabs.

  Note: We recommend all the missing patches are applied irrespective of their rating.

  - **Critical**: It is almost certain that one or more vulnerabilities addressed by this patch will be exploited.

- **High**: It is highly likely that one or more vulnerabilities addressed by this patch will be exploited.
- **Medium**: It is possible that one or more vulnerabilities addressed by this patch will be exploited.
- **Low**: It is unlikely that any vulnerabilities addressed by this patch will be exploited.

- **Patch name**: Displays the name of the patch. You can click on the patch name to open a web browser and view vendor information about a patch.
- **Vendor**: Displays the name of the vendor that published the patch.
- **Computers**: Displays the number of computers that are affected. If one or more computers are affected, you can click on the number to view the details in the **Computers missing patches** tab. If a "-" is displayed, it indicates that the patch is not assessed.
- **Superseded by**: Displays the name(s) of any superseding patches. You can click on the patch name to open the **Patch detail** dialog box to view information about the superseding patch.
- **Release date**: Displays the patch release date.

9.6.3.2 Computers missing patches

The search results are displayed based on the following categories:

- **Computer**: Displays the name of the computer that is affected.
- **Rating**: Patches are rated by SophosLabs.

  Note: We recommend all the missing patches are applied irrespective of their rating.

  - **Critical**: It is almost certain that one or more vulnerabilities addressed by this patch will be exploited.
  - **High**: It is highly likely that one or more vulnerabilities addressed by this patch will be exploited.
  - **Medium**: It is possible that one or more vulnerabilities addressed by this patch will be exploited.
  - **Low**: It is unlikely that any vulnerabilities addressed by this patch will be exploited.

- **Patch name**: Displays the name of the patch. You can click on the patch name to open a web browser and view vendor information about a patch.
- **Superseded by**: Displays the name(s) of any superseding patches. You can click on the patch name to open the **Patch detail** dialog box to view information about the superseding patch.
- **Last assessment**: Displays the date when a computer was last assessed for missing patches.
- **Vendor**: Displays the name of the vendor that published the patch.
- **Release date**: Displays the patch release date.
- **Group**: Displays the group name to which the computer belongs.

9.7 View web events

Note: This feature will be unavailable if your license doesn't include Web Control.

If you use role-based administration, you must have the **Web events** right to view web events in Enterprise Console. For more information about role-based administration, see Managing roles and sub-estates (page 18).

You can view the following web events in the Web Event Viewer:

- Malicious websites blocked by the Web Protection feature in the **Anti-virus and HIPS** policy.
- Web control events, if you use the web control feature.

Web control events are displayed differently, depending on which web control policy is selected. Although the Web Event Viewer can be used in both policy modes, the content is different.

When the **Inappropriate Website Control** policy option is selected, you can view any “Block” and “Warn” actions. Visited HTTPS sites categorized as “Warn” are logged as “Proceed” events because Sophos Endpoint Security and Control responds differently to HTTPS (see the note in Inappropriate Website Control (page 170)).

When **Full Web Control** is selected, events are displayed on the appliance.

- For Sophos Web Appliance or Management Appliance, you can view browsing activity using the **Reports** and **Search** features. “Block,” “Warn,” and “Allow” actions are all shown. Visited HTTPS sites categorized as “Warn” are displayed as “Proceed” events because Sophos Endpoint Security and Control responds differently to HTTPS (see the note in Full Web Control (page 174)).
- For UTM, use the **Logging & Reporting** > **Web Protection** > **Web Usage Report** page. There you can see actions showing whether the website has been delivered to the client (passed), whether it has been blocked by an application control rule, or whether a user gained access to a blocked page using the bypass blocking feature (overridden), as well as other information.

Note: Regardless of which policy you select, websites scanned and assessed by Sophos Endpoint Security and Control's live URL-filtering (Web Protection (page 102)) are displayed as web events in Enterprise Console.

To view web events:

1. On the **Events** menu, click **Web Events**.

   The **Web - Event Viewer** dialog box appears.

2. In the **Search period** box, click the drop-down arrow, and select the period for which you want to display the events.

   You can either select a fixed period, for example, **Within 24 hours**, or select **Custom** and specify your own time period by selecting the starting and ending dates and times.

3. If you want to view events for a certain **User** or **Computer**, enter the name in the respective field.

   If you leave the fields empty, events for all users and computers will be displayed.

   You can use wildcards in these fields. Use ? for any single character and * for any string of characters.

4. If you want to view events associated with a certain action, in the **Action** field, click the drop-down arrow and select the action.
5. If you want to view events associated with a specific domain, enter it in the **Domain** field.
6. If you want to view events that were triggered for a particular **Reason**, click the drop-down arrow and select the reason.

7. Click **Search** to display a list of events.

You can export the list of web events to a file. For details, see Export the list of events to a file (page 198).

9.7.1 View latest web events on a computer

You can view the last 10 events for which an action was taken on an endpoint computer, for example, recently blocked websites.

To view the latest web events:

1. In the **Endpoints** view, in the computer list, double-click the computer for which you want to view activity.
2. In the **Computer details** dialog box, scroll down to the **Latest web events** section.

You can also view the number of events for a user by generating a report. For more information, see Configure the Events by user report (page 204).

9.8 View exploit prevention events

Note: This feature will be unavailable if your license doesn't include Exploit Prevention.

If you use role-based administration, you must have the **Exploit Prevention** right to view exploit prevention events in Enterprise Console. For more information about role-based administration, see Managing roles and sub-estates (page 18).

To view exploit prevention events:

1. On the **Events** menu, click **Exploit Prevention.**.

   The **Exploit Prevention - Event Viewer** dialog box appears.

2. In the **Search period** box, click the drop-down arrow, and select the period for which you want to display the events.

   You can either select a fixed period, for example, **Within 24 hours**, or select **Custom** and specify your own time period by selecting the starting and ending dates and times.

3. If you want to view events for a certain **User** or **Computer**, enter the name in the respective field.

   If you leave the fields empty, events for all users and computers will be displayed.

   You can use wildcards in these fields. Use ? for any single character and * for any string of characters.

4. If you want to view events associated with a certain type, in the **Type** field, click the drop-down arrow and select the type.
5. Click **Search** to display a list of events.

You can export the list of exploit prevention events to a file. For details, see Export the list of events to a file (page 198).

9.9 Export the list of events to a file

You can export the list of application control, data control, device control, firewall, patch assessment, tamper protection, web events or exploit prevention events to a comma separated value (CSV) file. You can also export the list of patch assessment events to a PDF file.

1. On the **Events** menu, click one of the “events” options, depending on which event list you want to export.

   The **Event Viewer** dialog box appears.

2. If you want to display only certain events, in the **Search criteria** pane, set the filters as appropriate and click **Search** to display the events.

   For more information, see:

   - View application control events (page 189)
   - View data control events (page 189)
   - View device control events (page 190)
   - View firewall events (page 191)
   - View patch assessment events (page 193)
   - View tamper protection events (page 191)
   - View web events (page 195)
   - View exploit prevention events (page 197)

3. Click **Export**.
4. In the **Save As** window, browse to select a destination for the file, enter a file name in the **File name** dialog box, and select a file type in the **Save as type** dialog box.
5. Click **Save**.

10 Generating reports

Reports provide textual and graphical information on a variety of aspects of your network's security status.

Reports are available via the **Report Manager**. Using the **Report Manager**, you can quickly create a report based on an existing template, change configuration of an existing report, and schedule a report to run at regular intervals, with the results being sent to your chosen recipients as an email attachment. You can also print reports and export them in a number of formats.

Sophos provides a number of reports that you can use out of the box or configure to tailor your needs. These reports are:

- Alert and event history
- Alert summary
- Alerts and events by item name
- Alerts and events by time
- Alerts and events per location
- Endpoint policy non-compliance
- Events by user
- Managed endpoint protection
- Updating hierarchy

Reports and role-based administration

If you use role-based administration, you must have the **Report configuration** right to create, edit, or delete a report. If you do not have this right, you can only run a report. For more information about role-based administration, see Managing roles and sub-estates (page 18).

A report can only include data from the active sub-estate. You cannot share reports between sub-estates. The default reports are not copied from the **Default** sub-estate to new sub-estates you create.

When you delete a sub-estate, all reports in that sub-estate are also deleted.

10.1 Create a new report

If you use role-based administration, you must have the **Report configuration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

To create a report:

1. Click the **Reports** icon on the toolbar.
2. In the **Report Manager** dialog box, click **Create**.

3. In the **Create new report** dialog box, select a report template and click **OK**.

   A wizard guides you through creating a report based on your chosen template.

   If you do not want to use the wizard, in the **Create new report** dialog box, clear the **Use the wizard to create report** check box. You can then configure your new report in the report properties dialog box. For more information, see the topic on configuring the relevant report.

10.2 Configure the Alert and event history report

If you use role-based administration, you must have the **Report configuration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

The **Alert and event history** report shows alerts and events per specified reporting period.

1. Click the **Reports** icon on the toolbar.
2. In the **Report Manager** dialog box, select **Alert and event history** and click **Properties**.
3. In the **Alert and Event History Properties** dialog box, on the **Configuration** tab, set up the options you want.

   a) In the **Report details** panel, edit the name and description of the report, if you wish.

   b) In the **Reporting period** panel, in the **Period** text box, click the drop-down arrow and select a time period.

   You can either select a fixed period, for example, **Last month**, or select **Custom** and specify your own time period in the **Start** and **End** boxes.

   c) In the **Report location** panel, click **Group of computers** or **Individual computer**. Then click the drop-down arrow to specify a group or computer name.

   d) In the **Alert and event types to include** panel, select alert and event types you want to include in the report.

   By default, the report shows all alert and event types.

   Alternatively, you can configure the report to show only locations that have reported a particular alert or event. To specify a single alert or event, click **Advanced** and click an alert or event name in the list. To specify more than one alert or event, type a name in the text box, using wildcards. Use ? for any single character in the name, and * for any string of characters. For example, W32/* would specify all viruses with names beginning W32/.

4. On the **Display options** tab, select how you want to sort the alerts and events.

   By default, alert and event details are sorted according to **Alert and event name**. However, reports can also be sorted by **Computer name**, computer **Group name**, or **Date and time**.

5. On the **Schedule** tab, select **Schedule this report** if you want to run the report at regular intervals, with the results being sent to your chosen recipients as email attachments. Enter the start date and time and the frequency with which the report will be generated, specify the output file format and language, and enter the email addresses of the recipients of the report.

10.3 Configure the Alert summary report

If you use role-based administration, you must have the **Report configuration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

The **Alert summary** report provides statistics on the overall health and status of your network.

1. Click the **Reports** icon on the toolbar.
2. In the **Report Manager** dialog box, select **Alert summary** and click **Properties**.
3. In the **Alert Summary Properties** dialog box, on the **Configuration** tab, set up the options you want.
   a) In the **Report details** panel, edit the name and description of the report, if you wish.
   b) In the **Reporting period** panel, in the **Period** text box, click the drop-down arrow and select a time period.
      You can either select a fixed period, for example, **Last month**, or select **Custom** and specify your own time period in the **Start** and **End** boxes.
4. In the **Display options** tab, under **Display results per**, specify the intervals of time at which the non-compliance is measured, for example, each hour or each day, click the drop-down arrow and select an interval.
5. On the **Schedule** tab, select **Schedule this report** if you want to run the report at regular intervals, with the results being sent to your chosen recipients as email attachments. Enter the start date and time and the frequency with which the report will be generated, specify the output file format and language, and enter the email addresses of the recipients of the report.

10.4 Configure the Alerts and events by item name report

If you use role-based administration, you must have the **Report configuration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

The **Alerts and events by item name** report provides statistics on all alerts and events from all computers over a selected period, grouped by item name.

To configure the report:

1. Click the **Reports** icon on the toolbar.
2. In the **Report Manager** dialog box, select **Alerts and events by item name** and click **Properties**.
3. In the **Alerts and Events by Item Name Properties** dialog box, on the **Configuration** tab, set up the options you want.
   a) In the **Report details** panel, edit the name and description of the report, if you wish.
   b) In the **Reporting period** panel, in the **Period** text box, click the drop-down arrow and select a time period.
      You can either select a fixed period, for example, **Last month**, or select **Custom** and specify your own time period in the **Start** and **End** boxes.
   c) In the **Report location** panel, click **Group of computers** or **Individual computer**. Then click the drop-down arrow to specify a group or computer name.
   d) In the **Alert and event types to include** panel, select alert and event types you want to include in the report.
      By default, the report shows all alert and event types.

4. On the **Display options** tab, under **Display**, choose which alerts and events you want the report to show.

   By default, the report shows all alerts and events and the number of occurrences for each.

   You can also configure the report to show only:

   - the top *n* alerts and events (where *n* is a number you specify), or
   - alerts and events with *m* occurrences or more (where *m* is a number you specify).

5. Under **Sort by**, select whether you want to sort alerts and events by the number or name.

   By default, the report lists alerts and events in order of decreasing number of occurrences.

6. On the **Schedule** tab, select **Schedule this report** if you want to run the report at regular intervals, with the results being sent to your chosen recipients as email attachments. Enter the start date and time and the frequency with which the report will be generated, specify the output file format and language, and enter the email addresses of the recipients of the report.

10.5 Configure the Alerts and events by time report

If you use role-based administration, you must have the **Report configuration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

The **Alerts and events by time** report shows alerts and events summarized at specified intervals.

1. Click the **Reports** icon on the toolbar.
2. In the **Report Manager** dialog box, select **Alerts and events by time** and click **Properties**.
3. In the **Alerts and Events by Time Properties** dialog box, on the **Configuration** tab, set up the options you want.

   a) In the **Report details** panel, edit the name and description of the report, if you wish.

   b) In the **Reporting period** panel, in the **Period** text box, click the drop-down arrow and select a time period.

   You can either select a fixed period, for example, **Last month**, or select **Custom** and specify your own time period in the **Start** and **End** boxes.

   c) In the **Report location** panel, click **Group of computers** or **Individual computer**. Then click the drop-down arrow to specify a group or computer name.

   d) In the **Alert and event types to include** panel, select alert and event types you want to include in the report.

   By default, the report shows all alert and event types.

   Alternatively, you can configure the report to show only locations that have reported a particular alert or event. To specify a single alert or event, click **Advanced** and click an alert or event name in the list. To specify more than one alert or event, type a name in the text box, using wildcards. Use ? for any single character in the name, and * for any string of characters. For example, W32/* would specify all viruses with names beginning W32/.

4. On the **Display options** tab, specify the intervals of time at which the rate of alerts and events is measured, for example, each hour or each day, click the drop-down arrow and select an interval.

5. On the **Schedule** tab, select **Schedule this report** if you want to run the report at regular intervals, with the results being sent to your chosen recipients as email attachments. Enter the start date and time and the frequency with which the report will be generated, specify the output file format and language, and enter the email addresses of the recipients of the report.

10.6 Configure the Alerts and events per location report

If you use role-based administration, you must have the **Report configuration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

The **Alerts and events per location** report provides statistics on all alerts from all computers over a selected period, grouped by location.

1. Click the **Reports** icon on the toolbar.
2. In the **Report Manager** dialog box, select **Alerts and events per location** and click **Properties**.
3. In the **Alerts and Events per Location Properties** dialog box, on the **Configuration** tab, set up the options you want.
   a) In the **Report details** panel, edit the name and description of the report, if you wish.
   b) In the **Reporting period** panel, in the **Period** text box, click the drop-down arrow and select a time period.
      You can either select a fixed period, for example, **Last month**, or select **Custom** and specify your own time period in the **Start** and **End** boxes.
   c) In the **Report location** panel, click **Computers** to show alerts per computer or **Group** to show alerts for each group of computers.
   d) In the **Alert and event types to include** panel, select alert and event types you want to include in the report.
      By default, the report shows all alert and event types.
      Alternatively, you can configure the report to show only locations that have reported a particular alert or event. To specify a single alert or event, click **Advanced** and click an alert or event name in the list. To specify more than one alert or event, type a name in the text box, using wildcards. Use ? for any single character in the name, and * for any string of characters. For example, W32/* would specify all viruses with names beginning W32/.
4. On the **Display options** tab, under **Display**, choose which locations you want the report to show.
   By default, the report shows all computers and groups and the number of occurrences for each. You can configure it to show only:
   - the top *n* locations that have recorded the most alerts and events (where *n* is a number you specify), or
   - locations with *m* alerts and events or more (where *m* is a number you specify).
5. Under **Sort by**, select whether you want to sort locations by the number of items detected or name.
   By default, the report lists locations in order of decreasing number of alerts and events per location. Select **Location** if you want them sorted by name in alphabetical order.

6. On the **Schedule** tab, select **Schedule this report** if you want to run the report at regular intervals, with the results being sent to your chosen recipients as email attachments. Enter the start date and time and the frequency with which the report will be generated, specify the output file format and language, and enter the email addresses of the recipients of the report.

10.7 Configure the Endpoint policy non-compliance report

If you use role-based administration, you must have the **Report configuration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

The **Endpoint policy non-compliance** report shows the percentage or number of computers that do not comply with their group policy, summarized at specified intervals.

1. Click the **Reports** icon on the toolbar.
2. In the **Report Manager** dialog box, select **Endpoint policy non-compliance** and click **Properties**.
3. In the **Endpoint Policy Non-Compliance Properties** dialog box, on the **Configuration** tab, set up the options you want.
   a) In the **Report details** panel, edit the name and description of the report, if you wish.
   b) In the **Reporting period** panel, in the **Period** text box, click the drop-down arrow and select a time period.
      You can either select a fixed period, for example, **Last month**, or select **Custom** and specify your own time period in the **Start** and **End** boxes.
   c) In the **Show** panel, select the policies you want to show in the report. By default, only **Anti-virus and HIPS** policy is selected.
4. In the **Display options** tab, under **Display results per**, specify the intervals of time at which the non-compliance is measured, for example, each hour or each day, click the drop-down arrow and select an interval.
5. Under **Display results as**, select whether you want to display results as percentages or numbers.
6. On the **Schedule** tab, select **Schedule this report** if you want to run the report at regular intervals, with the results being sent to your chosen recipients as email attachments. Enter the start date and time and the frequency with which the report will be generated, specify the output file format and language, and enter the email addresses of the recipients of the report.

10.8 Configure the Events by user report

If you use role-based administration, you must have the **Report configuration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

The **Events by user** report shows application control, firewall, data control, and device control events, along with web events, grouped by user.

1. Click the **Reports** icon on the toolbar.
2. In the **Report Manager** dialog box, select **Events by user** and click **Properties**.

3. In the **Events by User Properties** dialog box, on the **Configuration** tab, set up the options you want.
   a) In the **Report details** panel, edit the name and description of the report, if you wish.
   b) In the **Reporting period** panel, in the **Period** text box, click the drop-down arrow and select a time period.
      You can either select a fixed period, for example, **Last month**, or select **Custom** and specify your own time period in the **Start** and **End** boxes.
   c) Under **Event types to include**, select the features for which you want to show events.
4. On the **Display options** tab, under **Display**, choose which users you want the report to show.
   By default, the report shows all users and the number of events for each. You can configure it to show only:
   - the top *n* users that have recorded the most events (where *n* is a number you specify), or
   - users with *m* events or more (where *m* is a number you specify).
5. Under **Sort by**, select whether you want to sort users by the number of events or name.
   By default, the report lists users in order of decreasing number of events per user. Select **User** if you want them sorted by name in alphabetical order.
6. On the **Schedule** tab, select **Schedule this report** if you want to run the report at regular intervals, with the results being sent to your chosen recipients as email attachments. Enter the start date and time and the frequency with which the report will be generated, specify the output file format and language, and enter the email addresses of the recipients of the report.

10.9 Configure the Managed endpoint protection report

If you use role-based administration, you must have the **Report configuration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

The **Managed endpoint protection** report shows the percentage or number of protected computers, summarized at specified intervals.

1. Click the **Reports** icon on the toolbar.
2. In the **Report Manager** dialog box, select **Managed endpoint protection** and click **Properties**.
3. In the **Managed Endpoint Protection Properties** dialog box, on the **Configuration** tab, set up the options you want.
   a) In the **Report identity** panel, edit the name and description of the report, if you wish.
   b) In the **Reporting period** panel, in the **Period** text box, click the drop-down arrow and select a time period.
      You can either select a fixed period, for example, **Last month**, or select **Custom** and specify your own time period in the **Start** and **End** boxes.
   c) In the **Show** panel, select the features you want to show in the report.
4. In the **Display options** tab, under **Display results per**, specify the intervals of time at which the non-compliance is measured, for example, each hour or each day, click the drop-down arrow and select an interval.

5. Under **Display results as**, select whether you want to display results as percentages or numbers.
6. On the **Schedule** tab, select **Schedule this report** if you want to run the report at regular intervals, with the results being sent to your chosen recipients as email attachments. Enter the start date and time and the frequency with which the report will be generated, specify the output file format and language, and enter the email addresses of the recipients of the report.

10.10 Updating hierarchy report

The **Updating hierarchy** report shows update managers on your network, update shares that they maintain, and the number of computers that update from these shares.

You cannot configure the **Updating hierarchy** report. You can run the report as described in Run a report (page 206).

10.11 Schedule a report

If you use role-based administration, you must have the **Report configuration** right to perform this task. For more information, see Managing roles and sub-estates (page 18).

You can schedule a report to run at regular intervals, with the results being sent to your chosen recipients as email attachments.

1. Click the **Reports** icon on the toolbar.
2. In the **Report Manager** dialog box, select the report you want to schedule and click **Schedule**.
3. In the dialog box that appears, on the **Schedule** tab, select **Schedule this report**.
4. Enter the start date and time and the frequency with which the report will be generated.
5. Specify the output file format and language.
6. Enter the email addresses of the recipients of the report.

10.12 Run a report

1. Click the **Reports** icon on the toolbar.
2. In the **Report Manager** dialog box, select the report you want to run and click **Run**.

   The **Reporting** window, showing the report, is displayed.

You can change the report layout, print the report or export it to a file.

10.13 View a report as a table or chart

Some reports can be viewed both as a table and as a chart. If this is the case, you will see two tabs, **Table** and **Chart** in the **Reporting** window displaying the report.

1. Click the **Reports** icon on the toolbar.

2. In the **Report Manager** dialog box, select the report you want to run, for example, **Alerts and events per location**, and click **Run**.

   The **Reporting** window, showing the report, is displayed.

3. To view the report as a table or chart, go to the respective tab.

10.14 Print a report

To print a report, click the **Print** icon on the toolbar at the top of the report.

10.15 Export a report to a file

To export a report to a file:

1. Click the **Export** icon in the toolbar at the top of the report.

2. In the **Export report** dialog box, select the type of document or spreadsheet you would like to export the report to.

   The options are:

   - PDF (Acrobat)
   - HTML
   - Microsoft Excel
   - Microsoft Word
   - Rich Text Format (RTF)
   - Comma separated values (CSV)
   - XML

3. Click the **File Name** browse button to select a location. Then enter a name. Click **OK**.

10.16 Change the report layout

You can change the page layout used for reports. For example, you can display a report in landscape (wide-page) format.

1. Click the page layout icon in the toolbar at the top of the report.

2. In the **Page Setup** dialog box, specify page size, orientation and margins. Click **OK**.

   The report is then displayed with these page settings.

These page settings are also used when you print or export the report.

11 Auditing

Auditing enables you to monitor changes in Enterprise Console configuration and other user or system actions. You can use this information for regulatory compliance and troubleshooting or, in the case of malicious activity, during a forensic analysis.

By default, auditing is disabled. After you enable auditing, an audit entry is written to the auditing database whenever certain configuration settings are changed or certain actions are performed.

Note: If you use role-based administration, you must have the **Auditing** right to enable or disable auditing. For more information, see Managing roles and sub-estates (page 18).

The audit entry includes the following information:

- Action performed
- User who performed the action
- User's computer
- User's sub-estate
- Date and time of the action

Both successful and failed attempts at actions are audited, so the audit entries can show who performed actions on the system and who started actions that did not complete successfully.

Audited actions include:

Category	Actions
Computer actions	Acknowledge/resolve alerts and errors, protect a computer, update a computer, delete a computer, perform a full system scan on a computer
Computer group management	Create a group, delete a group, move a group, rename a group, assign a computer to a group
Policy management	Create a policy, rename a policy, duplicate a policy, edit a policy, assign a policy to a computer, reset a policy to factory defaults, delete a policy
Role management	Create a role, delete a role, rename a role, duplicate a role, add a user to a role, remove a user from a role, add a right to a role, remove a right from a role
Update manager management	Update an update manager, make an update manager comply with configuration, acknowledge alerts, delete an update manager, configure an update manager, add a new software subscription, delete a software subscription, rename a software subscription, edit a software subscription, duplicate a software subscription
System events	Enable auditing, disable auditing

You can use third-party programs, such as Microsoft Excel, Microsoft Access, Microsoft SQL Server Reporting Services, or Crystal Reports, to access and analyze data stored in the auditing database. For information about how to view audit entries, see the Sophos Enterprise Console auditing user guide.

11.1 Enable or disable auditing

If you use role-based administration, you must have the **Auditing** right to enable or disable auditing. For more information, see Managing roles and sub-estates (page 18).

To enable or disable auditing:

1. On the **Tools** menu, click **Manage Auditing**.
2. In the **Manage Auditing** dialog box, select or clear the **Enable auditing** check box to enable or disable auditing. The option is disabled by default.

12 Copying or printing data from Enterprise Console

12.1 Copy data from the computer list

You can copy information displayed in the computer list, in the **Endpoints** view, to the Clipboard and then paste it into another document in a tab-separated format.

1. In the **Endpoints** view, in the **Groups** pane, select the group of computers for which you want to copy data.
2. In the **View** drop-down list, select which computers you want to display, for example, **Computers with potential problems**.
3. If the group contains subgroups, select also whether you want to display computers **At this level only** or **At this level and below**.
4. In the computer list, go to the tab you want to display, for example, **Anti-Virus Details**.
5. Click anywhere in the computer list to bring the focus to it.
6. On the **Edit** menu, click **Copy** to copy the data to the Clipboard.

12.2 Print data from the computer list

You can print information displayed in the computer list, in the **Endpoints** view.

1. In the **Endpoints** view, in the **Groups** pane, select the group of computers for which you want to print data.
2. In the **View** drop-down list, select which computers you want to display, for example, **Computers with potential problems**.
3. If the group contains subgroups, select also whether you want to display computers **At this level only** or **At this level and below**.
4. In the computer list, go to the tab you want to display, for example, **Anti-Virus Details**.
5. Click anywhere in the computer list to bring the focus to it.
6. On the **File** menu, click **Print**.

12.3 Copy computer details for a computer

You can copy information from the **Computer details** dialog box to the Clipboard and then paste it into another document. The information includes computer name, computer's operating system, versions of the security software installed on the computer, any outstanding alerts and errors, update status, and so on.

1. In the **Endpoints** view, in the computer list, double-click the computer for which you want to copy the data.

2. In the **Computer details** dialog box, click **Copy** to copy the data to the Clipboard.

12.4 Print computer details for a computer

You can print information from the **Computer details** dialog box. The information includes computer name, computer's operating system, versions of the security software installed on the computer, any outstanding alerts and errors, update status, and so on.

1. In the **Endpoints** view, in the computer list, double-click the computer for which you want to print the data.
2. In the **Computer details** dialog box, click **Print**.

13 Troubleshooting

13.1 Computers are not running on-access scanning

If there are computers not running on-access scanning:

1. Check which anti-virus and HIPS policy is used by those computers.
   For details, see Check which policies a group uses (page 31).
2. Ensure that on-access scanning is enabled in that policy and that the computers comply with the policy.
   For details, see Turn on-access scanning on or off (page 85) and Make computers use the group policy (page 38).

13.2 The firewall is disabled

If there are computers with the firewall disabled:

1. Check which firewall policy is used by those computers.
   For details, see Check which policies a group uses (page 31).
2. Ensure that the firewall is enabled in that policy and that the computers comply with the policy.
   For details, see Temporarily disable the firewall (page 118) and Make computers use the group policy (page 38).

13.3 The firewall is not installed

Note: If you use role-based administration, you must have the **Computer search, protection and groups** right to install the firewall. For more information, see Managing roles and sub-estates (page 18).

Before you attempt to install the client firewall on endpoint computers, check that the computers are running a Windows client operating system.

Note: You cannot install the firewall on computers running server operating systems or Windows Vista Starter.

If there are computers on which you want to install the firewall:

1. Select the computers, right-click and select **Protect Computers**.
   The **Protect Computers Wizard** appears. Click **Next**.
2. When prompted to select features, select **Firewall**. Complete the wizard.

If the problem persists, contact Sophos technical support.

13.4 Computers have outstanding alerts

- If there are computers with a virus, or an application you do not want, see Clean up computers now (page 57).
- If there are computers with an adware or other potentially unwanted application that you *do* want, see Authorize adware and PUAs (page 108).
- If there are out-of-date computers, see Update out-of-date computers (page 79) for help with diagnosing and fixing the problem.

Note: If you do not need the alert displayed any more, you can clear it. Select the computer(s) with alerts, right-click and select **Resolve Alerts and Errors**. You must have the **Remediation - cleanup** right to acknowledge (clear) alerts and errors.

13.5 Computers are not managed by the console

Windows, Mac, Linux, and UNIX computers should be managed by Enterprise Console, so that they can be updated and monitored.

Note: Unless you use Active Directory synchronization (see Synchronizing with Active Directory (page 41)), new computers added to the network are not displayed or managed by the console automatically. Click **Discover computers** in the toolbar to search for them and place them in the **Unassigned** group.

If a computer is not managed, its details on the **Status** tab are grayed out.

To start managing unmanaged computers:

1. In the **View** drop-down list, select **Unmanaged computers**.
2. Do one of the following:
   - If the unmanaged computers are in the **Unassigned** group, select the computers and drag and drop them onto the group where you want to place them. The **Protect Computers Wizard** is launched to help you protect them.
   - If the computers are already in a group, select them, right-click and select **Protect Computers** to install a managed version of Sophos Endpoint Security and Control.
3. If there are computers on which Enterprise Console cannot install Sophos Endpoint Security and Control automatically, carry out a manual installation.

   Automatic installation using the **Protect Computers Wizard** is only available for Windows computers. If you need to protect Macs, Linux or UNIX computers, install the software manually.

   For information about protecting Macs or Windows computers manually, see the Sophos Enterprise Console advanced startup guide.

   For information about protecting Linux or UNIX, see the Sophos Enterprise Console startup guide for Linux and UNIX.

13.6 Cannot protect computers in the Unassigned group

The **Unassigned** group is only for holding computers that are not yet in groups created by you, to which policies can be applied. You cannot protect computers until you place them in such a group.

13.7 Sophos Endpoint Security and Control installation failed

If the **Protect Computers Wizard** fails to install Sophos Endpoint Security and Control on computers, it could be because:

- Enterprise Console does not know which operating system the computers are running. This is probably because you did not enter your username in the format domain\user when finding computers.
- Automatic installation is not possible on that operating system. Perform a manual installation. For instructions, see the Sophos Enterprise Console advanced startup guide.
- The computers are running a firewall.
- "Simple File Sharing" has not been turned off on Windows XP computers.
- The "Use Sharing Wizard" option has not been turned off on Windows Vista computers.
- You selected to install a feature that is not supported on the computers' operating systems.

For a full list of requirements for the Sophos Endpoint Security and Control features, see the system requirements page on the Sophos website (http://www.sophos.com/en-us/products/all-system-requirements).

13.8 Computers are not updated

See Update out-of-date computers (page 79) for help with diagnosing and fixing the problem.

13.9 Anti-virus settings do not take effect on Macs

Some anti-virus settings cannot be applied to Mac computers. In this case, there is a warning on that page of settings.

For more information about anti-virus and HIPS policy settings that apply to Macs, see Sophos knowledgebase article 118859.

13.10 Anti-virus settings do not take effect on Linux or UNIX

Some anti-virus settings cannot be applied to Linux or UNIX computers. In this case, there is a warning on that page of settings.

You can change anti-virus settings on Linux computers using the **`savconfig`** and **`savscan`** commands as described in the Sophos Anti-Virus for Linux configuration guide.

You can change anti-virus settings on UNIX computers using the **savscan** command as described in the Sophos Anti-Virus for UNIX configuration guide.

13.11 Linux or UNIX computer does not comply with policy

If you use a corporate configuration file in the CID, and the file contains a configuration value which conflicts with the policy, the computer is shown as not complying with the policy.

Selecting the **Comply with policy** option brings the computer in compliance only temporarily, until the CID-based configuration is reapplied.

To resolve the problem, review the corporate configuration file and, where possible, replace by console-based configuration.

13.12 New scan appears unexpectedly on a Windows computer

If you look at the local copy of Sophos Endpoint Security and Control on Windows computers, you may see that a new "Available scan" is listed, even though the user has not created one.

This new scan is actually a scheduled scan that you have set up from the console. You should not delete it.

13.13 Connectivity and timeout problems

If the communications between Enterprise Console and a networked computer become slow or the computer becomes unresponsive, there may be a connectivity problem.

Check the Sophos Network Communications Report that presents an overview of the current state of communications between a computer and Enterprise Console. To view the report, go to the computer where the problem occurred. On the taskbar, click the **Start** button, select **All Programs**| **Sophos**| **Sophos Endpoint Security and Control**, and then click **View Sophos Network Communications Report**.

The report shows possible problem areas and, if a problem is detected, remedial actions.

13.14 Adware and PUAs are not detected

If adware and other potentially unwanted applications (PUAs) are not detected, you should check that:

- Detection has been enabled. See Configure on-access scanning (page 83).
- The applications are on a computer running Windows.

13.15 Partially detected item

Sophos Endpoint Security and Control may report that an item (for example, a Trojan or potentially unwanted application) is "partially detected". This means that it has not found all the component parts of that application.

To find the other components, you need to carry out a full system scan of the computer(s) affected. On computers running Windows, you can do this by selecting the computer(s), right-clicking and selecting **Full system scan**. You can also set up a scheduled scan for adware and other potentially unwanted applications. See Configure on-access scanning (page 83) and Create a scheduled scan (page 90).

If the application has still not been fully detected, it may be because:

- you have insufficient access rights
- some drives or folders on the computer, containing the application's components, are excluded from scanning.

If the latter is the case, check the list of items excluded from scanning (see Exclude items from on-access scanning (page 88)). If there are some items on the list, remove them from the list and scan your computer again.

Sophos Endpoint Security and Control may not be able to fully detect or remove adware and other potentially unwanted applications with components installed on network drives.

For advice, contact Sophos technical support.

13.16 Frequent alerts about potentially unwanted applications

You may receive very large numbers of alerts about potentially unwanted applications, including multiple reports of the same application.

This can occur because some types of potentially unwanted application "monitor" files, trying to access them frequently. If you have on-access scanning enabled, Sophos Endpoint Security and Control detects each file access and sends an alert.

You should do one of the following:

- Disable on-access scanning for adware and PUA. You can use a scheduled scan instead.
- Authorize the application (if you want to have it running on your computers). See Authorize adware and PUAs (page 108).
- Clean up the computer(s), removing applications that you have not authorized. See Clean up computers now (page 57).

13.17 Cleanup failed

If Sophos Endpoint Security and Control fails in an attempt to clean up items ("Cleanup failed"), the reason could be:

- It has not found all the components of a multi-component item. Run a full system scan of the computer(s) to find the other components. See Scan computers now (page 57).
- Some drives or folders that contain item components are excluded from scanning. Check the items excluded from scanning (see Exclude items from on-access scanning (page 88)). If there are some items on the list, remove them from the list.
- You have insufficient access rights.
- It cannot clean up that type of item.

- It has found a virus fragment, rather than an exact virus match.
- The item is on a write-protected floppy disk or CD.
- The item is on a write-protected NTFS volume (Windows).

13.18 Recover from virus side-effects

Cleanup can remove a virus from computers, but it cannot always reverse the side-effects.

Some viruses leave no side-effects. Others may make changes or corrupt data in ways that are hard to detect. To deal with this, you should:

- On the **Help** menu, click **View Security Information**. This connects you to the Sophos website, where you can read the virus analysis.
- Use backups or original copies of programs to replace infected programs. If you did not have backup copies before the infection, create them now in case of future infections.

Sometimes you can recover data from disks damaged by a virus. Sophos can supply utilities for repairing the damage caused by some viruses. Contact Sophos technical support for advice.

13.19 Recover from application side-effects

Cleanup can remove unwanted applications, but it cannot always reverse the side-effects.

Some applications modify the operating system, e.g. by changing your internet connection settings. Sophos Endpoint Security and Control cannot always restore all settings. For example, if an application changed the browser home page, Sophos Endpoint Security and Control cannot know what the previous home page setting was.

Some applications install utilities, such as .dll or .ocx files, on your computer. If a utility is harmless (that is, does not possess the qualities of a potentially unwanted application), e.g. a language library, and is not integral to the application, Sophos Endpoint Security and Control may not detect it as part of the application. In this case, cleanup won't remove the file from your computer.

Sometimes an application, such as adware, is part of a program that you intentionally installed, and needs to be there for the program to run. If you remove the application, the program may stop running on your computer.

You should:

- On the **Help** menu, click **View Security Information**. This connects you to the Sophos website, where you can read the application analysis.
- Use backups to restore your system settings or programs you want to use. If you did not have backup copies before, create them now in case of future incidents.

For more information or advice on recovering from an adware and PUA's side-effects, contact Sophos technical support.

13.20 Data control does not detect files uploaded via embedded browsers

Data control intercepts documents which are uploaded via standalone web browsers. It does not intercept documents uploaded via browsers embedded in third-party applications (for example, Lotus Notes). If you have a third-party application with an embedded browser and want to monitor all uploaded documents, you must configure the application to launch an external browser.

13.21 Data control does not scan uploaded or attached files

If data control does not scan files uploaded or attached from a network location using a monitored application (for example, an email client, a web browser, or an instant messaging (IM) client), it may be because you excluded remote files from on-access scanning in the anti-virus and HIPS policy. In this case, data control uses the same set of exclusions as the Sophos Anti-Virus on-access scanner (InterCheck ™), so if remote file scanning is disabled, it will not send any remote files for a data control check.

For information about configuring on-access scanning exclusions, see Exclude items from on-access scanning (page 88).

Note: Data control does not use on-access scanning exclusions when files are copied or moved using Windows Explorer. In this case, data control will intercept the transfer of files onto monitored storage devices from a network location, for example, copying files to a removable storage device or burning data onto optical media.

13.22 Uninstalled update manager is displayed in the console

After you uninstall an additional update manager, it may still be displayed in Enterprise Console, **Update managers** view.

To remove the update manager from the console, select it, right-click, and then click **Delete**.

14 Glossary

Active Directory synchronization event	An event that occurs during synchronization with Active Directory.
active sub-estate	A sub-estate displayed in the Groups pane.
advanced Content Control List editor	An editor that enables a user to create a custom Content Control List that consists of a score, maximum count, regular expression, and a trigger score that must be reached before the Content Control List is matched.
Application manager	A dialog box that enables you to allow or create new rules for applications that have been blocked by Sophos Client Firewall.
auditing	A feature that enables you to monitor changes in Enterprise Console configuration and other user and system actions.
automatic protection	Deployment of security software (installation and policy enforcement) on all the computers in an Active Directory container as soon as they are synchronized with Enterprise Console.
category	A specific tag that is used to classify SophosLabs Content Control Lists according to their type, regulation that defines their contents, or region they apply to.
Content Control List (CCL)	A set of conditions that specify file content, for example, credit or debit card numbers, or bank account details near to other forms of personally identifiable information. There are two types of Content Control List: SophosLabs Content Control List and custom Content Control List.
content rule	A rule that contains one or more Content Control Lists and specifies the action that is taken if the user attempts to transfer data that matches all the Content Control Lists in the rule to the specified destination.
controlled application	A non-malicious application that an organization might want to detect or block because it undermines productivity or network performance.
controlled data	Files that meet data control conditions.
controlled device	A device that is subject to device control.
critical level	A value that triggers the change of an item's security status to Critical.

custom Content Control List	A Content Control List that has been created by a Sophos customer. There are two ways to create a custom Content Control List: create a simple list of search terms with a specified search condition, such as “any of these terms,” or use an advanced Content Control List editor.
Dashboard	An at-a-glance view of the network’s security status.
Dashboard event	An event in which a dashboard health indicator exceeds critical level. An email alert is generated when a dashboard event occurs.
data control	A feature to reduce accidental data loss from workstations. It works by taking action when a workstation user tries to transfer a file that meets criteria defined in the data control policy and rules. For example, when a user attempts to copy a spreadsheet containing a list of customer data to a removable storage device or upload a document marked as confidential into a webmail account, data control will block the transfer, if configured to do so.
data loss prevention (DLP)	See *data control*.
database	The component of Sophos Enterprise Console that stores details about computers on the network.
Default sub-estate	A sub-estate that has as its root the server root node of the group tree and the **Unassigned** group. It is displayed by default when you open Enterprise Console for the first time.
device control	A feature to reduce accidental data loss from workstations and restrict introduction of software from outside of the network. It works by taking action when a workstation user tries to use an unauthorized storage device or networking device on their workstation.
download reputation	Reputation of a file downloaded from the internet. The reputation is calculated based on the file's age, source, prevalence, deep content analysis and other characteristics. It helps to establish whether the file is safe or is a potential risk and may harm a user's computer if downloaded.
estate	See *IT estate*.
exempt device	A device that is explicitly excluded from device control.
expression	See *regular expression*.
file matching rule	A rule that specifies the action that is taken if the user attempts to transfer a file with the specified file name or of the specified file type

	to the specified destination, for example, block the transfer of databases to removable storage devices.
group	A group of managed computers defined in Sophos Enterprise Console.
health indicator	Generic term for icons depicting security status of a dashboard section or item, or the overall health status of the network.
Host Intrusion Prevention System (HIPS)	A security technology that protects computers from suspicious files, unidentified viruses, and suspicious behavior.
IT estate	The company IT environment, including computers, network, and so on.
Malicious Traffic Detection	A feature that detects communications between compromised computers and attackers' command and control servers.
managed computer	A computer that has Remote Management System (RMS) installed and on which Sophos Enterprise Console can report and install and update software.
management console	The component of Sophos Enterprise Console that enables you to protect and manage computers.
management server	The component of Sophos Enterprise Console that handles updating and communications with networked computers.
maximum count	The maximum number of matches for a regular expression that can be counted towards the total score.
out-of-date computer	A computer that has not got up-to-date Sophos software.
patch assessment	Evaluates computers for installed patches and identifies missing patches.
policy	A group of settings, for example, for updating, applied to a group or groups of computers.
potentially unwanted application (PUA)	An application that is not inherently malicious but is generally considered unsuitable for the majority of business networks.
quantity	The volume of the Content Control List key data type that must be found in a file before the Content Control List is matched.
quantity key	The key type of data defined in a Content Control List, to which the quantity setting is applied. For example, for a Content Control List containing credit or debit card numbers, the quantity specifies how

	many credit or debit card numbers must be found in a file before the Content Control List is matched.
region	The scope of a SophosLabs Content Control List. The region either specifies the country the Content Control List applies to (for country-specific Content Control Lists) or shows “global” (for global Content Control Lists that apply to all countries).
regular expression	A search string that uses special characters to match a text pattern in a file. Data control uses Perl 5 regular expression syntax.
right	A set of permissions to perform certain tasks in Enterprise Console.
role	A set of rights that determines access to Enterprise Console.
role-based administration	A feature that allows you to specify which computers a user can access and which tasks they can carry out, depending on their role in your organization.
rootkit	A Trojan or technology that is used to hide the presence of a malicious object (process, file, registry key, or network port) from the computer user or administrator.
rule	A rule specifies the action that is taken if a file meets certain conditions. There are two types of data control rule: file matching rule and content rule.
score	The number that is added to the total score for a Content Control List when a regular expression is matched.
server root node	The topmost node of the group tree in the **Groups** pane, which includes the **Unassigned** group.
Sophos Live Protection	A feature that uses in-the-cloud technology to instantly decide whether a suspicious file is a threat and take action specified in the Sophos anti-virus cleanup configuration.
Sophos Update Manager (SUM)	A program that downloads Sophos security software and updates from Sophos or another update server to shared update locations.
Sophos-defined rule	A rule that has been provided by Sophos as an example. Sophos-defined rules are not updated by Sophos.
SophosLabs Content Control List	A Content Control List that has been provided and is managed by Sophos. Sophos can update SophosLabs Content Control Lists or create new Content Control Lists and make them available in Enterprise Console. The contents of SophosLabs Content Control

	Lists cannot be edited. However, the quantity can be set for each such Content Control List.
sub-estate	A named part of the IT estate, containing a subset of the computers and groups.
sub-estate administration	A feature that restricts the computers and groups that are available to perform operations on.
software subscription	A set of versions of software for a variety of platforms, selected by the user, that Update Manager will download and keep updated. One version can be specified for each supported platform (for example, “Recommended” for Windows).
suspicious behavior detection	Dynamic analysis of the behavior of all programs running on the system in order to detect and block activity which appears to be malicious.
suspicious file	A file that exhibits a combination of characteristics that are commonly, but not exclusively, found in viruses.
synchronization interval	The period after which a synchronization point in Enterprise Console is synchronized with the selected Active Directory container.
synchronization point (for an Active Directory tree)	A Sophos Enterprise Console group into which the contents of a selected Active Directory container (groups and computers or groups only) will be added for synchronization, their structure preserved.
synchronization with Active Directory	A one-way synchronization of Sophos Enterprise Console group(s) with Active Directory organizational units, or containers.
synchronized group	Any group below the synchronization point.
System Administrator	A preconfigured role that has full rights to manage Sophos security software on the network and roles in Enterprise Console. The System Administrator role cannot be deleted or have its rights or name changed, and the Sophos Full Administrators Windows group cannot be removed from it. Other users and groups can be added to or removed from the role.
tag	A descriptor applied to a SophosLabs Content Control List to identify the contents or scope of the Content Control List. There are three types of tag: type, regulation, and region.
tamper protection	A feature that prevents known malware and unauthorized users (local administrators and users with limited technical knowledge) from uninstalling Sophos security software or disabling it through the Sophos Endpoint Security and Control interface.

threshold level	A value that triggers the change of an item's security status to Warning or Critical.
total score	The sum of the scores for a Content Control List, according to the content that has been matched.
trigger score	The number of times a regular expression must be matched before a Content Control List is matched.
true file type	The file type that is ascertained by analyzing the structure of a file as opposed to the filename extension. This is a more reliable method.
type	The criteria according to which SophosLabs Content Control Lists are classified, for example, a Content Control List defining passport details, postal addresses, or email addresses belongs to the Personally Identifiable Information type.
update manager	See *Sophos Update Manager*.
warning level	A value that triggers the change of an item's security status to Warning.
web control	A feature that allows you to set and enforce web access policies for your organization, and to view reports on web browsing usage. You can allow or block user access to certain categories of websites, and users can also be warned whether visiting a website will violate your policies.
web protection	A feature that detects threats in web pages. This feature blocks sites that have hosted malicious content in the past and also prevents malicious downloads. Web protection is part of the anti-virus and HIPS policy.

15 Technical support

You can find technical support for Sophos products in any of these ways:

- Visit the Sophos Community at community.sophos.com/ and search for other users who are experiencing the same problem.
- Visit the Sophos support knowledgebase at www.sophos.com/en-us/support.aspx.
- Download the product documentation at www.sophos.com/en-us/support/documentation.aspx.
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ConvertUTF

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zlib data compression library

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