Installation Guide for Symantec™ Endpoint Protection and Symantec Network Access Control

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- Available memory, disk space, and NIC information
- Operating system

- Version and patch level
- Network topology
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Chapter 1

Introducing your Symantec products

This chapter includes the following topics:

- About your Symantec products
- Components that work with Symantec Endpoint Protection Manager
- How Symantec Endpoint Protection Manager works
- What you can do with Symantec Endpoint Protection Manager
- Where to get more information

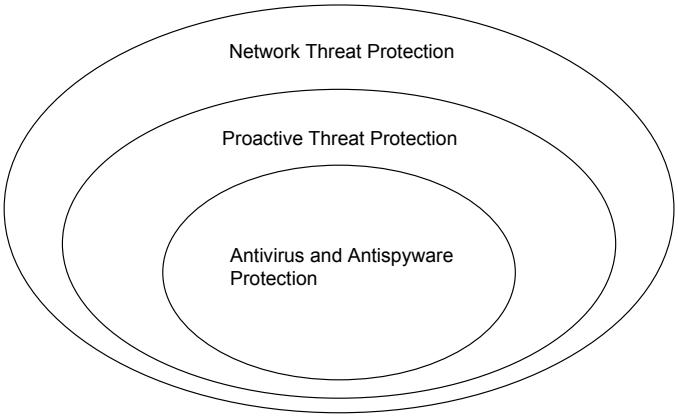
About your Symantec products

Your Symantec products may include Symantec Endpoint Protection and Symantec Network Access Control. Both products include Symantec Endpoint Protection Manager, which provides the infrastructure to install and manage Symantec Endpoint Protection and Symantec Network Access Control. Symantec Endpoint Protection and Symantec Network Access Control are two different endpoint protection technologies that work together. Both endpoint protection technologies are purchased separately.

About Symantec Endpoint Protection

Symantec Endpoint Protection protects endpoint computing devices from virus threats and risks, and provides three layers of protection to your endpoint computing devices. The layers are network threat protection, proactive threat protection, and antivirus and antispyware protection.

Figure 1-1 Protection layers



Network threat protection blocks threats from your computer by using rules and signatures. Proactive threat protection identifies and mitigates the threats that are based on the threat's behavior. Antivirus and antispyware protection identifies and mitigates the threats that try to or have gained access to your computers by using the signatures that Symantec creates.

About Network Threat Protection

Network Threat Protection consists of firewall and intrusion prevention software to protect your endpoint computing devices. The firewall supports the rules that are written for both specific ports and specific applications, and uses stateful inspection of all network traffic. Therefore, for all network traffic that is client-initiated, you only have to create an outbound rule to support that traffic. Stateful inspection automatically permits the return traffic that responds to the outbound traffic.

The firewall provides full support for TCP, UDP, ICMP, and all IP protocols such as ICMP and RSVP. The firewall also supports Ethernet and Token Ring protocols, and can block protocol drivers such as VMware and WinPcap. The firewall can automatically recognize legitimate DNS, DHCP, and WINS traffic, so you can check a checkbox to permit this traffic without writing rules.

Note: Symantec assumes that you construct your firewall rules such that all traffic that is not permitted is denied. The firewall does not support IPv6.

The intrusion prevention engine supports checking for port scans and denial-of-service attacks, and protects against buffer overflow attacks. This engine also supports the automatic blocking of malicious traffic from infected computers.

The intrusion detection engine supports deep packet inspection, regular expressions, and lets you create custom signatures.

About Proactive Threat Protection

Proactive Threat Protection identifies threats, such as worms, viruses, Trojan horses, and programs that log keystrokes based on the behavior of processes on the computer. TruScan™ proactive threat scans identify these threats by their actions and characteristics, not by traditional security signatures. Proactive threat scans analyze the threat's behavior against hundreds of detection modules to determine whether the active processes are safe or malicious. This technology can immediately detect and mitigate the unknown threats by their behavior without traditional signatures or patches.

On supported 32-bit operating systems, Proactive Threat Protection also lets you control read, write, and execute access to hardware devices, files, and registry keys. If necessary, you can refine the control to specific, supported operating systems. You can also block peripheral devices by class ID such as USB, Bluetooth, infrared, FireWire, serial, parallel, SCSI, and PCMCIA.

About Antivirus and Antispyware Threat Protection

Antivirus and Antispyware Threat Protection prevents infections on computers by scanning the boot sector, memory, and files for viruses, spyware, and security risks. Antivirus and Antispyware Threat Protection uses the virus and the security risk signatures that are found in virus definitions files. This protection also protects your computers by blocking security risks before they can install if doing so would not leave the computer in an unstable state.

Antivirus and Antispyware Threat Protection includes Auto-Protect, which detects viruses and security risks when they try to access memory or install themselves. Auto-Protect also scans for security risks such as adware and spyware. When it finds security risks, it quarantines the infected files, or removes and repairs the side effects of the security risks. You can also disable scanning for security risks in Auto-Protect. Auto-Protect can repair complicated risks, such as sheathed user mode risks (rootkits). Auto-Protect can also repair the persistent security risks that are difficult to remove or that reinstall themselves.

Antivirus and Antispyware Threat Protection also includes Auto-Protect scanning for Internet email programs by monitoring all POP3 and SMTP traffic. You can configure Antivirus and Antispyware Threat Protection to scan incoming messages for threats and security risks, as well as outgoing messages for known heuristics. Scanning outgoing email helps to prevent the spread of threats such as worms that can use email clients to replicate across a network.

Note: Auto-Protect for Web-based Internet email programs is blocked from installation on server-based operating systems. For example, you cannot install this feature on Windows Server 2003.

About Symantec Network Access Control

Symantec Network Access Control protects networks from unauthorized, misconfigured, and infected endpoint computing devices. For example, Symantec Network Access Control can deny network access to the client computers that do not run specific versions of software and signatures. If client computers do not comply, Symantec Network Access Control can quarantine and remediate the computers. If the antivirus definitions on client computers are more than a week old, Symantec Network Access Control can quarantine the computers. Symantec Network Access Control can update the computers with the latest antivirus definitions (remediation) and then permit the computers to access the network.

Symantec Network Access Control lets you control this protection with Host Integrity Policies. You create Host Integrity Policies with Symantec Endpoint Protection Manager Console, and then apply the policies to groups of client computers. If you install Symantec Network Access Control client software only, you can require that client computers run antivirus, antispyware, and firewall software. You can also require that they run the latest operating system service packs and patches, and create custom application requirements. If client computers do not comply, you can run commands on those client computers to try and update those computers.

If you integrate Symantec Network Access Control with Symantec Endpoint Protection, you can apply a firewall policy to the clients that do not comply with Host Integrity Policies. This policy can restrict the ports that the clients can use for network access and can limit the IP addresses that the clients can access. For example, you can restrict non-compliant computer communications to only the computers that contain the software and updates that are required. This integration is called self-enforcement.

If you integrate Symantec Network Access Control with an optional hardware device called Symantec Enforcer, you can further restrict non-compliant computers from your network. You can restrict non-compliant computers to specific network segments for remediation and you can completely prohibit access to non-compliant computers. For example, with Symantec Gateway Enforcer, you can control external computer access to your network through VPNs. With Symantec DHCP and LAN Enforcers, you can control internal computer access to your network by assigning the non-routable IP addresses to non-compliant computers. You can also assign non-compliant computers to quarantined LAN segments.

About Symantec Endpoint Protection Manager

Symantec Endpoint Protection Manager consists of two Web-based applications. One Web-based application requires Microsoft Internet Information Services, which must exist before you install Symantec Endpoint Protection Manager. The other Web-based application runs on Apache Tomcat, which is installed automatically. Symantec Endpoint Protection Manager includes an embedded database, and the Symantec Endpoint Protection Manager Console. You can install the embedded database automatically, or you can install a database in an instance of Microsoft SQL Server 2000/2005.

If the network that supports your business is small and located in one geographic location, you need to install only one Symantec Endpoint Protection Manager. If your network is geographically dispersed, you may need to install additional Symantec Endpoint Protection Manager for load balancing and bandwidth distribution purposes. If your network is very large, you can install additional Symantec Endpoint Protection Manager sites with additional databases and configure them to share data with replication. To provide additional redundancy, you can install additional Symantec Endpoint Protection Manager sites for failover support.

Components that work with Symantec Endpoint Protection Manager

Table 1-1 describes the components that comprise and work with Symantec Endpoint Protection Manager.

Table 1-1 Components that comprise and work with Symantec Endpoint Protection Manager

Component	Description
Symantec Endpoint Protection Manager Console	Lets you perform management operations such as the following: ■ Install client protection on workstations and network servers. ■ Update definitions, signatures, and product updates. ■ Manage network servers and the workstations that run Symantec Endpoint Protection and Symantec Network Access Control client software. ■ Collect and organize events, which include virus and security-risk alerts, scans, definitions updates, endpoint compliance events, and intrusion attempts. Also lets you create and print detailed reports and set up alerts.
Symantec Endpoint Protection Manager	Communicates with the endpoint clients and is configured with the Symantec Endpoint Protection Manager Console.
Symantec Endpoint Protection	Provides the antivirus, firewall, proactive threat scans, and intrusion prevention for networked and non-networked computers.
Symantec Network Access Control	Provides the network compliance protection for networked computers.
LiveUpdate Server	Provides the ability to pull definitions, signatures, and product updates from a Symantec LiveUpdate server and distribute the updates to client computers.
Central Quarantine	Works as part of the Digital Immune System to provide automated responses to heuristically detected, new, or unrecognized viruses. Also does the following: ■ Receives the unrepaired infected items fromSymantec Endpoint Protectionclients. ■ Forwards suspicious files to Symantec Security Response.

How Symantec Endpoint Protection Manager works

You must understand the following Symantec networking concepts to administer Symantec Endpoint Protection Manager:

- Managed and unmanaged environments
- About groups
- How clients and servers interact

Managed and unmanaged environments

Clients can be installed as either managed or unmanaged. The managed network takes full advantage of networking capabilities. Each client and server on your network can be monitored, configured, and updated from a single computer that runs Symantec Endpoint Protection Manager. You can also install and upgrade Symantec Endpoint Protection and Symantec Network Access Control clients from the Symantec Endpoint Protection Manager Console.

In an unmanaged network, you must administer each computer individually or pass this responsibility to the primary user of the computer. This approach should be taken for the smaller networks that have limited or no information technology resources.

The responsibilities include the following:

- Update virus and security risk definitions
- Configure antivirus and firewall settings
- Periodically upgrade or migrate client software

Note: If you want to let users change client settings, Symantec recommends as a best practice to install the clients in a managed environment.

About groups

In a managed network, you can organize client computers into groups. Groups let you group together the clients that require similar access levels and configuration settings. You can optionally specify different location settings in a group. If a client accesses the network from different locations, you can apply different policies. You can create, view, and configure groups from the Symantec Endpoint Protection Manager Console.

How clients and servers interact

In a managed network, Symantec Endpoint Protection Manager manages every client. Symantec Endpoint Protection Manager provides its clients with content definitions updates and configuration information, and keeps track of these settings. The managed clients, in turn, keep track of Symantec Endpoint Protection Manager. The managed clients check in with Symantec Endpoint Protection Manager to determine if new policy information or definitions are available.

What you can do with Symantec Endpoint Protection Manager

Symantec Endpoint Protection Manager lets you do the following:

- Establish and enforce security policies.
- Protect against viruses, blended threats, and security risks such as adware and spyware.
- Manage the deployment, configuration, updating, and reporting of antivirus protection from an integrated management console.
- Prevent users from accessing hardware devices on their computers, such as USB drives.
- Manage the deployment, configuration, updating, and reporting of antivirus and firewall protection and intrusion prevention from an integrated management console.
- Manage the clients and their location.
- Quickly respond to virus outbreaks by identifying out-of-date clients and deploy updated virus definitions.
- Create and maintain the reports that detail the important events that occur in your network.
- Provide a high level of protection and an integrated response to security threats for all users who connect to your network. This protection includes telecommuters with connections that are always on and mobile users with intermittent connections to your network.
- Obtain a consolidated view of multiple security components across all of the workstations on your network.
- Perform a customizable, integrated installation of all of the security components and set policies simultaneously.
- View histories and log data.

Where to get more information

Sources of information include the following:

- *Administration Guide for Symantec Endpoint Protection and Symantec Network Access Control*
- *Client Guide for Symantec Endpoint Protection and Symantec Network Access Control*
- *LiveUpdate Administration Guide* (Symantec Endpoint Protection only)
- *Symantec Central Quarantine Administration Guide* (Symantec Endpoint Protection only)
- *Symantec Endpoint Protection 11.0 Best Practices White Paper for Microsoft Small Business Server 2003* (Symantec Endpoint Protection only)
- Online Help that contains all of the content that is in the guides and more

The primary documentation is available in the Documentation folder on the installation CDs. Some individual component folders contain component-specific documentation. Updates to the documentation are available from the Symantec Technical Support Web site.

Table 1-2 lists the additional information that is available from the Symantec Web sites.

Table 1-2 Symantec Web sites

Types of information	Web address
Public Knowledge Base Releases and updates Manuals and documentation updates Contact options	http://www.symantec.com/techsupp/enterprise/
Release notes and additional post-release information	http://service1.symantec.com/SUPPORT/ent-security.nsf/docid/2008011012543848
Virus and other threat information and updates	http://securityresponse.symantec.com
Product news and updates	http://enterprisesecurity.symantec.com

Section 1

Installation

- Planning the installation
- Installing for the first time
- Installing the Symantec Endpoint Protection Manager
- Installing Symantec client software
- Installing Quarantine and LiveUpdate servers

Chapter 2

Planning the installation

This chapter includes the following topics:

- System requirements
- About planning the installation and network architecture
- About Desktop firewalls and communications ports
- Disabling and modifying Windows firewalls
- Preparing computers for remote deployment
- Preparing a Windows Server 2003 server for installation using a Remote Desktop connection
- Prepare your client computers for installation
- Required computer restarts

System requirements

Before you install Symantec software in your network, you should understand how certain network and system variables affect the ability to deploy the servers and clients.

You should consider the following concepts and requirements as you plan your installation:

- About setting administrative rights to target computers
- About configuring user rights with Active Directory
- System installation requirements
- Internationalization requirements
- About VMware support

About setting administrative rights to target computers

To install Symantec client software, you must have administrator rights to the computer or to the Windows domain, and log on as administrator. The Symantec software installation program launches a second installation program on the computer to create and start services, and to modify the registry.

If you do not want to provide users with administrative rights to their own computers, use the Push Deployment Wizard to remotely install Symantec clients. To run the Push Deployment Wizard, you must have local administrative rights to the computers to which you install the program.

Note: This client installation package upgrades the MSI to version 3.1, which requires administrative rights. If all of your computers are upgraded to MSI 3.1, your users only require elevated privileges to install Symantec client software.

About configuring user rights with Active Directory

If you use Active Directory to manage computers, you can create a Group Policy that provides the necessary user rights to install Symantec software.

For more information on using Active Directory, see the Active Directory documentation.

System installation requirements

Symantec software requires specific protocols, operating systems and service packs, software, and hardware. All computers to which you install Symantec software should meet or exceed the recommended system requirements for the operating system that is used.

Note: Installation to or from the directory names that contain double-byte characters is not supported.

Symantec Endpoint Protection Manager, Console, and database

Table 2-1 lists the minimum requirements for the computers on which to install the Symantec Endpoint Protection Manager and Console, and the database.

Table 2-1 Symantec Endpoint Protection Manager, Console, and database

Component	32-bit	64-bit
Processor	1 GHz Intel Pentium III	1 GHz on x64 only with the following processors: ■ Intel Xeon with Intel EM64T support ■ Intel Pentium IV with EM64T support ■ AMD 64-bit Opteron ■ AMD 64-bit Athlon **Note:** Itanium is not supported.
Operating system	The following operating systems are supported: ■ Windows 2000 Server/Advanced Server/Datacenter Server/Small Business Server with Service Pack 3 or later ■ Windows XP Professional with Service Pack 1 or later **Note:** Windows XP supports a limited number of concurrent users if the clients are in "push" mode. Use "pull" mode on Windows XP servers for up to 100 clients. For more information, search for *Symantec Endpoint Protection Manager 11.x communication troubleshooting* on the Symantec Support Web Site. ■ Windows Server 2003 Standard Edition/Enterprise Edition/Datacenter Edition/Storage Edition/Web Edition/ Small Business Server	The following operating systems are supported: ■ Windows XP Professional x64 Edition with Service Pack 1 or later ■ Windows Server 2003 Standard x64 Edition/Enterprise x64 Edition/Datacenter x64 Edition with Service Pack 1 or later ■ Windows Compute Cluster Server 2003 ■ Windows Storage Server 2003 **Note:** If you use Microsoft Clustering services for the Symantec Endpoint Protection Manager server you must install the Symantec Endpoint Protection Manager on the local volume.
Memory	1 GB RAM minimum (2-4 GB recommended)	1 GB RAM minimum (2-4 GB recommended)
Hard disk	4 GB for the server, plus an additional 4 GB for the database	4 GB for the server, plus an additional 4 GB for the database
Display	Super VGA (1,024x768) or higher resolution video adapter and monitor	Super VGA (1,024x768) or higher resolution video adapter and monitor

Table 2-1 Symantec Endpoint Protection Manager, Console, and database *(continued)*

Component	32-bit	64-bit
Database	The Symantec Endpoint Protection Manager includes an embedded database. You may also choose to use one of the following versions of Microsoft SQL Server: ■ Microsoft SQL Server 2000 with Service Pack 3 or later ■ Microsoft SQL Server 2005 **Note:** Microsoft SQL Server is optional.	The Symantec Endpoint Protection Manager includes an embedded database. You may also choose to use one of the following versions of Microsoft SQL Server: ■ Microsoft SQL Server 2000 with Service Pack 3 or later ■ Microsoft SQL Server 2005 **Note:** Microsoft SQL Server is optional.
Other requirements	The following other requirements must be met: ■ Internet Information Services server 5.0 or later with World Wide Web services enabled ■ Internet Explorer 6.0 or later ■ Static IP address (recommended)	The following other requirements must be met: ■ Internet Information Services server 5.0 or later with World Wide Web services enabled ■ Internet Explorer 6.0 or later ■ Static IP address (recommended)

Symantec Endpoint Protection Manager and Console

Table 2-2 lists the minimum requirements for the computers on which to install the Symantec Endpoint Protection Manager and Console.

Table 2-2 Symantec Endpoint Protection Manager and Console

Component	32-bit	64-bit
Processor	1 GHz Intel Pentium III	1 GHz on x64 only with the following processors: ■ Intel Xeon with Intel EM64T support ■ Intel Pentium IV with EM64T support ■ AMD 64-bit Opteron ■ AMD 64-bit Athlon **Note:** Itanium is not supported.

Table 2-2 Symantec Endpoint Protection Manager and Console *(continued)*

Component	32-bit	64-bit
Operating system	The following operating systems are supported: ■ Windows 2000 Server/Advanced Server/Datacenter Server with Service Pack 3 or later ■ Windows XP Professional with Service Pack 1 or later **Note:** Windows XP supports a limited number of concurrent users if the clients are in "push" mode. Use "pull" mode on Windows XP servers for up to 100 clients. For more information, search for *Symantec Endpoint Protection Manager 11.x communication troubleshooting* on the Symantec Support Web Site. ■ Windows Server 2003 Standard Edition/Enterprise Edition/Datacenter Edition/Web Edition/Small Business Server	The following operating systems are supported: ■ Windows XP Professional x64 Edition with Service Pack 1 or later ■ Windows Server 2003 Standard x64 Edition/Enterprise x64 Edition/Datacenter x64 Edition with Service Pack 1 or later ■ Windows Compute Cluster Server 2003 ■ Windows Storage Server 2003 **Note:** If you use Microsoft Clustering services for the SEPM server you must install the SEPM server on the local volume.
Memory	1 GB of RAM minimum (2 GB recommended)	1 GB of RAM (2 GB recommended)
Hard disk	2 GB (4 GB recommended)	2 GB (4 GB recommended)
Display	Super VGA (1,024x768) or higher resolution video adapter and monitor	Super VGA (1,024x768) or higher resolution video adapter and monitor
Other requirements	The following other requirements must be met: ■ Internet Information Services server 5.0 or later with World Wide Web services enabled ■ Internet Explorer 6.0 or later ■ Static IP address (recommended)	The following other requirements must be met: ■ Internet Information Services server 5.0 or later with World Wide Web services enabled ■ Internet Explorer 6.0 or later ■ Static IP address (recommended)

Symantec Endpoint Protection Console

Table 2-3 lists the minimum requirements for the computers on which to install the Symantec Endpoint Protection Console.

Table 2-3 Symantec Endpoint Protection Console

Component	32-bit	64-bit
Processor	1 GHz Intel Pentium III	1 GHz on x64 only with the following processors: ■ Intel Xeon with Intel EM64T support ■ Intel Pentium IV with EM64T support ■ AMD 64-bit Opteron ■ AMD 64-bit Athlon **Note:** Itanium is not supported.
Operating system	The following operating systems are supported: ■ Windows 2000 Professional/Server/Advanced Server/Datacenter Server/Small Business Server with Service Pack 3 or later ■ Windows XP Professional with Service Pack 1 or later **Note:** Windows XP supports a limited number of concurrent users if the clients are in "push" mode. Use "pull" mode on Windows XP servers for up to 100 clients. For more information, search for *Symantec Endpoint Protection Manager 11.x communication troubleshooting* on the Symantec Support Web Site. ■ Windows Server 2003 Standard Edition/Enterprise Edition/Datacenter Edition/Web Edition/Small Business Server ■ Windows Vista (x86)	The following operating systems are supported: ■ Windows XP Professional x64 Edition with Service Pack 1 or later ■ Windows Server 2003 Standard x64 Edition/Enterprise x64 Edition/Datacenter x64 Edition with Service Pack 1 or later ■ Windows Compute Cluster Server 2003 ■ Windows Storage Server 2003 ■ Windows Vista (x64) **Note:** If you use Microsoft Clustering services for the SEPM server you must install the SEPM server on the local volume.
Memory	512 MB of RAM (1 GB recommended)	512 MB of RAM (1 GB recommended)
Hard disk	15 MB	15 MB
Display	Super VGA (1,024x768) or higher resolution video adapter and monitor	Super VGA (1,024x768) or higher resolution video adapter and monitor
Other requirements	The following other requirements must be met: ■ Internet Explorer 6.0 or later	The following other requirements must be met: ■ Internet Explorer 6.0 or later

Quarantine Console

Table 2-4 lists the minimum requirements for the computers on which to install the Quarantine Console.

Table 2-4 Quarantine Console

Component	32-bit	64-bit
Processor	600 MHz Intel Pentium III	Not tested
Operating system	The following operating systems are supported: ■ Windows 2000 Professional/Server/Advanced Server/Datacenter Server/Small Business Server with Service Pack 3 or later ■ Windows XP Professional with Service Pack 1 or later ■ Windows Server 2003 Standard Edition/Enterprise Edition/Datacenter Edition/Web Edition ■ Windows Vista (x86) Home Basic Edition/Home Premium Edition/Business Edition/Enterprise Edition/Ultimate Edition ■ Windows Server 2008 Standard Edition/Enterprise Edition/Datacenter Edition/Web Edition (Core and Full)	Not tested
Memory	64 MB of RAM	Not tested
Hard disk	35 MB	Not tested
Display	Super VGA (1,024x768) or higher-resolution video adapter and monitor	Not tested
Other requirements	The following other requirements must be met: ■ Internet Explorer 5.5 Service Pack 2 or later ■ Microsoft Management Console version 1.2 or later If MMC is not already installed, you need 3 MB free disk space (10 MB during installation).	Not tested

Central Quarantine Server

Table 2-5 lists the minimum requirements for the computers on which to install the Central Quarantine Server.

Table 2-5 Central Quarantine Server

Component	32-bit	64-bit
Processor	600 MHz Intel Pentium III	Not tested
Operating system	The following operating systems are supported: ■ Windows 2000 Professional/Server/Advanced Server/Datacenter Server/Small Business Server with Service Pack 3 or later ■ Windows XP Professional with Service Pack 1 or later ■ Windows Server 2003 Standard Edition/Enterprise Edition/Datacenter Edition/Web Edition ■ Windows Vista (x86) Home Basic Edition/Home Premium Edition/Business Edition/Enterprise Edition/Ultimate Edition	Not tested
Memory	128 MB of RAM	Not tested
Hard disk	40 MB, 500 MB to 4 GB recommended for quarantined items, and 250-MB swap file	Not tested
Display	Super VGA (1,024x768) or higher-resolution video adapter and monitor	Not tested
Other requirements	The following other requirements must be met: ■ Internet Explorer 5.5 Service Pack 2 or later	Not tested

Symantec Endpoint Protection

Table 2-6 lists the minimum requirements for the computers on which to install Symantec Endpoint Protection.

Table 2-6 Symantec Endpoint Protection

Component	32-bit	64-bit
Processor	400 MHz Intel Pentium III (1 GHz for Windows Vista)	1 GHz on x64 only with the following processors: ■ Intel Xeon with Intel EM64T support ■ Intel Pentium IV with EM64T support ■ AMD 64-bit Opteron ■ AMD 64-bit Athlon **Note:** Itanium is not supported.
Operating system	The following operating systems are supported: ■ Windows 2000 Professional/Server/Advanced Server/Datacenter Server/Small Business Server with Service Pack 3 or later ■ Windows XP Home Edition/Professional Edition/Tablet PC Edition/Media Center Edition ■ Windows Server 2003 Standard Edition/ Enterprise Edition/Datacenter Edition/Web Edition/Small Business Server ■ Windows Vista (x86) Home Basic Edition/Home Premium Edition/Business Edition/Enterprise Edition/Ultimate Edition ■ Windows Server 2008 Standard Edition/Enterprise Edition/ Datacenter Edition/Web Edition (Core and Full)	The following operating systems are supported: ■ Windows XP Professional x64 Edition ■ Windows Server 2003 x64 Edition ■ Windows Compute Cluster Server 2003 ■ Windows Storage Server 2003 ■ Windows Vista Home Basic x64 Edition/Home Premium x64 Edition/Business x64 Edition/Enterprise x64 Edition/Ultimate x64 Edition ■ Windows Server 2008 Standard x64 Edition/Enterprise x64 Edition/ Datacenter x64 Edition/Web x64 Edition (Core and Full) **Note:** If you use Microsoft Clustering Services, you must install the client on the local volume.
Memory	256 MB of RAM	256 MB of RAM
Hard disk	600 MB	700 MB
Display	Super VGA (1,024x768) or higher-resolution video adapter and monitor	Super VGA (1,024x768) or higher-resolution video adapter and monitor

Table 2-6 Symantec Endpoint Protection *(continued)*

Component	32-bit	64-bit
Other requirements	Internet Explorer 6.0 or later Terminal Server clients connecting to a computer with antivirus protection have the following additional requirements: ■ Microsoft Terminal Server RDP (Remote Desktop Protocol) client ■ Citrix Metaframe (ICA) client 1.8 or later if using Citrix Metaframe server on Terminal Server	Internet Explorer 6.0 or later

Note: The Push Deployment Wizard does not check to verify that Internet Explorer 6.0 or later is installed on computers when it is required. If the target computers do not have the correct version of Internet Explorer, the installation fails without informing you.

Symantec Network Access Control

Table 2-7 lists the minimum requirements for the computers on which to install Symantec Network Access Control.

Table 2-7 Symantec Network Access Control

Component	32-bit	64-bit
Processor	550 MHz Intel Pentium II (1 GHz for Windows Vista)	1 GHz on x64 only with the following processors: ■ Intel Xeon with Intel EM64T support ■ Intel Pentium IV with EM64T support ■ AMD 64-bit Opteron ■ AMD 64-bit Athlon **Note:** Itanium is not supported.

Table 2-7 Symantec Network Access Control *(continued)*

Component	32-bit	64-bit
Operating system	The following operating systems are supported: ■ Windows 2000 Professional/Server/Advanced Server/Datacenter Server/Small Business Server with Service Pack 3 or later ■ Windows XP Home Edition/Professional with Service Pack 1 or later/Tablet PC Edition/Media Center 2002 Edition ■ Windows Server 2003 Standard Edition/Enterprise Edition/Datacenter Edition/Web Edition/Small Business Server ■ Windows Vista (x86) Home Basic Edition/Home Premium Edition/Business Edition/Enterprise Edition/Ultimate Edition ■ Windows Server 2008 Standard Edition/Enterprise Edition/ Datacenter Edition/Web Edition (Core and Full)	The following operating systems are supported: ■ Windows XP Professional x64 Edition with Service Pack 1 or later ■ Windows Server 2003 Standard x64 Edition/Enterprise x64 Edition/Datacenter x64 Edition ■ Windows Compute Cluster Server 2003 ■ Windows Storage Server 2003 ■ Windows Vista Home Basic x64 Edition/Home Premium x64 Edition/Business x64 Edition/Enterprise x64 Edition/Ultimate x64 Edition ■ Windows Server 2008 Standard x64 Edition/Enterprise x64 Edition/ Datacenter x64 Edition/Web x64 Edition (Core and Full) **Note:** The Symantec Network Access Control installation CD contains a 64-bit application.
Memory	256 MB of RAM	256 MB of RAM
Hard disk	300 MB	400 MB
Display	Super VGA (1,024x768) or higher resolution video adapter and monitor	Super VGA (1,024x768) or higher resolution video adapter and monitor
Other requirements	Internet Explorer 6.0 or later Terminal Server clients connecting to a computer with antivirus protection have the following additional requirements: ■ Microsoft Terminal Server RDP (Remote Desktop Protocol) client ■ Citrix Metaframe (ICA) client 1.8 or later if using Citrix Metaframe server on Terminal Server	Internet Explorer 6.0 or later

Note: The Push Deployment Wizard does not check to verify that Internet Explorer 6.0 or later is installed on computers when it is required. If the target computers do not have the correct version of Internet Explorer, the installation fails without informing you.

The Symantec AntiVirus client for Linux

You can install the Symantec AntiVirus client for Linux on unmanaged clients in an environment that contains Symantec Endpoint Protection. The Symantec AntiVirus client for Linux includes real-time antivirus file protection through Auto-Protect scans and file system scans by using manual and scheduled scans.

For information about the supported kernel distributions, see the readme.txt file located on the product CD in the same folder as the software.

For information about the system requirements, installation on Linux, and the command-line interface, see the *Symantec AntiVirus for Linux Implementation Guide*.

For information about using the Symantec AntiVirus client on Linux, see the *Symantec AntiVirus for Linux Client Guide*.

The guides are located in the docs folder of the product CD that contains the Symantec AntiVirus client software for Linux.

Internationalization requirements

Certain restrictions apply when you install Symantec Endpoint Protection Manager in a non-English or mixed-language environment. Use the following internationalization (I18N) guidelines when you plan your installation.

Table 2-8 lists areas or components in which non-English characters are supported along with their requirements and any limitations.

Table 2-8 Internationalization guidelines

Components	Requirements
Computer names, domain names, and work group names	Non-English characters are supported with the following limitations: ■ Network audit may not work for those names that use either a double-byte character set or a hi-ASCII character set. These names include host names, domain names, and user names. ■ Double-byte character set names or hi-ASCII character set names may not display properly on the Symantec Endpoint Protection Manager Console or on the Symantec Endpoint Protection client user interface. ■ Long double-byte or hi-ASCII character set host names cannot be longer than what NetBIOS allows. If the host name is longer than what NetBIOS allows, the Home, Monitors, and Reports pages do not appear on the Symantec Endpoint Protection Manager Console. ■ A client computer that is named with a double-byte or hi-ASCII character name does not work as a Group Update Provider.
Use only English characters in the following situations	English characters are required in the following situations: ■ To deploy a client package to a remote computer. ■ To define the server data folder on the page of the Symantec Endpoint Protection Manager Server Configuration Wizard. ■ To define the installation path for the Symantec Endpoint Protection Manager. ■ To define the credentials when you deploy the client to a remote computer. ■ To define a group name. You can create a client package for those groups whose names contain non-English characters. However, you may not be able to deploy the client package using the Push Deployment Wizard when the group name contains non-English characters. ■ To push non-English characters to the client computers. Some non-English characters that are generated on the server side may not appear properly on the client user interface. For example, a double-byte character set location name does not appear properly on non-double-byte character set named client computers.
User Information client computer dialog	Do not use double-byte or hi-ASCII characters when providing feedback in the User Information client computer dialog after you install the exported package.

Table 2-8 Internationalization guidelines *(continued)*

Components	Requirements
Enabling I18N support in SQL 2000	Double-byte, hi-ASCII, or mixed language environments using a SQL 2000 database are required to enable batch mode processing. You can enable I18n support in SQL 2000. On the Symantec Endpoint Protection Manager, open the following file: c:\...\Symantec Endpoint Protection Manager\tomcat\etc\conf.properties. Then edit the file to add the following line: scm.log.batchmode=1. Save and then close the file. Restart the Symantec Endpoint Protection Manager service.

About VMware support

Symantec software is supported on VMware.

Table 2-9 lists the supported VMware configurations.

Table 2-9 VMware support

Symantec software	VMware support
Symantec Endpoint Protection Manager, Console, and database components	The management server is supported on the following versions of VMware: ■ VMware WS 5.0 (workstation) or later ■ VMware GSX 3.2 (enterprise) or later ■ VMware ESX 2.5 (workstation) or later The management server is supported on the following versions of VMware: ■ Windows 2000 Professional/Server/Advanced Server with Service Pack 3 or later ■ Windows Server 2003 Editions ■ Windows Server 2003 x64 Editions ■ Windows XP Home Edition/Professional ■ Windows XP Professional x64 Edition

Table 2-9 VMware support *(continued)*

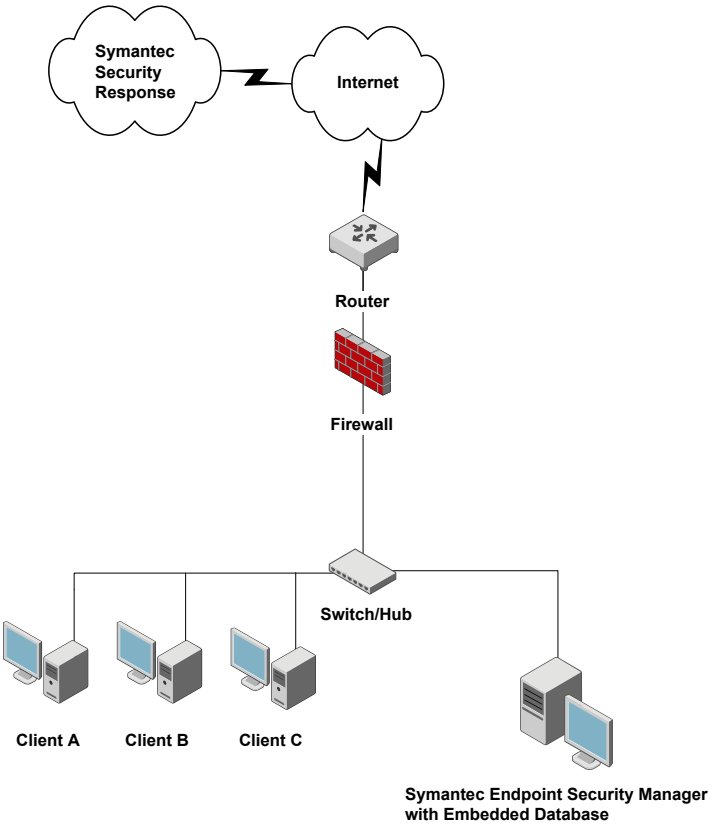
Symantec software	VMware support
Symantec Endpoint Protection and Symantec Network Access Control clients	The client components are supported on the following versions of VMware: ■ VMware WS 5.0 (workstation) or later ■ VMware GSX 3.2 (enterprise) or later ■ VMware ESX 2.5 (workstation) or later The client components are supported on the following guest VMware operating systems: ■ Windows 2000 Professional/Server/Advanced Server ■ Windows Server 2003 Editions ■ Windows Server 2003 x64 Editions ■ XP Professional/Home Edition Windows ■ XP Professional x64 Edition

About planning the installation and network architecture

The first decision to make when you plan a production installation is to select the database to use. You can select to use an embedded database that you can install from the installation CD. You can also select to use an instance of Microsoft SQL Server 2000/2005. You must purchase and install Microsoft SQL Server before you install the Symantec Endpoint Protection Manager. The embedded database is the easiest to install and configure and supports up to 5,000 clients. Performance may begin to degrade as you add additional clients beyond 5,000.

Figure 2-1 illustrates the simplest example of this configuration.

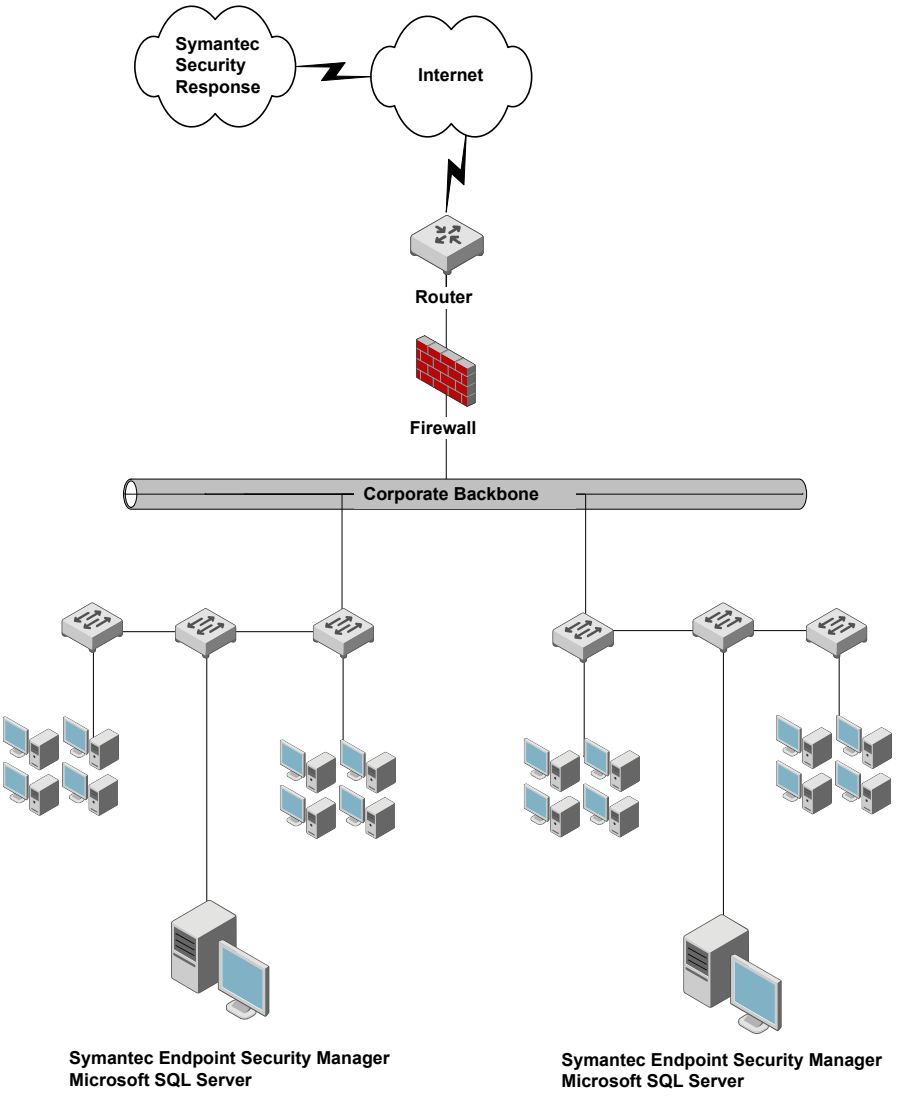
Figure 2-1 Small deployment



To support more than 5,000 clients, you should consider purchasing and installing Microsoft SQL Server. Each Symantec Endpoint Protection Manager that uses Microsoft SQL Server can support up to 50,000 clients. If you need to support more than 50,000 clients, you should install another Symantec Endpoint Protection Manager.

Figure 2-2 illustrates an example of this configuration.

Figure 2-2 Large deployment



Note: This diagram shows components on different subnets and is for illustrative purposes only. Symantec Endpoint Protection Managers and database servers can be on the same subnets.

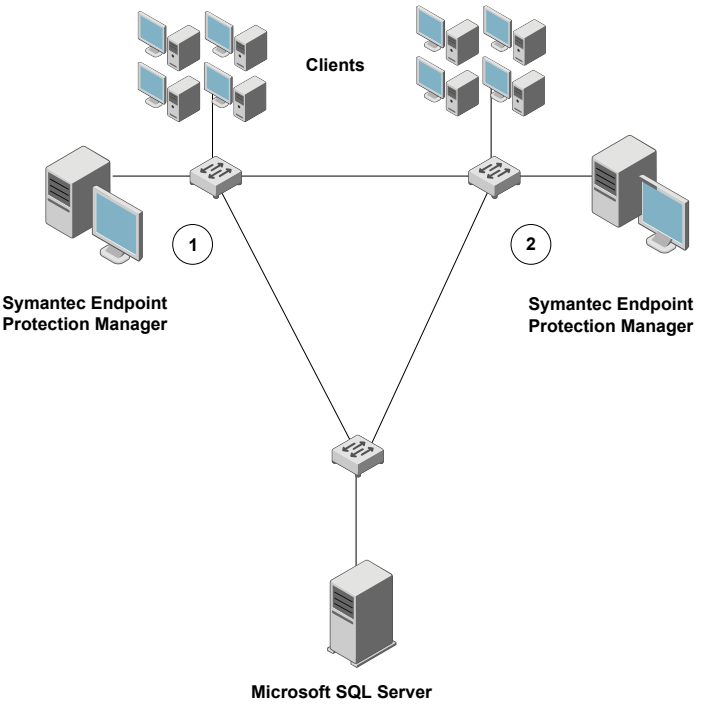
If you decide to use an instance of Microsoft SQL Server 2000/2005, you have an additional decision to make. You can install Symantec Endpoint Protection

Manager on the computer that runs Microsoft SQL Server, or you can install it on a computer that does not run Microsoft SQL Server.

The use of Microsoft SQL Server also provides additional flexibility for installing additional Symantec Endpoint Protection Managers for failover and load balancing. You can install two or more Symantec Endpoint Protection Managers that communicate with one Microsoft SQL Server and configure them for failover or load balancing. Failover configuration causes one server to pick up the client communications load if another server crashes. Load balancing configuration causes servers to share the client communications load and automatically implements failover if one of the servers crash.

Figure 2-3 illustrates this configuration.

Figure 2-3 Failover and load balancing



Note: This diagram shows components on different subnets and is for illustrative purposes only. Symantec Endpoint Protection Managers and database servers can be on the same subnets.

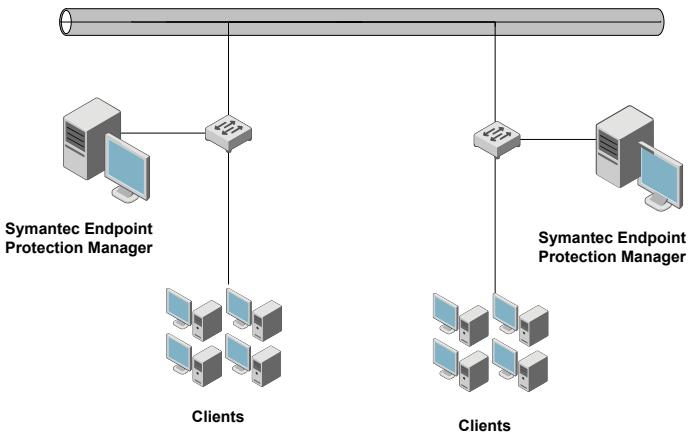
In this illustration, the servers are identified with the numbers 1 and 2, which signify a failover configuration. In a failover configuration, all clients send traffic to and receive traffic from server 1. If server 1 goes offline, all clients send traffic to and receive traffic from server 2 until server 1 comes back online. The database is illustrated as a remote installation, but also can be installed on a computer that runs the Symantec Endpoint Protection Manager.

Finally, you can install and configure both the embedded database server and Microsoft SQL Server for replication. Replication configuration causes data to be duplicated between databases so that both databases contain the same information, preferably on different database servers on different computers. If one database server crashes, you can continue to manage the entire site by using the information on the database server that did not crash.

Note: Symantec Endpoint Protection Manager configures and controls this replication. This replication is not native SQL server replication.

Figure 2-4 illustrates this configuration.

Figure 2-4 Replication



In this illustration, the Symantec Endpoint Protection Managers manage their respective clients. If one of the servers goes offline, however, the other server can manage the clients that the offline server managed.

About Desktop firewalls and communications ports

If your servers and clients run firewall software, you must open certain ports so that communication between the management servers and clients is possible. Alternatively, you can permit the application Rtvscan.exe on all computers to send and receive traffic through your firewalls. Also, remote server and client installation tools require that TCP port 139 be opened.

Note: Management servers and clients use the default ephemeral port range for TCP (1024 to 65535) for network communications. The ephemeral port range that is used, however, rarely exceeds 5,000. The ephmeral port range is configurable for most operating systems. Most firewalls use stateful inspection when filtering TCP traffic, so incoming TCP responses are automatically allowed and routed back to the original requester. Therefore you do not have to open the ephemeral TCP ports when you configure your firewall software.

Table 2-10 lists the network protocols and ports that management servers and clients require for communicating and network installations.

Table 2-10 Ports for client and server installation and communication

Function	Component	Protocol and port
Push Deployment Wizard deployment	Symantec Endpoint Protection Managers and clients	TCP 139 and 445 on managers and clients UDP 137 and 138 on managers and clients TCP ephemeral ports on servers and clients
Network Audit	Symantec Endpoint Protection Managers and clients	TCP 139 and 445 on managers TCP ephemeral ports on clients
Group Update Provider communication	Symantec Endpoint Protection Managers and Group Update Providers Group Update Providers and clients	TCP 2967 on all devices **Note:** This port is the default, which can be changed.
General communication	Symantec Endpoint Protection Managers and clients	TCP 80 on managers TCP ephemeral ports on clients **Note:** Port 80 can also be changed to TCP 443 (HTTPS).

Table 2-10 Ports for client and server installation and communication *(continued)*

Function	Component	Protocol and port
General communication	Remote Symantec Endpoint Protection Manager Consoles and Symantec Endpoint Protection Managers	TCP 8443 on managers TCP ephemeral ports and 9090 on consoles **Note:** This port number is configurable.
Replication communication	Site to site between database servers	TCP 8443 between database servers
Remote Symantec Endpoint Protection Manager Console installation	Symantec Endpoint Protection Manager and remote Symantec Endpoint Protection Manager Console	TCP 9090 on remote managers TCP ephemeral ports on remote consoles **Note:** This port number is configurable.
External database communication	Remote Microsoft SQL servers and Symantec Endpoint Protection Managers	TCP 1433 on remote Microsoft SQL servers TCP ephemeral ports on managers **Note:** Port 1433 is the default port.
Symantec Network Access Control Enforcer communication	Symantec Endpoint Protection Manager and Enforcer	TCP 1812 on managers TCP Ephemeral ports on enforcers **Note:** RADIUS servers also use port 1812, so do not install Symantec Endpoint Protection Manager on the same server. This port is not configurable on Symantec Endpoint Protection Manager.

Table 2-10 Ports for client and server installation and communication *(continued)*

Function	Component	Protocol and port
Migration and Deployment Wizard	Symantec Endpoint Protection Manager and legacy Symantec management servers	TCP 139, TCP 445, TCP ephemeral ports, and UDP 137 on managers TCP 139, TCP 445, TCP ephemeral ports, and UDP 137 on legacy Symantec management servers
LiveUpdate	LiveUpdate clients and servers	TCP ephemeral ports on clients TCP 80 on LiveUpdate servers

Disabling and modifying Windows firewalls

Windows XP/Server 2003/Vista/Server 2008 contain the firewalls that may prevent certain types of Symantec product communications. If these firewalls are enabled, you might not be able to install client software remotely with remote installation and deployment tools. If there are computers in your network that run these operating systems, you need to configure the firewalls to allow for these communications.

To use the Windows XP firewalls, you need to configure them to support communications by opening ports or by specifying trusted programs. You can enable communications by permitting Rtvscan.exe on all computers.

If you want to install client software remotely, you must permit servers to send traffic from TCP ports 1024-5000 to TCP ports 139 and 445 on clients. Stateful inspection permits the return traffic automatically. You must also permit clients to receive traffic from server TCP ports 1024-5000 on TCP port 139. And you must permit clients to send traffic from TCP port 139 to TCP ports 1024-5000 on servers. Legacy communications also require that UDP port 2967 be open on all computers.

About Windows and Symantec firewalls

If you install the Symantec firewall feature of Network Threat Protection, the installer automatically disables Windows firewalls that are enabled. If you do not install the Symantec firewall feature, the installer does not disable Windows firewalls that are enabled.

The firewalls that run on Windows Vista and Windows Server 2008 support both IPv4 and IPv6. The Symantec firewall supports IPv4 only. The default Symantec firewall rulebase, however, contains a rule that blocks all IPv6 traffic.

Warning: Do not delete the rule that blocks IPv6 or change its filtering action from deny to permit.

This rule is created for the Ethernet protocol. When you display the services for a rule, and then add a service, you get access to the Ethernet protocol. You can then select the IPv6 protocol type for the Ethernet protocol.

Disabling Internet Connection Firewall

Windows XP with Service Pack 1 includes a firewall that is called Internet Connection Firewall. This firewall can interfere with remote installation and communications between servers and clients. If any of your servers or clients run Windows XP, you can disable the Windows XP firewall on them before you install client software.

Note: You are not required to disable the firewall. If you are familiar with and comfortable with creating and configuring rules, you can open the appropriate ports to permit deployment.

See Table 2-10 on page 46.

To disable Internet Connection Firewall

1. On the Windows XP taskbar, click **Start > Control Panel**.
2. In the Control Panel window, double-click **Network Connections**.
3. In the Network Connections window, right-click the active connection, and then click **Properties**.
4. On the Advanced tab, under Internet Connection Firewall, uncheck **Protect my computer and network by limiting or preventing access to this computer from the Internet**.
5. Click **OK**.

Disabling Windows Firewall

Windows XP with Service Pack 2, Windows Server 2003, and Windows Server 2008 include a firewall that is called Windows Firewall. This firewall can interfere with remote installation and communications between management servers and

clients. If any of your servers or clients run Windows XP with Service Pack 2, Windows Server 2003, or Windows Server 2008, you can disable the firewall on them before you install client software.

You are not required to disable the firewall. If you are familiar with and comfortable with creating and configuring rules, you can open the appropriate ports to permit deployment. Also, the Windows Firewall that runs on Windows Server 2008 Server Core is disabled using a `netsh` command.

Note: The steps that are provided in the following procedure may differ depending on the settings you selected for the Windows Taskbar and Start menu. Consult the Windows documentation for information about configuring Windows Firewall.

See Table 2-10 on page 46.

To disable Windows Firewall on Windows XP with Service Pack 2

1. On the Windows taskbar, click **Start > Control Panel**.
2. In the Control Panel window, double-click **Windows Firewall**.
3. In the Windows Firewall window, on the General tab, check **Off (not recommended)**.
4. Click **OK**.

To disable Windows Firewall on Windows Server 2003

1. On the Windows Taskbar, click **Start > Control Panel > Windows Firewall**.
2. In the Windows Firewall window, on the General tab, check **Off**.
3. Click **OK**.

To disable Windows Firewall on Windows Server 2008 (Full)

1. On the Windows Taskbar, click **Start > Control Panel**.
2. In the Control Panel window, click **Windows Firewall**.
3. In the Windows Firewall window, click **Change Settings**.

   If a User Account Control message appears, click **Continue**.
4. In the Windows Firewall Settings dialog box, on the General tab, click **Off**.
5. Click **OK**.

To disable Windows Firewall on Windows Server 2008 Server Core

- At a command prompt, execute the following command:

```
netsh firewall set opmode mode=disable profile=all
```

Modifying Windows Vista and Windows Server 2008 Firewall

Windows Vista and Windows Server 2008 contain a firewall that is enabled by default. If the firewall is enabled, you might not be able to install client software remotely from Symantec Endpoint Protection Manager Console and other remote installation tools. You must configure Windows Firewall to allow components to communicate with each other. You should configure Windows Firewall before you install client software. You can also temporarily disable Windows Firewall on your clients before deploying client software.

To configure Windows Firewall to allow you to install client software on Windows Vista and Windows Server 2008, you must enable file and printer sharing.

Note: Client installation also automatically modifies Windows Firewall during installation on Window Vista to allow specific processes access to your network and the Internet. You are not required to make any further modifications.

To enable file and printer sharing

1. On the Windows taskbar, click **Start > Settings > Control Panel > Windows Firewall**.
2. In the Windows Firewall dialog box, click **Allow a Program through Windows Firewall**.

   If a User Account Control message appears, click **Continue**.
3. In the Windows Firewall Settings dialog box, on the Exceptions tab, check **File and Printer Sharing**, and then click **OK**.

To enable file and print sharing on Windows Server 2008 Server Core

- At a command prompt, execute the following command:

```
netsh firewall set service fileandprint enable
```

Preparing computers for remote deployment

Over time, Microsoft has increased the default security posture of its operating systems. For example, Windows Vista is more secure after default installation than Windows XP, and Windows XP is more secure after default installation than Windows 2000.

Preparing the computers that run Windows XP in workgroups

By default, Windows XP client computers that are installed in workgroups do not accept remote client deployment. To permit remote deployment to these computers, you need to disable simple file sharing.

Note: This procedure is not required for the computers that are part of a Windows domain.

To prepare the computers that run Windows XP

1. Right-click **My Computer**, and then click **Open**.
2. In the My Computer panel, click **Tools > Folder Options**.
3. On the View tab, under Advanced Settings, at the end of the list, uncheck **Use simple file sharing (recommended)**, and then click **OK**.

Preparing the computers that run Windows Vista and Windows Server 2008

Windows Vista and Windows Server 2008 (Full) provide a highly customizable user interface. The procedures in this section are based on the Windows Classic user interface that you can set for Windows Vista and Windows Server 2008.

The Windows User Access Control (UAC) feature blocks local administrative accounts from remotely accessing remote administrative shares such as C$ and Admin$. To use the Push Deployment Wizard Tool in this scenario, you should use a Domain Administrative account if the target client computer is part of an Active Directory domain. Remote client installation also requires elevated privileges to install.

To enable remote client software deployment on the computers that run Windows Vista and Windows Server 2008, then you must do the following on each client computer:

- Disable the File Sharing Wizard.
- Enable network discovery by using the Network and Sharing Center.
- Enable the built-in Administrator account and assign it a password.
- Verify that your account has elevated privileges.

To disable the file-sharing wizard

1 Display the drives on your computer.

2 In the Computer window, click **Tools > Folder Options**.

3 On the View tab, under Advanced Settings, uncheck **Use Sharing Wizard (Recommended)**, and then click **OK**.

To enable network discovery

1 Display the computers in your network.

2 In the Network window, click **Network and Sharing Center**.

3 Under Sharing and Discovery, click **Network Discovery**.

4 Click **Turn on Network Discovery**, and then click **Apply**.

To enable the Administrator account

1 Click **Start > Settings > Control Panel > Administrative Tools > Computer Management**.

2 In the Computer Management window, click and expand **Local Users and Groups**.

3 Click **Users**.

4 In the right pane, right-click **Administrator**, and then click **Set Password**.

5 In the Warning prompt, click **Proceed**.

6 In the Set Password for Administrator dialog box, type the same password in the password boxes, and then click **OK**.

7 In the right pane, right-click **Administrator**, and then click **Properties**.

8 Uncheck **Account is disabled**, and then click **OK**.

To verify that you have elevated privileges

1 Click **Start > Run**.

2 Type ***target computer name*\C$**

If you can access and display the C$ remote administrative share, then your privileges are elevated. If you cannot access and display this share, you must authenticate with an account that has the required privileges.

To prepare the computers that run Windows Server 2008 Server Core

- At a command prompt, execute the following commands:

```
netsh firewall set portopening udp 137 enable

netsh firewall set portopening udp 138 enable

netsh firewall set portopening tcp 139 enable

netsh firewall set portopening tcp 445 enable

netsh firewall set icmpsetting 8

netsh firewall set logging filelocation=c:\fwlog.txt
droppedpackets=enable connections=enable

netsh firewall set service fileandprint enable

netsh firewall set service remoteadmin enable
```

Preparing a Windows Server 2003 server for installation using a Remote Desktop connection

The Symantec Endpoint Protection Manager requires access to the system registry for installation and normal operation. Before you can install Symantec Endpoint Protection client software and Symantec Endpoint Protection Manager using a Remote Desktop connection, you must configure the server to which you are connecting to allow for remote control. You can then connect to the server from a remote computer by using a remote console session or you can shadow the console session.

For more information about Remote Desktop and Terminal Services, see the Windows documentation.

To configure a server running Windows Server 2003 to allow remote control

1. On the server to which you want to connect remotely, open the Group Policy Object Editor. To do so, on the Windows Taskbar, click **Start > Run**.
2. In the Open box, type **gpedit.msc**, and then click **OK**.
3. In the left pane, under Computer Configuration, expand the Administrative Templates folder.
4. Expand the Windows Components folder.
5. Select the Terminal Services folder.
6. In the right pane, right-click **Sets rules for remote control of Terminal Services user sessions**, and then click **Properties**.

7 On the Settings tab, click **Enabled**.

8 In the Options box, click **Full Control with user's permission**, and then click **OK**.

To protect against unauthorized access to the server, turn off this setting after you complete the installation.

9 You can use one of several methods to establish a connection to the server from a remote computer.

To establish a remote connection to the console session on the server

1 On a computer from which you want to remotely connect to the server, open a command prompt.

2 At the command prompt, type the following command:

```
mstsc -v:servername /F -console
```

3 In the Remote Desktop Connection dialog box, log on by using an account that has administrative privileges on the server to which you are connecting.

4 Proceed with the installation of client software or the Symantec Endpoint Protection Manager.

To shadow the console session on the server

1 On a computer from which you want to remotely connect to the server, open a command prompt.

2 At the command prompt, type the following command:

```
mstsc -v:servername /F
```

3 On the remote server, open a command prompt.

4 Type the following command:

```
shadow 0
```

5 Click **Yes** to accept the request to control your session remotely.

6 Proceed with the installation of client software or the Symantec Endpoint Protection Manager.

7 To disconnect the shadow session, press **Ctrl+* (asterisk)** on the keypad.

Prepare your client computers for installation

Before you install client software on your computers, you should first determine the state of these computers.

Client installation is more efficient and effective if you evaluate the following conditions before you begin the installation process:

- Remove virus threats and security risks
- Evaluate third-party client software
- Install client software in stages

Remove virus threats and security risks

Try to avoid installing or upgrading clients on the computers that are infected with virus threats or other security risks. Some threats can directly interfere with the installation or operation of the client software. For the computers that do not have an antivirus scanner installed, you can perform a virus check from Symantec Security Response. If virus check finds a virus, it directs you to manual removal instructions in the virus encyclopedia if they are available. You can find virus check at the Symantec Security Response Web site at the following URL:

http://securityresponse.symantec.com

Evaluate third-party client software

As you prepare to install client software in your network, you must determine if third-party security software is installed on your computers. Third-party security software includes other antivirus or anti-adware and spyware software. These programs can affect the performance and effectiveness of the client software. Symantec does not recommend that you run two antivirus programs on one computer. Likewise, it may be problematic to run two anti-adware or spyware programs, and two firewall programs. This recommendation is important if both programs provide real-time protection. Both programs can create a resource conflict and can drain the computer's resources as the programs try to scan and repair the same files.

Install client software in stages

You can install or migrate clients across your network in logical stages. Particularly in a large-scale environment, you should first deploy client software in a test environment. The test environment can be an independent network of computers that is modeled after your production environment. Or, the test network can comprise a small group of computers from your actual production network.

Required computer restarts

The following installations or migrations require computer restarts:

- All client computers that do not run MSI 3.1. Client installations upgrade MSI to 3.1 if 3.1 does not run on client computers, and this upgrade requires a restart.
- Symantec Endpoint Protection client installation that installs Network Threat Protection and the firewall.
- Symantec Sygate Enterprise Protection server migrations.

Chapter 3

Installing for the first time

This chapter includes the following topics:

- Preparing to install
- Installing and configuring Symantec Endpoint Protection Manager
- Configuring and deploying client software
- Logging on to and locating your group in the console
- About policies
- Configuring LiveUpdate for site updates
- Configuring LiveUpdate for client updates
- Configuring and testing Symantec Endpoint Protection
- Configuring and testing Symantec Network Access Control

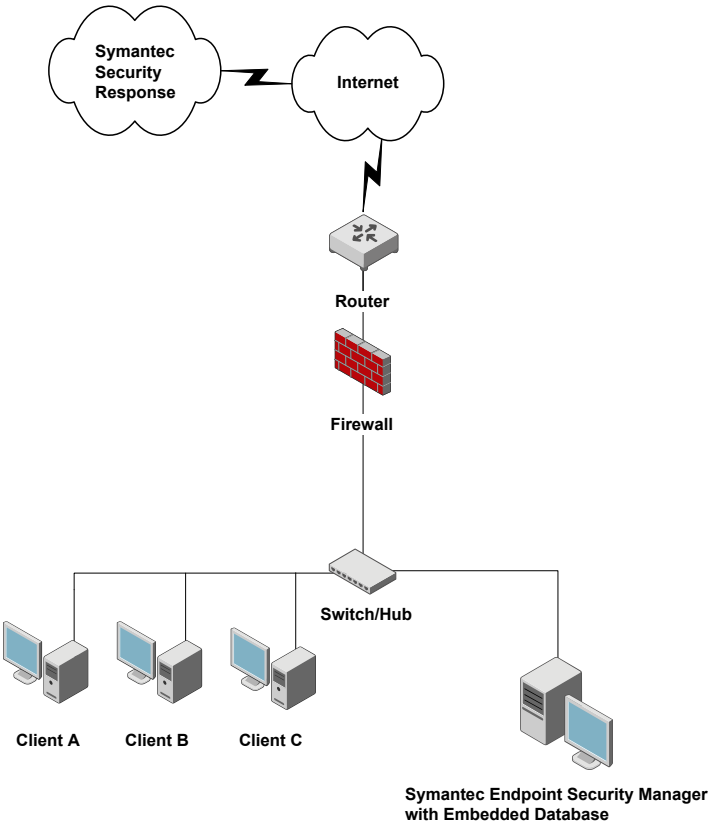
Preparing to install

If this installation is a first-time installation, you should install, configure, and test Symantec Endpoint Protection or Symantec Network Access Control software in a test environment.

Note: Small businesses that do not have test environment resources should install and test the client software on a few production clients.

Figure 3-1 shows one way to configure a test environment.

Figure 3-1 Sample test environment



This test environment contains three clients and one server. The server runs three management components. The three management components are Symantec Endpoint Protection Manager, Symantec Endpoint Protection Manager Console, and the embedded database. These installation and configuration procedures are designed for this sample test environment.

The computers on which you install Symantec Endpoint Protection Manager must meet the following minimum software requirements:

- Windows 2000 Server with Service Pack 3, Windows XP, or Windows Server 2003
- Internet Information Services (IIS) version 5.0 or later, with World Wide Web services enabled
- Internet Explorer 6.0 or later

The computers on which you install client software must meet the following minimum software requirements:

- Windows 2000 Professional with Service Pack 3, Windows XP, Windows Server 2003, Windows Vista, or Windows Server 2008
- Internet Explorer 6.0 or later

See "System installation requirements" on page 28.

Installing and configuring Symantec Endpoint Protection Manager

Installing management software for the first time is divided into two parts. The first part installs Symantec Endpoint Protection Manager. The second part installs and configures the Symantec Endpoint Protection Manager database. In the first, you can accept all defaults. In the second part, you must select the type of configuration you want for the Symantec Endpoint Protection Manager, Simple or Advanced, based on the number of clients the server supports. The Simple configuration, intended for a server that supports less than 100 clients, automatically creates an embedded database and uses the default values for most settings with minimal input from you. The Advanced configuration, intended for administrators in larger environments, lets you specify settings specific to your environment.

Note: Management software does not include Symantec Endpoint Protection or any other client software that is managed.

To install Symantec Endpoint Protection Manager

1. Insert the installation CD and start the installation if it does not start automatically.
2. In the Welcome panel do one of the following:
   - To install for Symantec Endpoint Protection, click **Install Symantec Endpoint Protection Manager**.
   - To install for Symantec Network Access Control, click **Install Symantec Network Access Control**, and then click **Install Symantec Endpoint Protection Manager** on the next panel.
3. In the Welcome panel, click **Next**.
4. In the License Agreement panel, check **I accept the terms in the license agreement**, and then click **Next**.

5 In the Destination Folder panel, accept or change the installation directory.

6 Do one of the following:

- To let the Symantec Endpoint Protection Manager IIS Web server run with other Web servers on this computer, check **Use the default Web site**, and then click **Next**.
- To configure the Symantec Endpoint Protection Manager IIS Web as the only Web server on this computer, check **Create a custom Web site**, and then click **Next**.

7 In the Ready to Install panel, click **Install**.

8 When the installation finishes and the Install Wizard Complete panel appears, click **Finish**.

Wait for the Management Server Configuration Wizard panel to appear, which can take up to 15 additional seconds. Perform the steps in the following section appropriate to the configuration type you selected, Simple or Advanced.

To configure Symantec Endpoint Protection Manager in Simple Mode

1 In the Management Server Configuration Wizard panel select **Simple**, and then click **Next**.

A system check is performed to determine if the system meets the minimal requirements for available memory and drive space. If it does not, a warning dialog is displayed indicating that the server may not perform as expected with the resources available. You can choose to continue or cancel the configuration.

2 Specify and confirm a password (of 6 or more characters). Optionally, provide an email address.

The password specified is used for the Symantec Endpoint Protection Manager admin account, as well as the encryption password necessary for disaster recovery. After installation, the encryption password does not change, even if the password for the admin account is changed.

Symantec Endpoint Protection Manager sends warning and notification messages to the email address that you provide.

3 Click **Next**.

4 The Configuration Summary panel displays the values that are used to install Symantec Endpoint Protection Manager. You can print a copy of the settings to maintain for your records, or click **Next** to start the installation.

To configure Symantec Endpoint Protection Manager in Advanced Mode

1. In the Management Server Configuration Wizard panel select **Advanced**, and then click **Next**.
2. Select the number of clients you plan to have managed by this server, and then click **Next**.

   A system check is performed to determine if the system meets the minimal requirements for available memory and drive space. If it does not, a warning dialog is displayed indicating that the server may not perform as expected with the resources available. You can choose to continue or cancel the configuration.
3. In the Site Type panel, check **Install my first Site**, and then click **Next**.
4. In the Server Information panel, accept or change the default values for the following boxes, and then click **Next**:
   - Server name
   - Server port
   - Web console port
   - Server data folder
5. In the Site Name panel, in the Site name box, enter your site name, and then click **Next**.
6. In the Encryption Password panel, type a value in both boxes, and then click **Next**.

   Document this password when you install Symantec Endpoint Protection in your production environment. You need it for disaster recovery purposes and for adding optional Enforcer hardware.
7. In the Database Server Choice panel, check **Embedded Database**, and then click **Next**.
8. On the admin user panel, in the Password boxes, type a password for the admin account to log on to the console. Optionally, provide an email address.

   Symantec Endpoint Protection Manager sends warning and notification messages to the email address specified.

   When the installation finishes, you have the option of deploying client software with the Migration and Deployment Wizard. If you do not deploy client software at this time, refer to the Client Installation chapter for details on how to install client software. Log on to the console with the user name and password that you entered here.
9. Click **Next**.

Configuring and deploying client software

The Migration and Deployment Wizard lets you configure a client software package. The Push Deployment Wizard then optionally appears to let you deploy the client software package.

Note: This procedure assumes that you deploy client software to 32-bit computers and not to 64-bit computers. This procedure also has you select a directory in which to place installation files. You may want to create this directory before you start this procedure. Also, you need to authenticate with administrative credentials to the Windows Domain or Workgroup that contain the computers.

Deploying client software to computers that run firewalls, and that run Windows XP, Windows Vista, or Windows Server 2008 have special requirements. Firewalls must permit remote deployment over TCP ports 139 and 445, and the computers that are in workgroups and that run Windows XP must disable simple file sharing. Windows Vista and Windows Server 2008 have additional requirements.

See "Disabling and modifying Windows firewalls" on page 48.

See "Preparing computers for remote deployment" on page 51.

To configure client software

1. In the Management Server Configuration Wizard Finished panel, check **Yes**, and then click **Finish**.
2. In the Welcome to the Migration and Deployment Wizard panel, click **Next**.
3. In the What would you like to do panel, check **Deploy the client** (Symantec Endpoint Protection only), and then click **Next**.
4. In the next panel, check **Specify the name of a new group that you wish to deploy clients to**, type a group name in the box, and then click **Next**.
5. In the next panel, uncheck any client software that you do not want to install (Symantec Endpoint Protection only), and then click **Next**.
6. In the next panel, check the options that you want for packages, files, and user interaction.
7. Click **Browse**, locate and select a directory in which to place the installation files, and then click **Open**.

8 Click **Next**.

9 In the next unnamed panel, check **Yes**, and then click **Finish**.

Do not check Launch Administrator Console. It can take up to 5 minutes to create and export the installation package for your group before the Push Deployment Wizard appears.

To deploy the client software with the Push Deployment Wizard

1 In the Push Deployment Wizard panel, under Available Computers, expand the trees and select the computers on which to install the client software, and then click **Add**.

2 In the Remote Client Authentication dialog box, type a user name and password, and then click **OK**.

The user name and password must be able to authenticate to the Windows Domain or Workgroup that contains the computers.

3 When you have selected all of the computers and they appear in the right pane, click **Finish**.

4 When installation completes, click **Close**.

5 Select whether or not to view the deployment log.

Logging on to and locating your group in the console

Your first activity is to log on to the console and locate your group.

Logging on to the Manager Console

The Manager Console lets you manage clients.

To log on to the Manager Console

1 Click **Start > Programs > Symantec Endpoint Protection Manager > Symantec Endpoint Protection Manager Console**.

2 In the Symantec Endpoint Protection Manager logon prompt, in the User name box, type **admin**.

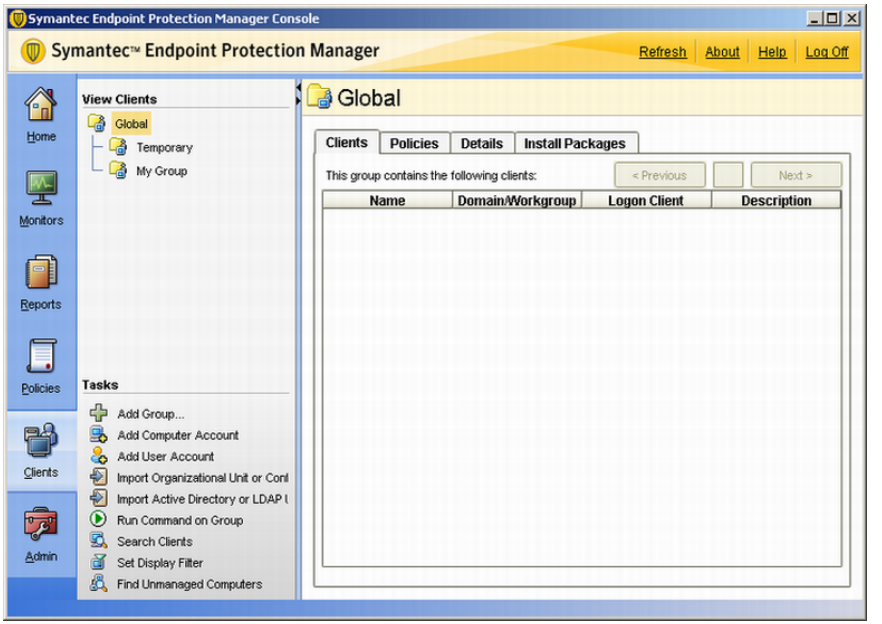
3 In the Password box, type the admin password that you created during installation, and then click **Log On**.

About locating your group in the console

After you log on, you should locate the group that you created during installation. Then verify that the client computers to which you deployed software appear in that group.

Figure 3-2 illustrates an example of a group that was created during installation.

Figure 3-2 Group



About policies

Symantec Endpoint Protection Manager lets you configure and apply policies to groups or locations in groups. All client computers that are in the groups and locations receive the permissions and features that are specified in the policies. For example, if a LiveUpdate Settings Policy specifies to run LiveUpdate daily at 10:00 P.M., all clients that receive that policy run LiveUpdate daily.

For Symantec Endpoint Protection, multiple policies exist. Policies exist for LiveUpdate, Antivirus and Antispyware Protection, Centralized Exceptions, and so forth. For Symantec Network Access Control, two policies exist: one for LiveUpdate and one for Host Integrity.

Note: For legacy Symantec AntiVirus and Symantec Client Security users, the settings that applied to groups, management servers, and clients now are contained in policies.

Configuring LiveUpdate for site updates

You should configure the frequency that the Symantec Endpoint Protection Manager checks for and downloads new updates to the site. You also configure client updates with LiveUpdate Content Policies, so be sure to download all types that you want clients to receive.

Symantec Endpoint Protection Manager for Symantec Network Access Control only supports product updates.

To configure LiveUpdate for the site

1. In the console left pane, click **Admin**.
2. In the lower-left pane, click **Servers**.
3. In the upper-left pane, right-click **Local Site**, and then click **Edit Properties**.
4. On the LiveUpdate tab, under Download Schedule, check the Frequency options with which to download the latest definitions.
5. For details about setting other options in this dialog box, click **Help**.
6. When you finish setting the site's LiveUpdate properties, click **OK**.

Configuring LiveUpdate for client updates

When you create a group with the Migration and Deployment Wizard, your group receives default policies. If you create a new policy of the same type as a default policy and apply it to the group, the default policy is removed. For example, you can create a LiveUpdate Policy that is called MyLiveUpdate Policy and apply it to a group that uses a default LiveUpdate Policy. MyLiveUpdate then takes the place of the default LiveUpdate Policy. Other groups can also share the new policy that you create.

Two types of LiveUpdate Policies exist. A LiveUpdate Settings Policy specifies the frequency that clients run LiveUpdate to check for content updates. A LiveUpdate Content Policy specifies the content that clients can receive when they run LiveUpdate.

Configuring a LiveUpdate Settings policy

When you create a group with the Migration and Deployment Wizard, your group receives default policies. You can either create a new policy and replace the default policy, or edit the default policy. A best practice is to create a new policy and modify the default policy.

To configure a LiveUpdate Settings Policy

1. On the console, click **Policies**.
2. In the View Policies pane, click **LiveUpdate**.
3. In the lower-left Tasks pane, click **Add a LiveUpdate Settings Policy**.
4. In the Overview pane, in the Policy name box, type a name for the policy.
5. Under LiveUpdate policy, click **Schedule**.
6. In the Schedule pane, accept or change the scheduling options.
7. Under LiveUpdate Policy, click **Advanced Settings**.
8. Decide whether to keep or change the default settings.

   For details about the settings, click **Help**.

   Generally, you do not want users to modify update settings. However, you may want to let them manually launch a LiveUpdate session if you do not support hundreds or thousands of clients.
9. When you have configured your policy, click **OK**.
10. In the Assign Policy dialog box, click **Yes**.
11. In the Assign LiveUpdate Policy dialog box, check the groups and locations to which to apply the policy, and then click **Assign**.

    If you cannot select a nested group, that group inherits policies from its parent group, as set on the Policies tab of the Clients page.
12. In the Assign LiveUpdate Policy dialog box, click **Yes**.

Configuring a LiveUpdate Content Policy

By default, all clients in a group receive the latest versions of all content updates. If a group is configured to get updates from a management server, the clients receive only the updates that the server downloads. If the LiveUpdate content policy is configured to allow all updates, but the management server is not configured to download all updates, the clients receive only what the server downloads. What the server downloads is configurable from the Admin pane.

Note: LiveUpdate Content Policies are not available for Symantec Network Access Control clients.

To configure a LiveUpdate Content Policy

1. On the console, click **Policies**.
2. In the View Policies pane, click **LiveUpdate**.
3. In the LiveUpdate Policies pane, click the **LiveUpdate Content** tab.
4. In the lower-left Tasks pane, click **Add a LiveUpdate Content Policy**.
5. In the Overview pane, in the Policy name box, type a name for the policy.
6. If you configure Symantec Endpoint Protection, in the LiveUpdate Content pane, click **Security Definitions**.
7. In the Security Definitions pane, check the updates to download and install, and uncheck the updates to disallow.
8. In the LiveUpdate Content Policy window, click **OK.**
9. In the Assign Policy dialog box, click **Yes**.
10. In the Assign LiveUpdate Content Policy dialog box, check one or more groups to which to apply this policy, and then click **Assign**.

    If you cannot select a nested group, that group inherits policies from its parent group, as set on the Policies tab of the Clients page.
11. In the Assign LiveUpdate Policy dialog box, click **Yes**.

Configuring and testing Symantec Endpoint Protection

After you configure and install a LiveUpdate Policy, you should create and apply an Antivirus and Antispyware Policy.

Note: This section assumes that you purchased and installed Symantec Endpoint Protection.

Configuring a default Antivirus and Antispyware Policy

You should configure an Antivirus and Antispyware Policy for your group. In this procedure, you edit the default policy that is currently only applied to the group. You can, however, create a new policy and apply it to your group.

To configure a default Antivirus and Antispyware Policy

1. On the console, in the left pane, click **Clients**.
2. Under View Clients, select a group, and click the **Policies** tab.
3. On the Policies tab, under Location-specific Policies and Settings, across from Antivirus and Antispyware Policy [shared], click **Tasks > Convert to Non-shared Policy**.
4. In the Antivirus and Antispyware Policy pane, click **File System Auto-Protect**.
5. On the Scan Details tab, verify that **Enable File System Auto-Protect** is checked, and that the lock icon is in the unlocked mode (for testing).

   Generally, you want this setting locked, but for initial testing purposes, leave it unlocked. Locking a setting prevents users from changing a setting.
6. On the Actions tab, under Detection, click **Non-macro virus**.
7. Under Actions for: Non-macro virus, inspect the default sequence of actions that occur when a non-macro virus is detected.

   The first action is to try to clean the virus. If it is not possible to clean, the virus is quarantined.
8. On the Notifications tab, inspect the message that appears on client computers when a virus or security risk is detected.

   You can change this message later if necessary.
9. In the left pane, click **Administrator-defined scans**.
10. On the Scans tab, under Name, click **Weekly Scheduled Scan**, and then click **Edit**.
11. Become familiar with the options on the different tabs and change them if necessary.

    Full scans are always recommended initially. After full scans are run, Active scans and Auto-Protect are effective to secure client computers.
12. When you understand the scan options, click **OK**.
13. In the left pane, click **Quarantine** and then click **Cleanup**.
14. On the Cleanup tab, review the settings for purging repaired and quarantined files.

    Become familiar with these settings if you want to change them in the future.
15. Click **OK**.

Testing antivirus capabilities

You should experiment with antivirus detection in a controlled test environment to become familiar with alerts and log entries. Before you test antivirus detection, download the latest antivirus test file Eicar.com onto transportable media such as a memory stick. You can download Eicar.com at the following URL:

http://www.eicar.org

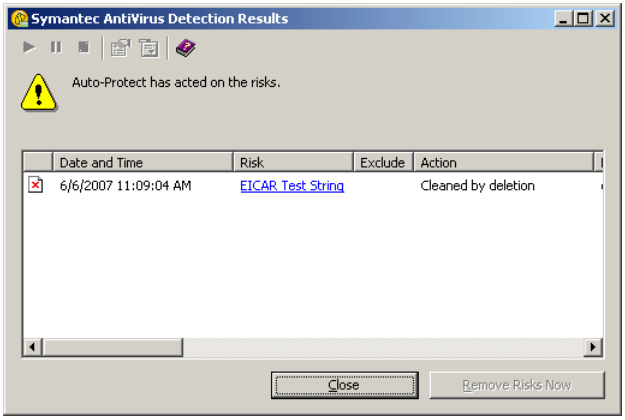
Testing Auto-Protect

Auto-Protect is the Symantec real-time process that inspects every file that executes or is user-accessed to see if it is a virus or security risk. Auto-Protect determines whether files are viruses or security risks by using the definitions that you download from Symantec. You can see how Auto-Protect works by using a benign virus called Eicar. Several versions are available at the following URL:

http://www.eicar.org

To test Auto-Protect

1. On a client computer, in the lower-right corner, right-click the Symantec Endpoint Protection shield, and click **Disable Symantec Endpoint Protection**.
2. If you have not downloaded eicar.com, go to http://www.eicar.org, and then locate and download eicar.com to the client computer.
3. In the lower-right corner, right-click the Symantec Endpoint Protection shield, and click **Enable Symantec Endpoint Protection**.
4. Double-click **eicar.com**.



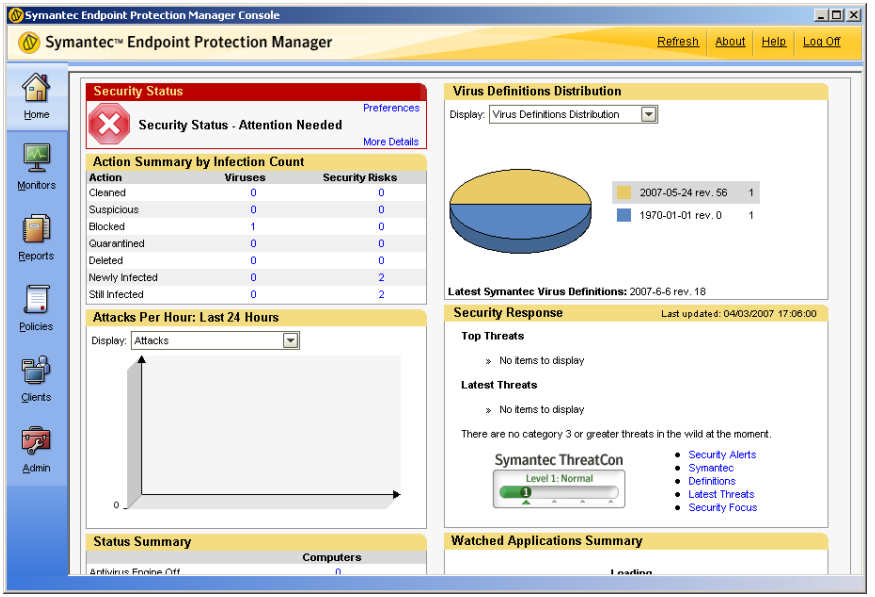
5. Read and become familiar with the details in the message prompt(s).

Managing the detected threat

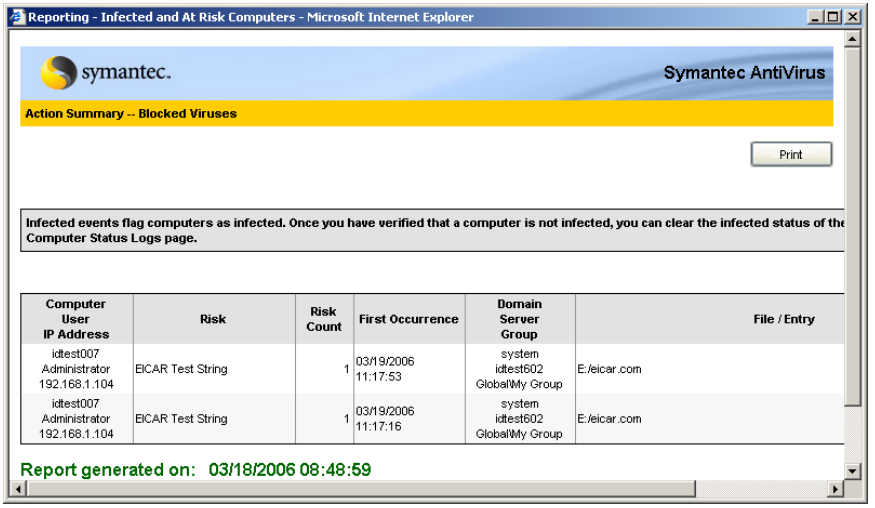
After Symantec Endpoint Protection detects and isolates eicar.com, it sends the information to Symantec Endpoint Protection Manager. You can then see that the activity that occurred from the Home page in Symantec Endpoint Protection Manager Console. This task is a primary task that you perform in a production environment. When clients detect real threats, you first display details about the threat. You then decide if Auto-Protect mitigated the threat and then clear the status.

To manage the detected threat

1 In the console, click **Home**.



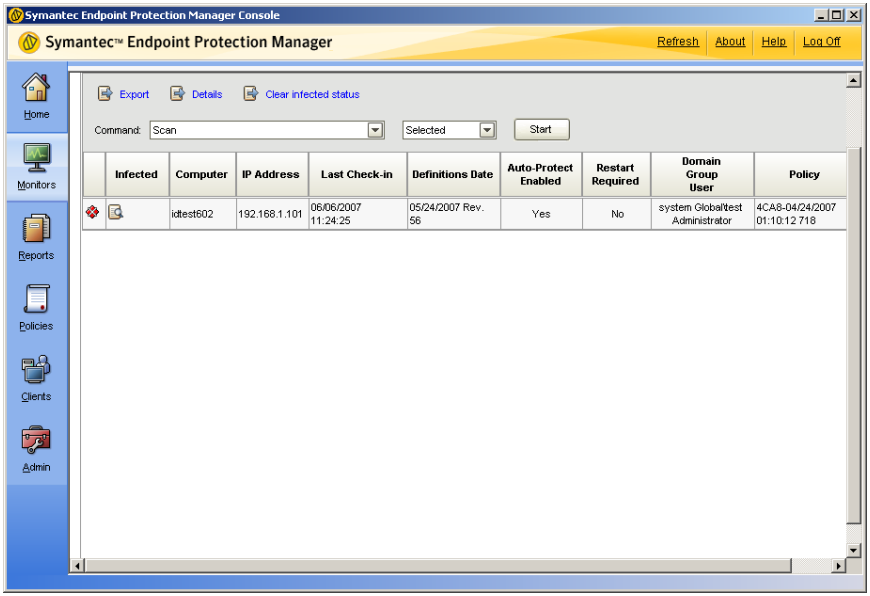
2 In the Viruses column for the Blocked row, click the number.



3 In the Reporting - Infected and At Risk Computers window, become familiar with the reported information, and then close the window.

4 Click **Monitors**.

5 On the Logs tab, in the Log type drop-down, click **Computer Status**, and then click **View Log**.



6 To display information about the infection, click **Details**.

7 To clear the Infected Status, click **Clear infected status**.

Configuring the Security Status icon

The Home page displays the security status of your client computers. The two possible statuses are Good and Attention Needed. You can control when the status is Good and Attention Needed by setting security status threshold preferences.

To configure the Security Status icon

1 In the console, click **Home**.

2 Under Security Status, click **More Details**.

3 In the Security Status Details window, review the features that trigger the Good and Attention Needed status.

4 Close the window.

5 Under Security Status, click **Preferences**.

6 In the Preferences dialog box, on the Security Status tab, review the security status triggers and thresholds that you can set.

All thresholds default to 10 percent.

7 For security status details, click **Help**.

To trigger the Attention Needed status, disable Symantec Endpoint Protection on one of your test clients.

8 Click **OK**.

9 To review the security status of your managed clients at any time, on the Home page, click the **Status** icon.

Configuring and testing Symantec Network Access Control

Symantec Network Access Control supports two policies only: LiveUpdate and Host Integrity. The Host Integrity policy, however, provides the core functionality of Symantec Network Access Control.

Note: This topic assumes that you purchased and installed Symantec Network Access Control.

Creating a Host Integrity Policy

The Host Integrity Policy is the foundation of Symantec Network Access Control. The policy that you create for this test is for demonstration purposes only. The policy detects the existence of an operating system and, when detected, generates a FAIL event. Normally, you would generate FAIL events for other reasons.

Note: If you purchased and installed Symantec Network Access Control and Symantec Endpoint Protection, you can create a firewall policy for the client computers that fail Host Integrity. If you run Symantec Enforcer with Symantec Network Access Control, you can isolate the clients that fail Host Integrity to specific network segments. This isolation prevents client authentication and domain access.

To create a Host Integrity Policy

1 In the console, click **Policies**.

2 Under View Policies, click and select **Host Integrity**.

3 Under Tasks, click **Add a Host Integrity Policy**.

4 In the Overview pane, in the Policy Name box, type a name for the policy.

5 Click **Requirements**.

6 In the Requirements pane, check **Always do Host Integrity checking**, and then click **Add**.

7 In the Add Requirement dialog box, in the Type drop-down menu, click **Custom Requirement**, and then click **OK**.

8 In the Custom Requirement window, in the Name box, type a name for the Custom Requirement.

9 Under Customized Requirement Script, right-click **Insert Statements Below**, and then click **Add > IF .. THEN**.

10 In the right pane, in the Select a condition drop-down menu, click **Utility: Operating System is**.

11 Under Operating system, check one or more operating systems that your client computers run.

12 Under Customized Requirement Script, right-click **THEN //Insert statements here**, and then click **Add > Function > Utility: Show message dialog**.

13 In the Caption of the message box, type a name to appear in the message title.

14 In the Test of the message box, type the text that you want the message to display.

15 To display information about the settings for the icons and the buttons that you can integrate with the message, click **Help**.

16 In the left pane, under Customized Requirement Script, click **PASS**.

17 In the right pane, under As the result of the requirement return, check **Fail**, and then click **OK**.

18 In the Host Integrity window, click **OK**.

19 In the Assign Policy prompt, click **Yes**.

20 In the Host Integrity Policy dialog box, check the group or groups to which to apply the policy and that contain your test client computers, and then click **Assign**.

21 In the Assign Host Integrity Policy prompt, click **Yes**.

Testing a Host Integrity Policy

You can test a Host Integrity Policy from the Symantec Endpoint Protection Manager Console.

Note: You can also run Host Integrity checks from the client.

To test a Host Integrity Policy

1. In the console, click **Clients**.
2. In the right pane, click the **Clients** tab.
3. In the left pane, under View, click and highlight the group that contains the client computers to which you applied the Host Integrity Policy.
4. Under Tasks, click **Run Command on Group > Update Content**.
5. Log on to a client computer that runs Symantec Network Access Control and note the message box that appears.

   Because the rule triggered the fail test, the message box appears. After testing, disable or delete the test policy.

Chapter 4

Installing the Symantec Endpoint Protection Manager

This chapter includes the following topics:

- Before you install
- Installing Symantec Endpoint Protection Manager with an embedded database
- Installing Symantec Endpoint Protection Manager with a Microsoft SQL database
- Installing additional Symantec Endpoint Protection Manager consoles
- Installing and configuring Symantec Endpoint Protection Manager for failover or load balancing
- Installing and configuring Symantec Endpoint Protection Manager for replication
- Adjusting the Symantec Endpoint Protection Manager heap size
- Upgrading from the embedded database to Microsoft SQL Server
- Uninstalling Symantec Endpoint Protection Manager

Before you install

Before you install a Symantec Endpoint Protection Manager and a database, you must decide which type of database to create. You can create an embedded SQL database, or you can create a Microsoft SQL database. The embedded SQL database

installation files are contained on the installation CD. If you create a Microsoft SQL database, you must first install an instance of Microsoft SQL server that meets Symantec requirements.

Warning: Installing Symantec Endpoint Protection Manager does not install Symantec Endpoint Protection or any other protection technology. To protect the computer that runs Symantec Endpoint Protection Managers, you must install Symantec Endpoint Protection client software. Also, for performance reasons, the Symantec Endpoint Protection installer blocks Internet Email Auto-Protect from being installed on Microsoft server operating systems.

Installing Symantec Endpoint Protection Manager with an embedded database

Installing with the embedded database is the easiest way to install Symantec Endpoint Protection Manager. The embedded database supports up to 1,000 clients.

After you install Symantec Endpoint Protection Manager and become comfortable with administration tasks, you must secure your cryptographic files in case you need to recover from a disaster. You must also document the encryption password that you enter during Symantec Endpoint Protection Manager configuration.

See "How to prepare for disaster recovery" on page 209.

About embedded database installation settings

During installation, you make decisions about what database values to set. You must make these decisions before you start the installation.

Table 4-1 lists and describes these values and settings.

Table 4-1 Embedded database default settings and descriptions

Setting	Default	Description
Select IIS Web site configuration options	Use the default Web site	■ Use the default Web site Installs the Symantec Endpoint Protection IIS Web application in the Default IIS Web site, and works with any other Web application that is installed in the Web site. ■ Create a custom Web site Disables the Default IIS Web site, and creates a Symantec Web Server for Symantec Endpoint Protection Manager.

Table 4-1 Embedded database default settings and descriptions *(continued)*

Setting	Default	Description
Server name	*local host name*	Name of the computer that runs the Symantec Endpoint Protection Manager.
Server port	8443	TCP port number on which the Symantec Endpoint Protection Manager listens.
Web console port	9090	HTTP port used for remote console connections.
Server data folder	\\Program Files\Symantec Endpoint Protection Manager\data	Directory in which the Symantec Endpoint Protection Manager places data files including backups, replicated logs, and other files. The installer creates this directory if it does not exist.
Site name	Site *local host name*	Site name of the highest level container under which all features are configured and run with the Symantec Endpoint Protection Manager.
Encryption password	None	The password that encrypts communication between the Symantec Endpoint Protection Manager, clients, and optional Enforcer hardware devices. The password can be from 1-32 alphanumeric characters and is required. When the server is configured in Simple mode, the encryption password is set to the same password configured for the admin account. Document this password and put it in a secure location. You cannot change or recover the password after you create the database. You must also enter this password for disaster recovery purposes if you do not have a backed up database to restore. See "How to prepare for disaster recovery" on page 209.
User Name	admin	Name of the default user name that is used to log on to the Symantec Endpoint Protection Manager Console for the first time. (not changeable)
Password	None	Password specified during server configuration for the admin user name.

Installing Symantec Endpoint Protection Manager with the embedded database

Installation is divided into three parts. The first part installs the management server and console. The second part installs and configures the database. The third, and optional, part involves client software deployment to client computers.

In the first part, you can accept all of the defaults. In the second part, you add at least one custom value, which is a password. In the third part, you select the clients on which to deploy client software.

To install Symantec Endpoint Protection Manager with the embedded database

1. Insert the installation CD, and start the installation.
2. In the Welcome panel, do one of the following:
   - To install for Symantec Endpoint Protection, click **Install Symantec Endpoint Protection Manager**.
   - To install for Symantec Network Access Control, click **Install Symantec Network Access Control**, and then click **Install Symantec Endpoint Protection Manager**.
3. Click through the panels, until the Destination Folder panel appears.
4. In the Destination Folder panel, accept or change the default installation directory.
5. Do one of the following:
   - To let the Symantec Endpoint Protection Manager IIS Web server run with other Web sites on this computer, check **Use the default Web site**, and then click **Next**.
   - To configure the Symantec Endpoint Protection Manager IIS Web as the only Web server on this computer, check **Create a custom Web site**, and then click **Next**.
6. Click through the panels, until the installation begins.
7. When the installation finishes and the Installation Wizard Complete panel appears, click **Finish**

   The Server Configuration Wizard panel can take up to 15 seconds to appear. If you are prompted to restart the computer, restart the computer, log on, and the Server Configuration Wizard panel appears automatically for you to continue.
8. In the Management Server Configuration Wizard panel, select **Advanced**, and then click **Next**.

9 Select the number of clients you want this server to manage, and then click **Next**.

10 Check **Install my first site**, and then click **Next**.

11 In the Server Information panel, accept or change the default values for the following boxes, and then click **Next**:

- Server name
- Server port
- Web console port
- Server data folder

12 In the Site Name panel, in the Site name box, accept or change the default name, and then click **Next**.

13 In the Encryption Password panel, in the Create encryption password boxes, type a password, and then click **Next**.

Document this password and store it in a safe, secure location. You cannot change or recover the password after you create the database. You must also enter this password for disaster recovery purposes if you do not have a backed up database to restore.

14 In the Database Server Choice panel, check **Embedded Database**, and then click **Next**.

15 In the admin user panel, provide and confirm a password for the admin account. Optionally, provide an administrator email address. Click **Next**.

Use the user name and password that you set here to log on to the console for the first time.

16 In the Configuration Completed dialog box, do one of the following:

- To deploy client software with the Migration and Deployment Wizard, click **Yes**.
- To log on to the Symantec Endpoint Protection Manager Console first, and then deploy client software, click **No**.

Refer to the Client Installation chapter for details on how to deploy client software.

After you install Symantec Endpoint Protection Manager and become comfortable with administration tasks, you should secure your cryptographic files in case you need to recover from a disaster. You should also document your encryption password that you enter during Symantec Endpoint Protection Manager installation.

See "How to prepare for disaster recovery" on page 209.

Installing Symantec Endpoint Protection Manager with a Microsoft SQL database

You can install the Symantec Endpoint Protection Manager on the same computer that runs Microsoft SQL Server 2000/2005 and then create a database on the local SQL server. You can also install the Symantec Endpoint Protection Manager on a computer that does not run Microsoft SQL Server 2000/2005 and then create a database on the remote SQL server. In both cases, you must properly install and configure Microsoft SQL Server components on all computers.

Note: Microsoft SQL Server 2000 is supported on English-language Windows operating systems only.

Preparing Microsoft SQL Server 2000/2005 for database creation

Before you create the database, Symantec recommends that you install a new instance of SQL Server that conforms to Symantec installation and configuration requirements. You can install a database in an older, existing instance, but the instance must be configured properly or your database installation fails. For example, if the authentication configuration is not set to Mixed Mode, your installation fails or does not function properly. If you select a case-sensitive SQL collation your installation fails.

Warning: Symantec Endpoint Protection Manager authenticates to Microsoft SQL Server with a clear text database owner user name and password. If you install to and communicate with a remote Microsoft SQL Server, any computer in the communications path can potentially capture this user name and password with a packet capture utility. To maximize the security posture of remote Microsoft SQL Server communications, collocate both servers in a secure subnet.

A secure subnet isolates network communications between servers to that subnet only. A secure subnet is typically located behind a network device that performs network address translation (NAT). Many of the modern inexpensive routers that perform DHCP address assignments also perform NAT. A secure subnet is also physically secure so that only authorized personnel have physical access to the network devices on that subnet.

Microsoft SQL Server 2000 installation and configuration requirements

The installation and configuration requirements affect all Microsoft SQL Server 2000 installations, both local and remote. To create a database on a remote SQL server, you must also install the SQL Server Client Components on the server that runs the Symantec Endpoint Protection Manager.

Microsoft SQL Server 2000 installation requirements

When you install the instance of Microsoft SQL Server 2000, select the following non-default features:

- Do not accept the default instance name. Use SEPM or some other name.
  By default, a database named Sem5 is created in this instance when you install the Symantec Endpoint Protection Manager. The default instance is supported, which is unnamed, but can lead to confusion if you install multiple instances on one computer.
- Set authentication configuration to Mixed Mode (Windows authentication and SQL Server authentication).
- Set the sa password when you set Mixed Mode authentication. You type this password when you install the Symantec Endpoint Protection Manager.

Note: When you install the instance of Microsoft SQL Server, do not select a case-sensitive SQL collation. The database does not support case-sensitivity.

Microsoft SQL Server 2000 configuration requirements

After you install the instance of Microsoft SQL Server 2000, you must do the following:

- Apply SQL Server Service Pack 4, and select to authenticate using SQL server credentials.
- In Enterprise Manager, register the instance, right-click the instance, and edit the registration properties to use SQL server authentication.
- After editing, when prompted, disconnect from the server.
- Right-click the instance and connect to the server.
- Use the SQL Server Network Utility to verify that TCP/IP is an enabled protocol. If the protocol is not enabled, enable the protocol.
- Verify that SQL Server Agent is running, and start it if it is not running.

Installing and configuring Microsoft SQL Server 2000 client components

You install and configure Microsoft SQL Server 2000 Client Components on the computer that runs or will run the Symantec Endpoint Protection Manager.

To install Microsoft SQL Server 2000 client components

1. Start the Microsoft SQL Server 2000 installation CD and begin the installation process.
2. In the Installation Definition window, click **Client Tools Only**.
3. Complete the installation.

To configure Microsoft SQL Server 2000 client components

1. Click **Start > Programs > Microsoft SQL Server > Client Network Utility**.
2. In the SQL Server Client Network Utility dialog box, on the General tab, verify that TCP/IP is an enabled protocol. If it is not an enabled protocol, enable the protocol.
3. Right-click **TCP/IP**, and then click **Properties**.
4. In the TCP/IP dialog box, in the Default Port box, type the port number that matches the port that is used by the Microsoft SQL Server 2000 instance.

   The default port is typically 1433. You specify this port number when you create the database.
5. Click **OK**, and then exit the SQL Server Client Network Utility.

Microsoft SQL Server 2005 installation and configuration requirements

The installation and configuration requirements affect all Microsoft SQL Server 2005 installations, both local and remote. If you create a database on a remote SQL server, you must also install the SQL Server Client Components on the server that runs the Symantec Endpoint Protection Manager.

Microsoft SQL Server 2005 installation requirements

When you install the instance of Microsoft SQL Server 2005 you must select the following non-default features:

- Do not accept the default instance name. Use SEPM or some other name.
  By default, a database named Sem5 is created in this instance when you install the Symantec Endpoint Protection Manager. The default instance is supported, which is unnamed, but can lead to confusion if you install multiple instances on one computer.

- Set authentication configuration to Mixed Mode (Windows authentication and SQL Server authentication).
- Set the sa password when you set Mixed Mode authentication. You type this password when you install the Symantec Endpoint Protection Manager.
- When you configure Service Accounts, select to start the SQL Server Browser at the end of setup.

Note: When you install the instance of Microsoft SQL Server, do not select a case-sensitive SQL collation. The database does not support case-sensitivity.

Microsoft SQL Server 2005 configuration requirements

After you install the instance of Microsoft SQL Server 2005, apply SQL Server 2005 Service Pack 2, and select to authenticate using SQL server credentials. Then, use the SQL Server Configuration Manager to do the following:

- Display the protocols for the SQL Server 2005 Network Configuration.
- Display the protocol properties for TCP/IP and enable TCP/IP.
- Display the IP addresses for TCP/IP and enable the IP1 and IP2 addresses.
- Set the TCP/IP port numbers for IP1, IP2, and PALL.
  The Symantec Endpoint Protection Manager database does not support dynamic ports. As a result, set TCP Dynamic Ports to blank, and specify a TCP Port number. The default is typically 1433. You specify this port number when you create the database.
- Restart the SQL Server service.

If you did not select to start the SQL Browser during installation, your remote installation fails. If you did not make this selection during installation, use the SQL Server Surface Area Configuration utility to do the following:

- Display the Surface Area Configuration for Services and Connections information.
- Enable the SQL Server Browser service.
  If this service is not enabled, client computers cannot communicate with the server.
- Verify that Local and Remote Connections are enabled by using TCP/IP only. Named Pipes are not required.

Installing and configuring Microsoft SQL Server 2005 client components

You install Microsoft SQL Server 2005 client components on the computer that runs the Symantec Endpoint Protection Manager.

Note: You must install the client components on a computer that runs Windows Server 2003. The client component installation requires MDAC 2.8 Service Pack 1 or higher, Windows Installer 3.1, and Internet Explorer 6.0 Service Pack 1 or higher.

To install Microsoft SQL Server 2005 client components

1. Start the Microsoft SQL Server 2005 installation CD and begin the installation process.
2. In the Start window, click **Server components, tools, Books Online, and samples**.
3. Continue the installation until you are prompted to select the components to install.
4. In the Components to Install dialog box, click **Advanced**.
5. In the left pane, click and expand **Client Components**.
6. Click **Client Components**, and then select **Will be installed on local hard drive**.
7. Click the following Client Component features: **Connectivity Components** and **Management Tools**, and then select **Will be installed on local hard drive**.
8. Complete the installation.

To configure Microsoft SQL Server 2005 client components

1. Click **Start > Programs > Microsoft SQL Server 2005 > Configuration Tools > SQL Server Configuration Manager**.
2. Under SQL Native Client Configuration, click **Client Protocols**, right-click **TCP/IP**, and then click **Properties**.
3. In the Default Port box, type the port number that matches the port that is used by the Microsoft SQL Server 2005 instance.

   The default port is typically 1433. You specify this port number when you create the database.
4. Click **Apply > OK**.

About Microsoft SQL Server database installation settings

During Symantec Endpoint Protection Manager installation, you make decisions about what database values to set. You should make these decisions before you start the installation.

Table 4-2 lists and describes these values and settings.

Table 4-2 Microsoft SQL Server default settings and descriptions

Setting	Default	Description
Select IIS Web site configuration options	Use the default Web site	■ Use the default Web site Installs the Symantec Endpoint Protection IIS Web application in the Default IIS Web site, and works with any other Web application that is installed in the Web site. ■ Create a custom Web site Disables the Default IIS Web site, and creates a Symantec Web Server for Symantec Endpoint Protection Manager.
Server name	*local host name*	Name of the computer that runs the Symantec Endpoint Protection Manager.
Server port	8443	Port number on which that the Symantec Endpoint Protection Manager server listens.
Web console port	9090	HTTP port used for remote console connections
Server data folder	C:\Program Files\Symantec Endpoint Protection Manager\data	Directory in which the Symantec Endpoint Protection Manager places data files including backups, replication, and other Symantec Endpoint Protection Manager files. The installer creates this directory if it does not exist.
Site name	Site *local host name*	Site name of the highest level container under which all features are configured and run with the Symantec Endpoint Protection Manager.
Encryption password	None	The password that encrypts communication between the Symantec Endpoint Protection Manager, clients, and optional Enforcer hardware devices. The password can be from 1-32 alphanumeric characters and is required. Document this password and put it in a secure location. You cannot change or recover the password after you create the database. You must also enter this password for disaster recovery purposes if you do not have a backed up database to restore. See "How to prepare for disaster recovery" on page 209.

Table 4-2 Microsoft SQL Server default settings and descriptions *(continued)*

Setting	Default	Description
Database server	*local host name*	Name of the Microsoft SQL server and the optional instance name. If the database server was installed with the default instance, which is no name, type either *host name* or the host's *IP address*. If the database server was installed with a named instance, type either *host name**instance_name* or *IP address**instance_name*. Typing *host name* only works with properly configured DNS. If you install to a remote database server, you must first install the SQL Server client components on the computer that runs the Symantec Endpoint Protection Manager.
SQL Server Port	1433	Port that the SQL server is configured with to send and receive traffic. Port 0, which is used to specify a random, negotiated port, is not supported.
Database Name	sem5	Name of the database that is created.
User	sem5	Name of the database user account that is created. The user account has a standard role with read and write access. The name can be a combination of alphanumeric values and the special characters ~#%_+=|:./. The special characters `!@$^&*()-{}[]\\<;>,? are not allowed. The following names are also not allowed: sysadmin, server admin, setupadmin, securityadmin, processadmin, dbcreator, diskadmin, bulkadmin.
Password	None	The password to associate with the database user account. The name can be a combination of alphanumeric values and the special characters ~#%_+=|:./. The special characters `!@$^&*()-{}[]\\<;>,? are not allowed.
SQL client folder	C:\Program Files\Microsoft SQL Server\80\Tools\Binn	Location of the local SQL Client Utility directory that contains bcp.exe. If you create a database on SQL Server 2005, the default numeric directory is 90. The complete default path is C:\Program Files\Microsoft SQL Server\90\Tools\Binn
DBA user	None	Name of the database server administrator account, which is typically sa.
DBA password	None	Name of the password that is associated with the DBA user account.

Table 4-2 Microsoft SQL Server default settings and descriptions *(continued)*

Setting	Default	Description
Database data folder	Automatically detected after clicking Default SQL Server 2000: C:\Program Files\Microsoft SQL Server\MSSQL\Data SQL Server 2005: C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Data	Location of the SQL server data directory. If you install to a remote server, the volume identifier must match the identifier on the remote server. If you are installing to a named instance on SQL Server 2000, the instance name is appended to MSSQL with a dollar sign as in \MSSQL$*instance name*\Data. If you are installing to a named instance on SQL Server 2005, the instance name is appended to MSSQL with a dot numeric identifier as in \MSSQL.1\MSSQL\Data. **Note:** Clicking Default displays the correct installation directory, if you entered the database server and instance name correctly. If you click Default and the correct installation directory does not appear, your database creation fails.
Admin User Name	admin	Name of the default user name that is used to log on to the Symantec Endpoint Protection Manager Console for the first time. (not changeable)
Admin Password	None	The password specified during server configuration to use with the admin user name.

Installing Symantec Endpoint Protection Manager with a Microsoft SQL database

After you install and configure the SQL server client components, you can install the Symantec Endpoint Protection Manager.

Note: If you create a new database, SQL Server automatically manages your database with the simple recovery model and enables Auto Shrink.

To install the Symantec Endpoint Protection Manager

1. Insert the installation CD, and start the installation.
2. In the Welcome panel, do one of the following:
   - To install for Symantec Endpoint Protection, click **Install Symantec Endpoint Protection Manager**.

- To install for Symantec Network Access Control, click **Install Symantec Network Access Control**, and then click **Install Symantec Endpoint Protection Manager**.

3. Click through the panels, until the Destination Folder panel appears.
4. In the Destination Folder panel, accept or change the default installation directory.
5. Do one of the following:
   - To let the Symantec Endpoint Protection Manager IIS Web server run with other Web sites on this computer, check **Use the default Web site**, and then click **Next**.
   - To configure the Symantec Endpoint Protection Manager IIS Web as the only Web server on this computer, check **Create a custom Web site**, and then click **Next**.
6. On the Ready to Install the Program panel, click **Install**.
7. When the installation finishes and the Installation Wizard Complete panel appears, click **Finish**.

   The Server Configuration Wizard panel can take up to 15 seconds to appear. If you are prompted to restart the computer, restart the computer. When you log on, the Server Configuration Wizard panel appears automatically.

To create an SQL database

1. In the Management Server Configuration Wizard panel, select **Advanced**, and then click **Next**.
2. Select the number of clients that you want the server to manage, and then click **Next**.
3. Check **Install my first site**, and then click **Next**.
4. In the Server Information panel, accept or change the default values for the following boxes, and then click **Next**:
   - Server name
   - Server port
   - Web console port
   - Server data folder
5. In the Site Information panel, in the Site name box, accept or change the default name, and then click **Next**.

6 In the Create Encryption Password panel, in the Create encryption password boxes, type a password, and then click **Next**.

Document this password and put it in a safe and secure location. You cannot change or recover the password after you create the database. You must also enter this password for disaster recovery purposes if you do not have a backed up database to restore.

7 In the Database type selection panel, check **Microsoft SQL Server**, and then click **Next**.

8 In the Define New Database panel, do one of the following:

- If the database does not exist, check **Create a new database** (recommended).
- If the database does exist, check **Use an existing database**.

An existing database must define file groups PRIMARY, FG_CONTENT, FG_LOGINFO, FG_RPTINFO, and FG_INDEX. The user account for database access must have privileges db_ddladmin, db_datareader, and db_datawriter. If these requirements are not met, your installation fails. A best practice is to define a new database.

9 Click **Next**.

10 In the Microsoft SQL Server Information panel, type your values for the following boxes, and then click **Next**:

- Database server
  If you created a new instance, the format is *servername_or_IPaddress\instance_name*.
- SQL server port
- Database name
- User
- Password
- Confirm password (only when creating a new database)
- SQL Client folder
- DBA user (only when creating a new database)
- DBA password (only when creating a new database)
- Database data folder

11 Specify and confirm a password for the Symantec Endpoint Protection Manager admin account. Optionally, provide an administrator email address.

12 Click **Next**.

13 In the Warning dialog prompt, read and understand the warning information about clear text communications, and then click **OK**.

14 In the Configuration Completed panel, do one of the following:

- To deploy client software with the Migration and Deployment Wizard, click **Yes**.
- To log on to the Symantec Endpoint Protection Manager Console first, and then deploy client software, click **No**.

Refer to the Client Installation chapter for details on how to deploy client software.

After you install Symantec Endpoint Protection Manager and become comfortable with administration tasks, you should secure your cryptographic files in case you need to recover from a disaster. You should also document your encryption password that you enter during Symantec Endpoint Protection Manager installation.

See "How to prepare for disaster recovery" on page 209.

Installing additional Symantec Endpoint Protection Manager consoles

You can install additional management consoles on remote computers and log on to and manage Symantec Endpoint Protection Manager. The consoles require Java runtime software, so if your computer does not run the correct version of Java runtime, it installs automatically. You may have to adjust your Internet Explorer settings for ActiveX and Java to permit installation.

Note: If you export client installation packages from a remote management console, the packages are created on the computer from which you run the remote management console. Also, when you install servers for failover or load balancing, you install the management consoles on those computers.

To install additional management consoles

1 On the computer on which to install the management console, start a Web browser.

2 In the URL box, type one of the following identifiers for the computer that runs the Symantec Endpoint Protection Manager:

- **http://*computer_name*:9090**

- **http://*computer_IP_address*:9090**

  9090 is the default Web console port used during installation. You can change the Web console port using Reconfigure management server option in the Management Server Configuration wizard.

3. In the Symantec Policy Management Console window, click **Here** to download and install JRE 1.5.
4. If prompted with a security warning, click **Install**.
5. Follow the steps on the installation wizard, and then click **Finish**.
6. In the Symantec Endpoint Protection Manager Console window, click **Click here to download and log in to the Symantec Endpoint Protection Manager**.
7. In the Security Warning dialog box, click **Run**.
8. In the Create shortcut dialog box, click **Yes**.

   The Configure button opens the Java configuration dialog.
9. In the Logon prompt, type a user name and password for the Symantec Endpoint Protection Manager, and then click **Log On**.
10. Complete the authentication process.

Installing and configuring Symantec Endpoint Protection Manager for failover or load balancing

Failover and load balancing configurations are supported in Microsoft SQL Server installations only. Failover configurations are used to maintain communication when clients are unable to communicate with a Symantec Endpoint Protection Manager. Load balancing is used to distribute client management between Symantec Endpoint Protection Manager servers. You can configure failover and load balancing by assigning priorities to management servers in Management Server lists.

Load balancing occurs between the servers assigned to Priority 1 in a Management Server list. If more than one server is assigned to Priority 1, the clients randomly choose one of the servers and establish communication with it. If all Priority 1 servers fail, clients connect with the server assigned to Priority 2.

Note: When you install a server for failover or load balancing, you also install a management console.

Installing and configuring servers for failover and load balancing is a two-part process. First, you install a Symantec Endpoint Protection Manager on a computer

and add it to an existing site. Second, you log on to Symantec Endpoint Protection Manager Console, and configure the new Symantec Endpoint Protection Manager.

Installing Symantec Endpoint Protection Manager for failover or load balancing

Failover and load balancing installations are supported only when the original Symantec Endpoint Protection Manager uses Microsoft SQL Server. Do not install servers for failover or load balancing when the original Symantec Endpoint Protection Manager uses the embedded database.

To install a server for failover or load balancing

1. Install Symantec Endpoint Protection Manager.

   See "To install the Symantec Endpoint Protection Manager" on page 91.

2. In the Management Server Configuration Wizard panel, check **Advanced**, and then click **Next**.
3. Select the number of clients the server will manage, and then click **Next**.

   Check **Install an additional management server to an existing site**, and then click **Next**.
4. In the Server Information panel, accept or change the default values for the following boxes, and then click **Next**:
   - Server name
   - Server port
   - Web console port
   - Server data folder
5. In the Microsoft SQL Server Information dialog box, enter the remote server values for the following boxes:
   - Database server*instance_name*
   - SQL server port
   - Database name
   - User
   - Password
   - SQL Client folder (on the local computer)
     If this box is not automatically populated with the correct path, the Microsoft SQL Client Utility is not installed or it is not installed correctly.

6 Specify and confirm a password for the Symantec Endpoint Protection Manager admin account. Optionally, provide an administrator email address.

7 Click **Next**.

8 In Warning prompt, read and understand the text message, and then click **OK**.

9 In Management Server Completed panel, click **Finish**.

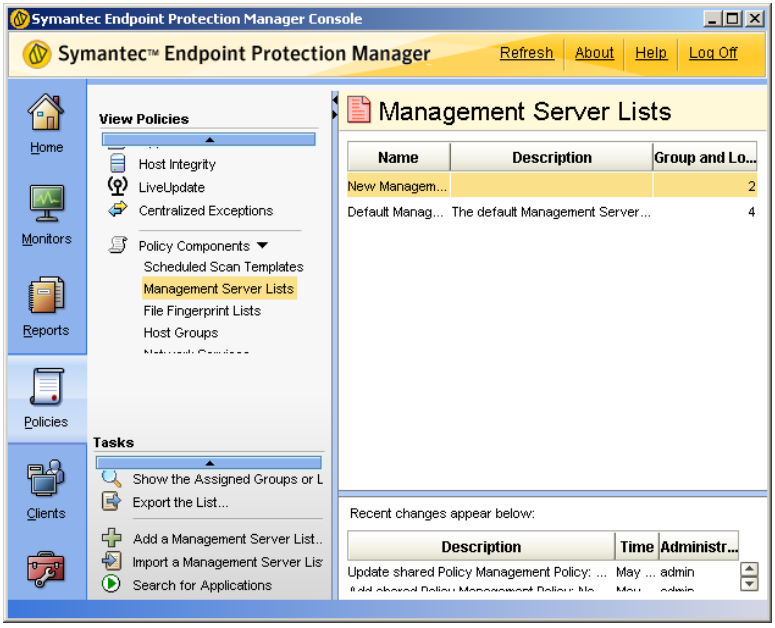
Configuring failover and load balancing

By default, a management server that is installed for failover and load balancing is configured for load balancing where both servers share the same priority. If you want to change the default after installation, you need to configure it with the Symantec Endpoint Protection Manager Console.

To configure failover and load balancing

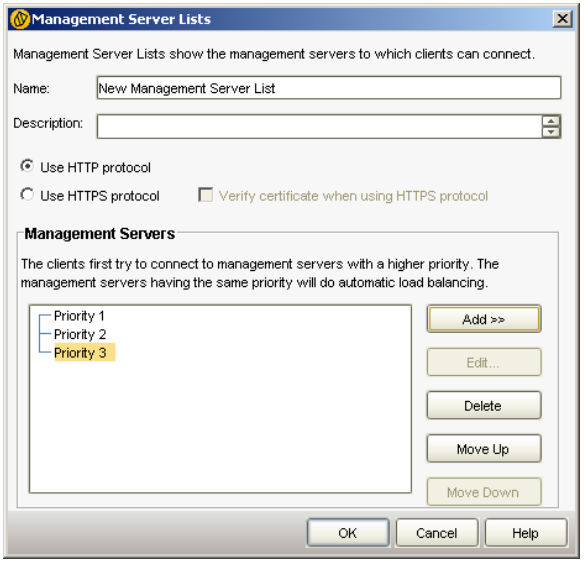
1 In the Symantec Endpoint Protection Manager Console, click **Policies**.

2 In the View Policies pane, to the right of Policy Components, click the up arrow so that it becomes a down arrow, and then click **Management Server Lists**.



3 In the Tasks pane, click **Add a Management Server List.**

4 In the Management Server Lists dialog box, under Management Servers, click **Add > New Priority** three times.



5 Under Management Servers, click **Priority 1**.

6 Click **Add > New Server**.

7 In the Add Management Server dialog box, in the Server Address box, type the fully qualified domain name or IP address of a Symantec Endpoint Protection Manager.

If you type an IP address, be sure that it is static, and that all clients can resolve the IP address.

8 Click **OK**.

9 Do one of the following:

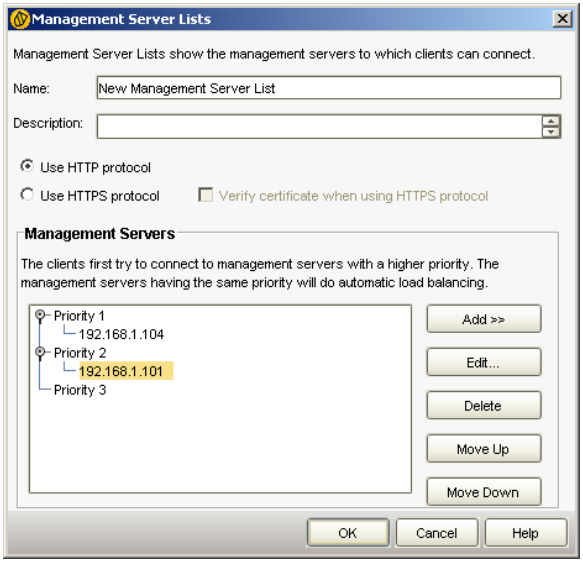
- To configure load balancing with the other server, click **Priority 1**.
- To configure failover with the other server, click **Priority 2**.

10 Click **Add > New Server**.

11 In the Add Management Server dialog box, in the Server Address box, type the fully qualified domain name or IP address of a Symantec Endpoint Protection Manager.

If you type an IP address, be sure that it is static, and that all clients can resolve it.

12 Click **OK**.



13 (Optional) To change the priority of a server, which changes the load balancing or failover configuration, click a server, and then do one of the following:

- Click **Move up**.
- Click **Move Down**.

14 In the Management Server Lists dialog box, click **OK**.

To apply the Management Server List

1 In the right pane, under Management Server Lists, under Name, click on and highlight the Management Server List that you created.

2 In the lower-left Tasks pane, click **Assign the list**.

3 In the Apply Management Server List dialog box, check the groups to which to apply the list.

4 Click **Assign**.

5 In the Assign Management Server List dialog box, click **Yes**.

Installing and configuring Symantec Endpoint Protection Manager for replication

Replication configurations are supported with both embedded and Microsoft SQL Server databases. Replication configurations are used for redundancy. All data

from one database is replicated (duplicated) on another database. If one database fails, you can still manage and control all clients because the other database contains the client information.

Installing and configuring servers for replication is a two-part process. In an existing installation site, you first install a new Symantec Endpoint Protection Manager and database for replication with an existing manager. Second, you log on to the Symantec Endpoint Protection Manager and select and schedule the items to replicate.

When you select the items to replicate, you can choose logs and packages. Packages also include the updates to virus definitions, client components, and client software. The size of packages and updates can grow to several gigabytes of information if you download updates in multiple languages. Consider the amount of data you replicate when you select these options, along with the bandwidth consumption. One client package is generally 180 MB in size when compressed.

Installing Symantec Endpoint Protection Manager for replication

You can install servers for replication with both the embedded and Microsoft SQL Server databases. If you want to install a Microsoft SQL Server database for replication, you must first install Microsoft SQL Server.

See "Installing Symantec Endpoint Protection Manager with a Microsoft SQL database" on page 84.

To install servers for replication

1. Install Symantec Endpoint Protection Manager.

   See "To install the Symantec Endpoint Protection Manager" on page 91.

2. In the Management Server Configuration Wizard panel, check **Install an additional site**, and then click **Next**.
3. In the Server Information panel, accept or change the default values for the following boxes, and then click **Next**:
   - Server name
   - Server port
   - Web console port
   - Server data folder
4. In the Site Information panel, accept or change the name in the Site Name box, and then click **Next**.

5 In the Replication Information panel, type values in the following boxes:

Replication server name	The name or IP address of the remote Symantec Endpoint Protection Manager
Replication server port	The default is 8443
Administrator Name	The name that is used to log on to the console
Password	The password that is used to log on to the console

6 Click **Next**.

7 In the Certificate Warning dialog box, click **Yes**.

8 In the Database Server Choice panel, do one of the following, and then click **Next**.

- Check **Embedded database**, and complete the installation.
- Check **Microsoft SQL Server**, and complete the installation.
  See "To create an SQL database" on page 92.

Configuring Symantec Endpoint Protection Manager for replication

You use the Symantec Endpoint Protection Manager Console to configure servers for replication. The administrator logon credentials are the credentials that are used at the first site that you specified for replication.

To configure servers for replication

1 On the computer that you installed the Symantec Endpoint Protection Manager, click **Start > Programs > Symantec Endpoint Protection Manager**.

2 In the Logon dialog box, in the User Name box, type the administrator ID that is used to log on to the Symantec Endpoint Protection Manager that uses the initial database.

3 In Password box, type the password that is associated with the administrator ID, and then click **Log On**.

4 In the console, in the left pane, click **Admin > Servers**.

5 In the left tree, expand Local Site, expand Replication Partner, right-click **Site <remote_host>**, and then click **Edit Properties**.

6 In the Replication Partner Properties dialog box, set the options that you want for logs, packages, and replication frequency, and then click **OK**.

Refer to context-sensitive Help and the Administration Guide for Symantec Endpoint Protection and Symantec Network Access Control for details about these settings.

7 Right-click **Site <remote_host>**, and then click **Replicate Now**.

8 Click **Yes**.

9 Click **OK**.

Adjusting the Symantec Endpoint Protection Manager heap size

The default heap size for Symantec Endpoint Protection Manager is 256 MB. If the Symantec Endpoint Protection Manager Console is slow or unresponsive, a larger heap size may increase responsiveness. You can increase the default size with two registry key values. The two registry key values are -Xms256m and -Xmx256m. -Xms256m sets the minimum heap size. -Xmx256m sets the maximum heap size. -Xms256m is the value that is specified for the key JVM Option Number 0. -Xmx256m is the value that is specified for the key JVM Option Number 1. Symantec Endpoint Protection Manager requires the same values for both keys.

To adjust the Symantec Endpoint Protection Manager heap size

1 Click **Start > Run**.

2 In the Run dialog box, type regedit, and then press **Enter**.

3 Locate the following registry key:

HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\semsrv\Parameters\

4 Locate the following keys:

- JVM Option Number 0
- JVM Option Number 1

5 Adjust the key values upward, and match the key values.

For example, to create a 1 GB static heap, set JVM Option Number 0 to -Xms1024m, and set JVM Option Number 1 to -Xmx1024m.

6 Exit Regedit, and then click **Start > Settings > Control Panel > Administrative Tools**.

7 In the Services dialog box, right-click **Symantec Endpoint Protection Manager**, and then click **Restart**.

Upgrading from the embedded database to Microsoft SQL Server

If you use the embedded database and find that it is insufficient, you can upgrade the database server to either Windows SQL Server 2000 or 2005. The following bullets summarize the process and procedures that you must follow:

- Back up the Java keystore certificate file and the server.xml file and move or copy the files from the \Symantec\Symantec Endpoint Protection Manager\ directory.
- Back up the embedded database and move or copy the backup from the \Symantec\Symantec Endpoint Protection Manager\ directory.
- Install an instance of Microsoft SQL Server 2000 or 2005.
- You can run the Management Server Configuration Wizard to reconfigure the server to change the type of database used from Embedded to Microsoft SQL Server.
- Restore the Java keystore certificate
- Restore the embedded database to the Microsoft SQL Server database

The upgrade process is very similar to the disaster recovery process because you must uninstall your existing Symantec Endpoint Protection Manager. Therefore, you must prepare for disaster recovery to successfully perform the upgrade, and create a well-formed disaster recovery file.

Note: Best Practice Before Upgrading: Perform these upgrade procedures on test computers before you perform these upgrade procedures on production computers.

See "How to prepare for disaster recovery" on page 209.

Warning: Do not try this upgrade without creating or being in possession of a well-formed disaster recovery file. Do not try this upgrade before moving your backed up keystore, server.xml file, and database out of the \Symantec\Symantec Endpoint Protection Protection Manager\ directory. These files are deleted during the uninstall process.

Backing up the keystore and server.xml files

If you have not prepared for disaster recovery, you must copy or move these files. The uninstallation process deletes these files from their original location.

See "How to prepare for disaster recovery" on page 209.

To back up the keystore and server.xml files

- Move or copy all files in the following directory to a directory that is not beneath \Symantec\Symantec Endpoint Protection Manager\

  \Symantec\Symantec Endpoint Protection Manager\Server Private Key Backup\

  The files are named keystore_*date*.jks and server_*date*.xml

Backing up the embedded database

You will restore this database to Microsoft SQL Server.

To back up the embedded database

1. On the computer that runs the embedded database, click **Start > Programs > Symantec Endpoint Protection Manager > Database Back Up and Restore**.
2. In the Database Back up and Restore dialog box, click **Back Up**.

   This backup may take a few minutes. The backup files are .zip files that are saved in \\Program Files\Symantec\Symantec Endpoint Protection Manager\data\backup\.
3. Click **OK**.
4. When the back up is complete, click **Exit**.
5. Move or copy the backup file to a directory that is not beneath \Symantec\Symantec Endpoint Protection Manager.

   If you do not perform this step, the upgrade fails because you uninstall the backup file.

Installing an instance of Microsoft SQL Server 2000 or 2005

You must install Microsoft SQL Server 2000 or 2005 with SQL server authentication and know what port your server uses for network communications. You must enter this port number when you reinstall the Symantec Endpoint Protection Manager with a Microsoft SQL Server database.

To install an instance of Microsoft SQL Server 2000 or 2005

- Install and configure a Microsoft SQL Server instance on the computer that runs the Symantec Endpoint Protection Manager and the embedded database, or on a different computer.

  See "Microsoft SQL Server 2000 installation and configuration requirements" on page 85.

  See "Microsoft SQL Server 2005 installation and configuration requirements" on page 86.

  See "To create an SQL database" on page 92.

Reconfigure the Symantec Endpoint Protection Manager with a Microsoft SQL database

You need the original encryption password to reinstall the Symantec Endpoint Protection Manager with a Microsoft SQL database. This password should be in your well-formed disaster recovery file. If it is not, you must find someone who knows the password.

To reconfigure the Symantec Endpoint Protection Manager with a Microsoft SQL database

1. Start the Management Server Configuration Wizard from the Windows Start menu.
2. When the Welcome to the Management Server Configuration Wizard panel appears, check **Reconfigure the management server**, and then click **Next**.
3. Confirm the values for the management server, and then click **Next**.
4. On the Database type selection panel, select **Microsoft SQL Server**, and then click **Next**.
5. Specify the following values on the panel for database parameters, and then click **Next**.
   - Database server
   - SQL server port
   - Database name
   - User
   - Password
   - SQL Client folder

6 In the Warning dialog prompt, read and understand the warning information about clear text communications, and then click **OK**.

7 In the Set Console Password panel, type the same password in the following boxes, provide an administrator email address, and then click **Next**.

- Password
- Confirm password

8 In the Configuration Completed panel, select **No**, and then click **Next**.

9 Restore the backup of the embedded database.

Restoring the original Java keystore file

The keystore file contains the public certificate that is used to secure communications. You need the original private key password to restore this file. This password is in your well-formed disaster recovery file if one was created during the original installation. The password is also in the server_*timestamp*.xml file.

See "How to prepare for disaster recovery" on page 209.

To restore the original Java keystore file

1 Log on to the Console, and then click **Admin**.

2 In the Admin pane, under Tasks, click **Servers**.

3 Under View Servers, expand Local Site, and then click the computer name that identifies the local site.

4 Under Tasks, click **Manage Server Certificate**.

5 In the Welcome panel, click **Next**.

6 In the Manage Server Certificate panel, check **Update the Server Certificate**, and then click **Next**.

7 Under Select the type of certificate to import, check **JKS keystore**, and then click **Next**.

If you have implemented one of the other certificate types, select that type.

8 In the JKS Keystore panel, click **Browse**, locate and select your backed up keystore_*timestamp*.jks keystore file, and then click **OK**.

9 Open your disaster recovery text file, and then select and copy the keystore password.

10 Activate the JKS Keystore dialog box, and then paste the keystore password into the Keystore password box and the Key password box.

The only supported paste mechanism is Ctrl + V.

11 Click **Next**.

If you get an error message that says you have an invalid keystore file, you probably entered invalid passwords. Retry the password copy and paste. This error message is misleading.

12 In the Complete panel, click **Finish**.

13 Log off the Console.

Uninstalling Symantec Endpoint Protection Manager

When you uninstall Symantec Endpoint Protection Manager, all Symantec components are uninstalled except exported client installation packages. However, you have the option to not uninstall the embedded database and Microsoft SQL Server database and backup files. For all installations, the database backup files are located on the computer that runs the Symantec Endpoint Protection Manager.

Use the standard Windows Add or Remove Programs feature to uninstall Symantec Endpoint Protection Manager. Also, select Change to have the option to uninstall the database. If you select Remove, the database is not uninstalled.

Turn off replication before you attempt to uninstall a Symantec Endpoint Protection Manager that is set up for replication. Then, restart the computer from which you want uninstall the Symantec Endpoint Protection Manager, and then perform the uninstallation.

Note: You must manually delete all directories that contain exported client installation packages, including those directories that were created with the Migration and Deployment Wizard. You must also manually delete all backup files and directories, including those backup files and directories that contain private keys, certificates, and database files.

Chapter 5

Installing Symantec client software

This chapter includes the following topics:

- About Symantec client installation software
- About installing unmanaged client software
- Installing unmanaged client software using the installation CD
- Creating client installation packages
- About deploying client software from a mapped drive
- Deploying client software with the Push Deployment Wizard
- Deploying client software with Find Unmanaged Computers
- Importing computer lists
- About installing and deploying software with Altiris
- Third-party installation options
- Starting the client user interface
- Uninstalling client software

About Symantec client installation software

Two products of Symantec client installation software are available. One product is Symantec Endpoint Protection. The other product is Symantec Network Access Control.

Note: Symantec Endpoint Protection installations require at least 700 MB of hard disk space during the installation process. If this amount is not available, the installation fails.

About Symantec Endpoint Protection

Symantec Endpoint Protection contains many components that you can select to install or not install. When you install Symantec Endpoint Protection, you have the following options as to what components to install:

- Core Files
  This option is required for all installations.
- Antivirus and Antispyware Protection
  This option installs core antivirus and antispyware software, and lets you select Antivirus Email Protection:
  - Antivirus Email Protection

    Note: For performance reasons, the Symantec Endpoint Protection installer blocks Internet Email Auto-Protect from installation on supported Microsoft Server operating systems. For example, you cannot install Internet Email Auto-Protect on a computer that runs Windows Server 2003.

- Proactive Threat Protection
  This option does not install core software, but lets you select these components:
  - TruScan Proactive Threat Scan
  - Application and Device Control
- Network Threat Protection
  This option does not install core software, but lets you select Firewall and Intrusion Prevention:
  - Firewall and Intrusion Prevention

Note: Symantec Endpoint Protection also installs Symantec Network Access Control software, but Symantec Network Access Control is not enabled. When you update the Symantec Endpoint Protection Manager Console for Symantec Network Access Control, the client Symantec Network Access Control feature automatically appears in the client user interface. Therefore, if you install Symantec Endpoint Protection and purchase Symantec Network Access Control at a later date, you do not need to install Symantec Network Access Control client software. If your client computers run Symantec Network Access Control, and if you purchased Symantec Endpoint Protection software at a later date, you over install Symantec Endpoint Protection software. You do not need to first uninstall Symantec Network Access Control.

About Symantec Network Access Control software

Symantec Network Access Control software does not contain the components that you can select to install or not install. If your client computers run Symantec Endpoint Protection and if you purchased Symantec Network Access Control software at a later date, you do not need to install Symantec Network Access Control software. After you update Symantec Endpoint Protection Manager for Symantec Network Access Control, the Symantec Network Access Control feature on clients appears automatically.

About Windows Installer software version 3.1

All client software installations require that all client computers run Windows Installer (MSI) version 3.1. If 3.1 is not running on client computers, the Symantec client installation software installs it automatically.

Note: If you run msiexec in a command prompt on a computer that runs MSI 3.1, the version that is displayed is 3.01.4000.x.

About groups and clients

Groups can contain both 32-bit clients and 64-bit clients. However, you must deploy both 32-bit packages and 64-bit packages separately to the clients. The 32-bit clients block the 64-bit installation packages and the 64-bit clients block the 32-bit installation packages due to the version mismatch.

If your environment has a mix of Symantec Endpoint Protection clients and Symantec Network Access Control clients, it is a best practice to group these clients separately. For example, a best practice is to not place Symantec Endpoint Protection clients in a group that also contains Symantec Network Access Control

clients. Also, if you install the Symantec Endpoint Protection Manager for Symantec Network Access Control, the Symantec Endpoint Protection clients automatically support Symantec Network Access Control.

When you create client installation packages with the Symantec Endpoint Protection Manager Console, you can specify a group to contain the clients. If you reinstall a client software package on clients, and if the package specifies a different group, the clients still appear in their original group. The clients do not appear in the new group. You can only move clients to new groups with the Symantec Endpoint Protection Manager Console.

About installing unmanaged client software

Clients can either be managed or unmanaged. If you do not want to manage client software, you can install unmanaged client software. However, the installation of unmanaged Symantec Network Access Control client software is not recommended. Unmanaged client software can be installed in any of the following ways: using the installation program on the installation CD, deploying unmanaged client install packages using the Symantec Endpoint Protection Manager Console, or by using the Push Deployment Wizard from the tools CD.

About deploying unmanaged client software using the management console

You can export unmanaged client install packages from the Symantec Endpoint Protection Manager Console. After you export the unmanaged packages, do not assign the packages to groups for auto-upgrade. If you assign the packages to groups, the clients in the group appear in the console after software installation. However, you cannot manage these clients.

About deploying unmanaged client software using the Push Deployment Wizard

You can also deploy unmanaged software with the Push Deployment Wizard. You can start the wizard using the ClientRemote.exe file that is located in the TOOLS\PUSHDEPLOYMENTWIZARD directory on the CD containing additional tools. When asked to specify the folder containing the client software, select either the SEP folder for Symantec Endpoint Protection install packages, or the SNAC folder for Symantec Network Access Control install packages.

Installing unmanaged client software using the installation CD

You can install unmanaged Symantec Endpoint Protection client software using the Setup.exe file on the installation CD. The installation program installs Symantec Endpoint Protection client software using an installation wizard.

The Server Core installation of Windows Server 2008 offers a command-line interface only. You can, however, also manage Server Core installations using remote management tools. Client software can be installed using the installation CD from a local or shared network location.

Note: On Windows Vista and Windows Server 2008, you can click Continue for any User Account Control dialogs that appear when performing these procedures.

To install unmanaged Symantec Endpoint Protection client software using the installation CD

1. Insert the installation CD and start the installation program if it does not start automatically.
2. Click **Install Symantec Endpoint Protection**.
3. On the Welcome pane, click **Next**.
4. If you are installing the Symantec Endpoint Protection client software for the first time on this computer, confirm **Unmanaged computer** is selected, and then click **Next**.

   This panel is displayed only if installing the Symantec Endpoint Protection client software for the first time on this computer.
5. On the License Agreement Panel, click **I accept the terms in the license agreement**, and then click **Next**.
6. On the Setup Type panel, do one of the following:
   - Click **Typical** to install the client software with most common options, and then click **Next**.
   - Click **Custom** to choose which components are installed and the options used to install them, and then click **Next**.

     On the Custom Setup panel, select the features you want to install and how you want to install them. Confirm the installation location, or click **Change** to select a different location, and then click **Next**.

7 On the Protection Options panel, click **Next**.

You can optionally click and deselect **Enable Auto-Protect** and **Run LiveUpdate** upon completion of the installation, and then click **Next**.

On Windows Vista you can also choose to turn off Windows Defender.

8 On the Ready to Install the Program panel, click **Install**.

9 On the Wizard Complete panel, click **Finish**.

If the Run LiveUpdate option is selected during installation, LiveUpdate launches when the installation in finished. You may be prompted to restart you computer.

To install unmanaged Symantec Network Access Control client software using the installation CD

1 Insert the installation CD and start the installation program if it does not start automatically.

2 Click **Install Symantec Network Access Control**, and then click **Install Symantec Network Access Control**.

3 On the Welcome pane, click **Next**.

4 On the License Agreement Panel, click **I accept the terms in the license agreement**, and then click **Next**.

5 On the Destination Folder panel, confirm or change the destination folder displayed, and then click **Next**.

6 On the Ready to Install panel, click **Install**.

7 On the Wizard Completed panel, click **Finish**.

You may be prompted to restart your computer.

To install unmanaged Symantec Endpoint Protection 64-bit client software on 64-bit Windows Server 2008 Server Core

1 Insert the installation CD.

2 Change directories to the root directory of the installation CD.

3 Type **cd SEPWIN64\X64** and then press **Enter**.

4 Type **vcredist_x64.exe**, and press **Enter**.

5 Change directories back to the root directory of the installation CD.

6 Type **Setup.exe** and press **Enter**

7 Follow the steps of the installation wizard to complete the installation.

To install unmanaged client software on Windows Server 2008 Server Core (all other clients)

1. Insert the installation CD.
2. Open a command prompt.
3. Change directories to the root directory of the installation CD.
4. Type **Setup.exe** and press **Enter**
5. Follow the steps of the installation wizard to complete the installation.

Creating client installation packages

You can create two types of client installation packages. One type is 32-bit and the other type is 64-bit. You can also create two 32-bit packages and 64-bit packages. One type is the default installation package that is created when you install the Symantec Endpoint Protection Manager. If you install this package, clients appear in the Temporary group and receive the default policies. The other type is an installation package that is customized for a group, which is typically not the Temporary group. This installation package may contain customized group polices and settings.

You can create client installation packages for groups at any time. If you have customized policies for a group that are stable and do not change regularly, you can create a client installation package for that group. You do not, however, have to reinstall client installation packages to existing client computers in a group to change a policy. As you make changes to policies in a group, these changes are automatically propagated to the installed clients in that group.

Note: Client installation packages should be deployed as silent or unattended installation packages to client computers running Microsoft Windows Server 2008 or Microsoft Vista (x64), and only as silent installation packages to client computers running Microsoft Vista (x86).

Note: The *Administration Guide for Symantec Endpoint Protection and Symantec Network Access Control* contains complete information about client installation packages.

To create client installation packages

1. In the Symantec Endpoint Protection Manager, click **Admin**.
2. In the Tasks pane, click **Install Packages**.

3 In the right pane, under Package Name, select the package to export.

4 In the lower-left pane, under Tasks, click **Export Client Install Package**.

5 In the Export Package dialog box, click **Browse**.

6 In the Select Export Folder dialog box, browse to and select the directory to contain the exported package, and then click **OK**.

7 In the Export Package dialog box, set the other options according to your installation goals.

For details about the other options in this dialog box, click **Help**.

8 Click **OK**.

About deploying client software from a mapped drive

After you export a client installation package to a directory, you can share that directory and then have users map the directory from client computers. Then, the users can install the client software from the mapped drive.

Note: During Symantec Endpoint Protection client software installation, the mapped drive becomes temporarily disconnected. This activity is known and expected. This activity does not occur when you install Symantec Network Access Control client software.

Deploying client software with the Push Deployment Wizard

The Push Deployment Wizard either appears automatically when you use the deployment wizard, or you can start it manually. Either way, you should have an idea of what client software package you want to deploy and in what folder the package exists. You have to locate it during deployment.

To deploy client software with the Push Deployment Wizard

1 Start the Migration and Deployment Wizard from the Windows Start menu.

2 In the Welcome panel, click **Next**.

3 Click **Deploy the client** (Symantec Endpoint Protection only), and then click **Next**.

4 Click **Select an existing client install package to deploy**, and then click **Finish**.

5 In the Push Deployment Wizard panel, click **Browse**, navigate to and select the folder containing the install package you want to deploy, and then click **OK**.

6 Approve or modify the maximum number of concurrent deployments, and then click **Next**.

7 In the Select Computers panel, in the left pane under Available Computers, expand the trees and select the computers on which to install the client software, and then click **Add**.

As an alternative, you can import a workgroup or domain of computers, and also a text file list of computers.

See "Importing computer lists" on page 119.

8 In the Remote Client Authentication dialog box, type a user name and password that can authenticate to the Windows Domain or Workgroup that contains the computers, and then click **OK**.

9 When you have selected all of the computers and they appear in the right pane, click **Finish**.

Deploying client software with Find Unmanaged Computers

You can deploy client software by using Find Unmanaged Computers in the Symantec Policy Management Console. The utility lets you discover the client computers that do not run client software and then install the client software on those computers.

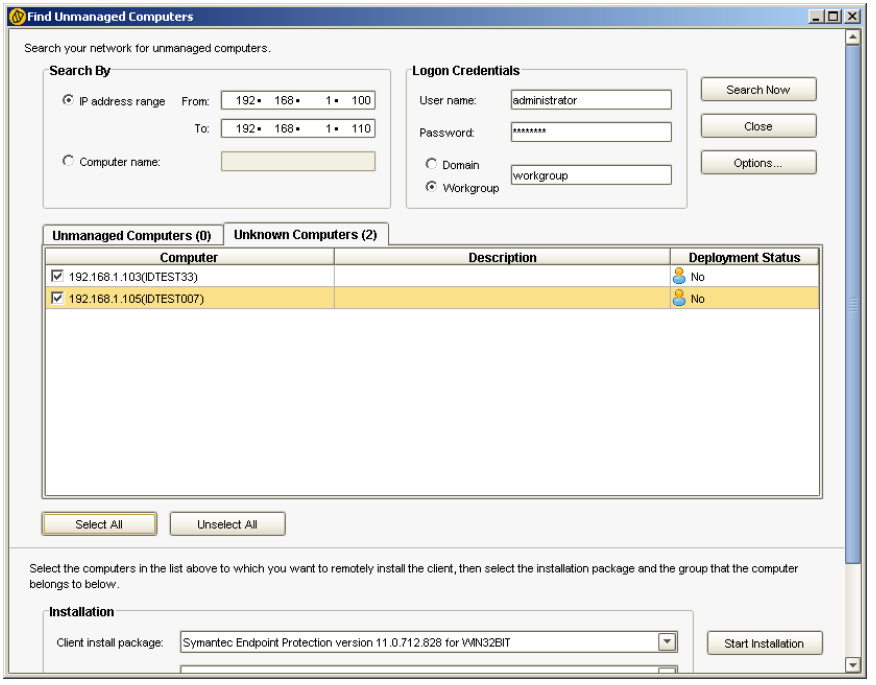
Note: This utility places unmanaged computers in the unknown category if the LAN Manager authentication levels are incompatible. There are six authentication levels. Symantec recommends the level Send NTLM 2 response only. The policy to edit is under Local Policy Settings > Security Settings > Local Policies > Security Options > [Network security] LAN Manager authentication level. Also, this utility does not properly recognize Windows 2000 operating systems when run from a default Windows Server 2003 installation. To work around this limitation, run the Symantec Endpoint Protection Manager service as Administrator rather than System in the Services panel.

Warning: This utility detects and displays a variety of networking devices in the unknown computers tab. For example, this utility detects router interfaces and places them in the unknown computers tab. Use caution when you deploy client software to devices that appear in the unmanaged computers tab. Verify that these devices are valid targets for client software deployment.

To deploy client software by using Find Unmanaged Computers

1. In the Symantec Policy Management Console, click **Clients**.
2. In the Tasks pane, click **Find Unmanaged Computers**.
3. In the Find Unmanaged Computers window, under Search By, check **IP address range**, and enter a beginning and ending IP address.

   Scanning a range of 100 IP addresses that do not exist takes approximately 5.5 minutes. Optionally, specify a computer name.
4. Under Logon Credentials, complete the User name, Password, and Domain-Workgroup boxes with the logon credentials that permit administration and installation.
5. Click **Search Now**.



6 On either the Unknown Computers or Unmanaged Computers tabs, do one of the following:

- Check each computer on which you want to install client software.
- Click **Select All**.

7 Under Installation, select the installation package, the installation option, and the features that you want to install.

8 To install to a group other than Temporary, click **Change**, select a different group, and then click **OK**.

9 When you are ready to install, click **Start Installation**.

Importing computer lists

Instead of selecting computers during Push Deployment Wizard installation, you can import a list of computers.

Creating a text file of computers to install

You can create a text file of computer IP addresses, import this text file during Push Deployment Wizard deployment, and then deploy the client software to the specified computers. You can also create the text file by exporting a list of computers that you type one by one to a text file before you begin client deployment.

Note: Creating a text file of IP addresses is not recommended for the computers that receive DHCP-assigned IP addresses.

To create a text file with IP addresses to import

1. In a text editor such as Notepad, create a new text file.
2. Type the IP address of each computer that you want to import on a separate line.

   For example:

   192.168.1.1

   192.168.1.2

   192.168.1.3

   You can comment out the IP addresses that you do not want to import with a semicolon (;) or a colon (:). For example, if you included addresses in your list for the computers that are on a subnet that you know is down, you can comment them out to eliminate errors.
3. Save the file to a directory.

Importing a text file of computers that you want to install

You import the text file during Push Deployment Wizard installation.

To import a text file of computers that you want to install

1. In the Select Computers panel, click **Select**.
2. In the Client Details dialog box, click **Import**.
3. Locate and double-click the text file that contains the IP addresses to import.

   During the authentication process, you may need to provide a user name and password for the computers that require authentication. The installation program also checks for error conditions. You are prompted to view this information on an individual computer basis or to write the information to a log file for later viewing.
4. Finish the installation.

About installing and deploying software with Altiris

You can install and deploy Symantec client software by using software from Altiris, now part of Symantec. Altiris provides a free Integrated Component for Symantec Endpoint Protection that provides default installation capabilities, integrated client management, and high-level reporting.

Altiris software enables information technology organizations to manage, secure, and service heterogeneous IT assets. It also supports software delivery, patch

management, provisioning, and many other management capabilities. Altiris software helps IT align services to drive business objectives, deliver audit-ready security, automate tasks, and reduce the cost and complexity of management.

For information about the Integrated Component for Symantec Endpoint Protection, go to the following URL:

https://kb.altiris.com/article.asp?article=35819&p=1

For information about Altiris, go to the following URL:

http://www.altiris.com

To download the Integration Component for Symantec Endpoint Protection or other Altiris solutions, go to the following URL:

http://www.altiris.com/Download.aspx

Third-party installation options

Symantec client software supports third-party installation options that you can use to deploy client software. However, this support requires advanced knowledge of Windows or third-party management tools. Larger-scale networks are more likely to benefit by using these advanced options to install Symantec client software.

About installing clients using third-party products

You can install Symantec clients by using a variety of third-party products, including Microsoft Active Directory, Tivoli, Microsoft Systems Management Server (SMS), and Novell ZENworks. The only tested and supported third-party products are Novell ZENworks, Microsoft Active Directory, and Microsoft SMS.

About customizing installations by using .msi options

The Symantec client software installation packages are Windows Installer (.msi) files that are fully configurable and are deployed by using the standard Windows Installer options. You can use the environment management tools that support .msi deployment, such as Active Directory or Tivoli, to install clients on your network.

See "About configuring MSI command strings" on page 195.

About installing clients with Microsoft SMS 2003

System administrators can use Microsoft Systems Management Server (SMS) to install Symantec client software. We assume that system administrators who use

SMS have previously installed software with SMS. As a result, we assume that you do not need detailed information about installing Symantec client software with SMS.

Symantec client installation software requires that Microsoft Installer 3.1 run on client computers before the installation. This software is automatically installed if it is not on client computers, but only when you deploy with a single executable setup.exe. This software is not automatically installed if you deploy with the MSI file. Computers that run Windows Server 2003 with Service Pack 2, and Windows Vista include Microsoft Installer 3.1 or greater. If necessary, first deploy WindowsInstaller-x86.exe that is contained in the SEP and the SNAC installation directories on the installation CD. Upgrading to MSI 3.1 also requires a computer restart.

Note: This note applies to SMS version 2.0 and earlier: If you deploy files with SMS, you might need to disable the Show Status Icon On The Toolbar For All System Activity feature on the clients in the Advertised Programs Monitor. In some situations, Setup.exe might need to update a shared file that is in use by the Advertised Programs Monitor. If the file is in use, the installation fails.

To create and distribute Symantec client software with SMS 2003, you typically complete the following tasks:

- Create a software installation package with Symantec Endpoint Protection Manager Console that contains the software and policies to install on your client computers. Additionally, this software installation package must contain a file named Sylink.xml, which identifies the server that manages the clients.
- Create a source directory and copy Symantec client installation files into that source directory. For example, you would create a source directory that contains the installation files for Symantec client software.
- Create a package, name the package, and identify the source directory as part of the package.
- Configure the Program dialog box for the package to specify the executable that starts the installation process, and possibly specify the MSI with parameters.
- Distribute the software to specific Collections with Advertising.

Warning: Do not install a package that is created with installation files that are copied from the installation CD or other media without including Sylink.xml. You must include a Sylink.xml file that is created after installing and using Symantec Endpoint Protection Manager Console. At a minimum, this file identifies the management server to which the clients report. If you do not include this file and install a package that was created with installation files only, you will install unmanaged clients. As a result, you could potentially install 1,000 or more unmanaged clients with default settings if you manage a large enterprise.

For more information on using SMS, see Microsoft Systems Management Server documentation.

Installing clients with Active Directory Group Policy Object

You can install Symantec client software by using a Windows 2000/2003 Active Directory Group Policy Object. The easiest way to implement group policy is with Microsoft's Group Policy Management Console with Service Pack 1 or later. This software is freely available from Microsoft's Web site, and runs on Windows Server 2003. The procedures for installing client software with Active Directory Group Policy Object assume that you have installed this software and use Windows 2003 Active Directory.

To install Symantec client software by using Active Directory Group Policy Object, you must do the following:

- Create the administrative install image
- Copy Sylink.xml to the installation files
- Stage the administrative install image
- Create a GPO software distribution
- Create a Windows Installer 3.1 startup script
- Add computers to the organizational unit

Before you install

The installation software requires that client computers contain and can run Windows Installer 3.1 or higher. By default, client computers meet this requirement if they run Windows XP with Service Pack 2 and higher, Windows Server 2003 with Service Pack 1 and higher, and Windows Vista. If client computers do not meet this requirement, all other installation methods automatically install Windows Installer 3.1 by bootstrapping it from the installation files.

For security reasons, Windows Group Policy Object does not permit bootstrapping to the executable file WindowsInstaller*.exe from the installation files. Therefore, before you install Symantec client software, you must run this file on the computers that do not contain and run Windows Installer 3.1. You can run this file with a computer startup script. Before you decide to use GPO as an installation method, you must develop an approach to update the client computers that do not contain and run Windows Installer 3.1.

The Symantec client installation uses standard Windows Installer .msi files. As a result, you can customize the client installation with .msi properties and the features as documented in Appendix A.

Finally, confirm that your DNS server is set up correctly. The correct setup is very important because Active Directory relies heavily on your DNS server for computer communication. To test the setup, ping the Windows Active Directory computer, and then ping in the opposite direction. Use the fully qualified domain name. The use of the computer name alone does not call for a new DNS lookup. Use the following format:

```
ping computername.fullyqualifieddomainname.com
```

You should also test GPO installation with a small number of computers before the production deployment. If DNS is not configured properly, GPO installations can take an hour or more.

Creating the administrative installation image

Group Policy Object installations that use Windows Installer 3.0 and lower require administrative images of the client installation files. This image is not a requirement for 3.1 and higher installations and is optional. If you do not create the administrative image, you must still copy the contents of the SEP folder on the CD to your computer.

To create the administrative installation image

1. Copy the contents of SEP folder on the CD to your computer.
2. From a command prompt, navigate to the SEP folder and type **`msiexec /a "Symantec AntiVirus.msi"`**
3. In the Welcome panel, click **Next**.
4. In the Network Location panel, enter the location where you want to create the administrative install image, and then click **Install**.
5. Click **Finish**.

Copying Sylink.xml to the installation files

When you install a Symantec Endpoint Protection Manager, the installation creates a file named Sylink.xml. Symantec clients read the contents of this file to know which Symantec Endpoint Protection Manager manages the client. If you do not copy this file to the installation files before you install the client software, you will create unmanaged clients. If you have not created at least one new group with the management console, the Sylink.xml file causes the clients to appear in the Temporary group.

Note: This information does not apply to packages that are exported with the Symantec Endpoint Protection Manager Console. These packages contain sylink.xml.

To copy Sylink.xml to the installation files

1. If you have not done so, install a Symantec Endpoint Protection Manager.
2. Locate a Sylink.xml file in one of the outbox folders.

   By default, these folders are located at \\Program Files\Symantec\Symantec Endpoint Protection Manager\data\outbox\agent*uid*\. You may have to open and read the Sylink.xml files in the different *uid* files with a text editor to find the desired file.
3. If necessary, copy Sylink.xml to removable media.
4. Copy Sylink.xml by using one of the following:
   - If you created an administrative installation file image, overwrite the Sylink.xml file in folder *install_directory*\Program Files\Symantec Endpoint Protection Manager\.
   - If you did not create an administrative installation file image, copy the contents of the SEP folder on the CD to a destination folder on your computer. Then, copy the Sylink.xml file into that destination folder.

Staging the installation files

Staging the installation files involves sharing the folder that contains or will contain the client installation files.

To stage the installation files

1. If necessary, copy the folder that contains the client installation files to a folder that is or will be shared.
2. Right-click the folder, and then click **Sharing and Security**.

3 In the Properties dialog box, on the Sharing tab, check **Share this folder**, and then click **Permissions**.

4 In the Permissions dialog box, under Group or user names, click **Everyone**, and then click **Remove**.

5 Click **Add**.

6 Under Enter the object names to select, type **Authenticated Users**, and then click **Check Names**.

7 Type **Domain Computers**, click **Check Names**, and then click **OK**.

8 In the Permissions dialog box, click **Apply**, and then click **OK**.

Creating a GPO software distribution

The procedure assumes that you have installed Microsoft's Group Policy Management Console with Service Pack 1 or greater. The procedure also assumes that you have computers in the Computers group or some other group to which you want to install client software. You will drag these computers into a new group that you will create.

Note: If User Account Control (UAC) is enabled, you must enable Always install with elevated privileges for Computer Configuration and User Configuration to install Symantec client software with a GPO. Setting these options allows all Windows users, including standard users, to install Symantec client software.

To create a GPO package

1 On the Windows Taskbar, click **Start > Programs > Administrative Tools > Group Policy Management**.

2 In the Active Directory Users and Computers window, in the console tree, right-click the domain, and then click **Active Directory Users and Computers**.

3 In the Active Directory Users and Computers window, right-click the Domain, and then click **New > Organizational Unit**.

4 In the New Object dialog box, in the Name box, type a name for your organizational unit, and then click **OK**.

5 In the Active Directory Users and Computers window, click **File > Exit**.

6 In the Group Policy Management window, in the console tree, right-click the organizational unit that you created, and then click **Create and Link a GPO Here**.

You may need to refresh the domain to see your new organizational unit.

7 In the New GPO dialog box, in the Name box, type a name for your GPO, and then click **OK**.

8 In the right pane, right-click that GPO that you created, and then click **Edit**.

9 In the Group Policy Object Editor window, in the left pane, under the Computer Configuration, expand **Software Settings**.

10 Right-click **Software installation**, and then click **New > Package**.

11 In the Open dialog box, type the Universal Naming Convention (UNC) path that points to and contains the MSI package.

Use the format as shown in the following example:

***server name**SharedDir*\Symantec AntiVirus.msi**

12 Click **Open**.

13 In the Deploy Software dialog box, click **Assigned**, and then click **OK**.

The package appears in the right pane of the Group Policy Object Editor window if you select Software Installation.

To configure templates for the package

1 In the Group Policy Object Editor window, in the console tree, display and enable the following settings:

- Under Configuration > Administrative Templates > Window Installer > Always install with elevated privileges
- Computer Configuration > Administrative Templates > System > Logon > Always wait for the network at computer startup and logon
- Computer Configuration > Administrative Templates > System > Group Policy > Software Installation policy processing
- User Configuration > Administrative Templates > Windows Components > Windows Installer > Always Install with elevated privileges

2 Close the Group Policy Object Editor window.

3 In the Group Policy Management window, in the left pane, right-click the GPO that you edited, and then click **Enforced**.

4 In the right pane, under Security Filtering, click **Add**.

5 In the dialog box, under Enter the object name to select, type **Domain Computers**, and then click **OK**.

Creating a Windows Installer 3.1 Startup script

You must install Windows Installer 3.1 on the computers that contain and run earlier versions of Windows Installer. You can display Windows Installer versions by running msiexec /? in a command prompt. Windows Installer 3.1 is required for the GPO installation package. How you install Windows Installer 3.1 on computers is up to you.

Note: Restricted users cannot run Windows Installer 3.1, and restricted users with elevated privileges cannot run Windows Installer 3.1. Restricted users are set with the local security policy.

One way to install Windows Installer 3.1 is with a GPO computer startup script. Startup scripts execute before the GPO .msi installation files when computers restart. If you use this approach, be aware that the startup script executes and reinstalls Windows Installer every time the computer is restarted. If you install it in silent mode, however, users experience a slight delay before they see the logon screen. Symantec client software is only installed once with a GPO.

To install Windows Installer 3.1

1. In the Group Policy Management Window, in the console tree, expand your organizational unit, right-click your package, and then click **Edit**.
2. In the Group Policy Object Editor window, in the console tree, expand **Computer Configuration > Windows Settings**, and then click **Scripts (Startup/Shutdown)**.
3. In the right pane, double-click **Startup**.
4. In the Startup Properties dialog box, click **Show Files**.
5. In a new window, display the contents of your GPO installation file folder, and then copy WindowsInstaller-893803-x86.exe from that window and folder to the Startup window and folder.
6. Redisplay the Startup Properties dialog box, and then click **Add**.
7. In the Add a Script dialog box, click **Browse**.
8. In the Browse dialog box, select the Windows Installer executable file, and then click **Open**.
9. In the Add a Script dialog box, in the Script Parameters box, type `/quiet /norestart`, and then click **OK**.
10. In the Startup Properties dialog box, click **OK**.
11. Exit the Group Policy Object Manager window.

Adding computers to the organizational unit and installation software

You are now ready to add computers to the organization unit. When the computers restart, the client software installation process begins. When users log on to the computers, the client software installation process completes. The group policy update, however, is not instantaneous, so it may take time for this policy to propagate. The procedure, however, contains the commands that you can run on the client computers to update the policy on demand.

To add computers to the organizational unit and install software

1. On the Windows Taskbar, click **Start > Programs > Administrative Tools > Active Directory Users and Computers**.
2. In the Active Directory Users and Computers window, in the console tree, locate one or more computers to add to the organizational unit that you created for GPO installation.

   Computers first appear in the Computers organizational unit.
3. Drag-and-drop the computers into the organization unit that you created for the installation.
4. Close the Active Directory Users and Computers window.
5. To quickly apply the changes to the client computers (for testing), open a command prompt on the client computers.
6. Type one of the following commands, and then press **Enter**.
   - On the computers that run Windows 2000, type **secedit /refreshpolicy machine_policy**.
   - On the computers that run Windows XP and later, type **gpupdate**.
7. Click **OK**.

Uninstalling client software with Active Directory Group Policy Object

You can also uninstall the client software that you installed with Active Directory.

To uninstall client software with Active Directory Group Policy Object

1. On the Windows Taskbar, click **Start > Programs > Administrative Tools > Group Policy Management**.
2. In the Group Policy Management window, in the console tree, expand the domain, expand Computer Configuration, expand Software Settings, right-click **Software Installation**, and then click **Properties**.

3 On the Advanced tab, check **Uninstall this application when it falls out of the scope of management**, and then click **OK**.

4 In the right pane, right-click the software package, and then click **Remove**.

5 In the Remove Software dialog box, check **Immediately uninstall the software from users and computers**, and then click **OK**.

6 Close the Group Policy Object Editor window, and then close the Group Policy Management window.

The software uninstalls when the client computers are restarted.

Starting the client user interface

You can start the client user interface on both managed and unmanaged clients using the Windows Start menu, or you can double-click the icon in the Windows taskbar.

Windows Server 2008 Server Core provides only a command-line interface. You can start the client user interface manually by executing the SymCorpUI.exe file that is stored in the Symantec Endpoint Protection installation folder.

To start the client user interface

- Do one of the following:
  - On the Windows Start menu click **Start > All Programs > Symantec Endpoint Protection > Symantec Endpoint Protection**.
  - On the Windows Start menu click **Start > All Programs > Symantec Network Access Control > Symantec Network Access Control**.
  - On the Windows taskbar in the notification area, double-click the Symantec Endpoint Protection or Symantec Network Access Control icon.

To start the client user interface on Windows Server 2008 Server Core

1 At a command prompt, do one of the following:
   - On 32-bit Windows Server 2008 Server Core servers, run the following command:
     ```
     cd C:\Program Files\Symantec\Symantec Endpoint Protection
     ```
   - On 64-bit Windows Server 2008 Server Core servers, run the following command:
     ```
     cd C:\Program Files (x86)\Symantec\Symantec Endpoint Protection
     ```

2 Run the following command:

```
symcorpui.
```

Uninstalling client software

You can uninstall client software with the Windows Add and Remove utility. If you uninstall Symantec Endpoint Protection client software that currently runs a policy that blocks hardware devices, the devices are still blocked after you uninstall software. To unblock the devices, use Admin Tools > Computer Management > Device Manager.

Uninstalling client software on Windows Server 2008 Server Core

The Server Core installation of Windows Server 2008 offers a command-line interface only. You can, however, manage Server Core installations using remote management tools.

To uninstall client software on Windows Server 2008 Server Core

1. Start Registry Editor using the Regedit command.
2. Navigate to the following key:

   HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Uninstall
3. Select and copy the Key name of the {uninstall-string} key for Symantec Endpoint Protection.
4. At a command prompt, execute the following command:

   ```
   msiexec.exe /x {uninstall_string}
   ```

Chapter 6

Installing Quarantine and LiveUpdate servers

This chapter includes the following topics:

- Before you install
- Installing and configuring the Central Quarantine
- About using a Symantec LiveUpdate server
- Where to get more information about configuring a LiveUpdate server
- Uninstalling Symantec Endpoint Protection management components

Before you install

Symantec Endpoint Protection and Symantec Network Access Control come with the optional administration components that you can use to help you administer clients and servers. Symantec Endpoint Protection includes both Central Quarantine and LiveUpdate management servers. Symantec Network Access Control includes a LiveUpdate management server only. A LiveUpdate management server is especially useful in large networks that contain multiple Symantec products that run LiveUpdate.

Installing and configuring the Central Quarantine

The Quarantine Server receives virus and security risk submissions from Symantec Endpoint Protection clients and forwards these submissions to Symantec. The Quarantine Console lets you manage the Quarantine Server and these submissions. If you determine that your network requires a central location for all quarantined files, you can install the Central Quarantine.

The Central Quarantine is composed of the Quarantine Server and the Quarantine Console. The Quarantine Console and the Quarantine Server can be installed on the same or different supported Windows computers.

Note: If you install the Quarantine Server or Quarantine Console from the individual installation folders on the CD, run Setup.exe rather than run the .msi file. Using Setup.exe ensures that all of the files that Windows Installer requires are installed on the destination computer before the .msi installation package runs.

For complete information, see the *Symantec Central Quarantine Administration Guide* on the installation CD.

Installation of the Central Quarantine requires the following tasks in the following order:

- Installing the Quarantine Console
- Installing the Quarantine Server
- Configuring groups to use the Central Quarantine

Note: Install the Quarantine Console first and then install the Quarantine Server. If you do not follow this order, the AMS is not properly configured. If you do not follow this order and want to properly configure AMS, associate AMS with the Quarantine Server with the Alerting Properties. Then restart the Quarantine Server.

Installing the Quarantine Console

The Quarantine Console lets you manage submissions to the Quarantine Server.

To install the Quarantine Console

1. On the computer on which the Symantec Endpoint Protection Manager Console is installed, insert the installation CD into the CD-ROM drive.

   If your computer is not set automatically to run a CD, you must manually run Setup.exe.

2. In the main panel, click **Install Other Administrator Tools > Install Central Quarantine Console**.

3. Follow the on-screen instructions to complete the installation.

Installing the Quarantine Server

The Quarantine Server receives virus submissions. The Quarantine Server requires a restart after installation.

To install the Quarantine Server

1. On the computer on which you want to install the Quarantine Server, insert the installation CD into the CD-ROM drive.

   If your computer is not set automatically to run a CD, you must manually run Setup.exe.

2. Click **Install Other Administrator Tools > Install Central Quarantine Server**.
3. In the Welcome panel, click **Next**.
4. In the License Agreement panel, click **I accept the terms in the license agreement**, and then click **Next**.
5. In the Destination Folder panel, do one of the following:
   - To accept the default destination folder, click **Next**.
   - Click **Change**, locate and select a destination folder, click **OK**, and then click **Next**.
6. In the Setup Type panel, select the following:
   - **Internet based (Recommended)**, and then click **Next**.

   The E-mail based option is no longer supported.
7. In the Maximum Disk Space panel, type the amount of disk space to make available on the server for Central Quarantine submissions from clients, and then click **Next**.
8. In the Contact Information panel, type your company name, your Symantec contact ID/account number, and contact information, and then click **Next**.
9. In the Web Communication panel, change the gateway address if necessary, and then click **Next**.

   By default, the Gateway Name field is filled in with the gateway address.
10. In the Alerts Configuration panel, check **Enable Alerts** to use AMS, and then click **Next**.

11 In the Ready to Install the Program panel, click **Install**, and then follow the on-screen prompts to complete the installation.

12 Write down the IP address or host name of the computer on which you installed the Quarantine Server and the port number.

This information is required when you configure client programs to forward items to the Central Quarantine.

Configuring groups to use the Central Quarantine

To configure Central Quarantine network communications, you must specify the port on which the Quarantine Server listens. You must also create and apply an Antivirus Policy to a group that specifies the Quarantine Server computer and port. You configure the Quarantine Server listening port with the Symantec Quarantine Console and you create the Antivirus Policy with the Symantec Endpoint Protection Manager Console.

Note: The Quarantine Console user interface lets you select the IP protocol or the SPX protocol and specify the port number to configure. This IP protocol and port number is TCP. Do not select SPX. Also, the TCP port number that you enter is not what appears for the Quarantine server's listening port when displayed with tools like netstat -a. For example, if you enter port number 33, netstat -a displays TCP port 8448. The hexadecimal numbers and the decimal numbers misconvert and transpose. For more details, go to the following URL:

http://entsupport.symantec.com/docs/n2000081412370148

To configure the Quarantine Server

1 In the Symantec Central Quarantine console, in the left pane, in the Console Root tree, right-click **Symantec Central Quarantine**, and then click **Properties**.

2 On the General tab, under Protocols, check **Listen on IP**.

SPX is no longer supported.

3 In the Listen on IP Port box, type the port number on which to listen for client submissions.

This port number is TCP/IP. Do not enter an IANA well-known port number without doing research to see if it is used in your network. For example, do not enter port number 21 because it is reserved for FTP communications.

4 Click **OK**.

To configure an Antivirus Policy

1. In the Symantec Endpoint Protection Manager Console, click **Policies**.
2. In the View Policies pane, click **Antivirus and Antispyware**.
3. In the Tasks pane, click **Add an Antivirus and Antispyware Policy**.

   You can also edit an existing policy.
4. In the Antivirus and Antispyware Policy window, in the left pane, click **Submissions**.
5. Under Quarantined Items, check **Allow client computers to automatically submit quarantined items to a Quarantine Server**.
6. In the Server name box, type the fully qualified domain name or IP address of the Quarantine Server.
7. In the Port number box, accept or change the default port number.
8. In the Retry box, accept or change the retry interval when client to Quarantine Server communications fail.
9. Click **OK**.
10. On the Assign Policy warning dialog, click **Yes**.
11. Select the groups for the policy, and then click **Assign**.
12. Click **Yes** to confirm the policy changes.

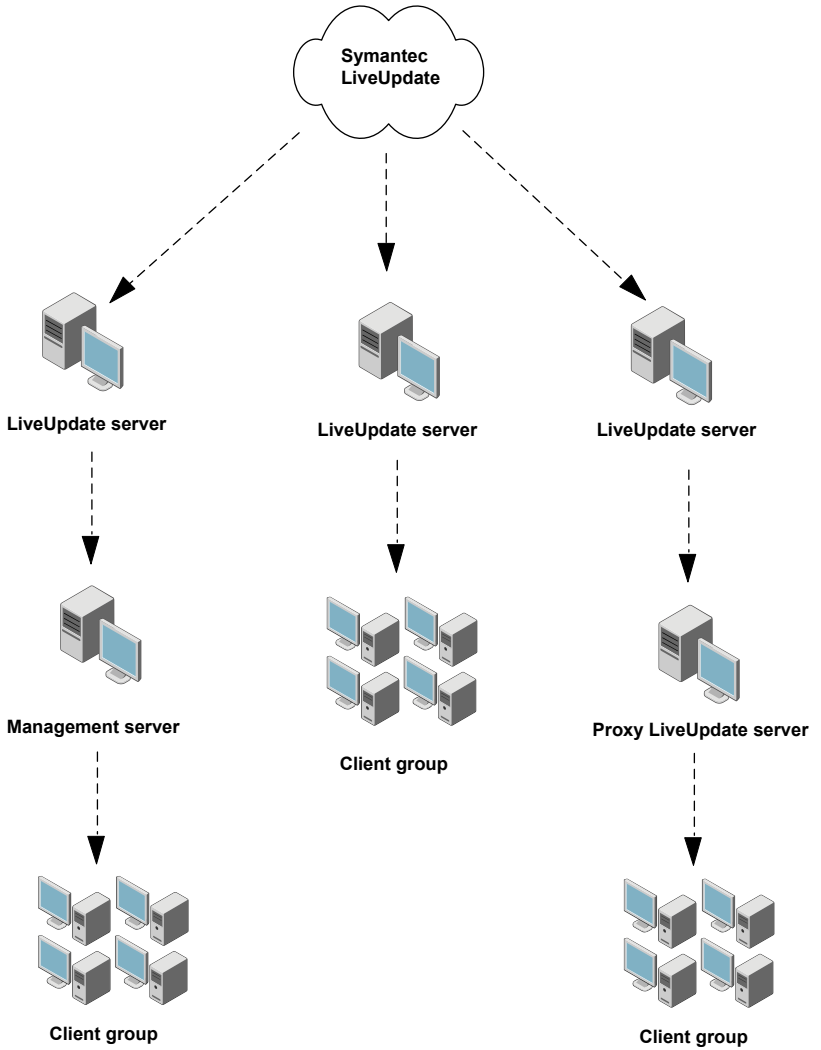
About using a Symantec LiveUpdate server

LiveUpdate is the utility that updates client computers with antivirus definitions, intrusion detection signatures, product patches, and so on. In unmanaged environments, LiveUpdate on client computers is typically configured to connect directly to Symantec LiveUpdate servers. In managed environments of small-to-medium networks, LiveUpdate on client computers is typically configured to connect to a Symantec Endpoint Protection Manager.

In large managed networks, bandwidth conservation issues through Internet gateways can be very important. When these issues are important, you can install and configure one or more LiveUpdate servers to download updates. Then you can distribute the updates to management servers or directly to clients.

Figure 6-1 illustrates the three network architectures that support LiveUpdate servers.

Figure 6-1 LiveUpdate distribution architectures



The architecture on the left is the simplest to implement. To implement this architecture, you modify a setting for the management site. The architecture in the center is a little more difficult to implement. To implement this architecture, you modify a setting for the management site and modify the LiveUpdate Policy that is applied to the group. The architecture on the right is the most difficult to implement with the addition of the LiveUpdate proxy server.

Note: This documentation does not describe how to configure Symantec Endpoint Protection sites or policies to implement these LiveUpdate architectures. This documentation describes how to install the LiveUpdate Administration Utility and Server only. To fully implement these LiveUpdate architectures, refer to the *Administration Guide for Symantec Endpoint Protection and Symantec Network Access Control*.

Where to get more information about configuring a LiveUpdate server

For the latest configuration procedures, refer to the *Symantec LiveUpdate Administrator Getting Started Guide* in the DOCUMENTATION folder on the installation CD.

Uninstalling Symantec Endpoint Protection management components

You can uninstall all of the Symantec Endpoint Protection management components using Add/Remove Programs in the Control Panel on the local computer.

Section 2

Migrating and Upgrading

- Migrating Symantec AntiVirus and Symantec Client Security
- Migrating legacy Symantec Sygate software
- Upgrading to new Symantec products

Chapter 7

Migrating Symantec AntiVirus and Symantec Client Security

This chapter includes the following topics:

- Migration overview and sequence
- Supported and unsupported migration paths
- Preparing legacy installations for migration
- About migrating and not preserving server and client groups and settings
- About migrating groups and settings
- About the settings that are not migrated
- About packages and deployment
- Installing Symantec Endpoint Protection Manager
- Migrating server and client group settings
- Verify migration and update your migrated policies
- Migrating unmanaged Clients
- What has changed for legacy administrators

Migration overview and sequence

Read and understand all information in this chapter before migrating legacy Symantec AntiVirus and Symantec Client Security clients and servers. Also, test all procedures in this chapter in a test environment before migrating legacy Symantec AntiVirus and Symantec Client Security clients and servers.

Follow this sequence to create your test environment and test migration:

- Create a test environment of at least three computers. If possible, create a test environment that resembles your management infrastructure. If you have multiple management servers, install multiple management servers. For example, if you have multiple server groups, create multiple server groups.
- Install a supported legacy version of the Symantec System Center, a primary management server, and a managed client on different test computers.
- Uninstall the Reporting Server if you installed it.
- Use the Symantec System Center to configure settings for the management server and client that prepares them for migration.
- Install and logon to Symantec Endpoint Protection Manager on a computer in your test environment.

Next, decide if you want to migrate your groups and settings from the Symantec System Center to Symantec Endpoint Protection Manager. If you do not want to migrate your groups and settings, you can create new groups, policies, and installation packages with Symantec Endpoint Protection Manager. You then migrate your legacy clients, legacy servers, uninstall the Symantec System Center, and migrate the legacy client or server that protects that computer.

To migrate your groups and settings, you must understand how your groups and settings get migrated and deployed to legacy clients and servers. Specifically, you need to do the following:

- Read and understand your options for migrating group settings from the Symantec System Center to policies in the Symantec Endpoint Protection Manager Console.
- Read and understand how client installation packages are created, where they are located, and how they affect client computers after migration.
- If you do not deploy client installation packages with third-party tools such as SMS, read about and understand your options for using the Push Deployment Wizard to deploy client installation packages.
- In particular, consider whether or not to export a list of client computers to a text file from the Symantec System Center for each management server. Then import this file to the Push Deployment Wizard for deployment.

- Use the Migration and Deployment Wizard to perform the migration in this test environment and create your client installation packages.
- Decide which installation packages to deploy for migration.

After you create your installation packages, decide which ones to deploy to legacy clients and management servers. A best practice is to deploy the packages and verify package deployment in the following sequence:

- Deploy a client installation package to one or more clients. Verify that the clients appear in the correct groups in the Symantec Endpoint Protection Manager Console.
- Verify that the LiveUpdate Settings Policy and the Antivirus and Antispyware Policies for the client were properly migrated.
- Deploy a client installation package to one or more legacy management servers. Verify that the servers appear in the correct groups in the Symantec Endpoint Protection Manager Console.
- Verify that the LiveUpdate Settings Policy and the Antivirus and Antispyware Policies for the server were properly migrated.
- Uninstall the Symantec System Center.
- Install a client installation package on the computer that ran the Symantec System Center.

Finally, if you modified the settings in the Symantec System Center as recommended for migration, locate these settings in the LiveUpdate Settings Policy and the Antivirus and Antispyware Policies. Then change them back to their original settings. For example, one recommendation was to disable scheduled scans, which you should enable in the Antivirus and Antispyware Policies for each group. When you are comfortable and confident with migration in your test environment, you are ready to begin the migration of your production network.

Supported and unsupported migration paths

Understand which migrations are supported, blocked, and unsupported. If you have the legacy software that blocks migration, you must uninstall this software. If you have the legacy software that is not supported for migration, decide whether or not to uninstall it. For example, if you run Symantec AntiVirus on Netware computers, you most likely want to continue to run your legacy software on those computers.

Migrations that are supported

The client installation routines check for the existence of the following software and migrates the software if it is detected:

- Symantec AntiVirus client and server 9.x and later
- Symantec Client Security client and server 2.x and later

Migrations that are blocked

The client installation routines check for the existence of the following software and blocks migration if this software is detected:

- Symantec AntiVirus client and server 8.x and earlier
- Symantec Client Security client and server 1.x
- Symantec Client Firewall 5.0
- Symantec System Center, all versions
- Symantec Reporting Server 10.x
- Confidence Online Heavy by Whole Security, all versions
- Norton AntiVirus and Norton Internet Security, all versions

You must uninstall this software first and then install Symantec Endpoint Protection clients.

Migrations that are not supported

The following software is not migrated and can coexist on the same computer as Symantec Endpoint Protection client software:

- Symantec Client Firewall Administrator, all versions
- LiveUpdate Server
  To install the latest version of LiveUpdate Server, first uninstall the legacy version.
- Netware computers that run any version of Symantec AntiVirus
  Netware operating systems are not supported with this version. Continue to protect these computers with legacy versions.
- Symantec AntiVirus and Symantec Client Security client and the server that runs on Itanium hardware
  Itanium hardware is not supported with this version. Continue to protect these computers with legacy versions.

About migrating Central Quarantine

To migrate Central Quarantine Console and Server, you must uninstall and then reinstall both components.

Preparing legacy installations for migration

With the Symantec System Center, you must change settings for clients and servers to simplify the migration process. For example, if a client runs an antivirus scan during migration, migration is blocked until the scan finishes and the migration may fail. Also, you need to disable the uninstall password feature for client software if it is enabled. If you do not, users are prompted to enter the password in interactive mode.

Note: If you migrate groups and settings from the Symantec System Center, your migrated LiveUpdate Settings Policy and Antivirus and Antispyware Policies that get created for these groups contain these modifications. You may want to revert these settings. For example, you may want to turn on scheduled scans. Also, you do not need to disable the uninstall password if it is enabled. The migration ignores the password.

Preparing all legacy installations

These procedures apply to all legacy software installations that are supported for migration.

Note: If you use client groups and if those groups do not inherit settings, prepare these groups the same way that you prepare server groups and management servers.

Disabling scheduled scans

If a scan is scheduled to run and is running while the client migration occurs, migration may fail. A best practice is to disable scheduled scans during migration and then enable after migration.

To disable scheduled scans

1. In the Symantec System Center, do one of the following:
   - Right-click a management server.

- Right-click a client group.

2 Click **All Tasks > Symantec AntiVirus > Scheduled Scans**.

3 In the Scheduled Scans dialog box, on the Server Scans tab, uncheck all scheduled scans.

4 On the Client Scans tab, uncheck all scheduled scans, and then click **OK**.

5 Repeat this procedure for all primary management servers, secondary management servers, and all client groups.

Configuring Central Quarantine and quarantined files

Quarantine server no longer supports updates to client computers with the latest definitions. Therefore, you do not want it to update client computers with the latest definitions during a migration. Also, quarantined file migration is not necessary.

To configure Central Quarantine and quarantine items

1 In the Symantec System Center, right-click a server group.

2 Click **All Tasks > Symantec AntiVirus > Quarantine Options**.

3 In the Quarantine Options dialog box, click **Purge Options**.

4 In the Purge Options dialog box, set all time values to 1 day and set all directory size limit values to 1 MB. Check all check boxes.

5 Click **OK**.

6 In the Quarantine Options dialog box, uncheck **Enable Quarantine or Scan and Deliver**.

7 Under When new virus definitions arrive, check **Do nothing**, and then click **OK**.

8 Repeat this procedure for all server groups if you have more than one.

Deleting histories

All histories are now stored in a database. History file deletion speeds the migration process.

To delete histories

1 In the Symantec System Center, right-click a server group.

2 Click **All Tasks > Symantec AntiVirus > Configure History**.

3 In the History Options dialog box, change the Delete after values to 1 day.

4 Click **OK**.

5 Repeat this procedure for all server groups if you have more than one.

Disabling LiveUpdate

If LiveUpdate runs on client computers during migration, conflicts may occur. Therefore, you want to reduce the possibility of LiveUpdate running on client computers during migration.

To disable LiveUpdate

1 In the Symantec System Center, right-click a server group.

2 Click **All Tasks > Symantec AntiVirus > Virus Definition Manager**.

3 In the Virus Definition Manager dialog box, check **Update only the primary server of this server group**, and then click **Configure**.

4 In the Configure Primary Server Updates dialog box, uncheck **Schedule for Automatic Updates**, and then click **OK**.

5 In the Virus Definition Manager dialog box, uncheck the following:

- **Update virus definitions from parent server**
- **Schedule client for automatic updates using LiveUpdate**
- **Enable continuous LiveUpdate**

6 Check **Do not allow client to manually launch LiveUpdate**, and then click **OK**.

7 Repeat this procedure for all server groups if you have more than one.

Disabling the roaming service

If the roaming service is enabled on client computers, the migration might hang and never complete. If you do not have the roaming service enabled, do not follow this procedure.

Note: If your roaming clients run Symantec AntiVirus version 10.x, unlock your server groups before you disable the roaming service. This practice helps ensure that roaming clients are properly authenticated with certificates to their parent server.

To disable the roaming service

1 In the Symantec System Center, right-click a server group.

2 Click **All Tasks > Symantec AntiVirus > Client Roaming Options**.

3 In the Client Roaming Options dialog box, in the Validate parent every minutes box, type **1**.

4 In the Search for the nearest parent every minutes box, type **1**, and then press **OK**.

5 Wait a few minutes.

6 In the Symantec System Center, right-click a server group.

7 Click **All Tasks > Symantec AntiVirus > Client Roaming Options**.

8 In the Client Roaming Options dialog box, uncheck **Enable roaming on clients that have the Symantec AntiVirus Roaming service installed**.

9 Click **OK**.

Preparing Symantec 10.x/3.x legacy installations

Symantec AntiVirus 10.x and Symantec Client Security 3.x provide the additional features that must be properly configured for successful migration.

Unlocking server groups

If you do not unlock server groups before migration, unpredictable results may occur. Also, if the roaming service is enabled for clients, the unlocking the server group helps ensure that the clients properly authenticate to a parent server. Clients that properly authenticate to a parent server get placed in the database. Clients that get placed in the database automatically appear in the correct legacy group in the console after installation.

To unlock a server group

1 In the Symantec System Center, right-click a locked server group, and then click **Unlock Server Group**.

2 In the Unlock Server Group dialog box, type the authentication credentials if necessary, and then click **OK**.

Disabling Tamper Protection

Tamper Protection can cause unpredictable results during migration.

To disable Tamper Protection

1 In the Symantec System Center, right-click one of the following:

- Server group
- Primary or secondary management server

2 Click **All Tasks > Symantec AntiVirus > Server Tamper Protection Options**.

3 In the Server Tamper Protection Option dialog box, uncheck **Enable Tamper Protection**.

4 Click **OK**.

5 Do one of the following:

- If you selected a server group, repeat this procedure for all server groups if you have more than one.
- If you selected a management server, repeat this procedure for all management servers in all server groups.

Uninstalling and deleting reporting servers

If you installed one or more reporting servers, you must uninstall these reporting servers, and optionally drop the database files. You must also delete reporting servers from the Symantec System Center. Complete reporting server uninstallation information is available in the Symantec System Center Online Help. Legacy settings were stored in the registry. All settings are now stored in a database along with the reporting data.

To uninstall reporting servers

1 Logon to a computer that runs the reporting server.

2 Click **Start > Settings > Control Panel > Add or Remove Programs**.

3 In the Add or Remove Programs dialog box, click **Symantec Reporting Server**, and then click **Remove**.

4 Follow the on-screen prompts until you delete the reporting server.

5 Repeat this procedure for all reporting servers.

To delete reporting servers from the Symantec System Center

1 In the Symantec System Center, right-click and expand Reporting.

2 Right-click each reporting server, and then click **Delete**.

About migrating and not preserving server and client groups and settings

You are not required to migrate groups and settings for legacy clients and servers from the Symantec System Center to the Symantec Endpoint Protection Manager. If you are comfortable with Symantec Endpoint Protection Manager Console operations, you can create and export an installation package and deploy it to your legacy clients and servers for migration.

See "Installing and configuring Symantec Endpoint Protection Manager" on page 61.

Note: A best practice is to create one or more groups and associated policies for your legacy clients and migrate them first. You can then create one or more groups and associated policies for your legacy servers and then migrate them to clients. Finally, uninstall the Symantec System Center and migrate the legacy management server or client that protected the computer that ran the Symantec System Center.

About migrating groups and settings

To migrate server and client groups and settings from the Symantec System Center to the Symantec Endpoint Protection Manager, you must read about and understand how this process works. For example, your existing settings in the Symantec System Center may or may not be inherited from server groups. You have to choose whether or not to preserve this inheritance.

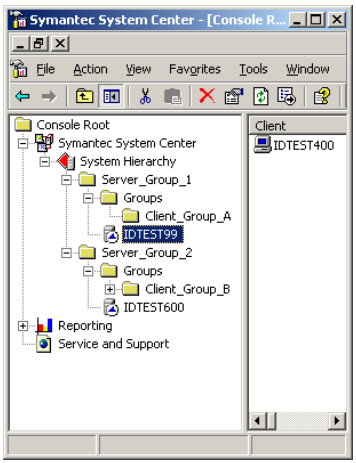
Legacy primary and secondary management servers have the settings that apply only to those servers and not to the clients that they manage. The reason is that these servers may need to be protected differently than how the clients that they manage are protected. For example, these servers may provide other services that may need to have certain files types excluded from scans. With the Symantec System Center, you can specify that all servers inherit their settings from those specified for the server group. Or, you can specify custom settings for each server.

After you migrate settings for management servers, these settings appear in LiveUpdate Settings Policy and Antivirus and Antispyware Policies. These policies are applied to the groups that contain the management servers after you migrate them to a Symantec Endpoint Protection client. During migration you decide whether these settings are inherited from the server group, or are specified for each server.

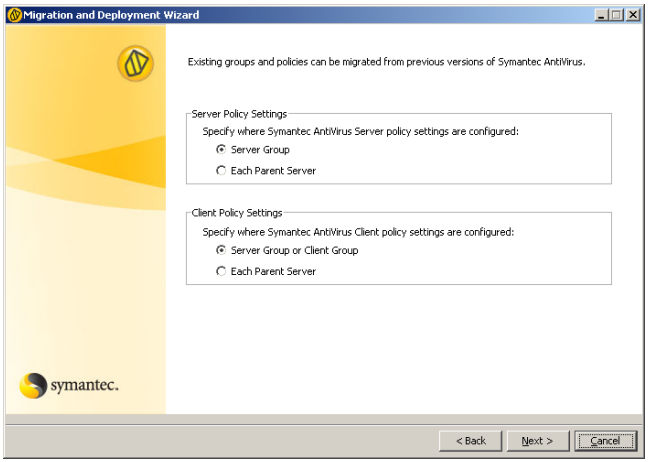
Legacy client settings can also be inherited from the server group or inherited from a management server. After you migrate settings for clients, these settings appear in LiveUpdate Settings Policy and Antivirus and Antispyware policies. During migration you decide whether these setting are inherited from the server group or from the management server.

Figure 7-1 illustrates a before-and-after scenario when both management servers and clients inherit settings from server groups.

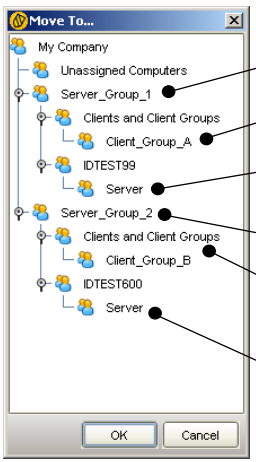
Figure 7-1 Before and after settings inherited from server groups



Symantec System Center before migration



Client policy migration setting selection



All client computers that are not in a client group appear here

Client computers in client groups appear here

Each parent server migrated to a client appears in Server

All client computers in this group share all policies

Client group policy inheritance matches the inheritance setting from the Symantec System Center

Server group inherits policies from Server_Group_2

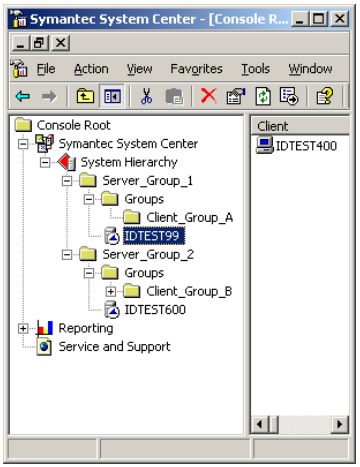
Symantec Endpoint Protection Manager Console after settings migration and client deployment

In this scenario, all management servers in Server_Group_1 and Server_Group_2 inherit settings from the server group in the Symantec System Center. After migration to Symantec Endpoint Protection client, each computer that ran a legacy management server appears in a group that is named Server. That group inherits all settings from the group with the same name as the original server group. For example, management server IDTEST99 inherits the policies that are set for Server_Group_1.

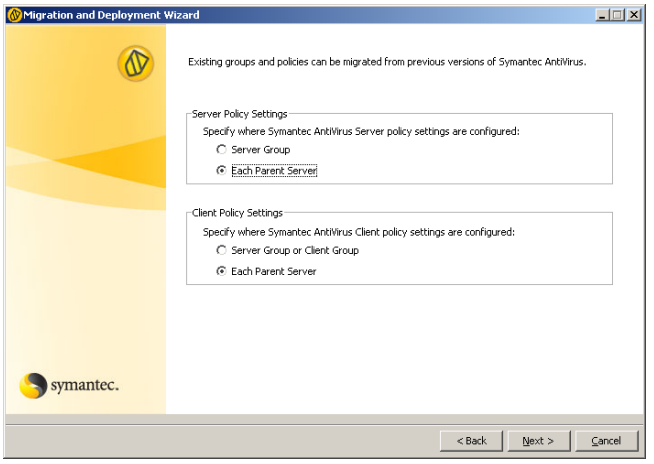
In this scenario, all clients inherit the settings from the server group and from any client group that might contain them. All clients that were not contained in a client group in the Symantec System Center, now appear in the group with the same name as the original server group.

Figure 7-2 illustrates a before-and-after scenario when management servers and clients inherit the settings that are specified on the parent management server.

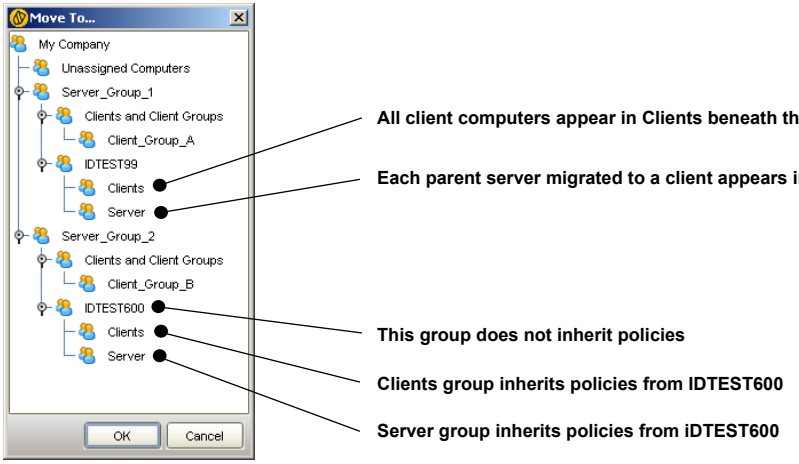
Figure 7-2 Before and after settings inherited from parent servers



Symantec System Center before migration



Client policy migration setting selection



Symantec Endpoint Protection Manager Console after migration and client deployment

In this scenario, all management servers in Server_Group_1 and Server_Group_2 inherit settings from each parent server in the Symantec System Center. After migration to Symantec Endpoint Protection client, each computer that ran a legacy management server appears in a group that is named Server. This time, however, each group does not inherit settings. The new policies are customized for each computer that ran a legacy management server.

In this scenario, all clients inherit the settings that are set for clients at each parent server. If clients are in client groups in the Symantec System Center, they now appear in the Clients group beneath the parent server group in which they were first installed.

About the settings that are not migrated

Tamper Protection settings are not migrated. Tamper Protection is now part of the General Settings for groups. Tamper Protection is not a policy that applies to Locations. By default, Tamper Protection is enabled and protects Symantec processes as well as internal objects. You can enable or disable Tamper Protection only. You do not have granular control over processes or internal objects.

Unlocked settings may or may not be migrated. If the settings are the original installed defaults that were never changed or locked, the settings are not migrated. The settings are not migrated because registry entries were never generated. In some instances, the new Symantec Endpoint Protection default policy settings may correspond to the legacy defaults. In other instances, the new Symantec Endpoint Protection default policy settings may not correspond to the legacy defaults. A best practice is to review all settings that appear after migration in your Antivirus and Antispyware Policies and in your LiveUpdate Settings Policy.

About packages and deployment

To migrate server and client groups and settings from the Symantec System Center to the Symantec Endpoint Protection Manager, you must read about and understand how this process works. For example, your existing settings in the Symantec System Center may or may not be inherited from server groups. You have to choose whether or not to preserve this inheritance.

Note: Client computers must run Internet Explorer 6.0 and MSI 3.1 or later or they cannot be migrated.

About the client installation packages that are generated during migration

To perform the migration, you run the Migration and Deployment Wizard. When you run the Migration and Deployment Wizard, you choose the management servers and clients for which to create client installation packages.

Note: Management servers migrate to clients.

After you install these client installation packages on your legacy clients, your migrated clients automatically appear in the appropriate group in the Symantec Endpoint Protection Manager Console.

During migration, installation packages are automatically generated for several combinations of client components. For example, an installation package is generated for all Symantec Endpoint Protection features. An installation package is generated for Antivirus and Antispyware protection only, and so forth. These packages are created in a directory that you specify during migration.

In this directory, there are four directories that contain different installation packages with the following names:

- All Client Features_xx-bit
- Antivirus Features Only_xx-bit
- Network Threat Protection Features Only_xx-bit
- Antivirus and Proactive Threat Protection Features Only_xx-bit

For 32-bit installation packages, these packages take 300 MB of disk space and all packages are always generated automatically. For 64-bit installation packages, these packages take more than 300 MB of disk space.

When you use the Migration and Deployment Wizard, you choose whether or not to migrate all management servers and clients that appear in the Symantec System Center. Your other choice is to select individual management servers.

If you decide to migrate specific management servers, you should create separate package-creation directories for each management server or combination of management servers. Then, you can deploy these packages to the respective legacy clients for migration. The clients automatically appear in the correct group in the Symantec Endpoint Protection Manager Console.

Note: When you migrate groups and settings, the Migration and Deployment Wizard stores the legacy management server and client IDs in a table in the Symantec Endpoint Protection Manager database. When you migrate legacy management servers and clients to Symantec Endpoint Protection, the newly migrated clients send their legacy IDs to the Symantec Endpoint Protection Manager. When the manager receives the legacy IDs, it places the newly migrated clients in the correct migrated group.

Exporting and formatting a list of client computer names to migrate

The recommended Symantec-supplied client package deployment tool is the Push Deployment Wizard. You can start this tool by double-clicking \Symantec Endpoint Protection\tomcat\bin\ClientRemote.exe. You can also choose to start the Push Deployment Wizard when you use the Migration and Deployment Wizard.

Note: You can use the technique that is described here whether or not you migrate settings from the Symantec System Center. This technique is useful to create lists of all of your legacy clients and servers and to import lists into the Push Deployment Wizard for deployment.

The Push Deployment Wizard automatically detects Windows computers that are powered on. The wizard then lets you select the computers and deploy a selectable installation package to the detected computers. You can select each computer one at a time or you can select the workgroup or domain of computers.

Your other option is to create a text file that contains the names or IP addresses of your legacy clients. Then import that file into the Push Deployment Wizard for package deployment. You can then manually start the Push Deployment Wizard and deploy packages to clients in stages.

A best practice is to export a list of clients for each management server to a text file. Then open it in a spreadsheet and delete all columns except the column that contains the computer name or IP address. You can then save it back to a text file that you can import to the Push Deployment Wizard. This approach lets you deploy to clients by management server, staging your migration.

The downside to this approach is that the Push Deployment Wizard waits about 20 seconds for each computer in the list that is not powered on. The upside to this approach is that you can inspect the log file to see which computers were not powered on. Thus you have a record of which computers are not yet migrated. A best practice in DHCP-enabled environments is to use computer names rather than IP addresses because the IP addresses may change.

Note: The following procedure provides details about how to use Microsoft Office Excel 2003. You are not required to use Excel. You can use any spreadsheet software that imports text files.

To export and format a list of client computer names to migrate

1. In the Symantec System Center, right-click one of the following, and then click **Export List**:
   - Primary or secondary management server
   - Client group
2. In the Export List dialog box, in the File name box, type a name of a text file.
3. In the Save as type drop-down list, select **Text (Tab Delimited) (*.txt)**, and then click **Save**.
4. In Microsoft Office Excel, click **File > Open**.
5. In the Open dialog box, in the Files of type drop-down list, click **All Files**.
6. Locate and select your text file, and then click **Open**.
7. In the Text Import Wizard Step 1 of 3 dialog box, check **Delimited**, and then click **Next**.
8. In the Text Import Wizard Step 2 of 3 dialog box, under Delimiter, check **Tab**, and then click **Next**.
9. In the Text Import Wizard Step 3 of 3 dialog box, click **Finish**.
10. Start Notepad and create a new text file.
11. In Excel, highlight and copy the computer names that appear in the column that is titled Client.
12. In Notepad, paste the computer names and verify that the last line is a computer name and not blank.
13. Save the file as a text file.

The communications ports to open

When you migrate server and client group settings, network communications occur between the Symantec System Center and Symantec Endpoint Protection Manager. If these components run on different computers, and if these computers run firewalls, you need to open communications ports.

Table 7-1 lists the ports to open for settings migration.

Table 7-1 Ports used for settings migration

Symantec System Center	Symantec Endpoint Protection Manager
TCP 139, 445	Ephemeral TCP ports
Ephemeral TCP ports	TCP 139
UDP 137	UDP 137

When you use the Push Deployment Wizard to deploy Symantec Endpoint Protection client software, network communications occur between the legacy servers and clients and Symantec Endpoint Protection Manager. If the legacy servers and clients run firewalls, you need to open communications ports.

Table 7-2 lists the ports to open for the deployments that use the Push Deployment Wizard.

Table 7-2 Ports used for client software deployment with the Push Deployment Wizard

Client Computers	Symantec Endpoint Protection Manager
TCP 139 and 445	Ephemeral TCP ports
Ephemeral TCP ports	TCP 139 and 445
UDP 137, 138	UDP 137, 138

About preparing client computers for migration

Several Windows operating system features can interfere with a successful server and client migration. You need to understand what these features are and handle them appropriately. For example, the computers that run Windows XP and that are part of a Workgroup need to have simple file sharing disabled. If it is not disabled, you cannot authenticate to those computers for remote installation. Computers that run Windows XP that are in a Windows domain do not require that this feature be disabled.

You also need to understand that if you install a Symantec firewall, you disable the Windows firewall. If you do not select to install a Symantec firewall, you do not disable the Windows firewall. In addition, you may need to open ports or disable firewalls before migration.

See Table 2-10 on page 46.

See "Disabling and modifying Windows firewalls" on page 48.

See "Preparing computers for remote deployment" on page 51.

See "Prepare your client computers for installation" on page 55.

Installing Symantec Endpoint Protection Manager

The following procedure assumes that you have not installed Symantec Endpoint Protection Manager in your production environment. If you have installed Symantec Endpoint Protection Manager in your production environment, proceed to read about migrating the server groups and the client groups.

You can install Symantec Endpoint Protection Manager on the same computer that runs the Symantec System Center, but it is not a requirement. Also, if you manage a large number of legacy Symantec clients, a best practice is not to install Symantec Endpoint Protection Manager on the same computer that runs the Symantec System Center. Finally, if you have legacy Netware or Itanium computers, you need to continue to manage and protect those computers with legacy software.

Note: Installing Symantec Endpoint Protection Manager does not migrate the Symantec System Center.

To install Symantec Endpoint Protection Manager

1. At the computer on which to install the Symantec Endpoint Protection Manager, insert and start the installation CD.
2. Click **Install Symantec Endpoint Protection Manager**. Follow and complete the installation prompts until the Install Wizard Completed panel appears.
3. Install Symantec Endpoint Protection Manager and configure it to use one of the following databases (Advanced configuration only; a Simple configuration uses an embedded database):
   - Embedded database
     See "Installing Symantec Endpoint Protection Manager with an embedded database" on page 80.
   - Microsoft SQL database
     See "Installing Symantec Endpoint Protection Manager with a Microsoft SQL database" on page 84.
4. When installation and database installation is complete, in the Configuration Completed panel, do one of the following:.
   - Check **Yes** and then click **Finish** to migrate your server groups and your client groups from the Symantec System Center to the Symantec Endpoint

Protection Manager. Then create client installation packages for those groups.

- Check **No** and then click **Finish** to manually start the Migration and Deployment Wizard at a later time or to create new groups with Symantec Endpoint Protection Manager Console.
  You may also want to perform the migration after you log on and verify that the Symantec Endpoint Protection Manager and Console are fully operational. You can also migrate one server group at a time if you have multiple groups.

Migrating server and client group settings

After you install Symantec Endpoint Protection Manager, you can migrate your management server and client groups. You are not required to migrate all server and client groups at the same time. Also, you can migrate management servers and the clients that report to them one at a time.

Note: All computers that do not run MSI 3.1 are migrated to MSI 3.1 first, before client software is installed. Computers that are not restarted after client software is installed are protected with antivirus and antispyware features, but not with firewall features. To implement the firewall features, client computers must be restarted.

To migrate server and client group settings

1. If the Migration and Deployment Wizard is not already open, click **Start > Programs > Symantec Endpoint Protection Manager > Migration and Deployment Wizard**.
2. In the Welcome to the Migration and Deployment Wizard panel, click **Next**.
3. In the What would you like to do panel, click **Migrate from a Previous version of Symantec AntiVirus**.
4. In the next unnamed panel, check the radio buttons that indicate how you want your settings to be applied to your groups.

   See "About migrating groups and settings" on page 152.
5. Click **Next**.
6. In the next unnamed panel, do one of the following:
   - To import all settings from all management servers and clients, click **Auto-detect Servers**, type the IP address of a computer that runs the Symantec System Center, and then click **OK**.

- To import settings from a single management server and the clients that it manages, click **Add Server**, type the IP address of a computer that runs a management server. Then click **OK**.

7 Click **Next**.

8 In the next unnamed panel, click **Next**.

9 In the next unnamed panel, configure the client installation packages that you want to export.

10 Click **Advanced Package Options**, uncheck the packages that you do not want to create, and then click **OK**.

11 Click **Browse**, browse to and select a directory in which to export the client installation packages, and then click **Open**.

12 In the unnamed panel, click **Next**.

13 In the next unnamed panel, do one of the following:

- Check **Yes**, click **Finish** to export the packages, and then deploy the packages first to clients and then to servers with the Push Deployment Wizard.
  The exporting process can take ten minutes or more.
- Check **No, just create them and I'll deploy them later**, click **Finish** to export the packages, and then manually deploy the packages first to clients and then to servers by using ClientRemote.exe from the \Symantec Endpoint Protection\tomcat\bin\ directory.
  See "Deploying client software with the Push Deployment Wizard" on page 116.

Verify migration and update your migrated policies

After you migrate your clients and servers, you should verify that they appear in the appropriate groups in the Symantec Endpoint Protection Manager Console. Then, update your LiveUpdate Settings Policy and Antivirus and Antispyware Policies to revert some or all of the changes that you made to settings with the Symantec System Center. For example, to start the migration process, you disabled scheduled scans. Most likely you want to enable scheduled scans.

Migrating unmanaged Clients

You have three options for migrating unmanaged clients. You can install Symantec Endpoint Protection with the installation files and setup.exe that are contained on the installation CD. This option preserves client settings. You can export a

package from the Symantec Endpoint Protection Manager Console in unmanaged mode. This option does not preserve client settings. You can export a package from the Symantec Endpoint Protection Manager Console in unmanaged mode for non-.exe files. You then replace serdef.dat in this installation package with a blank file of the same name. This option preserves client settings.

Note: Client computers must run Internet Explorer 6.0 or later and MSI 3.1 or later or they cannot be migrated.

About migrating unmanaged clients with CD files

If you have unmanaged legacy clients, you can migrate them to Symantec Endpoint Protection and keep them unmanaged. Migrating unmanaged clients with the CD files also preserves the settings on each client. If you run setup.exe, you also automatically upgrade the MSI on the clients to 3.1, a requirement.

When you run setup.exe to install Symantec Endpoint Protection to legacy unmanaged clients, legacy settings are retained. For example, if a user creates a custom scan to run at midnight, that setting is retained.

You can use the following options to migrate the unmanaged clients:

- Insert the installation CD in each client to migrate and install Symantec Endpoint Protection from the installation user interface.
- Copy the files from the SAV directory on the installation CD to a shared directory. Then have the users on the client computers mount the shared directory and run setup.exe.
- Deploy the files that are contained in the SAV directory on the installation CD with CD\TOOLS\PUSHDEPLOYMENTWIZARD\ClientRemote.exe.
- Deploy the files that are contained in the SAV directory on the installation CD directory with third-party distribution tools.

Migrating unmanaged clients with exported packages

You can create installation packages with the Symantec Endpoint Protection Manager Console for unmanaged clients. This type of package creates unmanaged clients after migration, but by default deletes and resets legacy client settings to new defaults. You can override this default by creating a new serdef.dat file that is blank in your exported files. You cannot modify the serdef.dat file if you export to a single executable installation file.

To migrate unmanaged clients with exported packages and preserve legacy settings

1. In the Symantec Endpoint Protection Manager Console, click **Admin**.
2. Under Tasks, click **Install Packages**.
3. Under Client Install Packages, right-click the package to create, and then click **Export Package**.
4. In the Export Package dialog box, uncheck **Create a single .EXE file for this package** (required).
5. Click **Browse**, and select the directory to contain your exported package.
6. Under Security Setting, check **Export an unmanaged client**.
7. Click **OK**.
8. Locate the directory that contains your exported package, and then browse to the following directory:

   \\Export\program files\Symantec\Symantec Endpoint Protection\
9. Open Notepad, create a new, blank file that is named serdef.dat, and then overwrite the serdef.dat file that is in this directory.

   You can optionally rename the existing file to serdef_bak.dat before you add the blank version.
10. Deploy the package to your legacy clients.

    You can use ClientRemote.exe.

To migrate unmanaged clients with exported packages and change legacy settings to defaults

1. In the Symantec Endpoint Protection Manager Console, click **Admin**.
2. Under Tasks, click **Install Packages**.
3. Under Client Install Packages, right-click the package to create, and then click **Export Package**.
4. In the Export Package dialog box, check **Create a single .EXE file for this package** (recommended but not required).
5. Click **Browse**, and select the directory to contain your exported package.
6. Under Security Setting, check **Export an unmanaged client**.
7. Click **OK**.
8. Deploy the package to your legacy clients.

   You can use ClientRemote.exe.

What has changed for legacy administrators

The following table describes how features from previous products have been updated.

Table 7-3 describes what has changed for legacy administrators.

Table 7-3 New features

Feature	Description
Server software does not provide Symantec AntiVirus protection	Symantec Endpoint Protection Manager does not include Symantec Endpoint Protection. To protect Symantec Endpoint Protection Managers, you must install Symantec Endpoint Protection client software on the server. Legacy Symantec AntiVirus and Symantec Client Security servers included Symantec AntiVirus protection.
Client software user interface is redesigned	The client user interface has been redesigned.
Management console is redesigned	The Symantec System Center has been deprecated. The new management console is called the Symantec Endpoint Protection Manager console.
Secondary management servers are no longer used	Legacy management servers can be installed as secondary servers that reports to a primary management server for a server group.
Group Update Providers	Symantec Endpoint Protection clients can be configured to provide signature and content updates to clients in a group. When clients are configured this way, they are called Group Update Providers. Group Update Providers do not have to be in the group or groups that they update.
Server groups can be thought of as sites	Legacy Symantec System Center operations revolved around server groups. Each group had a primary server and clients were ultimately managed by that primary server. Symantec Endpoint Protection uses the concept of a site. Multiple sites can be part of an installation instance. When you install additional sites in an installation instance, you do so by not specifying a secret key during installation. Every time you specify a secret key when you install a site, you create a new installation instance. Computers in different installation instances do not communicate with each other.
Location awareness is expanded	Legacy operations supported location awareness for firewall operations only. Symantec Endpoint Protection expands location awareness support to the group level. Each group can be divided into multiple locations, and when a client is in that location, policies can be applied to that location.

Table 7-3 New features *(continued)*

Feature	Description
Policies now control most client settings	Legacy Symantec System Center operations let you apply a series of settings to groups of computers by using dialog boxes. Settings are now controlled with the policies that can be applied down to the location level. For example, two policies that affect LiveUpdate settings. One policy specifies how often LiveUpdate runs and controls user interaction. The other policy specifies the content that is allowed to be installed on client computers with LiveUpdate.
Grc.dat is no longer used	Legacy Symantec AntiVirus communications were governed by the presence of a Grc.dat file on client computers, which is deprecated.
Some settings are still set on groups	Some legacy Symantec System Center settings are still applied at the group level. For example, setting the client uninstall password applied to all computers in a group. Also, the new LiveUpdate Content Policy applies to the group.
Netware is no longer supported	Legacy Netware management servers are no longer supported. Do not migrate legacy netware management servers, but continue to manage them with legacy software.
Domains are now available for use	Domains let you create additional global groups if you want to use additional global groups. This feature is advanced and should be used only if necessary. The default domain is called Default.
Symantec Endpoint Protection now includes firewall support	Legacy products named Symantec Client Security included Symantec AntiVirus and Symantec Client Firewall. Symantec Endpoint Protection now includes a new, improved firewall and user interface.
Device blocking is now available	If you want to disable certain hardware devices on client computers, you can now configure policies to block user access to a list of hardware devices. These devices include items like USB ports and floppy disk drives, and modems. These devices also include items for which you should exercise caution. For example, you can disable network interface cards (NIC), which disable client computers from network communications, even with the Symantec Endpoint Protection Manager Console. The only way to recover from this scenario is to uninstall Symantec Endpoint Protection and then enable the NIC with Windows Device Manager.
Symantec Client Firewall Administrator is no longer used	The Symantec Client Firewall Administrator was the tool that was used to create Symantec Client Firewall Policies. The new Symantec Endpoint Protection Manager Console now integrates this functionality by default.

Table 7-3 New features *(continued)*

Feature	Description
Failover and load balancing can be implemented for management servers	If you have a large network and need the ability to conserve bandwidth consumption, you can configure additional management servers in a load-balanced configuration. If you have a large network and need the ability to configure redundancy, you can configure additional management servers in a failover configuration.
Replication can be implemented between sites	If you have a large network and need replication, you can configure sites in an installation instance to replicate data. **Note:** When you install a site for replication, you do not specify a secret key. All sites that are installed with a secret key do not communicate with each other.
Alert Management Server is no longer used	Legacy product included an Alert Management Server that supported alerting. The new Symantec Endpoint Protection Manager now includes this functionality by default.
Client information is now stored in a database	Legacy products stored information in the registry. Symantec Endpoint Protection Manager now stores all information about client computers in an SQL database (the embedded database or a Microsoft SQL database).
Enhanced LiveUpdate features	LiveUpdate now supports downloading and installation of a wide variety of content including definitions, signatures, white lists to prevent false positives, engines, and product updates.

Chapter 8

Migrating legacy Symantec Sygate software

This chapter includes the following topics:

- About migrating to Symantec Endpoint Protection 11.x
- About migrating to Symantec Network Access Control 11.x
- About Enforcer upgrades
- Server migration scenarios
- Management server migration procedures
- About console user interface and functionality changes post migration
- Migrating remote management consoles
- About configuring migrated and new policies
- About removing the client password protections from group settings
- Migrating legacy Symantec Sygate client software

About migrating to Symantec Endpoint Protection 11.x

You can migrate Symantec Sygate Enterprise Protection 5.1 and later and Symantec Network Access Control 5.1 and later to Symantec Endpoint Protection 11.x. No other legacy Sygate software is supported for this migration. To migrate older legacy Sygate software versions, first migrate them to Symantec Sygate Enterprise Protection 5.1.

About migrating Symantec Sygate server and management software

The migration goal is to install Symantec Endpoint Protection Manager and Symantec Endpoint Protection Management Console for Symantec Endpoint Protection 11.x.

The legacy server and management software that you can migrate consists of the following products:

- Symantec Sygate Enterprise Protection 5.1 management server, console, and database

  The server components are called Symantec Policy Manager and Symantec Policy Management Console.

- Symantec Network Access Control 5.1 management server, console, and database

  The server components are also called Symantec Policy Manager and Symantec Policy Management Console.

The legacy product Symantec Sygate Enterprise Protection 5.1 includes all of the functionality that the legacy product Symantec Network Access Control 5.1 provides. The functionality subset that Symantec Network Access Control provides is Host Integrity policies and Enforcer capabilities.

Note: Time stamp values in Host Integrity policies may not properly migrate. After migration, inspect all Host Integrity settings that are configured for time values and change them if necessary.

Symantec Endpoint Protection 11.0 is similar to Symantec Sygate Enterprise Protection 5.1 with one exception. The exception is that Symantec Endpoint Protection does not include Host Integrity or Enforcer capabilities. Therefore, if you migrate Symantec Sygate Enterprise Protection 5.1 servers that provide Host Integrity or Enforcer capabilities, you must also purchase and install the Symantec Endpoint Protection Manager for Symantec Network Access Control 11.0 on those migrated servers to regain access to that functionality.

Note: Server migration migrates all existing policies and settings that are configured for the servers and site.

Supported server migration paths

The following software is supported for migration to Symantec Endpoint Protection Manager and Management Console for Symantec Endpoint Protection:

- Symantec Policy Manager and Management Console 5.1

To gain access to the Host Integrity and Enforcer features, you must also install Symantec Endpoint Protection Manager for Symantec Network Access Control 11.0.

- Symantec Network Access Control Manager and Console 5.1
  You can migrate this software to Symantec Endpoint Protection 11.0. However, to gain access to the legacy Host Integrity and Enforcer features, you must also install the Symantec Endpoint Protection Manager for Symantec Network Access Control 11.0.

Unsupported server migration paths

Symantec Endpoint Protection Manager for Symantec Endpoint Protection migration is blocked when any of the following software is detected:

- Sygate Policy Manager 5.0
- Sygate Management Server 3.x and 4.x
- Whole Security Management Server, all versions

Before you can install Symantec Endpoint Protection Manager for Symantec Endpoint Protection, you must uninstall this software.

Note: If you try to migrate Symantec Endpoint Protection Manager 5.1, and if any of the unsupported software is detected, the migration is also blocked.

About migrating legacy Symantec Sygate client software

The migration goal is to install Symantec Endpoint Protection 11.x.

The legacy agent software that you can migrate consists of the following two products:

- Symantec Protection Agent 5.1
- Symantec Enforcement Agent 5.1

Symantec Protection Agent includes all of the functionality that Symantec Enforcement Agent provides. The functionality subset provided by the Symantec Enforcement Agent includes Host Integrity only.

To migrate the client computers that run Symantec Protection Agent or Symantec Enforcement Agent, install Symantec Endpoint Protection 11.0 on those computers and migration is complete.

Like the Sygate Protection Agent, Symantec Endpoint Protection 11.0 client software includes all functionality that the Symantec Protection Agent and Symantec Enforcement Agent provide and more. So if you have Sygate Protection

Agents that provide Host Integrity, you do not need to also install Symantec Endpoint Protection Manager 11.0 on those clients. You do, however, need to install the Symantec Endpoint Protection Manager for Symantec Network Access Control 11.0 on the management servers to regain access to that client functionality.

Note: Agent migration migrates all existing settings that are configured for the clients as long as you export the client installation package for your existing groups. You can then perform automatic upgrades for those groups.

Supported client migration paths

The following software is supported for migration to Symantec Endpoint Protection:

- Symantec Protection Agent 5.1
- Symantec Protection Agent 5.1 with Symantec AntiVirus 9.x and greater
- Symantec Protection Agent 5.1 with Symantec Client Security 2.x and greater
- Symantec Enforcement Agent 5.1
- Symantec Enforcement Agent 5.1 with Symantec AntiVirus 9.x and greater
- Symantec Enforcement Agent 5.1 with Symantec Client Security 2.x and greater

Unsupported client migration paths

Symantec Endpoint Protection 11.0 client migration is blocked when any of the following software is detected:

- Sygate Protection Agent 5.0
- Sygate Enforcement Agent 5.0
- Sygate Security Agent 3.x and 4.x
- Whole Security Confidence Online Enterprise Edition all versions
- Symantec Protection Agent 5.1 and Symantec AntiVirus 7.x and 8.x
- Symantec Protection Agent 5.1 and Symantec Client Security 1.x
- Symantec Enforcement Agent 5.1 and Symantec AntiVirus 7.x and 8.x
- Symantec Enforcement Agent 5.1 and Symantec Client Security 1.x

About migrating to Symantec Network Access Control 11.x

You can migrate Symantec Network Access Control 5.1 to Symantec Network Access Control 11.x. No other legacy Sygate software is supported for this migration. To migrate other versions, first migrate them to Symantec Sygate Enterprise Protection 5.1.

About migrating legacy Symantec Sygate server software

Symantec Network Access Control Manager and Management Console 5.1 is the only software that is supported for migration to Symantec Endpoint Protection Manager and Management Console for Symantec Network Access Control 11.x.

Symantec Endpoint Protection Manager for Symantec Network Access Control migration is blocked when any of the following software is detected:

- Sygate Policy Manager 5.0
- Sygate Management Server 3.x and 4.x
- Whole Security Management Server, all versions

About migrating legacy Symantec Sygate client software

Symantec Enforcement Agent 5.1 is the only software that is supported for migration to Symantec Network Access Control 11.0.

Note: Agent migration migrates all existing settings that are configured for the clients as long as you export the client installation package for your existing groups. Then perform an automatic upgrade for those groups.

Symantec Network Access Control 11.0 client migration is blocked when any of the following software is detected:

- Sygate Enforcement Agent 5.0
- Sygate Protection Agent 5.0 and greater
- Sygate Security Agent 3.x and 4.x
- Whole Security Confidence Online Enterprise Edition all versions
- Symantec Enforcement Agent 5.1 and Symantec AntiVirus all versions
- Symantec Enforcement Agent 5.1 and Symantec Client Security all versions

About Enforcer upgrades

Symantec Endpoint Protection Manager supports Symantec Gateway, DHCP, and LAN Enforcers that run on version 6100 hardware appliances only. These appliances support software versions 5.1, 5.1.5, and 11.x. Symantec Endpoint Protection Manager supports software versions 5.1.5 and 11.x only. Symantec Endpoint Protection Manager does not support software version 5.1. Earlier versions of Symantec Enforcer that were provided as software only are also not supported.

If your 6100 Enforcer appliance is running software version 5.1, you must upgrade the software image to version 5.1.5 or 11.x. Symantec recommends that you flash the legacy software image to version 11.x to use the latest version. All Enforcer settings are stored in Symantec Endpoint Protection Server, so Enforcer settings are migrated during server migration.

Server migration scenarios

Migrating legacy Symantec Sygate Enterprise Protection software is as complex as your network architecture. If you have one legacy management server that manages clients, install the latest Management components on the computer that runs Symantec Policy Manager 5.1 management components. You are finished. If additional legacy servers run replication, turn off replication before migration and then turn on replication after migration.

If additional legacy servers run failover or load balancing, disable the Symantec Policy Manager service on those computers. Then migrate the servers one by one. Begin with the server that you first installed with the license file and preshared secret. After the servers are migrated, they automatically manage legacy clients. Then use the Auto-Upgrade feature to migrate the client computers to the latest version, which is the easiest way to migrate the clients.

Note: The server scenarios support both Symantec Endpoint Protection and Symantec Network Access Control migrations.

Migrating an installation instance that uses one management server

Migrating an installation instance that uses one management server is straightforward because you only migrate one site. You install Symantec Endpoint Protection Manager on the computer that runs Symantec Sygate Enterprise Protection. Then proceed to update your client software. The database is also migrated. It does not matter if the embedded database server, a local Microsoft SQL Server, or a remote Microsoft SQL Server maintains the database.

To migrate a site that uses one Management server

- Migrate your management server.

  See "Migrating a management server" on page 178.

Migrating an installation instance that uses one Microsoft SQL database and multiple management servers

Migrating an installation instance that uses one database and multiple management servers has the following implications:

- The management servers are configured for load balancing or failover.
- The database runs on Microsoft SQL server because failover and load balancing is supported on Microsoft SQL Server only.
- Replication is not performed because there is only one database.

All installation instances have a site in which you first installed the management server. Only one of these management servers was installed with a license and a preshared secret. You should migrate this management server first. You then migrate the other management servers that were installed for load balancing and failover.

To migrate an installation instance that uses one Microsoft SQL database and multiple Management servers

1. On all management servers that were not installed with the license and preshared secret, disable the Symantec Policy Manager service with Windows Administrative Tools.

   See "Stopping the servers before load balancing and failover migration" on page 179.

2. Authenticate to and log on to the computer that contains the Symantec Policy Manager that was installed with the license and preshared secret.

   Do not log on to the Symantec Policy Manager.

3. Migrate the management server.

   See "Migrating a management server" on page 178.

4. Migrate all additional management servers one by one.

Migrating an installation instance that uses multiple embedded databases and management servers

Migrating an installation instance that uses multiple embedded database and management servers has the following implications:

- No failover or load balancing is performed because the embedded database does not support failover or load balanced servers.
- The Management servers are configured for replication only because you cannot install multiple embedded database servers without installing them as replicating servers.

All sites have a computer on which you first installed the management server. Only one of these management servers was installed with a license and a preshared secret. You must migrate this management server first. You then migrate the other management servers that were installed for replication.

To migrate an installation instance that uses multiple embedded databases and management servers

1. On all management servers, disable replication.

   See "Disabling replication before migration" on page 179.

2. Authenticate to and log on to the computer that contains the Symantec Policy Manager that was installed with the license and preshared secret.

   Do not log on to the Symantec Policy Manager.

3. Migrate the management server.

   See "Migrating a management server" on page 178.

4. Migrate all additional management servers one by one.
5. After you migrate the servers, enable replication on each server.

   See "Enabling replication after migration" on page 180.

Migrating an installation instance that uses multiple SQL database and management servers

Migrating a site that uses multiple SQL database and management servers has the following implications:

- Replication is configured because it uses multiple Microsoft SQL 2000 databases.
- The management servers may be configured for load balancing or failover.

All sites have a computer on which you first installed the management server. Only one of these management servers was installed with a license and a preshared secret. You should migrate this management server first. You then migrate the other management servers that were installed for replication, failover, and load balancing.

Note: You can have an embedded database that replicates with Microsoft SQL database. The embedded database, however, does not support failover and load balanced servers.

To migrate an installation instance that uses multiple SQL database and management servers

1. On all management servers that perform replication to a database, disable replication.

   See "Disabling replication before migration" on page 179.

2. On all management servers that perform load balancing and failover for that database, and that were not installed with the license and preshared secret, disable the Symantec Policy Manager service with Windows Administrative Tools.

   See "Stopping the servers before load balancing and failover migration" on page 179.

3. Authenticate to and log on to the computer that contains the Symantec Policy Manager that was installed with the license and preshared secret, but do not log on to the Symantec Policy Manager.

4. Migrate the management server.

   See "Migrating a management server" on page 178.

5. Migrate all additional management servers that perform failover and load balancing one by one.

6. Repeat the previous steps until you have migrated all sites.

7. Turn on replication one site at a time until all sites replicate again.

   See "Enabling replication after migration" on page 180.

Management server migration procedures

Use these procedures to migrate management servers and consoles, and the management databases that are based on the scenarios that fit your environments and sites. The order in which you follow these procedures depends on your migration scenario.

See "Server migration scenarios" on page 174.

Migrating a management server

You must migrate all management servers before migrating clients. If you migrate management servers in an environment that supports load balancing, failover, or replication, you must prepare and migrate management servers in a very specific order.

See "Server migration scenarios" on page 174.

Warning: Identify and follow your migration scenario or your migration fails.

If you migrate Symantec Sygate Enterprise Protection servers that have implemented Host Integrity Policies or Enforcer protection, install the Symantec Endpoint Protection Manager for Symantec Endpoint Protection first. Then, repeat the procedure and install Symantec Endpoint Protection Manager for Symantec Network Access Control to gain access to the Host Integrity and Enforcer functionality.

To migrate a management server

1. In the server to migrate, insert the installation CD for one of the following:
   - Symantec Endpoint Protection
   - Symantec Network Access Control
2. Start the setup program, and then do one of the following:
   - To install for Symantec Endpoint Protection, click **Install Symantec Endpoint Protection Manager**.
   - To install for Symantec Network Access Control, click **Install Symantec Network Access Control**, and then click **Install Symantec Endpoint Protection Manager**.
3. In the Welcome panel, click **Next**.
4. Click through the installation prompts until installation begins.

   Initial file installation takes a few minutes.
5. In the Install Wizard Completed panel, click **Finish**.
6. In the Welcome to the Management Server Upgrade Wizard panel, click **Next**.
7. In the Information prompt, click **Continue**.
8. When the Server Upgrade Status succeeds, click **Next**.
9. In the Upgrade Succeeded panel, click **Finish**.

10 When the Symantec Endpoint Protection Manager logon panel appears, log on to the console using your legacy logon credentials.

11 (Optional) If you need to install the Symantec Endpoint Protection Manager for Symantec Network Access Control, log off the Symantec Endpoint Protection Manager. Then repeat this procedure and install Symantec Endpoint Protection Manager for Symantec Network Access Control from the Symantec Network Access Control installation CD.

You are not required to restart the computer, but you may notice performance improvements if you restart the computer and log on.

Stopping the servers before load balancing and failover migration

If you have legacy Symantec servers that perform load balancing and failover, you must stop the Symantec Policy Manager service on all legacy servers. By stopping this service, you stop legacy servers that try to update the database during migration. Legacy servers should not try to update the database until migration is complete.

To stop the servers that provide load balancing and failover

1 Click **Start > Settings > Control Panel > Administrative Tools**.

2 In the Services window, under Name, scroll to and right-click **Symantec Policy Manager**.

3 Click **Stop**.

Disabling replication before migration

If you have legacy Symantec sites that are configured for replication, you must disable replication before migration. You do not want sites trying to replicate data between legacy and updated databases during or after migration. You must disable replication at each site that replicates, which means that you must log on to and disable replication at a minimum of two sites.

To disable replication

1 Log on to the Symantec Policy Management Console if you are not logged on.

2 On the Servers tab, in the left pane, expand Local Site, and then expand Replication Partners.

3 For each site that is listed under Replication Partners, right-click the site, and then click **Delete**.

4 In the Delete Partner prompt, click **Yes**.

5 Log off the console, and repeat this procedure at all sites that replicate data.

Enabling replication after migration

After you migrate all servers that used replication, failover, and load balancing, you need to turn on replication. After migration, you add a replication partner to enable replication. You only need to add replication partners on the computer on which you first installed the management server. Replication partners automatically appear on the other management servers.

To enable replication after migration

1. Log on to the Symantec Policy Management Console if you are not logged on.
2. On the Servers tab, in the left pane, expand Local Site, and then expand Replication Partners.
3. For each site that is listed under Replication Partners, right-click the site, and then click **Add Partner**.
4. In the Add Replication Partner panel, click **Next**.
5. In the Remote Site Information panel, enter the identifying information about the replication partner, enter the authentication information, and then click **Next**.
6. In the Schedule Replication panel, set the schedule for when replication occurs automatically, and then click **Next**.
7. In the Replication of Log Files and Client Packages panel, check the items to replicate, and then click **Next**.

   Replicating packages generally involves large amounts of traffic and storage requirements.
8. In the Completing the Add Replication Partner Wizard panel, click **Finish**.
9. Repeat this procedure for all management servers that replicate data with this management server.

About console user interface and functionality changes post migration

The following user interfaces changes appear after migration:

- The Start Program menu for Symantec Policy Manager is changed to Symantec Endpoint Protection Manager Console.
- The installation directory and service name retain the legacy name of Symantec Policy Manager and are not renamed.
- Legacy OS Protection Policies appear as Hardware Device Protection policies.

- Several new policy types are available for LiveUpdate Settings, AntiVirus and Antispyware, and so forth. You cannot use the new policies until you migrate your clients.
- Legacy client installation packages are removed from the database so that they do not appear in the migrated console. However, these packages still remain in your legacy package directory. You should export your new client installation packages to a different directory.
- Report Scheduler is now available from the Reports tab instead of the legacy Server Site Properties dialog box.
- License Management has been deprecated and is no longer required.
- Package management is now available from the Servers pane instead of the legacy Client Manager pane.
- Policy Library components such as Management Server Lists and Network Services are now available on the Policies pane, under the lists of Policies and are identified as Policy Components.
- The Servers and Administrators tab functionality have been consolidated into the Admin pane.
- The server migration purges all client installation packages from the database. These packages are no longer supported and package removal does not affect the connected clients. This purge only prevents new deployments of the legacy client packages.

Migrating remote management consoles

You migrate legacy remote management consoles by installing the latest remote management consoles on the computers that run the legacy consoles. The legacy Symantec Policy Manager icons and Program start menu are not migrated. When you click the icon or the menu item, however, they display the new Symantec Endpoint Protection Manager logon prompt.

When a legacy remote management consoles was installed, Sun Java 1.4 runtime may have been installed on the computer if it was not already installed. This new version of the remote management console downloads and installs Sun Java 1.5 to the remote computer. If you do not need Sun Java 1.4 runtime for any other applications, you can remove it with the Windows Add/Remove program utility.

To migrate remote management consoles

1. On the computer on which to install the management console, start a Web browser.
2. In the URL box, type one of the following identifiers for the computer that runs the policy manager:
   - **http://*computer_name*:9090**
   - **http://*computer_IP_address*:9090**

   The default port number for the Web console port is 9090. If you specified a different port during installation, replace 9090 with the port that you specified. You can change the port number by using the Management Server Configuration Wizard.
3. In the Symantec Policy Management Console window, click **Here** to download and install JRE 1.5.
4. Respond to and follow the prompts and log on to the Symantec Endpoint Protection Manager Console.

About configuring migrated and new policies

The Symantec Endpoint Protection Manager Console lets you manage legacy clients. If you migrated to Symantec Endpoint Protection, the console also contains migrated Firewall and Intrusion Prevention Policies that contain your legacy settings. In addition, new policies are also available. As a result, you should become familiar with the new policies that affect your groups before you migrate legacy clients.

For example, if you decide to add Antivirus and Antispyware Protection to your clients during migration, become familiar with the Antivirus and Antispyware Policy settings. Also, LiveUpdate Settings and LiveUpdate Content Policies affect both Symantec Endpoint Protection and Symantec Network Access Control. As a result, you should become very familiar with these policies and how they affect your groups and locations before client migration.

About removing the client password protections from group settings

Group settings are migrated and include the group client password protection settings. If you have group settings that enable one or more passwords such as for uninstallation, client migration fails for certain MR releases. As a best practice, disable these passwords in your migrated groups with the Symantec Endpoint

Protection Manager Console before you migrate legacy client software. The password protection settings appear in the General Settings for each group. You can turn on these passwords after migration.

Warning: If you do not disable the uninstall password and deploy new client installation packages, you may have to enter this password on each client computer to perform the client migration. If you deploy to 100 or more clients, you may have to email the password to end users.

Migrating legacy Symantec Sygate client software

The easiest way to migrate both Symantec Protection Agent and Symantec Enforcement Agent software is by using the Auto-upgrade feature. All other client software deployment methods are supported, but the Auto-upgrade approach is the easiest way. The migration can take up to 30 minutes. Therefore, you should migrate when most users are logged off of their computers.

Note: Test this migration approach before rolling out migration to a large number of computers. You can create a new group and place a small number of client computers in that group.

To migrate client software

1. Log on to the newly migrated Symantec Endpoint Protection Manager Console if you are not logged on.
2. Click **Admin > Install Packages**.
3. In the lower-left pane, under Tasks, click **Upgrade Groups with Package**.
4. In the Welcome to the Upgrade Groups Wizard panel, click **Next**.
5. In the Select Client Install Package panel, in the Select the new client install package drop-down menu, do one of the following:
   - Click **Symantec Endpoint Protection <appropriate version>**.
   - Click **Symantec Network Access Control <appropriate version>**.
6. In the Specify Groups panel, check one or more groups that contains the client computers that you want to migrate, and then click **Next**.
7. In the Package Upgrade Settings panel, check **Download from the management server**.

   You can optionally stage and select a package on a Web server.

8 Click **Upgrade Settings**.

9 In the Add Client Install Package dialog box, on the General tab, specify a schedule for when to migrate the client computers.

10 On the Notification tab, specify a message to display to users during the upgrade.

For details about settings on these tabs, click **Help**.

11 Click **OK**.

12 In the Install Client Install Package dialog box, click **Next**.

13 In the Completing the Client Upgrade Wizard panel, click **Finish**.

Chapter 9

Upgrading to new Symantec products

This chapter includes the following topics:

- About upgrading to new Symantec products
- Upgrading Symantec Endpoint Protection Manager
- Backing up the database
- Disabling replication
- Stopping the Symantec Endpoint Protection Manager service
- Upgrading Symantec Endpoint Protection Manager
- Enabling replication after migration
- About upgrading Symantec Endpoint Protection clients with Symantec Network Access Control
- About upgrading Symantec Network Access Control clients with Symantec Endpoint Protection

About upgrading to new Symantec products

Symantec Endpoint Protection Manager supports management and deployment of the following Symantec products:

- Symantec Endpoint Protection
- Symantec Network Access Control

You can upgrade Symantec Endpoint Protection with Symantec Network Access Control and you can upgrade Symantec Network Access Control with Symantec Endpoint Protection.

Upgrading Symantec Endpoint Protection Manager

To upgrade Symantec Endpoint Protection with Symantec Network Access Control, install Symantec Endpoint Protection Manager for Symantec Network Access Control on the computers that run Symantec Endpoint Protection Manager for Symantec Endpoint Protection.

To upgrade Symantec Network Access Control with Symantec Endpoint Protection, install Symantec Endpoint Protection Manager for Symantec Endpoint Protection on the computers that run Symantec Endpoint Protection Manager for Symantec Network Access Control.

Warning: You must stop the Symantec Endpoint Protection Manager service before upgrading your existing installation of Symantec Endpoint Protection Manager. If you do not, you may corrupt your existing installation of Symantec Endpoint Protection Manager.

Backing up the database

Before you upgrade, you should back up the database.

To back up the database

1. Click **Start > Programs > Symantec Endpoint Protection Manager > Database Back Up and Restore**.
2. In the Database Backup and Restore dialog, click **Back Up**.
3. When the Message prompt appears, click **Yes**.
4. When the backup completes, click **OK**.

   This backup may take a few minutes. The backup files are .zip files that are saved in \\Program Files\Symantec\Symantec Endpoint Protection Manager\data\backup\.
5. In the Database Backup and Restore dialog, click **Exit**.

Disabling replication

If your site uses replication, you must disable replication before upgrading Symantec Endpoint Protection Manager. You must disable replication at each site that replicates.

To disable replication

1. Log on to the Symantec Endpoint Protection Manager Console.
2. On the Servers tab, in the left pane, expand Local Site, and then expand Replication Partners.
3. For each site that is listed under Replication Partners, right-click the site, and then click **Delete**.
4. In the Delete Partner prompt, click **Yes**.
5. Log off the console, and repeat this procedure at all sites that replicate data.

Stopping the Symantec Endpoint Protection Manager service

Before you upgrade, you must manually stop the Symantec Endpoint Protection Manager service on every management server in your site. After you upgrade, the service starts automatically.

Warning: You must stop the Symantec Endpoint Protection Manager service before you perform this procedure or you corrupt your existing installation of Symantec Endpoint Protection Manager.

To stop the Symantec Endpoint Protection Manager service

1. Click **Start > Settings > Control Panel > Administrative Tools > Services**.
2. In the Services window, under Name, scroll to and right-click **Symantec Endpoint Protection Manager**.
3. Click **Stop**.
4. Close the Services window.

   Warning: Close the Services window or your upgrade may fail.

   ---

5. Repeat this procedure for all installations of Symantec Endpoint Protection Manager.

Upgrading Symantec Endpoint Protection Manager

You must upgrade all Symantec Endpoint Protection Manager on which you stopped the Symantec Endpoint Protection service.

To upgrade Symantec Endpoint Protection Manager

1. In the server to upgrade, insert one of the following installation CDs and start the installation:
   - Symantec Endpoint Protection
   - Symantec Network Access Control
2. Do one of the following:
   - In the Symantec Endpoint Protection panel, click **Install Symantec Endpoint Protection Manager**.
   - In the Symantec Network Access Control panel, click **Install Symantec Network Access Control**, and then click **Install Symantec Endpoint Protection Manager**.
3. In the Welcome panel, click **Next**.
4. In the License Agreement panel, select **I accept the terms in the license agreement**, and then click **Next**.
5. In the Ready to Install the Program panel, click **Install**.

   In the Install Wizard Completed panel, click **Finish**.

   The Management Server Upgrade Wizard starts.
6. In the Management Server Upgrade Wizard Welcome panel, click **Next**.
7. In the Information panel, click **Continue**.
8. When the Upgrade completes, click **Next**.
9. In the Upgrade Succeeded panel, click **Finish**.
10. Delete the files in the Internet Explorer Temporary Internet files folder to assure that the updated files are used when you log on to the console.

Enabling replication after migration

After you migrate all servers that used replication including the servers that were configured for failover and load balancing, you need to turn on replication. After migration, you add a replication partner to enable replication. You only need to add replication partners on the computer on which you first installed the

management server. Replication partners automatically appear on the other management servers.

To enable replication after migration

1. Log on to the Symantec Policy Management Console if you are not logged on.
2. On the Servers tab, in the left pane, expand Local Site, and then expand Replication Partners.
3. For each site that is listed under Replication Partners, right-click the site, and then click **Add Partner**.
4. In the Add Replication Partner panel, click **Next**.
5. In the Remote Site Information panel, enter the identifying information about the replication partner, enter the authentication information, and then click **Next**.
6. In the Schedule Replication panel, set the schedule for when replication occurs automatically, and then click **Next**.
7. In the Replication of Log Files and Client Packages panel, check the items to replicate, and then click **Next**.

   Replicating packages generally involves large amounts of traffic and storage requirements.
8. In the Completing the Add Replication Partner Wizard panel, click **Finish**.
9. Repeat this procedure for all computers that replicate data with this computer.

About upgrading Symantec Endpoint Protection clients with Symantec Network Access Control

Symantec Endpoint Protection clients include Symantec Network Access Control and do not need to be upgraded. After you upgrade Symantec Endpoint Protection Manager for Symantec Network Access Control, you can apply host integrity policies to your existing clients.

About upgrading Symantec Network Access Control clients with Symantec Endpoint Protection

You upgrade Symantec Network Access Control clients by installing Symantec Endpoint Protection on those clients. The installation automatically detects Symantec Network Access Control client, removes it, and then installs Symantec

Endpoint Protection client software. You can deploy the client software by using any of the supported client deployment methods.

Section 3

Appendices

- Symantec Endpoint Protection installation features and properties
- Updating Symantec client software
- Disaster recovery

Appendix A

Symantec Endpoint Protection installation features and properties

This appendix includes the following topics:

- About installation features and properties
- Client installation features and properties
- Windows Installer parameters
- Windows Security Center properties
- About using the log file to check for errors
- Identifying the point of failure of an installation
- Command-line examples

About installation features and properties

Installation features and properties are the strings that appear in text files and command lines. Text files and command lines are processed during all client software installations for Symantec Endpoint Protection. Installation features control what components get installed. Installation properties control what subcomponents are enabled or disabled after installation. Installation features and properties are available for Symantec Endpoint Protection client software only and are also available for the Windows operating system. Installation features and properties are not available for Symantec Network Access Control client software or for Symantec Endpoint Protection Manager installations.

Installation features and properties are specified in two ways: as lines in the Setaid.ini file and as values in Windows Installer (MSI) commands. MSI commands can be specified in Windows Installer strings and in vpremote.dat for customized Push Deployment Wizard deployment. Windows Installer commands and Setaid.ini are always processed for all managed client software installations. If different values are specified for the same features and values, the features and the values in Setaid.ini always take precedence because it is processed last.

For example, if an MSI feature specifies to install the Firewall and Intrusion Prevention, and if setaid.ini specifies to not install the Firewall and Intrusion Prevention, the Firewall and Intrusion Prevention are not installed.

About configuring Setaid.ini

Setaid.ini appears in all installation packages. Setaid.ini always takes precedence over any setting that may appear in an MSI command string that is used to start the installation. Setaid.ini appears in the same directory as setup.exe. If you export to a single .exe file, you cannot configure Setaid.ini. However, the file is automatically configured when you export Symantec Endpoint Protection client installation files from the console.

The following lines show some of the options that you can configure in Setaid.ini. Value 1 enables a feature and value 0 disables a feature.

```
[CUSTOM_SMC_CONFIG]
InstallationLogDir=
DestinationDirectory=

[FEATURE_SELECTION]
Core=1

SAVMain=1
 EmailTools=1
 OutlookSnapin=1
 Pop3Smtp=0
 NotesSnapin=0

PTPMain=1
 DCMain=1
 COHMain=1

ITPMain=1
 Firewall=1
```

Note: The features are indented to show hierarchy. The features are not indented inside the Setaid.ini file. Feature names in Setaid.ini are case sensitive.

See "Client installation features and properties" on page 195.

Feature values that are set to 1 install the features. Feature values that are set to 0 do not install the features. You must specify and install the parent features to successfully install the client features as shown in the feature tree.

See Figure A-1 on page 196.

The only time that Setaid.ini is not processed is when you install the client software with the files in the SAV installation CD directory. You can install these files with third-party distribution tools like SMS.

Be aware of the following additional setaid.ini settings that map to MSI properties for Symantec Endpoint Protection client installation:

- DestinationDirectory maps to INSTALLDIR
- KeepPreviousSetting maps to MIGRATESETTINGS
- AddProgramIntoStartMenu maps to ADDSTARTMENUICON

About configuring MSI command strings

Symantec Endpoint Protection installation software uses Windows Installer (MSI) 3.1 packages for installation and deployment. If you use the command line to install or deploy an installation package, you can customize the installation with the standard Windows Installer parameters and the Symantec-specific features and properties.

To use this Windows Installer, elevated privileges are required. If you try the installation without elevated privileges, the installation may fail without notice. For the most up-to-date list of Symantec installation commands and parameters, see the Symantec Knowledge Base.

Note: The Microsoft Installer advertise function is unsupported. Setaid.ini-specified features and properties take precedence over MSI-specified features and properties. Feature and property names in MSI commands are case sensitive.

Client installation features and properties

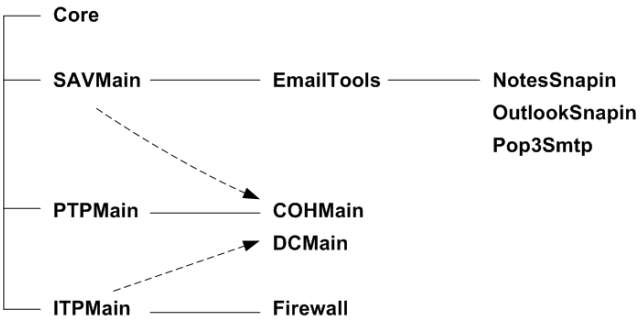
Client installation features and properties affect Symantec Endpoint Protection client installations.

Symantec Endpoint Protection client features

Symantec Endpoint Protection features can be installed by specifying them in Setaid.ini files and in MSI commands. Most features have a parent-child relationship. If you want to install a child feature that has a parent feature, you must also install the parent feature.

Figure A-1 illustrates the feature tree for Symantec Endpoint Protection client software.

Figure A-1 Feature tree



The feature tree shows four primary features as listed on the left. The Core feature must always be specified for installation. It contains the core client communications functionality. The other three features can be installed as stand-alone features. SAVMain installs antivirus and antispyware protection, PTPMain installs TruScan proactive threat scanning technology, and ITPMain installs network threat protection.

Note: COHMain and DCMain require two parents. COHMain is Proactive Threat Scan and requires PTPMain and SAVMain. DCMain, which is Application and Device Control, requires PTPMain and ITPMain.

For both setaid.ini and MSI, if you specify a child feature but do not specify its parent feature, the child feature is installed. However, the feature does not work because the parent feature is not installed. For example, if you specify to install the Firewall feature but do not specify to install ITPMain, its parent feature, the Firewall, is not installed.

Table A-1 describes the features that can be installed for the Symantec Endpoint Protection client installation, along with any available properties.

Table A-1 Symantec Endpoint Protection client features

Feature	Description	Required parent features
Core	Install the files that are used for communications between clients and the Symantec Endpoint Protection Manager. This feature is required.	none
SAVMain	Install the basis antivirus and antispyware feature files.	none
SymProtectManifest	Install the Tamper Protection feature.	none
EmailTools	Install the basic email Auto-Protect feature files.	SAVMain
NotesSnapin	Install the Lotus Notes Auto-Protect email feature.	SAVMain, EmailTools
OutlookSnapin	Install the Microsoft Exchange Auto-Protect email feature.	SAVMain, EmailTools
Pop3Smtp	Install the Internet Email Auto-Protect feature.	SAVMain, EmailTools
PTPMain	Install the basic TruScan proactive threat scan feature files.	none
COHMain	Install the proactive threat scan feature.	PTPMain, SAVMain
DCMain	Install the Application Control and Device Control feature.	PTPMain, ITPMain
ITPMain	Install the basic Network Threat Protection feature files.	none
Firewall	Install the firewall feature.	IPTMain

Symantec Endpoint Protection client installation properties

Table A-2 describes the installation properties that are configurable for SAVMain and SymProtect.

Table A-2 Symantec Endpoint Protection client installation properties

Property	Description
RUNLIVEUPDATE=*val*	Determines whether LiveUpdate is run as part of the installation, where *val* is one of the following values: ■ 1: Runs LiveUpdate during installation (default). ■ 0: Does not run LiveUpdate during installation. By default, all Symantec Endpoint Protection clients in a group receive the latest versions of all content and all product updates. If a client group is configured to get updates from a management server, the clients receive only the updates that the server is configured to download. If the LiveUpdate content policy is configured to allow all updates, but the management server is not configured to download all updates, the clients receive only what the server downloads.
ENABLEAUTOPROTECT=*val*	Determines whether File System Auto-Protect is enabled after the installation is complete, where *val* is one of the following values: ■ 1: Enables Auto-Protect after installation (default). ■ 0: Disables Auto-Protect after installation.
SYMPROTECTDISABLED=*val*	Determines whether Tamper Protection is enabled as part of the installation, where *val* is one of the following values: ■ 1: Disables Tamper Protection after installation. ■ 0: Enables Tamper Protection after installation. (default)

Windows Installer parameters

Symantec Endpoint Protection installation packages use the standard Windows Installer parameters, as well as a set of extensions for command-line installation and deployment. See the Windows Installer documentation for further information about the usage of standard Windows Installer parameters. You can also execute msiexec.exe from a command line to see the complete list of parameters.

Table A-3 describes the basic set of parameters that are used for Symantec Endpoint Protection client installations.

Table A-3 Commands

Parameter	Description
Symantec AntiVirus.msi	Symantec AntiVirus.msi installation file for the Symantec Endpoint Protection client. If any .msi file contains spaces, enclose the file name in quotations when used with /I and /x. Required
Msiexec	Windows Installer executable. Required
/I "*msi file name*"	Install the specified .msi file. If the file name contains spaces, enclose the file name in quotations. If the .msi file is not in the same directory from which you execute Msiexec, specify the path name. If the path name contains spaces, enclose the path name in quotations. For example, msiexec.exe /I "C:*path to* Symantec AntiVirus .msi" Required
/qn	Install silently.
/x "*msi file name*"	Uninstall the specified components. Optional
/qb	Install with a basic user interface that shows the installation progress. Optional
/l*v *logfilename*	Create a verbose log file, where *logfilename* is the name of the log file you want to create. Optional
INSTALLDIR=*path*	Designate a custom path on the target computer where *path* is the specified target directory. If the path includes spaces, use quotation marks. **Note:** The default directory is C:\Program Files\Symantec Endpoint Protection Optional

Table A-3 Commands *(continued)*

Parameter	Description
REBOOT=*value*	Controls a computer restart after installation, where *value* is a valid argument. The valid arguments include the following: ■ Force: Requires that the computer is restarted. Required for uninstallation. ■ Suppress: Prevents most restarts. ■ ReallySuppress: Prevents all restarts as part of the installation process, even a silent installation. Optional **Note:** Use ReallySuppress to suppress a restart when you perform a silent uninstallation of Symantec Endpoint Protection client.
ADDLOCAL= *feature*	Select the custom features to be installed, where *feature* is a specified component or list of components. If this property is not used, all applicable features are installed by default, and Auto-Protect email clients are installed only for detected email programs. To add all appropriate features for the client installations, use the ALL command as in ADDLOCAL=ALL. See "Symantec Endpoint Protection client features" on page 196. **Note:** When you specify a new feature to install, you must include the names of the features that are already installed on the target computer that you want to keep. If you do not specify the features that you want to keep, Windows Installer removes them. By specifying existing features, you do not overwrite the installed features. To uninstall an existing feature, use the REMOVE command. Optional
REMOVE=*feature*	Uninstall the previously installed program or a specific feature from the installed program, where *feature* is one of the following: ■ *feature*: Uninstalls the feature or list of features from the target computer. ■ ALL: Uninstalls the program and all of the installed features. All is the default if a feature is not specified. Optional

Windows Security Center properties

You can customize Windows Security Center (WSC) properties during Symantec Endpoint Protection client installation. These properties apply to unmanaged clients only. The Symantec Policy Manager controls these properties for the managed clients.

Table A-4 describes the properties that are configurable to control interaction between users and Windows Security Center (WSC) that runs on Windows XP with Service Pack 2.

Table A-4 Windows Security Center properties

Property	Description
WSCCONTROL=*val*	Controls WSC where *val* is one of the following values: ■ 0: Do not control (default). ■ 1: Disable one time, the first time it is detected. ■ 2: Disable always. ■ 3: Restore if disabled.
WSCAVALERT=*val*	Configures the antivirus alerts for WSC where *val* is one of the following values: ■ 0: Enable. ■ 1: Disable (default). ■ 2: Do not control.
WSCFWALERT=*val*	Configures the firewall alerts for WSC where *val* is one of the following values: ■ 0: Enable. ■ 1: Disable (default). ■ 2: Do not control.
WSCAVUPTODATE=*val*	Configures the WSC out-of-date time for antivirus definitions where *val* is one of the following values: 1 - 90: Number of days (default is 30).
DISABLEDEFENDER=*val*	Determines whether to disable Windows Defender during installation, where *val* is one of the following values: ■ 1: Disables Windows Defender (default). ■ 0: Does not disable Windows Defender.

About using the log file to check for errors

The Windows Installer and Push Deployment Wizard create log files that can be used to verify whether or not an installation was successful. The log files list the components that were successfully installed and provide a variety of details that are related to the installation package. The log files can be used as an effective tool to troubleshoot a failed installation.

If the installation is successful, the log files include a success entry near the end. If the installation is not successful, an entry indicates that the installation failed. Typically, look for Value 3 to find failures. You specify the log file and location with the parameter named /l*v <*log filename*>. The log file (vpremote.log) that is created when you use the Push Deployment Wizard is located in the \\Windows\temp directory.

Note: Each time the installation package is executed, the log file is overwritten. Appending logs to an existing log file is not supported.

Identifying the point of failure of an installation

You can use the log file to help identify the component or the action that caused an installation to fail. If you cannot determine the reason for the failed installation, you should retain the log file. Provide the file to Symantec Technical Support if it is requested.

To identify the point of failure of an installation

1. In a text editor, open the log file that the installation generated.
2. Search for the following:

   ```
   Value 3
   ```

   The action that occurred before the line that contains this entry is most likely the action that caused the failure. The lines that appear after this entry are the installation components that have been rolled back because the installation was unsuccessful.

Command-line examples

Table A-5 include common command-line examples.

Table A-5 Command-line examples

Task	Command line
Silently install all of the Symantec Endpoint Protection client components with default settings to the directory C:\SFN. Suppress a computer restart, and create a verbose log file.	msiexec /I "Symantec AntiVirus.msi" INSTALLDIR=C:\SFN REBOOT=ReallySuppress /qn /l*v c:\temp\msi.log
Silently install the Symantec Endpoint Protection client with Antivirus and Antispyware protection, and with Network Threat Protection. Create a verbose log file. The computer must be restarted to implement Network Threat Protection.	msiexec /I "Symantec AntiVirus.msi" ADDLOCAL=Core,SAVMain,EmailTools,OutlookSnapin, Pop3Smtp,ITPMain,Firewall /qn /l*v c:\temp\msi.log

Appendix B

Updating Symantec client software

This appendix includes the following topics:

- About updates and patches
- Updating Symantec client software

About updates and patches

To understand upgrades and patches, you need to understand two Windows Installer terms: MSI and MSP. These terms are not acronyms. MSI is both a file type and an extension. MSI is also a common term that is used to describe a complete installation package that is installed with Windows Installer. MSP is a both a file type and an extension. MSP is a common term used to describe a patch to an MSI installation package. The MSP cannot be applied unless the base MSI that the patch is based on is either available to or installed on a client computer.

Periodically, Symantec creates maintenance releases for Symantec client software. Each maintenance release is available in two forms: MSI and MSP. The MSI form includes the complete installation package of files. The MSP form includes only the installation files that are necessary to upgrade to the new maintenance release. The MSP form assumes that the current maintenance release is installed on the client computer and can be patched to the latest version.

When clients receive product updates from Symantec or internal LiveUpdate servers, they receive and process MSP files in the form of TRZ files. When clients receive product updates from a Symantec Endpoint Protection Manager, they receive and process a third form of update that is called a microdef. Symantec Endpoint Protection Manager receives and processes MSP (TRZ) files from a LiveUpdate server and then reconstructs and stores the MSI files. It then generates

the difference between the original MSI files and the changed MSI files. The difference is called a microdef. Symantec Endpoint Protection Manager then updates the clients with microdefs.

Note: In some cases, a client computer must have been restarted at least once since the installation of the previous version of Symantec Endpoint Protection client software for an upgrade to complete successfully. If client software fails to upgrade, restart the client computer and attempt the upgrade again.

Updating Symantec client software

You can update Symantec client product software automatically by permitting product updates with a LiveUpdate Settings Policy. When product updates are permitted, product microdefs or patches are installed on clients when users click LiveUpdate or when a scheduled LiveUpdate session runs. When product updates are denied, client software is not updated, even if another Symantec product runs LiveUpate on the client computer. When product updates are denied, client software can only be manually updated with the Symantec Endpoint Protection Manager Console.

When the Symantec Endpoint Protection Manager downloads and processes patches, it creates a microdef. The microdef automatically appears as a new package. The new package appears in the Client Install Packages pane. You can then select the package and update groups and locations manually with the Upgrade Groups with Package feature.

Note: If the LiveUpdate Settings Policy specifies that clients download updates from a Symantec Endpoint Protection Manager or Group Update Provider, the updates are in the form of microdefs. If the LiveUpdate Settings Policy specifies that clients download updates from a LiveUpdate server, the updates are in the form of MSP (patch) files.

To update Symantec client software

1. In the Symantec Endpoint Protection Manager Console, click **Policies**.
2. Under View Policies, click on and highlight **LiveUpdate**.
3. In the right pane, on the LiveUpdate Settings tab, click a LiveUpdate Policy.
4. In the lower-left pane, under Tasks, click **Edit the Policy**.
5. Under LiveUpdate Policy, click **Advanced Settings**.

6 In the Advanced Settings pane, under Product Update Settings, do one of the following:

- To automatically update client software, check **Download Symantec Endpoint Protection product updates using a LiveUpdate server**.
- To manually update client software with the Upgrade Groups with Package feature with the Symantec Endpoint Protection Manager Console, uncheck **Download Symantec Endpoint Protection product updates using a LiveUpdate server**.

7 Click **OK**, and then apply the policy to a group or a location in a group.

Appendix C

Disaster recovery

This appendix includes the following topics:

- How to prepare for disaster recovery
- About the disaster recovery process
- Restoring the Symantec Endpoint Protection Manager
- Restoring the server certificate
- Restoring client communications

How to prepare for disaster recovery

To perform disaster recovery, you must prepare for disaster recovery. You prepare for disaster recovery by collecting files and information during and after Symantec Endpoint Protection Manager installation. For example, you must document your encryption password during the installation. You must locate and move your keystore file to a secure location.

Table C-1 lists and describes the high-level tasks that you must follow to prepare for disaster recovery.

Table C-1 High-level tasks to prepare for disaster recovery

Task	Additional information
Back up your database on a regular basis, preferably weekly, and store the backups off site.	The database backup directory is located in \\Program Files\Symantec\ Symantec Endpoint Protection Manager\data\backup. The backup file is named *date_timestamp*.zip.

Table C-1 High-level tasks to prepare for disaster recovery *(continued)*

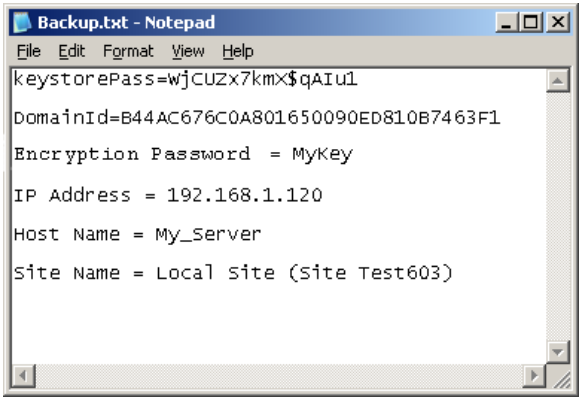
Task	Additional information
Locate your keystore file and your server.xml file. The keystore file name is keystore_*timestamp*.jks. The keystore contains the private-public key pair and the self-signed certificate. The server.xml file name is server_*timestamp*.xml.	During the installation, these files were backed up to the directory that is named \\Program Files\Symantec\ Symantec Endpoint Protection Manager\Server Private Key Backup. You can also back up these files from the Admin panel in the Symantec Endpoint Protection Manager Console.
Create and open a text file with a text editor. Name the file Backup.txt, or a similar name. Open server.xml, locate the keystorepass password, and copy and paste it into the text file. Leave the text file open.	The password is used for both storepass and keypass. Storepass protects the JKS file. Keypass protects the private key. You enter these passwords to restore the certificate. The password string looks like keystorePass="WjCUZx7kmX$qA1u1". Copy and paste the string that is between the quotation marks. Do not include the quotation marks.
If you have one domain only, find and copy the sylink.xml file from a directory in \\Program Files\Symantec\ Symantec Endpoint Protection Manager\data\outbox\agent\ . Then, paste it to \\Program Files\Symantec\ Symantec Endpoint Protection Manager\Server Private Key Backup\. If you have multiple domains, for each domain, locate and copy a sylink.xml file on a client computer. Then paste it into the following location: \\Program Files\Symantec\ Symantec Endpoint Protection Manager\Server Private Key Backup.	The domain IDs are required if you do not have a backup of the database. This ID is in the sylink.xml file on the clients computers in each domain.
Open each sylink.xml file, locate the DomainId, and copy and paste it into the Backup.txt text file.	You add this ID to a new domain that you create to contain your existing clients. The string in the sylink.xml file looks like DomainId="B44AC676C08A165009ED819B746F1". Copy and paste the string that is between the quotation marks. Do not include the quotation marks.
In the Backup.txt file, type the encryption password that you used when you installed the first site in the installation instance.	You retype this key when you reinstall the Symantec Endpoint Protection Manager. You must retype the identical key if you do not have a backed up database to restore. It is not required if you have a backed up database to restore, but it is a best practice.

Table C-1 High-level tasks to prepare for disaster recovery *(continued)*

Task	Additional information
In the Backup.txt text file, type the IP address and host name of the computer that runs the Symantec Endpoint Protection Manager.	If you have a catastrophic hardware failure, you must reinstall Symantec Endpoint Protection Manager on a computer that has the same IP address and host name.
In the Backup.txt file, type the site name that identifies Symantec Endpoint Protection Manager. Save and close the Backup.txt file, which now contains the essential information that is required for disaster recovery.	While the site name is not strictly required for reinstallation, it helps to create a consistent restoration.
Copy these files to removable media, and store the media in a secure location, preferably in a safe.	After you secure the files, you should remove these files from the computer that runs the Symantec Endpoint Protection Manager.

Figure C-1 illustrates a text file that contains the information that is required to perform a successful disaster recovery.

Figure C-1 Well-formed disaster recovery text file



If you create this file, you can copy and paste this information when required during disaster recovery.

About the disaster recovery process

The disaster recovery process requires you to sequentially complete the following procedures:

- Restore the Symantec Endpoint Protection Manager.

- Restore the server certificate.
- Restore client communications.

How you restore client communications depends on whether or not you have access to a database backup.

Restoring the Symantec Endpoint Protection Manager

If you have a disaster, recover the files that were secured after initial installation. Then open the Backup.txt file that contains the passwords, domain IDs, and so forth.

About identifying the new or the rebuilt computer

If you had a catastrophic hardware failure, you may need to rebuild the computer. If you rebuild the computer, you must assign it the original IP address and host name. This information should be in the Backup.txt file.

Reinstalling the Symantec Endpoint Protection Manager

The key task to perform when you reinstall the Symantec Endpoint Protection Manager is to type the same encryption password you specified during installation of Symantec Endpoint Protection Manager on the server that failed. You should also use the same settings that you used for other options during the previous installation, such as Web site creation, database type, and password used for the admin user account.

Restoring the server certificate

The server certificate is a Java keystore that contains the public certificate and the private-public key pairs. You must enter the password that is contained in the Backup.txt file. This password is also in the original server_*timestamp*.xml file.

To restore the server certificate

1. Log on to the Console, and then click **Admin**.
2. In the Admin pane, under Tasks, click **Servers**.
3. Under View Servers, expand Local Site, and then click the computer name that identifies the local site.
4. Under Tasks, click **Manage Server Certificate**.
5. In the Welcome panel, click **Next**.

6 In the Manage Server Certificate panel, check **Update the Server Certificate**, and then click **Next**.

7 Under Select the type of certificate to import, check **JKS keystore**, and then click **Next**.

If you have implemented one of the other certificate types, select that type.

8 In the JKS Keystore panel, click **Browse**, locate and select your backed up keystore_*timestamp*.jks keystore file, and then click **OK**.

9 Open your disaster recovery text file, and then select and copy the keystore password.

10 Activate the JKS Keystore dialog box, and then paste the keystore password into the Keystore and Key boxes.

The only supported paste mechanism is Ctrl + V.

11 Click **Next**.

If you get an error message that says you have an invalid keystore file, it is likely you entered invalid passwords. Retry the password copy and paste. This error message is misleading.

12 In the Complete panel, click **Finish**.

13 Log off the Console.

14 Click **Start > Settings > Control Panel > Administrative Tools > Services**.

15 In the Services window, right-click **Symantec Endpoint Protection Manager**, and then click **Stop**.

Do not close the Services window until you are finished with disaster recovery and reestablish client communications.

16 Right-click **Symantec Endpoint Protection Manager**, and then click **Start**.

By stopping and starting Symantec Endpoint Protection Manager, you fully restore the certificate.

Restoring client communications

If you have access to a database backup, you can restore this database and then resume client communications. The advantage to restoring with a database backup is that your clients reappear in their groups and they are subject to the original policies. If you do not have access to a database backup, you can still recover communications with your clients, but they appear in the Temporary group. You can then re-create your group and your policy structure.

Restoring client communications with a database backup

You cannot restore a database on a computer that runs an active Symantec Endpoint Protection Manager service. You must stop and start it a few times.

To restore client communications with a database backup

1. If you closed the Services window, click **Start > Settings > Control Panel > Administrative Tools > Services**.
2. In the Services window, right-click **Symantec Endpoint Protection Manager**, and then click **Stop**.

   Do not close the Services window until you are finished with this procedure.
3. Create the following directory:

   \\Program Files\Symantec\Symantec Endpoint Protection Manager\data\backup
4. Copy your database backup file to the directory.

   By default, the database backup file is named *date_timestamp*.zip.
5. Click **Start > Programs > Symantec Endpoint Protection Manager > Database Back Up and Restore**.
6. In the Database Back Up and Restore dialog box, click **Restore**.
7. In the Restore Site dialog box, select the backup file that you copied to the backup directory, and then click **OK**.

   The database restoration time varies and depends on the size of your database.
8. When the Message prompt appears, click **OK**.
9. Click **Exit**.
10. Click **Start > Programs > Symantec Endpoint Protection Manager > Management Server Configuration Wizard**.
11. In the Welcome panel, check **Reconfigure the Management Server**, and then click **Next**.
12. In the Server Information panel, modify input values if necessary to match previous inputs, and then click **Next**.
13. In the Database Server Choice panel, check the database type to match the previous type, and then click **Next**.
14. In the Database Information panel, modify and insert input values to match previous inputs, and then click **Next**.

    The configuration takes a few minutes.
15. In the Configuration Completed dialog box, click **Finish**.

16 Log on to the Symantec Endpoint Protection Manager Console.

17 Right-click your groups, and then click **Run Command on Group > Update Content**.

If the clients do not respond after about one half hour, restart the clients.

Restoring client communications without a database backup

For each domain that you use, you must create a new domain and re-insert the same domain ID into the database. These domain IDs are in the disaster recovery text file if someone typed them in this file. The default domain is the Default domain.

A best practice is to create a domain name that is identical to the previous domain name. To re-create the Default (default) domain, append some value such as _2 (Default_2). After you restore domains, you can then delete the old default domain. Then rename the new domain back to Default.

To restore client communications without a database backup

1 Log on to the Symantec Endpoint Protection Manager Console.

2 In the console, click **Admin**.

3 In the System Administrator pane, click **Domains**.

4 Under Tasks, click **Add Domain**.

5 Click **Advanced**.

6 Open the disaster recovery text file, select and copy the domain ID, and then paste the domain ID into the Domain ID box.

7 Click **OK**.

8 (Optional) Repeat this procedure for each domain to recover.

9 Under Tasks, click **Administer Domain**.

10 Click **Yes** on the Administer Domain dialog box.

11 Click **OK**.

12 Restart all of the client computers.

The computers appear in the Temporary group.

13 (Optional) If you use one domain only, delete the unused Default domain, and rename the newly created domain to Default.

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