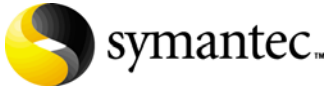
Symantec™ Critical System Protection Installation Guide



Symantec™ Critical System Protection Installation Guide

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Documentation version 5.1.3

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Symantec Corporation
20330 Stevens Creek Blvd.
Cupertino, CA 95014 USA

http://www.symantec.com

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- Available memory, disk space, NIC information

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- Version and patch level
- Network topology
- Router, gateway, and IP address information
- Problem description:
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  - Troubleshooting that was performed before contacting Symantec
  - Recent software configuration changes and network changes

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Contents

Index

Chapter 1

Introducing Symantec™ Critical System Protection

This chapter includes the following topics:

About Symantec Critical System Protection

Symantec™ Critical System Protection provides policy-based behavior control and detection for desktop and server computers. Symantec Critical System Protection provides a flexible computer security solution that is designed to control application behavior, block port traffic, and provide host-based intrusion protection and detection. Symantec Critical System Protection provides this security by controlling and monitoring how processes and users access resources.

Symantec Critical System Protection agents control behavior by allowing and preventing specific actions that an application or user might take. For example, a Symantec Critical System Protection prevention policy can specify that an email application may not spawn other processes, including dangerous processes like viruses, worms, and Trojan horses. However, the email application can still read and write to the directories that it needs to access.

Symantec Critical System Protection agents detect behavior by auditing and monitoring processes, files, log data, and Windows® registry settings. For example, a Symantec Critical System Protection detection policy can specify to monitor the Windows registry keys that the Welchia worm changes during infection and send an alert. As a result, Windows registry security-related events can be put into context and appropriate measures taken.

Components of Symantec Critical System Protection

Symantec Critical System Protection includes management console and server components, and includes agent components that enforce policies on computers. The management server and management console run on Windows® operating system. The agents run on Windows and UNIX operating systems.

The major components of Symantec Critical System Protection are as follows:

Management console	Coordinate, distribute, and manage policies and agents The management console lets you manage Symantec Critical System Protection policies and agents, and perform administrative tasks such as creating user accounts, restricting the functions that they can access, modifying policies, configuring alerts, and running reports.
Management server	Store and correlate agent events and the policy library The management server stores policies in a central location and provides an integrated, scalable, flexible, agent and policy management infrastructure. The management server coordinates policy distribution, and manages agent event logging and reporting.
Agent	Enforce policy on the endpoints Each Symantec Critical System Protection agent enforces rules that are expressed in policies, thereby controlling and monitoring application (process) and user behavior.
Authoring environment	Edit the policy library The authoring environment lets users author prevention and detection policies.

How Symantec Critical System Protection works

Symantec Critical System Protection controls and monitors what programs and users can do to computers. Agent software at the endpoints controls and monitors behavior based on policy. There are two types of policies: prevention and detection. An agent enforces one prevention policy at a time. An agent can enforce one or more detection policies simultaneously.

For example, prevention policies can contain a list of files and registry keys that no program or user can access. Prevention policies can contain a list of UDP and TCP ports that permit and deny traffic. Prevention policies can deny access to startup folders. Prevention policies also define the actions to take when unacceptable behavior occurs.

Detection policies can contain a list of files and registry keys that when deleted, generate an event in the management console. Detection policies can also be configured to generate events when known, vulnerable CGI scripts are run on Microsoft Internet Information Server (IIS), when USB devices are inserted and removed from computers, and when network shares are created and deleted.

Communication between the management server and the management console is secured with Secure Sockets Layer X.509 certificate-based channel encryption.

About the policy library

Symantec Critical System Protection provides a policy library that contains pre-configured prevention and detection policies, which you can use and customize to protect your network. A prevention policy is a collection of rules that governs how processes and users access resources. A detection policy is a collection of rules that are configured to detect specific events and take actions.

Where to get more information

Product manuals for Symantec Critical System Protection are available on the Symantec Critical System Protection installation CD. Updates to the documentation are available from the Symantec Technical Support and Platinum Support Web sites.

The Symantec Critical System Protection product manuals are as follows:

Installation Guide	Install the Symantec Critical System Protection components.
Administration Guide	Manage policies and agents, and perform basic administrative tasks such as creating user accounts for accessing the management console and authoring environment.
Policy Override Guide	Use the policy override tool to override prevention policy enforcement on Windows, Solaris, or Linux agent computers.
Prevention Policy Reference Guide	Description of Symantec Critical System Protection prevention policies.
Detection Policy Reference Guide	Description of Symantec Critical System Protection detection policies.
Policy Authoring Guide	Author prevention and detection policies.
Agent Event Viewer Guide	Use the agent event viewer to display recent events that were reported by a Symantec Critical System Protection agent.
Release Notes	Description of new features and enhancements for the latest version of Symantec Critical System Protection.

You can obtain additional information from the following Symantec Web sites:

Public Knowledge Base Releases and updates Manuals and other documentation Contact options	http://www.symantec.com/techsupp/enterprise/
Virus and other threat information and updates	http://securityresponse.symantec.com
Product news and updates	http://enterprisesecurity.symantec.com
Platinum Support Web access	https://www-secure.symantec.com/platinum/

Chapter 2

Planning the installation

This chapter includes the following topics:

About planning the installation

You can install the management console and management server on the same computer or on separate computers. You can install agents on any computer. All computers must run a supported operating system.

About network architecture and policy distribution

When you install Symantec Critical System Protection for the first time for testing purposes, you do not need to consider network architecture and policy distribution. You can install a management server and management console,

along with a few agents, and become familiar with Symantec Critical System Protection operations. When you are ready to roll out policies to your production environment, you can roll out different policies that are based on computing needs, and prevention and detection levels.

Areas where computing needs and prevention and detection levels might differ include the following:

- Local workstations
- Remote annex workstations
- Computers that run production databases
- Computers that are located in demilitarized zones (DMZ) such as Web servers, mail proxy servers, public DNS servers

Prevention policies pushed to local and remote workstations would most likely be less restrictive than prevention policies pushed to production databases and DMZ servers.

Detection policies pushed to local workstations, production databases, and DMZ servers would also differ. Detection policies pushed to production databases and DMZ servers are more likely to offer more signatures than policies pushed to workstations.

You can distribute different policies to different computers by creating agent groups with the management console and then associating the agents with one or more groups during agent installation. You first create the groups using the management console, set the different policies for the groups, and then associate the agents with the groups during installation. It is not necessary, however, to associate an agent with a group during installation. You can perform this operation after installation.

See the *Symantec Critical System Protection Administration Guide* for details on how to create agent groups.

System requirements

System requirements fall into the following categories:

- Operating system requirements
- Hardware requirements

Operating system requirements

Table 2-1 lists Symantec Critical System Protection component operating system requirements:

Table 2-1 Operating system requirements

Component	Operating system	Service pack	Kernel version
Management console	Windows 2000 Professional/Server/ Advanced Server	SP4	
	Windows XP Professional	SP1 or later	
	Windows Server™ 2003 Standard/ Enterprise 32-bit		
	Windows Server 2003 Standard/ Enterprise 64-bit	SP1, R2	
Management server	Windows Server 2003 Standard/ Enterprise 32-bit	SP1, R2	
	Windows Server 2003 Standard/ Enterprise x64	SP1, R2	
Agent	Windows 2000 Professional/Server/ Advanced Server	SP4 or later	
	Windows XP Professional	SP1 or later	
	Windows Server 2003 Standard/ Enterprise x64	SP1, R2	
	Windows Server 2003 Standard/ Enterprise 32-bit	SP1, R2	
	Windows NT® Server		4, patch 6a
	Sun™ Solaris™ 8.0/9.0/10.0 See "Solaris packages" on page 18.		32-bit and 64-bit kernel
	Red Hat® Enterprise Linux ES 3.0 See "Linux kernel driver support" on page 19.		2.4.21-20 (update 3, released 2004-09) 2.4.21-27 (update 4, released 2004-12) 2.4.21-32 (update 5, released 2005-05) 2.4.21-37 (update 6, released 2005-09)

Table 2-1 Operating system requirements

Component	Operating system	Service pack	Kernel version
	Red Hat Enterprise Linux ES 4.0		2.6.9-5.EL 2.6.9-11.EL (update 1, released 2005-06) 2.6.9-22.EL (update 2, released 2005-10) 2.6.9-34.EL (update 3, released 2006-03)
	SUSE® Enterprise Linux 8 See "Linux kernel driver support" on page 19.		2.4.21-304 (SP4, released 2005-03) 2.4.21-306 (kernel update, released 2006-02)
	SUSE Enterprise Linux 9		2.6.5-7.97 2.6.5-7.139 (SP1, released 2005-01) 2.6.5-7.191 (SP2, released 2005-07) 2.6.5-7.244 (SP3, released 2006-04) 2.6.5-7.252 (kernel update)
	Hewlett-Packard® HP-UX® 11.11 (11i v1) 11.23 (11i v2) PA-RISC (IDS only)		64-bit kernel
	Hewlett-Packard HP-UX 11.23 (v2)/11.31 (v3) on Itanium 2® Processor (IDS only)		
	Hewlett-Packard Tru64 UNIX® 5.1B-3 (IDS only)		
	IBM® AIX® 5.1/5.2/5.3 PowerPC® (IDS only)		32-bit and 64-bit kernel

Solaris packages

The agent installation checks for the presence of Solaris system packages.

The following core system packages are required for computers running Solaris 8.0, Solaris 9.0, and Solaris 10.0 operating systems:

- SUNWcar Core Architecture, (Root)

- SUNWkvm Core Architecture, (Kvm)
- SUNWcsr Core Solaris, (Root)
- SUNWcsu Core Solaris, (Usr)
- SUNWcsd Core Solaris Devices
- SUNWcsl Core Solaris Libraries
- SUNWloc System Localization

The following extended system packages are required for computers running Solaris 8.0, Solaris 9.0, and Solaris 10.0 operating systems:

- SUNWxcu4, XCU4 Utilities
  Utilities conforming to XCU4 specifications (XPG4 utilities)
- SUNWesu Extended System Utilities
- SUNWuiu8 Iconv modules for UTF-8 Locale

Linux kernel driver support

Symantec Critical System Protection agent supports the Linux kernel for Red Hat Enterprise Linux ES 3.0 and ES 4.0 and SUSE Enterprise Linux 8 and Linux 9 SP4. The agent comes packaged with precompiled drivers that support the latest stock kernel versions.

The Linux stock kernel versions are as follows:

Red Hat Enterprise Linux ES 3.0	The kernel versions are as follows: ■ 2.4.21-4.EL ■ 2.4.21-9.EL ■ 2.4.21-15.EL ■ 2.4.21-20.EL ■ 2.4.21-27.EL ■ 2.4.21-32.EL ■ 2.4.21-37.EL
Red Hat Enterprise Linux ES 4.0	The kernel versions are as follows: ■ 2.6.9-5.EL ■ 2.6.9-11.EL ■ 2.6.9-22.EL ■ 2.6.9-34.EL
SUSE Enterprise Linux 8	The kernel versions are as follows: ■ 2.4.21-304 ■ 2.4.21-306

SUSE Enterprise Linux 9	The kernel versions are as follows: ■ 2.6.5-7.97 ■ 2.6.5-7.139 ■ 2.6.5-7.191 ■ 2.6.5-7.244 ■ 2.6.5-7.252

If a system is configured with a different kernel, the agent will attempt to load the latest version available for the system during boot.

Hardware requirements

Table 2-2 lists the recommended hardware for Symantec Critical System Protection components.

Table 2-2 Recommended hardware

Component	Hardware	Specific OS (if applicable)
Management console	150MB free disk space 256 MB RAM Pentium III 1.2 GHz	
Management server	1GB free disk space (all platforms and databases 1 GB RAM Pentium III 1.2 GHz	
	EM64T	Windows Server 2003 Standard/Enterprise x64
	AMD™64	Windows Server 2003 Standard/Enterprise x64
Agent	100MB free disk space (all platforms) 256 MB RAM Pentium III 1.2 GHz	
	Sun SPARC™ 450 MHz	Sun Solaris 8, 9, 10
	Sun SPARC32, SPARC64	Sun Solaris 10
	Hewlett-Packard PA-RISC 450 MHz	HP-UX on PA-RISC
	IBM PowerPC® (CHRP) 450 MHz	AIX

Table 2-2 Recommended hardware

Component	Hardware	Specific OS (if applicable)
	x86	Windows NT Server Windows Server 2003 32-bit Windows XP Professional Red Hat Enterprise Linux ES 3.0, 4.0 SUSE Linux Enterprise 8, 9 Sun Solaris 10 (IDS only in non-global zone)
	EM64T	Windows Server 2003 Standard/Enterprise x64 Red Hat Enterprise Linux ES 3.0, 4.0 SUSE Linux Enterprise 9 Sun Solaris 10 (IDS only in non-global zone)
	AMD™64	Windows Server 2003 Standard/Enterprise x64 Red Hat Enterprise Linux ES 3.0, 4.0 SUSE Linux Enterprise 8, 9 Sun Solaris 10 (IDS only in non-global zone)
	IA32	SUSE Linux Enterprise 8
	IA64	HP-UX on Itanium 2
	Alpha	Tru64 5.1B-3

Disabling Windows XP firewalls

Windows XP and Windows 2003 Server contain firewalls that are enabled by default. If these firewalls are enabled, you might not be able to establish network communications between the management console, management server, and agents.

Disabling Internet Connection Firewall

Windows XP with Service Pack 1 includes a firewall called Internet Connection Firewall that can interfere with network communications. If any of your computers run Windows XP, you can disable the Windows XP firewall before or after you install Symantec Critical System Protection components.

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 and Windows 2003 Server include a firewall called Windows Firewall that can interfere with network communications. If any of your computers run Windows XP with Service Pack 2 or Windows Server 2003, you can disable Windows Firewall before or after you install Symantec Critical System Protection components.

To disable Windows Firewall

1 On the Windows XP taskbar, click **Start > Control Panel.**

2 In Control Panel, 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, click **Settings**.

5 In the Windows Firewall window, on the General tab, uncheck **On (recommended)**.

6 Click **OK**.

About using firewalls with Symantec Critical System Protection

To use Symantec Critical System Protection with a firewall, you need to configure the firewall to support communications by opening ports, or by specifying trusted services.

Note: All ports are default settings that you can change during installation.

You should note the following about using firewalls with Symantec Critical System Protection:

- The management server uses UDP port 1434 to query the MS SQL Server system and find the port used by the Symantec Critical System Protection instance. Once the MS SQL Server system returns the port for the Symantec Critical System Protection instance, the management server then connects

to the instance using that port. Thus, your firewall must allow traffic from the management server to the MS SQL Server system on UDP port 1434 and on the TCP port used by the Symantec Critical System Protection instance. You can get more information about MS SQL Server's use of ports at http://support.microsoft.com/default.aspx?scid=kb;EN-US;823938.

- The bulk log transfer feature of the Symantec Critical System Protection agent is implemented by the bulklogger.exe. If you have a host-based firewall that allows specific programs to access the Internet, you must allow bulklogger.exe as well as SISPISService.exe to access the Internet. The bulklogger.exe program uses the same ports as SISIPSService.exe. If you do not use the bulk log transfer feature, bulklogger.exe will not run.

Table 2-3 lists the services that you can permit to send and receive traffic through your firewalls.

Table 2-3 Components, services, and traffic

Component	Service	Traffic
Management console	Console.exe	Communicates with the management server using remote TCP ports 4443, 8006, and 8081.
Management server	SISManager.exe	Communicates with the management console using local TCP ports 4443, 8006, and 8081. Communicates with the agents using local TCP port 443. Communicates with remote production SQL servers using the remote TCP port that the SQL server uses for the server instance.
Agent	SISIPSService.exe sisipsdaemon bulklogger.exe	Communicates with the management server using local TCP port 2222, and remote TCP port 443.

About name resolution

To verify proper name resolution for the management server, use a utility, such as nslookup, to look up the host name for the management server. If you cannot resolve the host name of the management server, you will need to modify the DNS database or the host file that the client uses to look up host names.

About IP routing

As bastion hosts, firewalls traditionally incorporate some form of network address translation (NAT) between the two networks that the firewall bridges. For example, the management server may be on an internal network while the Agents are in a DMZ network, with a firewall between the two networks. Typically, the internal network IP addresses are hidden from the DMZ network, and are not routable from the DMZ network.

To allow the agents in the DMZ network to communicate with the management server on the internal network, use a DMZ IP address to represent the management server. Then, configure the firewall or router to forward requests for this IP address and port to the real, internal IP address of the management server. Open the agent port only if the agents are in a DMZ. Finally, configure the name database on the DMZ network to return the DMZ IP address for the management server instead of the internal IP address.

About intrusion prevention

The Symantec Critical System Protection agent installation kit includes an enable intrusion prevention option. When the enable intrusion prevention option is selected, the prevention features of Symantec Critical System Protection are enabled for the agent. The IPS drivers are loaded on the agent computer, and the agent accepts prevention policies from the management console.

When the enable intrusion prevention option is not selected, the prevention features of Symantec Critical System Protection are completely disabled for the agent. The IPS drivers are not loaded on the agent computer, and the agent does not accept prevention policies from the management console.

Symantec strongly recommends that you enable the intrusion prevention option when installing agents. Changing this option after installation (to disable or re-enable it) requires logging on to the agent computer, running the Agent Config Tool, and rebooting the agent computer.

If you are only interested in the detection features of Symantec Critical System Protection, Symantec recommends that you select the enable intrusion prevention option during agent installation, and use the Null prevention policy to avoid any blocking. If you later decide to use the prevention features of Symantec Critical System Protection, then you simply apply one of the prevention policies that are included with the product. Applying a policy requires no logging onto the agent computer, no running the agent config tool, no rebooting the agent computer.

By default, the enable intrusion prevention option is selected during Symantec Critical System Protection agent installation.

Symantec Critical System Protection supports intrusion prevention on computers that run Windows, Solaris, and Linux operating systems.

About simple failover

Symantec Critical System Protection includes simple failover. Should the primary management server fail, simple failover lets agents automatically switch to the next management server in an ordered list of alternate servers.

Simple failover enables you to deploy a set of front-end Tomcat servers without reconfiguring your IT infrastructure. The ordered list of management server host names or IP addresses is maintained by the Symantec Critical System Protection agent configuration.

Another use for simple failover is static load balancing. With static load balancing, you manually assign a set of agents to each Tomcat server. Each agent can fail to a different Tomcat server if its primary server becomes inaccessible.

How simple failover works

Simple failover works as follows:

- When the IPS Service starts up, it uses the first server in the ordered list of management servers. The first server in the ordered list is considered the primary management server; the remaining servers are alternate servers. The IPS Service uses server #1 as long as communication with the server is successful.
- At startup, the IPS Service always uses the first server in the ordered list of management servers, regardless of which server was in use when the IPS Service was shut down.
- When the ordered list of management servers changes, the IPS Service immediately attempts to connect to the first server in the new list.
- When communication with a server fails, the IPS Service uses the next server in the ordered list of management servers. When communication with the last server fails, the IPS Service uses the first server in the list. The IPS Service loops through the ordered list of management servers indefinitely.
- When the IPS Service switches to a new management server, it logs the action.

- Once the IPS Service fails away from the first server in the ordered list, it periodically checks if server #1 is back, based on the fail back interval. See "About the fail back interval" on page 26.
- When the fail back interval expires, the IPS Service checks if server #1 is available. If server #1 is available, the IPS Service starts using it immediately. If server #1 is not available, the IPS Service continues to use the current alternate server; the IPS Service does not traverse the entire ordered list of management servers.

Simple failover with static load balancing works as described in the following example:

- Suppose you have two Tomcat servers pointing to a single database, and two agents.
- You initially configure Agent1 with a management server list of Tomcat1, Tomcat2. You initially configure Agent2 with a management server list of Tomcat2, Tomcat1.
- After installation completes, Agent1 should be talking to Tomcat1, and Agent2 should be talking to Tomcat2.
- Take Tomcat1 off the network.
- Agent1 should fail talking to Tomcat1 and switch to Tomcat2. Now both agents are talking to Tomcat2.
- Put Tomcat1 back on the network.
- Wait longer than the fail back interval.
- Agent1 should fail back to Tomcat1. Agent2 continues to use Tomcat2. Everything is back to the initial state; both agents should be communicating successfully with their original Tomcat servers.

About the fail back interval

Once an agent fails away from the first server in an ordered list, the agent periodically checks if the first server is back. The agent uses a fail back interval to determine when to perform this server check. By default, the agent performs the server check every 60 minutes.

For example, suppose you configured three management servers. The primary server #1 and alternate server #2 have failed; alternate server #3 is working. When the fail back interval expires, the agent checks if server #1 is available. If server #1 is available, the agent immediately starts using server #1. If server #1 is not available, the agent continues to use server #3; it does not recheck the ordered list of servers. The agent resets the fail back interval, so it can perform future server checks.

Specifying the management server list for an agent

To use simple failover for an agent, you must provide the list of primary and alternate management servers using one of the following methods:

- If you are installing Symantec Critical System Protection for the first time, you provide the list of primary and alternate management servers during agent installation.
- If you are upgrading to Symantec Critical System Protection 5.1.1 or higher, you provide the list of primary and alternate management servers using the agent config tool.
  To use simple failover, you must upgrade the management server, management console, and agent to version 5.1.1 or higher.
  See "Migrating legacy installations of Symantec Critical System Protection" on page 101.

The primary and alternate management server host names or IP addresses configured for a single agent must be Tomcat servers that talk to a single Symantec Critical System Protection database. Using multiple databases can result in unexpected agent behavior.

The primary and alternate management servers must use the same server certificate and agent port.

About the Windows NT agent installation

You can install the Symantec Critical System Protection agent on computers that run Windows NT Server.

The Windows NT agent differs from the other the Windows agents in the following ways:

- The Windows NT agent has a separate installation kit (agent-windows-nt.exe).
- All Windows NT agents must use the Windows NT prevention policy. The Windows NT prevention policy has significantly fewer PSETs and options than the other Windows prevention policies. The Windows NT prevention policy only works with Windows NT agents.
- The Windows NT policy is not part of the Symantec Critical System Protection installation. You must install the Windows NT policy separately.
  See "Installing the Windows NT policy" on page 64.
- Windows NT Server does not provide a safe mode startup to allow booting a Windows NT agent without the Symantec Critical System Protection

drivers. To temporarily disable agents that run on Windows NT Server, you create an alternate hardware profile with the drivers disabled.
See "Temporarily disabling Windows NT agents" on page 69.

- Symantec Critical System Protection services (IPS Service, IDS Service, Util Service) do not automatically restart after aborting.

About log files

Symantec Critical System Protection uses log files to record events and messages related to agent and management server activity.

Multiple versions of a log file may exist, as old versions are closed and new versions are opened. The versions are denoted by a number (for example, SISIDSEvents23.csv, sis-console.3.log).

See the *Symantec Critical System Protection Administration Guide* for more information on log files.

Table 2-4 lists the Symantec Critical System Protection agent log files.

Table 2-4 Agent log files

File name	Description	Default location
SISIPSService.log	This log file contains events that are related to the following: ■ Agent service operation ■ Applying policies and configuration settings ■ Communication with the management server	Windows: Program Files\Symantec\Critical System Protection\Agent\scsplog\ UNIX: /var/log/scsplog/
SISIDSEvents*.csv	This log file contains all events recorded by the Symantec Critical System Protection agent. The asterisk in the file name represents a version number.	Windows: Program Files\Symantec\Critical System Protection\Agent\scsplog\ UNIX: /var/log/scsplog/

Table 2-5 lists the management server log files.

Table 2-5 Management server log files

File name	Description	Default location
sis-agent.*.log	This log file is used for agent activity. The asterisk in the file name represents a version number.	Windows: Program Files\Symantec\Critical System Protection\Server\Tomcat\logs
sis-alert.*.log	This log file is used for alert activity. The asterisk in the file name represents a version number.	Windows: Program Files\Symantec\Critical System Protection\Server\Tomcat\logs
sis-console.*.log	This log file is used for console activity. The asterisk in the file name represents a version number.	Windows: Program Files\Symantec\Critical System Protection\Server\Tomcat\logs
sis-server.*.log	This log file is used for general server messages. The asterisk in the file name represents a version number.	Windows: Program Files\Symantec\Critical System Protection\Server\Tomcat\logs

What to do after installation

You can begin enforcing the Symantec Critical System Protection policies on agents immediately after agent installation and registration with the management server.

Symantec recommends that you first apply a policy to a few agents, and then verify that the agent computers are functioning properly with the applied policy.

See the *Symantec Critical System Protection Administration Guide* for information about applying policies to agents.

Chapter 3

Installing Symantec Critical System Protection on Windows

This chapter includes the following topics:

About installing Symantec Critical System Protection on Windows

If this is a first-time installation, you should install, configure, and test Symantec Critical System Protection components in a test environment.

You should install the Symantec Critical System Protection in the order listed:

- Management server
- Management console
- Agent

You can install the management console and management server on the same computer or on separate computers. You can install agents on any computer. All computers must run a supported operating system.

The management server and management console are supported on Windows operating system.

Note: The installation directory names for the management console and management server must contain printable ASCII characters only. Multi-byte, double-byte, hi-ASCII and non-printable ASCII characters are not supported.

About port number mapping

When you install the Symantec Critical System Protection components, you must specify port numbers through which the components communicate. In a few instances, these port numbers must match.

Table 3-1 shows the Symantec Critical System Protection component port numbers that must match.

Table 3-1 Port number mapping

Management server	Management console	Agent
Agent Port		Agent Port
Console Port	Port	
Web server Administration Port	Admin Port	

Bypassing prerequisite checks

The Windows installation kit lets you bypass some of the prerequisite checks for agent and management server installation. You can use this feature if you know the installation kit is incorrectly failing a prerequisite.

When you use the bypass prerequisite checks feature, the installation kit displays all errors and warnings about prerequisite check failures. However, instead of terminating the installation, you may choose to continue.

When you run the installation kit in interactive mode, you are asked if you want to continue. When you run the installation kit in silent mode, the prerequisite failure is logged and the installation continues.

To enable the bypass prerequisite checks feature, do the following:

- (Agent only) For silent installs, set the ENABLE_BYPASS_CHECKS variable to a nonzero value.
- For interactive installs, the presence of the file scsp-check-bypass.txt, either in the installer directory or %temp% folder will confirm the bypass enabling.

The Windows installation kit does not remove the scsp-check-bypass.txt file upon successful installation.

You can bypass the following checks when installing the Symantec Critical System Protection agent:

- Agent install disk space checks that are performed apart from MSI engine
- Service user account (allow domain users or local users even though the installer can not confirm the required rights and privileges)
- Existence of AppFire 4.5

You can bypass the following checks when installing the Symantec Critical System Protection management server:

- Existence of AppFire 4.5
- Disk space checks
- User privilege and rights check for service user account
- MDAC version

About installing a database to a SQL Server instance

The Symantec Critical System Protection installation lets you locally install an MSDE evaluation database, and also lets you locally or remotely install an evaluation or production database to an instance of SQL Server. All installations allocate 100 MB for the database. MSDE and SQL Server automatically allocate more space when it is needed.

If you elect to install a database to an instance of SQL Server, Symantec recommends that you first install a new instance of SQL Server that conforms to the installation requirements. You can install a database to an older, existing instance, but the instance must be configured properly or your database installation will fail. For example, if the authentication configuration is not set to Mixed Mode, your installation will fail.

About SQL Server installation requirements

You can install the SQL Server on the same machine that you plan to install Symantec Critical System Protection management server, or on a different machine.

The management server supports the following versions of Microsoft SQL Server:

- Microsoft SQL Server 2000 Standard and Enterprise Editions with SP4
- Microsoft SQL Server 2005 SP1 (32-bit)

The following information applies to the SQL Server software.

When you install the instance of SQL Server, do the following:

- Do not accept the default instance name. Use SCSP (the default when you install Symantec Critical System Protection management server), or some other name. Type the same name when installing Symantec Critical System Protection management server.
  A database named scspdb, the default, will be created in this instance when you install Symantec Critical System Protection management server.
- Set authentication configuration to Mixed Mode (Windows authentication and SQL Server authentication).
- Set the sa password when you set Mixed Mode authentication. You will type this password when you install Symantec Critical System Protection management server.

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

- (SQL Server 2000) Apply SQL Server Service Pack 4.
- Select to authenticate using SQL Server credentials.
- Register the instance.
  Registering the instance also starts the instance.

When you register the instance of SQL Server, you must do the following:

- Set the authentication mode to SQL Server authentication.
- Configure the connection option to log on automatically through SQL authentication with the sa account, and type the sa password.
- If registration fails due to authentication failure, display the properties available from the server messages dialog box, and type the sa password again.

After you register the instance, you must do the following:

- Use the networking utility to verify that NamedPipes and TCP/IP are enabled protocols. If they are not enabled, enable them.

You are then ready to install Symantec Critical System Protection management server.

About installing on computers that run Windows 2000

If you want to install Microsoft SQL Server and Symantec Critical System Protection management server on different computers, and if the computer on which you want to install Symantec Critical System Protection management server runs Windows 2000 Professional or Server, you must first upgrade the Microsoft Data Access Components (MDAC) version on that computer. If you do not upgrade the MDAC version, your installation will fail.

By default, Windows 2000 Professional and Server with Service Pack 4 install MDAC version 2.5 Service Pack 3. You must upgrade MDAC on that computer to version 2.7 SP1 or higher to be compatible with the MDAC version installed by Microsoft SQL Server.

If the MDAC version is less than the required minimum, the installation will direct you to the MDAC installer on the installation CD, and then abort the installation. You must install the minimum version of MDAC, and then restart the management server installation.

You can also download the latest MDAC version from the Microsoft Web site. The Web site also makes an MDAC Component Checker available for download that tells you what version of MDAC is on your computers.

Configuring the temp environment variable

The installation packages unpack installation files into the directory that is specified by the TEMP environment variable. The volume that contains this directory must have at least 200 MB of available disk space. If this volume does not have the required disk space, you must change your TEMP environment variable or your installation will fail.

Note: After successful management server and management console installation, SISManagerSetup.log and SISConsoleSetup.log appear in the \Server and \Console directories respectively. If installation is not successful or cancelled, the log files appear in the directory specified by the TEMP environment variable.

To configure the temp environment variable

1. At a command prompt, type **set**, and then press **Enter**.
2. Write down the value that appears for TEMP.
3. Check the disk space for the volume that is specified for TEMP.
4. If the volume does not contain enough disk space, in a command prompt, type the following command to change the volume and directory:

   ```
   set temp=<volume>.\<directory path>
   ```

5. Press **Enter**.

Installing the management server

The management server coordinates events from agents, and provides database access to the Symantec Critical System Protection authoring environment and management console. The management server secures communication with other components by using SSL to encrypt the communication channel.

You must log on to an Administrator account to install the management server.

About installation types and settings

When installing the management server, you can install the following installation types:

- Evaluation installation that runs MSDE on the local system
  You can install an evaluation installation on MSDE. The CD installs the server and database automatically.

- Evaluation installation using existing MS SQL instance
  You can install an evaluation installation on SQL Server. The SQL Server instance must exist and be running before you perform the installation. The SQL Server can be local or remote.
- Production installation with Tomcat and database schema
  You can install a production installation that installs Tomcat and creates the database schema. This option installs on SQL Server. The SQL Server instance must exist and be running before you perform the installation. The SQL Server can be local or remote.
- Tomcat component only
  You can install a production installation that only installs the Tomcat component, and points to a remote database. This option requires that you provide the file paths to a server.xml file and a server-cert.ssl file from an installed management server.

Warning: The management server installation makes network connections to populate both the evaluation and production databases. For local installations, these connections are internal. Quite often, host-based firewalls either block these connections or display messages that prompt you to decide whether to allow the connections. In both situations, the connections time out and the database is not set up correctly.

Before starting the management server installation, do one of the following:

- Permit all programs to initiate connections on port 1433 or your site-specific SQL Server port. Several programs connect to the database during the installation process.
- Disable all host-based firewalls on the management server computer and on the database server if it is on a remote computer. You can enable the firewalls after installation completes.

Installing the management server into a database instance previously used for Symantec Critical System Protection

If you are installing the Symantec Critical System Protection management server into an existing SQL Server (or MSDE) instance that contained a previous Symantec Critical System Protection server database, you must clean the previous Symantec Critical System Protection database and user accounts from the instance.

Using the SQL Server Enterprise Manager, do the following:

- Drop the Symantec Critical System Protection database.
- Select the Security folder of the instance, click Logins, select the Symantec Critical System Protection user accounts, and then right-click Delete.
  You must delete the following accounts:
  - scsp_ops
  - scsp_guest
  - scsp_plugin
  - scspdba

Once you have cleaned up the database from the previous installation, you can install the new management server. If you fail to clean up these items, you will get a Database Population Failed error during the new installation.

Management server installation settings and options

Installation prompts you to enter a series of values consisting of port numbers, user names, passwords, and so forth. Each database that you can install uses different default settings and options for the management server and database. Also, some settings for evaluation installation are hard-coded, while the same settings for production are variables that you can change. For example, the database name scspdb is hard-coded for evaluation installation, but is a variable that you can change for production installation.

Table 3-2 describes the management server installation settings and options.

Table 3-2 Management server installation settings

Setting	Default/options	Description
Installation type	Evaluation Installation, Install MSDE on the local system You have the following options: Evaluation installation ■ Install MSDE on the local system ■ Use an existing MS SQL instance Production installation ■ Install Tomcat and create the database schema ■ Install Tomcat Component ONLY	Select the type of installation. If you install a database on SQL Server, the instance must be running. The Install Tomcat Component Only option requires that you provide the file path to the following files from an installed management server: ■ server.xml ■ server-cert.ssl

Table 3-2 Management server installation settings

Setting	Default/options	Description
Destination Folder	C:\Program Files\Symantec \Critical System Protection\Server	The directory location for the management server.
Agent port	443	The port that is used to communicate with the agent. If you are installing on a computer that runs a Web server, you must either stop the Web server from running permanently, or enter a different port number. This number maps to the Agent Port number that is used when installing the agent. See Table 3-4, "Windows agent installation settings," on page 51. See Table 3-1, "Port number mapping," on page 32.
Console port	4443	The port that is used to communicate with the management console. This number maps to the Port number that is used when configuring the management console. See Table 3-3, "Management console configuration settings," on page 49. See Table 3-1, "Port number mapping," on page 32.
Web server shutdown port	8006	The port that is used to shut down the management server.
Web server administration port	8081	The port that is used to administer the management server. This number maps to the Admin Port number that is used when configuring the management console. See Table 3-3, "Management console configuration settings," on page 49. See Table 3-1, "Port number mapping," on page 32.
MSDE Install Path	C:\Program Files\ Symantec\Critical System Protection\Server You have the following options: ■ MSDE Eval: variable ■ SQL Eval: NA ■ SQL Prod: NA	The directory in which to install the MSDE server.

Table 3-2 Management server installation settings

Setting	Default/options	Description
MSDE Data Path	C:\Program Files\ Symantec\Critical System Protection\Server You have the following options: ■ MSDE Eval: variable ■ SQL Eval: NA ■ SQL Prod: NA	The directory in which to install the MSDE database.
Service user name	LocalSystem You have the following options: ■ MSDE Eval: hard-coded ■ SQL Eval: hard-coded ■ SQL Prod: variable	The account that will be used to start the management server services. For a SQL Production installation, you can specify a different account that exists on the computer. This account must have administrator privileges. Enter the account using <domain>\<username> format.
Host name	Current host IP address You have the following options: ■ MSDE Eval: hard-coded ■ SQL Eval: variable ■ SQL Prod: variable	The IP address or fully qualified host name of the computer on which you install the MSDE or SQL database.
Database Instance	SCSP You have the following options: ■ MSDE Eval: hard-coded ■ SQL Eval: variable ■ SQL Prod: variable	The name of the SQL Server instance. The instance must be running.
sa Username	sa You have the following options: ■ MSDE Eval: hard-coded ■ SQL Eval: variable ■ SQL Prod: variable	The user name for the SQL Server built-in sa account. You can accept the default and proceed with the normal installation, or you can specify the password for a privileged user account.

Table 3-2 Management server installation settings

Setting	Default/options	Description
sa password	none You have the following options: ■ MSDE Eval: variable ■ SQL Eval: Must match existing password ■ SQL Prod: Must match existing password	The password that is associated with the database sa account. The password must be 8 to 19 characters long, not begin with _ and contain at least two two-letter characters. The password must contain only letters, numbers, #, @, and _. The password cannot contain =. If you install a SQL database, you must type the same sa password that is used on the SQL Server.
Database name	SCSPDB You have the following options: ■ MSDE Eval: hard-coded ■ SQL Eval: hard-coded ■ SQL Prod: variable	The name of the SQL Server instance. If you install to a production database, the instance name must exist.
Enable Unicode Storage	enabled	This option is used by production installation, install Tomcat and create the database schema. The option is for use with international operating systems.
SCSP Database Owner user name	scspdba You have the following options: ■ MSDE Eval: hard-coded ■ SQL Eval: hard-coded ■ SQL Prod: variable	The name of the account that is used to administer the database. The installation creates this account and password.
SCSP Database Owner user password	none You have the following options: ■ MSDE Eval: hard-coded to the sa password that you type ■ SQL Eval: hard-coded to the sa password that you type ■ SQL Prod: variable	The password that is associated with the database owner user account, which is used for installations and upgrades. The password must be 8 to 19 characters long, not begin with _ and contain at least two two-letter characters. The password must contain only letters, numbers, #, @, and _. The password cannot contain =.
SCSP Database Guest user name	scspdba You have the following options: ■ MSDE Eval: NA ■ SQL Eval: NA ■ SQL Prod: variable	The name of the account that is used to access the database with read-only guest privileges.

Table 3-2 Management server installation settings

Setting	Default/options	Description
SCSP Database Guest user password	none You have the following options: ■ MSDE Eval: NA ■ SQL Eval: NA ■ SQL Prod: variable	The password that is associated with the database guest user account. The password must be 8 to 19 characters long, not begin with _ and contain at least two two-letter characters. Also, the password must contain only letters, numbers, #, @, and _. The password cannot contain =.

Installing evaluation installation that runs MSDE on the local system

This evaluation installation option installs a management server that runs a local MSDE evaluation database.

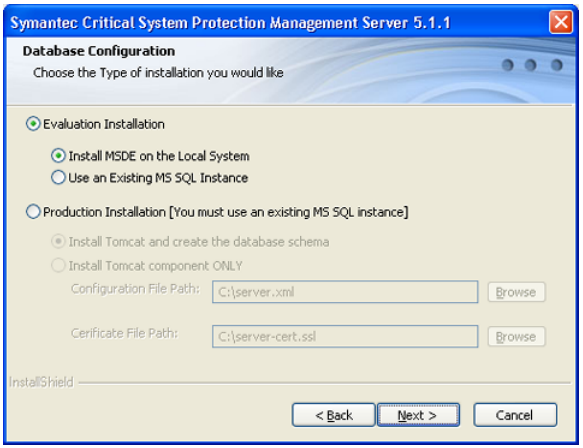
Before performing the installation, you should note the following:

- The management server installation installs the server and database automatically.
- During the management server installation, you must create and enter a password that will be associated with the database sa account.

To install evaluation installation that runs MSDE on the local system

1. Insert and display the installation CD, and then double-click **server.exe**.
2. In the Welcome panel, click **Next**.
3. In the License Agreement panel, select **I accept the terms in the license agreement**, and then click **Next**.

4 In the Installation Type panel, click **Evaluation Installation**, click **Install MSDE on the Local System**, and then click **Next**.

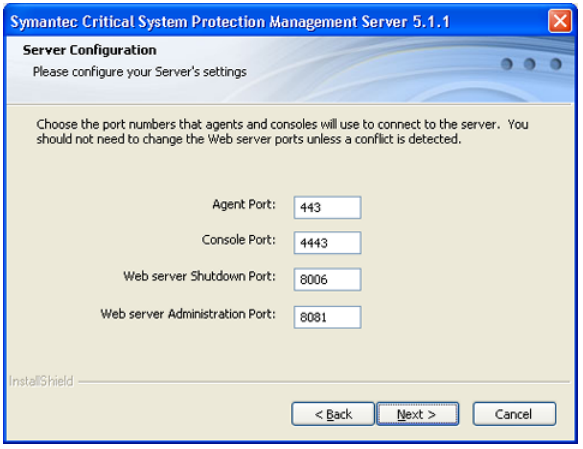


5 In the Destination Folder panel, change the folder if necessary, and then click **Next**.

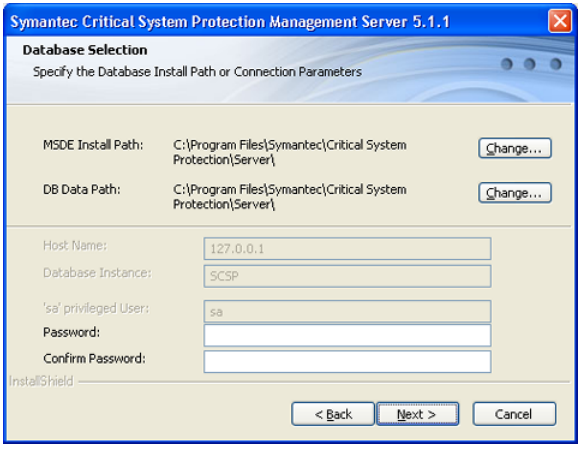
The directory name must contain printable ASCII characters only. Multi-byte, double-byte, hi-ASCII and non-printable ASCII characters are not supported.

6 In the Server Configuration panel, accept or type new port values, and then click **Next**.

If you enter port numbers that are in use, error messages appear until you enter port numbers that are not in use.



7 In the Database Selection panel, change the default server and database directory locations if necessary.
The directory name must contain printable ASCII characters only. Multi-byte, double-byte, hi-ASCII and non-printable ASCII characters are not supported.



8 In the Database Selection panel, in the Password and Confirm Password boxes, type the password that will be associated with the database sa account, type the password again to confirm, and then click **Next**.

9 In the Ready to Install the Program panel, click **Install**.

10 When the InstallShield Wizard Completed panel appears, click **Finish**.

Installing evaluation installation using existing MS SQL instance

This evaluation installation option installs the management server with a local or remote evaluation database on SQL Server.

Before performing the installation, you should note the following:

- Your SQL Server instance must exist and be running before you start the installation.
- The sa account must already exist and you must provide the accurate password for the sa account during the management server installation.

To install evaluation installation that uses existing MS SQL instance

1 Insert and display the installation CD, and then double-click **server.exe**.

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

3 In the License Agreement panel, select **I accept the terms in the license agreement**, and then click **Next**.

4 In the Installation Type panel, click **Evaluation Installation**, then click **Use an Existing MS SQL Instance**, and then click **Next**.

5 In the Destination Folder panel, change the folder if necessary, and then click **Next**.
The directory name must contain printable ASCII characters only. Multi-byte, double-byte, hi-ASCII and non-printable ASCII characters are not supported.

6 In the Server Configuration panel, accept or type new port values, and then click **Next**.
If you enter port numbers that are in use, error messages appear until you enter port numbers that are not in use.

7 In the Database Selection panel, specify the database parameters, and then click **Next**.

Host Name	Type the IP address or fully qualified domain name of the SQL Server.
Database Instance	Type the name of the existing SQL Server instance on which you want to install the database.
sa Privileged User	Accept or change the sa user name.
Password Confirm Password	Type the same password that is used on the SQL Server, type the password again to confirm.

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

9 When the InstallShield Wizard Completed panel appears, click **Finish**.

Installing production installation with Tomcat and database schema

This production installation option installs Tomcat and creates the database schema. The option installs the management server with a local or remote production database on SQL Server.

Before performing the installation, you should note the following:

- Your SQL Server instance must exist and be running before you start the installation.
- The sa account must already exist and you must provide the accurate password for the sa account during the management server installation.

- All other accounts (owner, guest, and internal accounts) must not exist in the instance. The management server installation creates these accounts and aborts if it cannot create them.
- The database name that you enter into the management server installation must not exist in the instance. The management server installation creates these accounts and aborts if it cannot create them.

To install production installation with Tomcat and database schema

1. Insert and display the installation CD, and then double-click **server.exe**.
2. In the Welcome panel, click **Next**.
3. In the License Agreement panel, select **I accept the terms in the license agreement**, and then click **Next**.
4. In the Installation Type panel, click **Production Installation**, click **Install Tomcat and create the database schema**, and then click **Next**.
5. In the Destination Folder panel, change the folder if necessary, and then click **Next**.
   The directory name must contain printable ASCII characters only. Multi-byte, double-byte, hi-ASCII and non-printable ASCII characters are not supported.
6. In the Server Configuration panel, accept or type new port values, and then click **Next**.
   If you enter port numbers that are in use, error messages appear until you enter port numbers that are not in use.
7. In the Service User Configuration panel, do one of the following:
   Click **Use Local System Account**, and then click **Next**.
   Click **Use an alternate Account**, type a user name in the Username box using <domain>\<username> format, type the same password in the Password and Confirm Password boxes, and then click **Next**.
8. In the Database Selection panel, specify the database parameters, and then click **Next**.

Host Name	Type the IP address or fully qualified domain name of the SQL Server.
Database Instance	Type the name of the existing SQL Server instance on which you want to install the database.
sa Privileged User	Accept or change the sa user name.
Password Confirm Password	Type the same password that is used on the SQL Server, type the password again to confirm.

9 In the Database Configuration panel, specify the database parameters, and then click Next.

Database Name	Type the name of the database to install.
Enable Unicode Storage	The option is for use with international operating systems.
SCSP Database Owner	Under SCSP Database Owner, do the following: ■ In the User name box, type the name of the SCSP Database Owner. ■ In the Password and Confirm Password boxes, type the password that is associated with the SCSP Database Owner, and then type the password again to confirm.
SCSP Database Guest User	To create an SCSP database guest user, do the following under SCSP Database Guest User: ■ Select **Create a Guest User**. ■ In the User name box, type the guest User name. ■ In the Password and Confirm Password boxes, type the password that is associated with the SCSP Database Guest User, and then type the password again to confirm.

10 In the Ready to Install the Program panel, click **Install**.

11 When the InstallShield Wizard Completed panel appears, click **Finish**.

Installing Tomcat component only

This production installation option installs only the Tomcat component. You can use this option to point multiple Tomcat servers to a single management server database on a dedicated system. The Tomcat only option is useful if you want to create a set of identical Tomcat servers for load balancing or failover.

The Tomcat only option requires that you provide the file path to the following files from an installed management server:

- server.xml file
- server-cert.ssl

These files are located in the default management server installation directory:

C:\Program Files\Symantec\Critical System Protection\Server

Note: If the management server database is on a Tomcat system instead of a dedicated system, you must specify the real IP (not localhost) for the initial installation.

To install Tomcat component only

1. Insert and display the installation CD, and then double-click **server.exe**.
2. In the Welcome panel, click **Next**.
3. In the License Agreement panel, select **I accept the terms in the license agreement**, and then click **Next**.
4. In the Installation Type panel, click **Production Installation**, click **Install Tomcat component ONLY**.
5. In the Installation Type panel, specify the file paths to server.xml and server-cert.ssl from an installed management server, and then click **Next**.
6. In the Destination Folder panel, change the folder if necessary, and then click **Next**.
   The directory name must contain printable ASCII characters only. Multi-byte, double-byte, hi-ASCII and non-printable ASCII characters are not supported.
7. In the Service User Configuration panel, do one of the following:
   Click **Use Local System Account**, and then click **Next**.
   Click **Use an alternate Account**, type a user name in the Username box using <domain>\<username> format, type the same password in the Password boxes, and then click **Next**.
8. In the Ready to Install the Program panel, click **Install**.
9. When the InstallShield Wizard Completed panel appears, click **Finish**.

Installing and configuring the management console

After you install the management console, you must configure the management console before you can use it.

You must log on to an Administrator account to install the management console.

Installing the management console

Management console installation also installs the authoring environment. By default, the management console and the authoring environment are installed in the following directory:

C:/Program Files/Symantec/Critical System Protection/Console

Management console installation does not prompt you to enter port numbers or server names. You enter this information after installation.

To install the management console

1. On the installation CD, double-click **console.exe**.
2. In the initial installation panel, click **Next**.
3. In the License Agreement panel, select **I accept the terms in the license agreement**, and then click **Next**.
4. In the Destination Folder panel, change the folder if necessary, and then click **Next**.
   The installation directory name must contain printable ASCII characters only. Multi-byte, double-byte, hi-ASCII and non-printable ASCII characters are not supported.
5. In the Ready to Install the Program panel, click **Install**.
6. When the InstallShield Wizard Completed panel appears, click **Finish**.

Configuring the management console

Configuration prompts you to enter a series of values consisting of port numbers, passwords, and a server name. In a few instances, the port numbers must match the port numbers that were specified during management server installation.

Table 3-3 describes the management console configuration settings and options.

Table 3-3 Management console configuration settings

Setting	Default	Description
Server name	Localhost Server	The name of the management server that you want to manage from the management console. This value is used for user interface identification purposes only, and appears on the Login window. The name can be any value.
Host	local host	The IP address or fully qualified host name of the management server computer that you want to manage from the management console.
Port	4443	The Console Port number that was used during management server installation. See Table 3-2, “Management server installation settings,” on page 38. See Table 3-1, “Port number mapping,” on page 32.

Table 3-3 Management console configuration settings

Setting	Default	Description
Admin port	8081	The Web server Administration Port number that was used during management server installation. See Table 3-2, "Management server installation settings," on page 38. See Table 3-1, "Port number mapping," on page 32.
Use encrypted communications	Enabled	Select this check box to use Secure Sockets Layer (SSL) X.509 certificate-based channel encryption for Symantec Critical System Protection. SSL X.509 certificate-based channel encryption secures communication between the management console and the management server, and between the agent and the management server. If you feel that your system provides adequate firewall security and you do not want to use SSL X.509 certificate-based channel encryption for Symantec Critical System Protection, clear this check box. If you clear this check box, you must edit the server.xml file, found on the management server, in the <Server_Install_Root>\tomcat\conf directory. See the *Symantec Critical System Protection Administration Guide* for instructions on editing server.xml.
Password	none	The password that is associated with the symadmin user name, which you create the first time you start the management console.

To configure the management console

1. Click **Start > Programs > Symantec Critical System Protection > Management Console**.
2. In the Login window, click the green plus sign.
3. In the New Server Configuration panel, replace New Server with the name that you want to use to identify your server.
4. In the New Server Configuration panel, specify the server configuration parameters, and then click **OK**.
5. In the Login window, type **symadmin** in the User name box, select the new server that you added, and then click **Login**.
6. In the Verify Server Certificate panel, select **Always accept this certificate**, and then click **OK**.
7. In the Set Password panel, in the Password and Confirm Password boxes, type the password to associate with the symadmin user name, type the password again to confirm, and then click **OK**.

Installing a Windows agent

The Symantec Critical System Protection agent enforces policy on the endpoints. Each agent enforces rules that are expressed in policies, thereby controlling and monitoring application (process) and user behavior.

You must log on to an Administrator account to install a Windows agent.

About the SSL certificate file

The Windows agent installation requires access to a copy of the SSL certificate file that was created during management server installation. The certificate file is named Agent-cert.ssl, and is located in the management server installation directory. The default management server installation directory is as follows:

C:\Program Files\Symantec\Critical System Protection\Server

To place the certificate on a computer that does not run the management server, do the following:

- On the management server that will be used to manage the agent, locate the server installation directory and copy Agent-cert.ssl to removable media. Optionally, you can copy the file from mapped network drives or network shares.
- On the computer on which the agent will be installed, create a directory and then copy Agent-cert.ssl into the directory.

About the installation settings and options

Installation prompts you to enter a series of Windows agent values consisting of port numbers, management server name, and so forth.

Note: The agent does not support IP aliases. If your network card is bound to more than one IP address, the agent uses the first IP address on the network card.

Table 3-4 describes the Windows agent installation settings and options.

Table 3-4 Windows agent installation settings

Setting	Default	Description
Installation Directory	C:\Program Files\Symantec \Critical System Protection \Agent	The installation directory for the agent.

Table 3-4 Windows agent installation settings

Setting	Default	Description
Logs File Directory	C:\Program Files\Symantec \Critical System Protection \Agent	The installation directory prefix for the <prefix dir>/scsplogs subdirectory. The installation creates an scsplog folder under the folder that you specify.
Agent Name	Host name of agent computer	The agent name. After installation, you can change the agent name using the management console.
Polling Interval	300 seconds	The interval that the agent uses to poll the management server for policy and configuration updates.
Enable Intrusion Prevention	Enabled	Indicates whether to enable intrusion prevention. When enabled, the prevention features of Symantec Critical System Protection are enabled for the agent. The IPS drivers are loaded on the agent computer, and the agent accepts prevention policies from the management console. If you disable intrusion prevention and want to enable it in the future, you must run the sisipsconfig.exe tool in the \Agent\IPS\bin directory with the -i option, and restart the computer. The -i option toggles the intrusion prevention service on and off. Symantec strongly recommends that you enable intrusion prevention.
Enable Real-time Notification	Enabled	Indicates whether to enable real-time notification. In addition to using the polling interval, agents can use real-time notification to obtain configuration changes. With real-time notification, the management server sends a real-time notification message to an agent as configuration changes occur. Upon receiving the notification, the agent queries the management server for the changes. When real-time notification is disabled, the management server does not send any messages to the agent and relies on the polling interval to update the agent.
Notification port	2222	The port that is used to receive real-time notifications from the management server. You can change this port after installation by using the management console to change the agent properties.

Table 3-4 Windows agent installation settings

Setting	Default	Description
Primary Management Server	localhost	The IP address or fully qualified host name of the management server that will manage the agent.
Agent Port	443	The Agent Port number that was used during management server installation. See Table 3-2, "Management server installation settings," on page 38. See Table 3-1, "Port number mapping," on page 32.
Alternate Management Servers	none	An ordered list of optional alternate management servers used for failover. For each alternate management server, specify the IP address or fully qualified host name. Specify the servers in a comma-separated list. See "About simple failover" on page 25.
Management Server Certificate	none	The directory location of the SSL certificate file, Agent-cert.ssl. The installation requires access to a copy of the SSL certificate file that was created during management server installation. The file is located in the management server installation directory. All primary and alternate management servers must use the same certificate file. See "About the SSL certificate file" on page 51.
Common Configuration Group	none	The name of an existing common configuration group for this agent to join. An agent is placed in the default common configuration group (named Common Configuration), unless you specify another configuration group that already exists in the management console. After installation, you can change the group assignment using the management console.
Prevention Configuration Group	none	The name of an existing prevention configuration group for this agent to join. An agent is placed in the default prevention configuration group (named Configuration), unless you specify another configuration group that already exists in the management console. After installation, you can change the group assignment using the management console.

Table 3-4 Windows agent installation settings

Setting	Default	Description
Prevention Policy Group	none	The name of an existing prevention policy group for this agent to join. An agent is placed in the default prevention policy group (named Policy), unless you specify another policy group that already exists in the management console. After installation, you can change the group assignment using the management console.
Detection Configuration Group	none	The name of an existing detection configuration group for this agent to join. An agent is placed in the default detection configuration group (named Configuration), unless you specify another configuration group that already exists in the management console. After installation, you can change the group assignment using the management console.
Detection Policy Group	Windows	The name of an existing detection policy group for this agent to join. You can specify multiple groups by using commas between the group names. You may optionally include the name of an existing detection policy domain in the group path/name. You may include the domain name with or without the group name. An agent is placed in the default Policy/Windows detection policy group, unless you specify another policy group that already exists in the management console. After installation, you can change the group assignment using the management console.

Table 3-4 Windows agent installation settings

Setting	Default	Description
Use LocalSystem account Use an alternate account	Use LocalSystem account	The service user name account that registers services for the agent. Do one of the following: ■ Select **Use LocalSystem account** to accept the default LocalSystem account. ■ Select **Use an alternate account** to select a different account. In the Username box, type the user name for the alternate account. In the Password boxes, type the password twice. The alternate account must have Administrator privileges. If the account does not exist, it will be created. If a domain account is specified, type the user name in the format <domain>/<username>. Consult your system administrator before selecting an alternate account.

Installing the Windows agent software

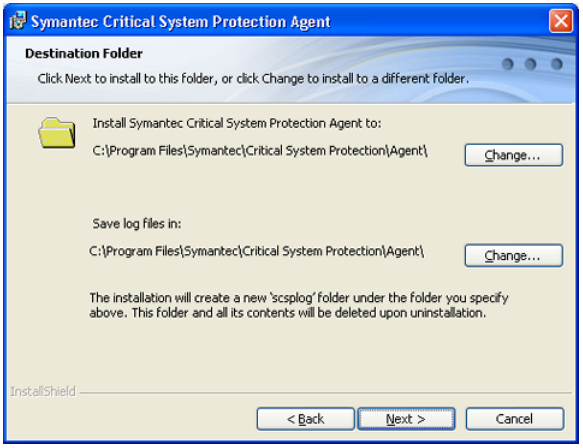
The installation CD contains the following executables for installing the agent software:

agent.exe	Use agent.exe to install the agent software on computers that run supported Windows operating systems, except Windows NT Server.
agent-windows-nt.exe	Use agent-windows-nt.exe to install the agent software on computers that run Windows NT Server operating system.

To install the Windows agent software

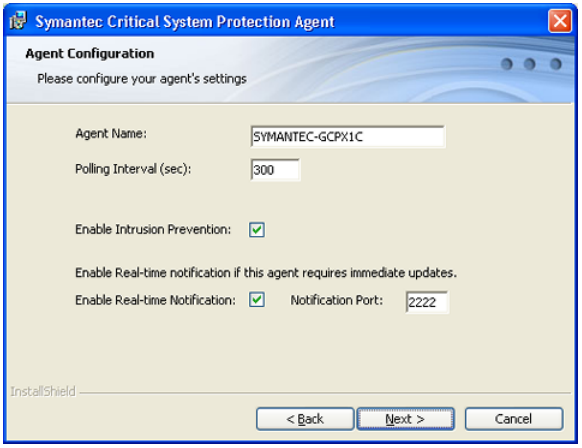
1. On the installation CD, double-click **agent.exe** or **agent-windows-nt.exe**.
2. In the Welcome panel, click **Next**.
3. In the License Agreement panel, select **I accept the terms in the license agreement**, and then click **Next**.

4 In the Destination Folder panel, change the folders if necessary, and then click **Next**.



5 In the Agent Configuration panel, accept or change the default settings, and then click **Next**.

Symantec strongly recommends that you do not clear the Enable Intrusion Prevention check box.



6 In the Management Server Configuration panel, in the Primary Management Server box, type the fully qualified host name or IP address of the primary server that is used to manage this agent.

If you changed the Agent Port setting during management server installation, in the Agent Port box, type a port number that matches.

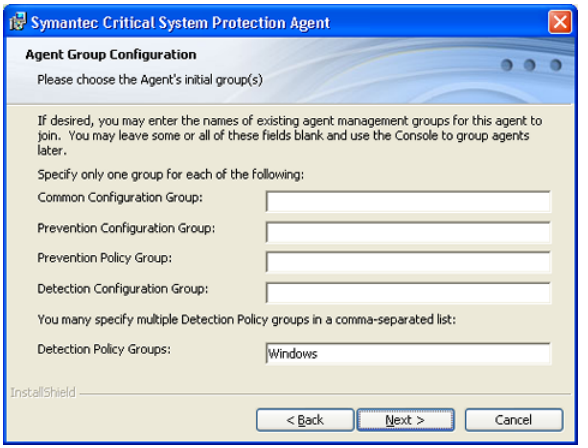
7 (Optional) In the Management Server Configuration panel, in the Alternate Management Servers box, type the fully qualified host name or IP address of the alternate servers that are used for failover for this agent.
Type the servers in a comma-separated list.

8 In the Management Server Configuration panel, accept the directory for the SSL certificate Agent-cert.ssl, or click **Browse** to browse to and locate Agent-cert.ssl.
Access to a copy of the SSL certificate Agent-cert.ssl is required to connect to the management server. All primary and alternate management servers must use the same certificate.

9 In the Management Server Configuration panel, click **Next**.

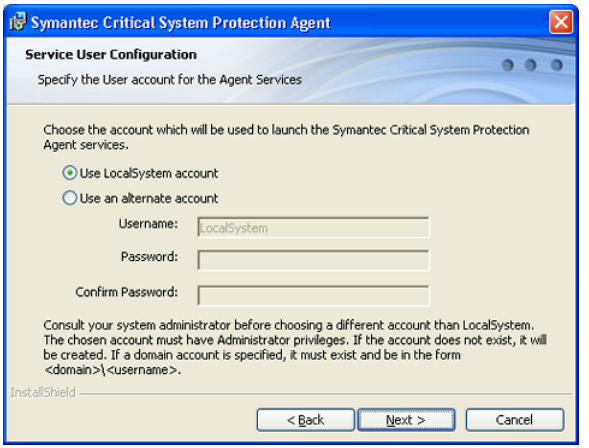
10 (Optional) In the Agent Group Configuration panel, in the group boxes, type the group names that you created with the management console.

You may add multiple detection policy group names separated with commas. You may include the name of an existing detection policy domain in the group path/name.



11 In the Agent Group Configuration panel, click **Next**.

12 In the Service User Configuration panel, accept the default LocalSystem account or specify an alternate account, and then click **Next**.



13 In the Ready to Install the Program panel, confirm the installation parameters, and then click **Install**.

14 When the installation completes, click **Finish**.
A message displays if the intrusion prevention driver requires a restart.

Unattended agent installation

You must log on to an Administrator account to install a Windows agent.

You can perform an unattended installation of Windows agents using the agent.exe or agent-windows-nt.exe executable and InstallShield and Windows Installer commands. The following command structure shows the sequencing:

agent.exe <InstallShield commands> "<Windows Installer commands> <installation properties>"

or

agent-windows-nt.exe <InstallShield commands> "<Windows Installer commands> <installation properties>"

The following examples show a command string:

```
agent.exe /s /v"MANAGEMENT_SERVER=192.168.1.103
SSL_CERT_FILE=c:\Agent-cert.ssl
-l*v+! %temp%\SISAgentSetup.log /qn"
```

or

```
agent-windows-nt.exe /s /v"MANAGEMENT_SERVER=192.168.1.103
SSL_CERT_FILE=c:\Agent-cert.ssl
-l*v+! %temp%\SISAgentSetup.log /qn"
```

You create command strings by using the following:

- InstallShield commands
- Microsoft Windows Installer commands
- Installation properties

Displaying InstallShield commands

For a list of InstallShield commands, you can display Help for the agent installation command. The important commands are /s, which suppresses the initialization dialog, and /v, which specifies that the values that follow are Windows Installer commands.

Note: You must enclose the command string that follows /v in quotations.

To display InstallShield commands

1. Insert the installation CD into your computer.
2. Display a command prompt, and navigate to the agent installation directory.

3 Type and run one of the following commands:

```
agent.exe ?
```

or

```
agent-windows-nt.exe ?
```

Microsoft Windows Installer commands

See the Microsoft documentation for information about standard Microsoft Windows Installer commands and additional logging levels.

Table 3-5 describes the optional basic commands that are used for installations.

Table 3-5 Optional Installer commands

Command	Default	Description
/qn	none	Install silently
-l*v+! <log filename>	none	Log all events except for the v argument (*), create a verbose log file (v), append to the existing log file (+), flush each line to the log (!), to a file named <log filename> that either exists or is created. If the path includes spaces, use quotation marks.
INSTALLDIR=<path>	C:\Program Files\Symantec\Critical System Protection\Agent	Designate a custom path on the target computer where <path> is the specified target directory. If the path includes spaces, use quotation marks. Escape the internal quotation marks, as in the following example: `agent-windows-nt.exe /s /v"INSTALLDIR=\"E:\Program Files\....Symantec\System Critical Protection\Agent\" -l*v+! c:\agent-install.log /qn"`
REBOOT=<val>	Based on operating system	Whether or not to restart a computer after installation, where <val> is a valid argument. Valid arguments are as follows: ■ Suppress (prevents most restarts) ■ ReallySuppress (prevents all restarts as part of the installation process) **Note:** The Force argument is not supported.

Installation properties

Table 3-6 describes the Windows agent installation settings and options.

Table 3-6 Windows agent installation settings

Setting	Default	Description
MANAGEMENT_SERVER=<val>	localhost	The IP address or fully qualified host name of the management server that will manage the agent. Required
ALT_MANAGEMENT_SERVERS=<server1,server2,...>	none	An ordered list of alternate management servers for failover. For each alternate management server, specify the IP address or fully qualified host name. Specify the servers in a comma-separated list. Optional See "About simple failover" on page 25.
SSL_CERT_FILE=<val>	none	The installation path and name of the SSL certificate file. For example, C:\Agent\Agent-cert.ssl. The installation path must not contain spaces. Optional
ENABLE_BYPASS_CHECKS	none	Indicates whether to enable the bypass prerequisite checks feature. To enable, set the variable to a nonzero value. Optional
NOTIFICATION_ENABLE=<val>	True	Indicates whether to enable notification, where <val> is a valid argument (True, False). Optional
AGENT_NAME=<name>	Host name of agent computer	The agent name. After installation, you can modify the agent name using the management console. Optional
AGENT_PORT=<val>	443	The Agent Port number that was used during management server installation. See Table 3-2, "Management server installation settings," on page 38. See Table 3-1, "Port number mapping," on page 32. Optional

Table 3-6 Windows agent installation settings

Setting	Default	Description
LOG_DIR=<val>	C:\Program Files\Symantec \Critical System Protection \Agent	The installation directory prefix for the <prefix dir>/scsplogs subdirectory. Optional
POLLING_INTERVAL=<val>	300 seconds	The interval that the agent uses to poll the management server for policy and configuration updates. Optional
IPS_ENABLE=<val>	True	The switch for enabling or disabling intrusion prevention, where <val> is a valid argument (True, False). Optional When enabled, the prevention features of Symantec Critical System Protection are enabled for the agent. The IPS drivers are loaded on the agent computer, and the agent accepts prevention policies from the management console. If you disable intrusion prevention and want to enable it in the future, you must run the sisipsconfig.exe tool in the \Agent\IPS\bin directory with the -i option, and restart the computer. The -i option toggles the intrusion prevention service on and off. Symantec strongly recommends that you enable intrusion prevention.
NOTIFICATION_PORT= <val>	2222	The port that is used to receive broadcast alerts from the management server, where <val> is a valid port number. This property is only used when NOTIFICATION_ENABLE is True. Optional

Table 3-6 Windows agent installation settings

Setting	Default	Description
COMMON_CONFIG_GROUP =<val>	Common Configuration	The name of an existing common configuration group for this agent to join. An agent is placed in the default common configuration group, unless you specify another configuration group that already exists in the management console. After installation, you can change the group assignment using the management console. Optional
IPS_CONFIG_GROUP=<val>	Configuration	The name of an existing prevention configuration group for this agent to join. An agent is placed in the default prevention configuration group, unless you specify another configuration group that already exists in the management console. After installation, you can change the group assignment using the management console. Optional
IPS_POLICY_GROUP=<val>	Policy	The name of an existing prevention policy group for this agent to join. An agent is placed in the default prevention policy group, unless you specify another policy group that already exists in the management console. After installation, you can change the group assignment using the management console. Optional
IDS_CONFIG_GROUP=<val>	Configuration	The name of an existing detection configuration group for this agent to join. An agent is placed in the default detection configuration group, unless you specify another configuration group that already exists in the management console. After installation, you can change the group assignment using the management console. Optional

Table 3-6 Windows agent installation settings

Setting	Default	Description
IDS_POLICY_GROUP=<val>	Windows	The name of an existing detection policy group for this agent to join. You can specify multiple groups by using commas between the group names. You can optionally include the name of an existing detection policy domain in the group path/name. You can include the domain name with or without the group name. An agent is placed in the default Windows detection policy group in the default Policy domain, unless you specify another domain/policy group that already exists in the management console. After installation, you can change the group assignment using the management console. Optional
SERVICE_USER=<val> SERVICE_PW=<val> SERVICE_CONFPW=<val>	LocalSystem none none	SERVICE_USER is the account that registers services for the agent. If you change the default of LocalSystem, use the format <domain>\<user name>. SERVICE_PW is the password for SERVICE_USER. SERVICE_CONFPW is the confirmation of the password for SERVICE_USER. **Note:** If you use any of these properties, you must use all three properties.

Installing the Windows NT policy

The Windows NT prevention policy is not part of the Symantec Critical System Protection installation; the policy must be installed separately. You can obtain the policy from the Symantec Critical System Protection installation CD, and then manually import the policy into the policy library.

Before installing the Windows NT prevention policy, you should note the following:

- The Windows NT prevention policy is only for use with Windows NT agents.
- The Windows NT policy is stored on the installation CD, in the file sym_winnt_protection_sbp.zip.

- You must install the Symantec Critical System Protection management server, and install and configure the management console, before you install the Windows NT policy.
  See "Installing the management server" on page 36.
  See "Installing and configuring the management console" on page 48.
- After importing the Windows NT policy into the policy library, you must create a new prevention policy that is based on the Windows NT policy. You should store this new policy in a separate policy folder (for example, name the policy folder Symantec NT policy). Storing the policy separately from the other Windows prevention policies will help ensure that the Windows NT policy is only applied to Windows NT agents.

To install the Windows NT policy

1. Insert and display the installation CD.
2. Log on to the management console.
3. In the management console, click **Prevention View**.
4. In the Prevention view, click **Policies**.
5. On the Policies page, click **File > Import Policy**.
6. In the Import dialog, browse the installation CD and select the policy file sym_winnt_protection_sbp.zip.
7. Click **Import** to import the Windows NT policy into the policy library.
8. In the Policies pane, create a folder for the Windows NT policy.
   For example, name the policy folder Symantec NT policy.
9. In the Windows NT policy folder that you created, create a workspace policy that is based on the Windows NT policy.
   See the *Symantec Critical System Protection Administration Guide* for instructions on creating workspace policies.

Uninstalling Symantec Critical System Protection

To uninstall Symantec Critical System Protection, you need to uninstall each component separately. You can uninstall the components in any order. If the agent runs on a computer that also runs the management server or management console, disable policy prevention on the agent by setting the Null policy or by using the policy override tool.

Uninstalling an agent using Add or Remove Programs

Agent uninstallation uses the Windows Add or Remove Programs utility.

If the agent enforces policy prevention, it prevents you from removing agent-related files, the management server, and management console. If a service user account was created during installation, the account is not removed during uninstallation.

Use one of the following methods to disable policy prevention on the agent:

- Start the management console, and set the policy for the target agent to the Null prevention policy (sym_win_null_sbp).
- If the policy on the computer that runs the agent is not Null and permits policy override, use the policy override tool to disable policy prevention. See the *Symantec Critical System Protection Policy Override Guide*.

To uninstall an agent

1. Disable policy prevention on the agent computer.
2. On the computer that runs the agent, click **Start > Settings > Control Panel > Add/Remove Programs.**
3. Click **Symantec Critical System Protection Agent**, and then click **Remove**.
4. Follow and complete the prompts until uninstallation completes.
5. Restart the agent computer.

Unattended uninstallation of an agent

You can perform an unattended (silent) uninstallation of an agent using the agent.exe or agent-windows-nt.exe executable and InstallShield and Windows Installer commands. The following command structure shows the sequencing:

MsiExec.exe /X{<PRODUCT CODE>} /qn /l*v!+ <UNINSTLL LOG FILE>

The <PRODUCT CODE> is the Symantec Critical System Protection uninstall string necessary for MsiExec.exe. It can be found in the following directory:

HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall

Browse the list of IDs. Locate the Symantec Critical System Protection agent application by looking at the properties in the right pane. Note the UinstallString string, and copy and modify it. For example:

MsiExec.exe /X{3D24482F-98BD-48DD-AA62-8B24BFDE7329} /qn /l*v!+ C:\SISAgentUninstall.log

The system reboot is suppressed after the uninstallation.

See "Unattended agent installation" on page 59.

Uninstalling the management console

Management console uninstallation uses the Windows Add or Remove Programs utility.

If the computer that runs the management console also runs the agent, use one of the following methods to disable policy prevention on the agent:

- Start the management console, and set the policy for the target agent to the Null prevention policy (sym_win_null_sbp).
- If the policy on the computer that runs the agent is not Null and permits policy override, use the policy override tool to disable policy prevention. See the *Symantec Critical System Protection Policy Override Guide*.

To uninstall the management console and database

1. Disable policy prevention on the agent computer.
2. Click **Start** > **Settings > Control Panel > Add/Remove Programs**.
3. Click **Symantec Critical System Protection Management Console**, and then click **Remove**.
4. Follow and complete the prompts until uninstallation completes.

Uninstalling the management server and database

Management server uninstallation uses the Windows Add or Remove Programs utility.

If the computer that runs the management server also runs the agent, disable policy prevention on the agent. The management server may also use an MSDE database to store data.

Use one of the following methods to disable policy prevention on the agent:

- Start the management console, and set the policy for the target agent to the Null prevention policy (sym_win_null_sbp).
- If the policy on the computer that runs the agent is not Null and permits policy override, use the policy override tool to disable policy prevention. See the *Symantec Critical System Protection Policy Override Guide*.

To uninstall the management server and database

1. Disable policy prevention on the agent computer.
2. Click **Start** > **Settings > Control Panel > Add/Remove Programs**.

3 Click **Symantec Critical System Protection Management Server**, and then click **Remove**.

4 Follow and complete the prompts until uninstallation completes.

5 (Optional) Do one of the following:
If you installed the evaluation database, click **Microsoft SQL Server Desktop Engine (SCSP)**, and then click **Remove**.
If you installed the evaluation or production database on SQL Server, drop the database that you created during installation, which is scspdb by default.

6 Follow and complete the prompts until uninstallation completes.

7 Delete the C:\Program Files\Symantec\Critical System Protection\Server directory.

8 Restart the computer.

Temporarily disabling Windows agents

You can temporarily disable Symantec Critical System Protection Windows agents.

Temporarily disabling Windows 2000, Windows Server 2003, or Windows XP Professional agents

To temporarily disable agents that run on Windows 2000, Windows Server 2003, or Windows XP Professional, you must boot the agent computer in safe mode and then reset the prevention policy to the built-in Null policy.

Warning: You should perform these procedures only in emergency situations.

To temporarily disable Windows 2000, Windows 2003, or Windows XP agents

1 Boot the agent computer in safe mode.
Refer to your Microsoft Windows documentation for instructions on booting in safe mode.

2 Reset the prevention policy to the built-in Null policy.

Resetting the prevention policy to the built-in Null policy

Run the sisipsconfig.exe tool with the -r option to reset the prevention policy to the built-in Null policy. On Windows, sisipsconfig.exe is located the following directory:

C:\Program Files\Symantec\Critical System Protection\Agent\IPS\bin

To reset the prevention policy

1. On the agent computer, open a command prompt.
2. At a command prompt, type the following command, and then press **Enter**:

```
sisipsconfig -r
-----------------------------------------------
Agent Configuration Tool version 5.0.0.240
-----------------------------------------------
The agent will now use the built-in policy
c:\>
```

3. Reboot the agent computer, and then start the management console.
   In the management console, on the Assets page, the agent is marked with an exclamation point (!) to indicate a policy error. When you select the agent, the following message appears in the Details pane, on the Policies tab:
   ! Policy Errors:
   ** Policy error has occurred at 17-Nov-2005 05:55:56 EST
   Driver is using the built-in policy and not the assigned policy.
4. In the management console, apply the desired policy to the agent, and then give appropriate permissions to the desired programs.

Temporarily disabling Windows NT agents

Because Windows NT Server does not provide a safe mode startup, you cannot temporarily disable agents that run on Windows NT Server by booting the agent computer in safe mode and then resetting the prevention policy.

To temporarily disable agents that run on Windows NT Server, you create an alternate hardware profile with the following drivers disabled:

- Symantec IPS driver
- Symantec IPS TCP filter driver
- Symantec IDS Registry driver

Warning: Use the alternate hardware profile method only if you cannot disable intrusion prevention using other methods. You must create the alternate hardware profile before using Symantec Critical System Protection with intrusion prevention enabled.

To temporarily disable Windows NT agents, you must disable intrusion prevention on the agent.

Use one of the following methods to disable intrusion prevention on the agent:

- Start the management console, and set the policy for the target agent to the Null prevention policy (sym_win_null_sbp).
- If the policy on the computer that runs the agent is not Null and permits policy override, use the policy override tool to disable policy prevention.
  See the *Symantec Critical System Protection Policy Override Guide*.
- On the agent computer, run the sisipsconfig.exe tool with the -r option, and then restart the computer.
  See "Resetting the prevention policy to the built-in Null policy" on page 68.

To temporarily disable Windows NT agents

1. Disable intrusion prevention on the agent computer.
2. To create a new hardware profile on the agent computer, do the following:
   Click **Start > Settings > Control Panel > System**.
   Click **Hardware Profiles**.
   In the Available Hardware Profiles pane, select **Original Configuration**, and then click **Copy**.
   Type a name for the new hardware profile, and then click **OK**.
3. To disable the Symantec IPS driver for the new hardware profile, do the following:
   Click **Start > Settings > Control Panel > Devices**.
   Select **Symantec IPS Driver**, and then click **HW Profiles**.
   Select the new hardware profile that you created, and then click **Disable**.
   Click **OK**.
4. To disable the Symantec IPS TCP filter driver for the new hardware profile, do the following:
   Click **Start > Settings > Control Panel > Devices**.
   Select **Symantec IPS TCP Filter**, and then click **HW Profiles**.
   Select the new hardware profile that you created, and then click **Disable**.
   Click **OK**.
5. To disable the Symantec IDS Registry driver for the new hardware profile, do the following:
   Click **Start > Settings > Control Panel > Devices**.
   Select **Symantec IDS Registry Driver**, and then click **HW Profiles**.
   Select the new hardware profile that you created, and then click **Disable**.
   Click **OK**.
6. Boot the agent computer using the new hardware profile.

Reinstalling Windows agents

You can perform an unattended reinstall of Windows agents using the agent.exe or agent-windows-nt.exe executable and InstallShield and Windows Installer commands. Reinstalling a Windows agent is useful if an agent becomes corrupted. Reinstalling a Windows agent is equivalent to uninstalling an agent and then installing the same version of that agent.

The following examples show a command string:

```
agent.exe /s /v"/qn /l*v!+ %temp%\SISAgentSetup.log"
```

or

```
agent-windows-nt.exe /s /v"/qn /l*v!+ %temp%\SISAgentSetup.log"
```

See "Unattended agent installation" on page 59.

See "Unattended Windows agent migration" on page 103.

Chapter 4

Installing UNIX agents

This chapter includes the following topics:

About installing UNIX agents

Installation prompts you to enter a series of values.

Please note the following UNIX agent installation requirements:

- UNIX agents do not support IP aliases. If your network card is bound to more than one IP address, the agent uses the first IP address on the network card.
- You must install UNIX agents as root. UNIX agents require root privileges to run.
- If you transfer UNIX agent installation .bin files from a Windows computer to a UNIX computer using FTP or some other file transport method, you must use binary transfer mode. Otherwise the installation files will be corrupted.

- If you are installing a Solaris, Linux, HP-UX, AIX, or Tru64 agent on a system that supports non-English character sets, the destination directory that you choose for the agent must contain only ASCII characters. If you include any non-ASCII characters in the path, the installation will fail.

Table 4-1 describes the agent installation settings.

Table 4-1 UNIX agent installation settings

Setting	Default	Description
Installation Directory	/opt/Symantec	The Installation directory prefix for the <prefix dir>/scspagent subdirectory.
Logs File Directory	/var/log	The installation directory prefix for the <prefix dir>/scsplogs subdirectory.
Primary Management Server	127.0.0.1	The IP address or fully qualified host name of the primary management server that will manage the agent.
Alternate Management Servers	none	A comma-separated list of alternate management servers. For each alternate management server, specify the IP address or fully qualified host name. Optional See "About simple failover" on page 25.
Management Server Certificate	/tmp/agent-cert.ssl	The directory location of the SSL certificate file, agent-cert.ssl, obtained from the Symantec Critical System Protection management server installation directory. You must copy this file from the management server to the specified location before starting the installation. All primary and alternate management servers must use the same certificate file. Required
Agent Name	Host name of agent computer	The name of the agent computer. After installation, you can change the agent name through the management console.
Agent Locale	POSIX®	Symantec Critical System Protection agent locale setting.

Table 4-1 UNIX agent installation settings

Setting	Default	Description
Agent Port	443	The Agent Port number that was used during management server installation. See Table 3-2, "Management server installation settings," on page 38.
Agent Polling Interval	300 seconds	The interval that the agent uses to poll the management server for policy and configuration updates.
Notification Port	2222	The port that is used to receive alerts from the management server. You can also change this port after installation by using the management console to change the properties of the agent.
Agent Notifications	Enable	When enabled, the agent listens on the Notification port to alerts from the management server. The alerts instruct the agent to immediately update to a new policy or configuration. This feature requires an unblocked notification port.
Util Service Port	2323	This installation setting supports the policy override tool for Solaris and Linux. You use the policy override tool to override prevention policy enforcement. You can change this value during installation.
Enable IPS Feature	Enable	When enabled, prevention is enabled on the agent.

Table 4-1 UNIX agent installation settings

Setting	Default	Description
Common Config Group	none	The name of an existing common configuration group for this agent to join. You use common configuration groups to apply communication and event logging parameters to agents. An agent is placed in the default common configuration group, unless you specify another configuration group that already exists in the management console. After installation, you can change the group assignment using the management console.
Prevention Config Group	none	The name of an existing prevention configuration group for this agent to join. You use prevention configuration groups to apply log rules to agents. An agent is placed in the default prevention configuration group, unless you specify another configuration group that already exists in the management console. After installation, you can change the group assignment using the management console.
Prevention Policy Group	none	The name of an existing prevention policy group for this agent to join. You use prevention policy groups to apply prevention policies to agents. An agent is placed in the default prevention policy group, unless you specify another policy group that already exists in the management console. After installation, you can change the group assignment using the management console.

Table 4-1 UNIX agent installation settings

Setting	Default	Description
Detection Configuration Group	none	The name of an existing detection configuration group for this agent to join. You use detection configuration groups to apply detection parameters and log rules to agents. An agent is placed in the default detection configuration group, unless you specify another configuration group that already exists in the management console. After installation, you can change the group assignment using the management console.
Detection Policy Group	One of the following: ■ AIX ■ HP-UX ■ Linux ■ Solaris ■ Windows ■ Tru64	The name of an existing detection policy group for this agent to join. You can specify multiple groups by using commas between the group names. You can optionally include the name of an existing detection policy domain in the group path/name. You can include the domain name with or without the group name. An agent is placed in one of the default OS-specific detection policy groups in the default Policy domain, unless you specify another domain/policy group that already exists in the management console. After installation, you can change the group assignment using the management console.

Bypassing prerequisite checks

The UNIX installation kit lets you bypass some of the prerequisite checks for agent installation. You can use this feature if you know the installation kit is incorrectly failing a prerequisite.

To enable the bypass prerequisite checks feature, run Touch as superuser:

```
touch /etc/scsp-check-bypass
```

You can use the bypass prerequisite checks feature to bypass the following prerequisite checks:

- Verify that the installation kit is being run by the root user
- Perform OS platform and version checks
- Perform package dependencies checks
- Perform file system/disk space usage checks

When the bypass prerequisite checks feature is used, the installation kit displays all errors and warnings about prerequisite check failures. However, instead of terminating the installation, you may choose to continue.

When you run the installation kit in interactive mode, you are asked if you want to continue. When you run the installation kit in silent mode, the prerequisite failure is logged and the installation continues.

The installation kit removes the /etc/scsp-check-bypass file upon a successful installation. Thus, creating the file enables the feature for one installation only.

Warning: Use of the bypass prerequisite checks feature does not guarantee that the installation will be successful if a non-recoverable error is bypassed. Please use this feature with caution.

Installing an agent in verbose mode

Ports that are used for communications between an agent and the management server must be available on the agent computer and must match the values used during management server installation. The default settings are 443 and 2222.

After agent installation, you should assign a prevention policy and one or more detection policies to the agent using the management console.

See the *Symantec Critical System Protection Administration Guide* for information on assigning policies.

Before you install an agent, you need to place the SSL certificate on the computer that is targeted for installation. The certificate file is on the management server in the \Symantec\Critical System Protection\Server directory. The file is named agent-cert.ssl.

To place the certificate on the computer that is targeted for installation, do the following:

- On the management server that will be used to manage the agent, locate the file named agent-cert.ssl in the \Server directory.

- On the computer on which the agent will be installed, create a directory and then copy the file agent-cert.ssl into the directory using FTP in binary mode or some other protocol.
  The directory path name cannot contain spaces.

To install an agent in verbose mode

1. Open a Terminal window and become superuser.
2. Insert the installation CD and if necessary, mount the volume.
3. Type and run the following command:
   `cd /mnt/cdrom`
4. Type and run one of the following commands:

Sun Solaris 8.0/9.0	**`./agent-solaris-sparc.bin`**
Sun Solaris 10 SPARC	**`./agent-solaris10-sparc.bin`**
Sun Solaris 10 x86	**`./agent-solaris10-x86.bin`**
Red Hat Enterprise Linux ES 3.0	**`./agent-linux-rhel3.bin`**
Red Hat Enterprise Linux ES 4.0	**`./agent-linux-rhel4.bin`**
SUSE Enterprise Linux 8	**`./agent-linux-sles8.bin`**
SUSE Enterprise Linux 9	**`./agent-linux-sles9.bin`**
HP-UX on PA-RISC	**`./agent-hpux-hppa.bin`**
HP-UX on Itanium 2	**`./agent-hpux-ia64.bin`**
AIX	**`./agent-aix.bin`**
Tru64 UNIX	**`./agent-tru64.bin`**

5. Please indicate whether you agree to the license agreement.
6. Follow the prompts until the installation completes.
7. On Solaris or Linux, restart the computer if prevention was enabled.

Installing an agent in silent mode

You can use the silent installation for UNIX installations.

Note: The required options for silent installation are -silent, -server, and -cert.

Table 4-2 describes the settings that are used with the installation commands.

Table 4-2 UNIX agent installation settings

Setting	Default	Description
-help	none	You can run the installer with the –help switch to get a list of all the switches.
-version	none	Displays the installation package version information. Installation does not occur.
-silent	Interactive	Installs silently without user prompts. Uses default settings if they are not set by installation options. Required
-reboot	No reboot	Initiates an automatic restart after installation completes if intrusion prevention is enabled after installation.
-server=<addr>	127.0.0.1	The management server IP address or fully qualified host name. Required
-altservers=<server1,server2,...>	none	A comma-separated list of alternate management servers. For each alternate management server, specify the IP address or fully qualified host name. Optional See "About simple failover" on page 25.
-prefix=<dir>	/opt/Symantec	The installation directory prefix for the <prefix dir>/scspagent subdirectory.
-logdir=<dir>	/var/log/scsplog	The installation directory prefix for the <prefix dir>/scsplog subdirectory. If the directory does not exist, it is created.

Table 4-2 UNIX agent installation settings

Setting	Default	Description
-cert=<file>	/tmp/agent-cert.ssl	The directory location of the SSL certificate file, agent-cert.ssl, obtained from the Symantec Critical System Protection management server installation directory. You must copy this file from the management server to the specified location before starting the installation. All primary and alternate management servers must use the same certificate file. Required
-agentname=<name>	Host name of agent computer	The name of the agent computer. After installation, you can change the agent name through the management console.
-locale=<locale setting>	POSIX	Symantec Critical System Protection agent locale setting.
-comCfgGrp=<group>	none	The name of an existing common configuration group for this agent to join. The group must exist and appear in the management console.
-ipsCfgGrp=<group>	none	The name of an existing prevention configuration group for this agent to join. The group must exist and appear in the management console.
-ipsPolGrp=<group>	none	The name of an existing prevention policy group for this agent to join. The group must exist and appear in the management console.
-idsCfgGrp=<group>	none	The name of an existing detection configuration group for this agent to join. The group must exist and appear in the management console.

Table 4-2 UNIX agent installation settings

Setting	Default	Description
-idsPolGrp=<group>	OS-specific group The OS-specific group is one of the following: ■ AIX ■ HP-UX ■ Linux ■ Solaris ■ Tru64 ■ Windows	The name of an existing detection policy group for this agent to join. You can specify multiple groups by using commas between the group names. You can optionally include the name of an existing detection policy domain in the group path/name . You can include the domain name with or without the group name. An agent is placed in one of the default OS-specific detection policy groups in the default Policy domain, unless you specify another domain/policy group that already exists in the management console. After installation, you can change the group assignment using the management console.
-agentport=<port>	443	The Agent Port number that was used during management server installation. See Table 3-2, "Management server installation settings," on page 38.
-notifyport=<port>	2222	The notification port that is used to receive broadcast alerts from the management server. You can also change this port after installation by using the management console to change the properties of the agent.
-notify=<0|1>	1 (Enable)	Indicates whether to enable notification. When enabled, the agent listens on the notification port to broadcast alerts from the management server. The broadcast alerts instruct the agent to immediately update to a new policy. This feature requires an unblocked notification port.

Table 4-2 UNIX agent installation settings

Setting	Default	Description
-poll=<sec>	300	The polling interval, in seconds, that the agent uses to poll the management server for policy updates.
-svcport=<port>	2323	This installation setting supports the policy override tool for Solaris and Linux. You use the policy override tool to override prevention policy enforcement. You can change this value during silent install using the -svcport switch.
-disableIps	Enable	Indicates whether to enable intrusion prevention for Solaris or Linux agents. When enabled, the prevention features of Symantec Critical System Protection are enabled for the agent. The IPS drivers are loaded on the agent computer, and the agent accepts prevention policies from the management console. To disable intrusion prevention, include the -disableIps installation option in the command string. If you disable intrusion prevention and want to enable it in the future, you must run the sisipsconfig.exe tool in the \Agent\IPS\bin directory with the -i option, and restart the computer. The -i option toggles the intrusion prevention service on and off. Symantec strongly recommends that you enable intrusion prevention.

Use the -silent option and other options to perform a silent installation.

The following command string shows an example of a silent installation:

```
./agent-aix.bin -silent -prefix=/opt/Symantec
-server=192.168.1.1 -cert=/var/tmp/agent-cert.ssl -agentport=443
```

To install an agent in silent mode

1. Follow the procedures and steps that are used to install an agent in verbose mode, up to and including mounting the installation CD drive.
   See "Installing an agent in verbose mode" on page 78.
2. Type and run the following command after replacing <os> with solaris-sparc, solaris10-sparc, solaris10-x86, linux-rhel3, linux-rhel4, linux-sles8, linux-sles9, hpux-hppa, hpux-ia64, aix, or tru64:
   ./agent-<os>.bin -silent <additional options>
3. If you did not specify the -reboot option, restart the computer if intrusion prevention is enabled on Solaris or Linux.
   If the agent fails to install correctly, review the /var/log/scsplog/agent_install.log file.

Uninstalling agents using package commands

You can uninstall the agents by using native operating system package commands. The package name for the agent is SYMCcsp.

When the uninstaller completes, it reports an uninstall status.

To uninstall agents using package commands

1. (Solaris/Linux) Start the management console, and set the policy for the agent to uninstall to the Null policy.
   The agent prevents you from installing and removing agent-related files if it is enforcing a restrictive prevention policy.
   If the Solaris or Linux agent is not communicating with the management console, disable the agent, and then continue with the uninstall.
   See "Disabling and enabling Solaris agents" on page 91.
   See "Disabling and enabling Linux agents" on page 93.
2. Open a Terminal window on the computer that runs the agent to uninstall, and become superuser.
3. On Solaris, type and run the following command:
   pkgrm SYMCcsp
4. On Linux, type and run the following command:
   rpm -e SYMCcsp
5. On AIX, type and run the following command:
   installp -u

6 On HP-UX, type and run the following command:

```
swremove SYMCcsp
```

7 On Tru64, type and run the following command:

```
setld -d SYMCSP513
```

8 (Solaris and Linux) If the uninstall completes successfully, run the following command to restart the computer:

```
init 6
```

Computers running HP-UX and AIX do not need to be restarted.

Uninstalling agents manually

If an agent installation is canceled or an error occurs during installation, the installation might be corrupted, and might prevent you from uninstalling an agent using the native package commands.

The agent runs the following daemons:

- sisipsdaemon
- sisidsdaemon
- sisipsutildaemon (Solaris and Linux)

Uninstalling Solaris agents manually

You can manually uninstall Solaris agents.

To uninstall Solaris agents manually

1 Start the management console, and set the policy for the agent to uninstall to the Null policy.
The agent prevents you from installing and removing agent-related files if it enforces a restrictive prevention policy.
If the Solaris agent is not communicating with the management console, disable the agent, and then continue with the uninstall.
See "Disabling and enabling Solaris agents" on page 91.

2 Open a Terminal window on the computer that runs the agent to uninstall and become superuser.

3 Run the following command to determine the agent daemons PIDs:

```
ps -ef | grep sis
```

4 (Optional) If the daemon PIDs do not appear, do the following to display the daemon PIDs and stop the agent daemons:
Run the following commands:

```
pgrep -U sisips -P1 -f sisipsdaemon
pgrep -U sisips -P1 -f sisipsutildaemon
pgrep -U root -P1 -f sisidsdaemon
```

If the agent daemons are not running, continue with the next numbered step.

If the agent daemons are running, run the following command to stop each agent daemon:

```
kill -KILL <agent_PID>
```

5 Type and run the following commands:

```
rem_drv sisips; rem_drv sisipsne;
find /kernel -name '*sisips*' | xargs rm -f
```

6 Type and run the following commands to remove the installation files:

```
rm -rf /opt/Symantec/scspagent
```
(default directory)

```
rmdir /opt/Symantec
```
(default directory)

```
rm -rf /etc/sisips
rm -f /etc/Symantec.conf
rm -f /etc/sisips.conf
rm -f /etc/init.d/sisips*
rm -f /etc/init.d/sisids*
rm -f /etc/rc?.d/*sisids*
rm -f /etc/rc?.d/*sisips*
rm -rf /etc/symantec/sis
```

```
rm -rf /var/log/scsplog
```
(default directory)

```
rm -f /var/run/sisipsdaemon.pid
rm -f /var/run/sisips*utildaemon.pid
rm -f /var/run/sisidsdaemon.pid
```

7 Type and run the following commands to remove the agent user and group:

```
userdel sisips
groupdel sisips
```

8 Remove the line “forceload: drv/sisips” from file /etc/system.

9 Type and run the following command to remove the definitions from the native package database:

```
rm -rf /var/sadm/pkg/SYMCcsp
```

10 Run the following command to restart the computer:

```
init 6
```

Uninstalling Linux agents manually

You can manually uninstall Linux agents.

To uninstall Linux agents manually

1. In the management console, set the policy for the agent to uninstall to the Null prevention policy.
   If the Linux agent is not communicating with the management console, disable the agent, and then continue with the uninstall.
   See "Disabling and enabling Linux agents" on page 93.
2. Open a Terminal window on the computer that runs the agent to uninstall, and become superuser.
3. Run the following command to determine the agent process ID:
   ```
   cat /var/run/sisipsdaemon.pid
   cat /var/run/sisipsutildaemon.pid
   cat /var/run/sisidsdaemon.pid
   ```
4. (Optional) If the process IDs do not appear, do the following to display the process IDs and stop the agent processes:
   Run the following command:
   ```
   pgrep -U sisips -P1 -f sisipsdaemon
   pgrep -U sisips -P1 -f sisipsutildaemon
   pgrep -U root -P1 -f sisidsdaemon
   ```
   If the agent process is not running, continue with the next numbered step.
   If either agent process is running, run the following command to stop the agent process:
   ```
   kill -KILL <agent_PID>
   ```
5. Type and run the following commands to remove the installation files:
   `rm -rf /opt/Symantec/scspagent` (your installation directory)
   ```
   rmdir /opt/Symantec
   rm -rf /etc/sisips
   rm -f /etc/sisips.conf
   rm -f /etc/init.d/sisi?s*
   rm -f /etc/init.d/rc?.d/*sisi?s*
   rm -rf /etc/symantec/sis
   rm -rf /var/log/scsplog
   ```
6. Type and run the following commands to remove the agent user and group:
   ```
   userdel sisips
   groupdel sisips
   ```

7 Remove the following lines from the initialization scripts:
Remove the lines (including comments) between
`# Begin SIS IPS` and `# End SIS IPS in files /etc/init.d/boot.local and /etc/init.d/halt.local`.

8 Type and run the following command to remove the definitions from the native package database:
`rpm -e SYMCcsp --noscripts`

9 Run the following command to reboot the computer:
`init 6`

Uninstalling HP-UX agents manually

You can manually uninstall HP-UX agents.

To uninstall HP-UX agents manually

1 Open a Terminal window on the computer that runs the agent to uninstall, and become superuser.

2 Run the following command to determine the agent process IDs:
`cat /var/run/sisipsdaemon.pid`
`cat /var/run/sisidsdaemon.pid`

3 (Optional) If the process IDs do not appear, do the following to display the process IDs and stop the agent process:
Run the following commands:
`ps -ef | grep sisipsdaemon`
`ps -ef | grep sisidsdaemon`
If the agent processes are not running, continue with the next numbered step.
If either agent process is running, run the following command to stop the agent process:
`kill -KILL <agent_PID>`

4 Type and run the following commands to remove the installation files:
`rm -rf /opt/Symantec/scspagent` (default directory)
`rmdir /opt/Symantec` (default directory)
`rm -rf /etc/sisips`
`rm -f /etc/Symantec.conf`
`rm -f /etc/sisips.conf`
`rm -f /sbin/init.d/sisips*`
`rm -f /sbin/init.d/sisids*`
`rm -f /sbin/rc?.d/*sisips*`
`rm -f /sbin/rc?.d/*sisids*`

rm -rf /var/log/scsplog (default directory)

rm -f /var/run/sisipsdaemon.pid

rm -f /var/run/sisidsdaemon.pid

5 Type and run the following commands to remove the agent user and group:

userdel sisips

groupdel sisips

Uninstalling AIX agents manually

You can manually uninstall AIX agents.

To uninstall AIX agents manually

1 Open a Terminal window on the computer that runs the agent to uninstall, and become superuser.

2 Run the following command to determine the agent process IDs:

cat /var/run/sisipsdaemon.pid
cat /var/run/sisidsdaemon.pid

3 (Optional) If the process IDs do not appear, do the following to display the process IDs and stop the agent process:
Run the following commands:

ps -ef | grep sisipsdaemon

ps -ef | grep sisidsdaemon

If the agent processes are not running, continue with the next numbered step.
If either agent process is running, run the following command to stop the agent process:

kill -KILL <agent_PID>

4 Type and run the following commands to remove the installation files:

rm -rf /opt/Symantec/scspagent (default directory

rmdir /opt/Symantec (default directory

rm -rf /etc/sisips

rm -f /etc/Symantec.conf

rm -f /etc/sisipsdaemon.pid

rm -f /etc/sisidsdaemon.pid

rm -f /etc/sisips.conf

rm -f /etc/rc.sisipsagent

rm -f /etc/rc.sisidsagent

rm -rf /etc/symantec/sis

rm -rf /var/log/scsplog (default directory

5 Type and run the following commands to remove the agent user and group:

```
userdel sisips
rmgroup sisips
```

6 Run the following commands to remove entries from inittab:

```
rmitab rcsisipsagent
rmitab rcsisidsagent
```

Uninstalling Tru64 agents manually

You can manually uninstall Tru64 agents.

To uninstall Tru64 agents manually

1 Open a Terminal window on the computer that runs the agent to uninstall, and become superuser.

2 Run the following command to determine the agent process IDs:

```
cat /var/run/sisipsdaemon.pid
cat /var/run/sisidsdaemon.pid
```

3 (Optional) If the process IDs do not appear, do the following to display the process IDs and stop the agent process:

Run the following commands:

```
ps -ef | grep sisipsdaemon
ps -ef | grep sisidsdaemon
```

If the agent processes are not running, continue with the next numbered step.

If either agent process is running, run the following command to stop the agent process:

```
kill -KILL <agent_PID>
```

4 Type and run the following commands to remove the installation files:

`rm -rf /opt/Symantec/scspagent` (default directory)

`rmdir /cluster/members/\{memb\}/Symantec` (default directory)

`rm -rf /var/log/scsplog` (default directory)

```
rm -f /var/run/sisipsdaemon.pid
rm -f /var/run/sisidsdaemon.pid
```

5 If the machine is a member of a TruCluster, and the agent is installed on multiple cluster members (with a shared physical disk), perform the following actions:

Remove the cluster member directories and files:

```
rm -rf /cluster/members/\{memb\}/etc/sisips
rm -f /cluster/members/\{memb\}/sbin/init.d/sisi?sagent
rm -f /cluster/members/\{memb\}/usr/.smdb./SYMCSP513.*
```

Edit and remove the line from /etc/symantec/sis/sis.conf:

```
SisInstalledClsId=<cluster_member_id>
```

Get the Cluster Member ID by running the following command:
/sbin/sysconfig -q generic | grep memberid

6 If the machine **not** is a member of a TruCluster, or it is configured as a single member cluster, perform the following actions:

Type and run the following commands to remove the agent user and group:

```
userdel sisips
groupdel sisips
```

Remove the cluster member directories and CDSLs (cluster dependent symbolic links):

```
rm -rf /cluster/members/\{memb\}/etc/sisips
rm -f /cluster/members/\{memb\}/sbin/init.d/sisi?sagent
rm -f /etc/sisips(CDSL)
rm -f /sbin/init.d/sisi?sagent (CDSL)
rm -f /opt/Symantec(CDSL)
rm -rf /etc/symantec
rm -f /etc/sisips.conf
rm -f /sbin/rc?.d/*sisips*
rm -f /sbin/rc?.d/*sisids*
rm -f /usr/.smdb./SYMCSP513.*
```

Disabling and enabling UNIX agents

You can temporarily and permanently disable UNIX agents. If you permanently disable an agent, the agent daemons stop immediately and disable startup upon restart. It does not disable the agent daemons. Upon restart, the agent daemons continue to load and enforce the currently-applied policies.

Disabling and enabling Solaris agents

This section describes how to disable and enable Solaris agents.

Temporarily disabling the IPS driver

If you have performance issues with Solaris agents, you may need to temporarily disable the intrusion prevention driver. You should do this only if there are serious performance issues that you suspect are being caused by the IPS driver, or if you have applied a prevention policy that is not allowing you to access the system in any way.

After you disable the driver, apply the Null prevention policy or a prevention policy in which prevention was disabled. Reboot the system.

Warning: You should perform these procedures only in emergency situations.

To temporarily disable the IPS driver

1. Interrupt the boot cycle with a Stop-a or break sequence.
2. At the ok prompt, type and run the following command:
   ```
   boot -as
   ```
   You must include the s switch in the boot command to boot into single-user mode. If you omit the s switch, then once the system boots into multi-user mode, it will enable the Symantec Critical System Protection driver.
3. When the boot sequence asks for the location of your /etc/system file, type one of the following:
   ```
   /etc/system-pre-sisips
   /dev/null
   ```

Permanently disabling Solaris agents

If you have performance issues with Solaris agents, you may need to permanently disable them.

The following procedure disables an agent, not the driver. The driver will still be running.

Warning: You should perform these procedures only in emergency situations.

To permanently disable Solaris agents

1. Open a Terminal window and become superuser.
2. Type and run the following commands:
   ```
   /etc/init.d/sisipsagent stop
   /etc/init.d/sisidsagent stop
   ```
3. Type and run the following commands to rename the agent scripts, which temporarily break any symbolic links in the rc#.d startup scripts:
   ```
   mv /etc/init.d/sisipsagent /etc/init.d/sisipsagentOFF
   mv /etc/init.d/sisidsagent /etc/init.d/sisidsagentOFF
   ```

Enabling a disabled Solaris agent

You can enable a Solaris agent that was previously disabled.

To enable a disabled Solaris agent

1. Open a Terminal window and become superuser.
2. Type and run the following commands, which rename the sisipsgent scripts:

   ```
   mv /etc/init.d/sisipsagentOFF /etc/init.d/sisipsagent
   mv /etc/init.d/sisidsagentOFF /etc/init.d/sisidsagent
   ```

3. Type and run the following command to restart the computer:

   ```
   init 6
   ```

Disabling and enabling Linux agents

This section describes how to disable and enable Linux agents.

Temporarily disabling the IPS driver

If you have performance issues with Linux agents, you may need to temporarily disable the intrusion prevention driver. You should do this only if there are serious performance issues that you suspect are being caused by the IPS driver, or if you have applied a prevention policy that is not allowing you to access the system in any way.

After you disable the driver, apply the Null prevention policy or a prevention policy in which prevention was disabled. Reboot the system.

Warning: You should perform these procedures only in emergency situations.

To temporarily disable the IPS driver

- During the boot cycle, add the string SISIPSNULL to the boot options. The agent and kernel mode driver do not load, and the policy is not enforced.

Permanently disabling Linux agents

If you have performance issues with Linux agents, you may need to permanently disable them.

The following procedure disables an agent, not the driver. The driver will still be running.

Warning: You should perform these procedures only in emergency situations.

To permanently disable Linux agents

1. Open a Terminal window and become superuser.
2. Type and run the following commands:
   ```
   /etc/init.d/sisipsagent stop
   /etc/init.d/sisidsagent stop
   ```
3. Type and run the following commands to rename the agent scripts, which temporarily break any symbolic links in the rc#.d startup scripts:
   ```
   mv /etc/init.d/sisipsagent /etc/init.d/sisipsagentOFF
   mv /etc/init.d/sisidsagent /etc/init.d/sisidsagentOFF
   ```

Enabling a disabled Linux agent

You can enable a Linux agent that was previously disabled.

To enable a disabled Linux agent

1. Open a Terminal window and become superuser.
2. Type and run the following commands, which rename the sisipsgent scripts:
   ```
   mv /etc/init.d/sisipsagentOFF /etc/init.d/sisipsagent
   mv /etc/init.d/sisidsagentOFF /etc/init.d/sisidsagent
   ```
3. Type and run the following command to restart the computer:
   ```
   init 6
   ```

Disabling and enabling HP-UX agents

This section describes how to disable and enable HP-UX agents.

Temporarily disabling HP-UX agents

Warning: You should perform these procedures only in emergency situations.

To temporarily disable HP-UX agents

1. Open a Terminal window and become superuser.
2. Type and run the following commands:
   ```
   /sbin/init.d/sisipsagent stop
   ```

```
/sbin/init.d/sisidsagent stop
```

Permanently disabling HP-UX agents

If you have performance issues with HP-UX agents, you may need to permanently disable them.

Warning: You should perform these procedures only in emergency situations.

To permanently disable HP-UX agents

1. Open a Terminal window and become superuser.
2. Type and run the following commands:
   ```
   /sbin/init.d/sisipsagent stop
   /sbin/init.d/sisidsagent stop
   ```
3. Type and run the following commands to rename the agent scripts, which temporarily break any symbolic links in the rc#.d startup scripts:
   ```
   mv /sbin/init.d/sisipsagent /sbin/init.d/sisipsagentOFF
   mv /sbin/init.d/sisidsagent /sbin/init.d/sisidsagentOFF
   ```

Enabling a disabled HP-UX agent

You can enable a HP-UX agent that was previously disabled.

To enable a permanently disabled HP-UX agent

1. Open a Terminal window and become superuser.
2. Type and run the following commands, which rename the sisipsgent scripts:
   ```
   mv /sbin/init.d/sisipsagentOFF /sbin/init.d/sisipsagent
   mv /sbin/init.d/sisidsagentOFF /sbin/init.d/sisidsagent
   ```
3. Type and run the following commands to start the agents:
   ```
   /sbin/init.d/sisipsagent start
   /sbin/init.d/sisidsagent start
   ```

Disabling and enabling AIX agents

This section describes how to disable and enable AIX agents.

Temporarily disabling AIX agents

Warning: You should perform these procedures only in emergency situations.

To temporarily disable AIX agents

1. Open a Terminal window and become superuser.
2. Type and run the following commands:

```
/etc/rc.sisipsagent stop
/etc/rc.sisidsagent stop
```

Permanently disabling AIX agents

If you have performance issues with AIX agents, you may need to permanently disable them.

Warning: You should perform these procedures only in emergency situations.

To permanently disable AIX agents

1. Open a Terminal window and become superuser.
2. Type and run the following commands:

```
/etc/rc.sisipsagent stop
/etc/rc.sisidsagent stop
```

3. Comment the agent startup commands from the /etc/inittab file by adding a colon (:) at the front of the **rcsisipsagent** and **rcsisidsagent** lines.
   This causes the agents to not start at the next reboot.

Enabling a disabled AIX agent

You can enable an AIX agent that was previously disabled.

To enable a permanently disabled AIX agent

1. Open a Terminal window and become superuser.
2. Uncomment the agent startup commands from the /etc/inittab file by removing the colon (:) at the front of the **rcsisipsagent** and **rcsisidsagent** lines.
   This causes the agents to start at the next reboot. The lines should look like the following:

```
rcsisipsagent:23456789:wait:/etc/rc.sisipsagent start >/dev/
console 2>&1
```

```
rcsisidsagent:23456789:wait:/etc/rc.sisidsagent start >/dev/
console 2>&1
```

3 Type and run the following commands to restart the agents:

```
/sbin/init.d//sisipsagent start
/sbin/init.d//sisidsagent start
```

Disabling and enabling Tru64 agents

This section describes how to disable and enable Tru64 agents.

Temporarily disabling Tru64 agents

Warning: You should perform these procedures only in emergency situations.

To temporarily disable Tru64 agents

1 Open a Terminal window and become superuser.

2 Type and run the following commands:

```
/sbin/init.d/sisipsagent stop
/sbin/init.d/sisidsagent stop
```

Permanently disabling Tru64 agents

If you have performance issues with Tru64 agents, you may need to permanently disable them.

Warning: You should perform these procedures only in emergency situations.

To permanently disable Tru64 agents

1 Open a Terminal window and become superuser.

2 Type and run the following commands:

```
/sbin/init.d/sisipsagent stop
/sbin/init.d/sisidsagent stop
```

3 Type and run the following commands to rename the agent scripts, which temporarily break any symbolic links in the rc#.d startup scripts:
If the machine is a member of a TruCluster, and the agent is installed on multiple cluster members (with a shared physical disk), perform the following actions to disable the agent on a single cluster:

```
cd /cluster/members/\{memb\}/sbin/init.d/
```

```
mv sisipsagent sisipsagentOFF
mv sisidsagent sisidsagentOFF
```

If the machine **not** is a member of a TruCluster, is configured as a single member cluster, or if you want to disable the agent on all clusters, perform the following actions:

```
mv /sbin/init.d/sisipsagent /sbin/init.d/sisipsagentOFF
mv /sbin/init.d/sisidsagent /sbin/init.d/sisidsagentOFF
```

Enabling a disabled Tru64 agent

You can enable a Tru64 agent that was previously disabled.

To enable a permanently disabled Tru64 agent

1. Open a Terminal window and become superuser.
2. Type and run the following commands, which rename the sisipsgent scripts:

   If the machine is a member of a TruCluster, and the agent is installed on multiple cluster members (with a shared physical disk), perform the following actions to re-enable the agent on a single cluster:

   ```
   cd /cluster/members/\{memb\}/sbin/init.d/
   mv sisipsagentOFF sisipsagent
   mv sisidsagentOFF sisidsagent
   ```

   If the machine **not** is a member of a TruCluster, is configured as a single member cluster, or if you want to re-enable the agent on all clusters, perform the following actions:

   ```
   mv /sbin/init.d/sisipsagentOFF /sbin/init.d/sisipsagent
   mv /sbin/init.d/sisidsagentOFF /sbin/init.d/sisidsagent
   ```

3. Type and run the following commands to start the agents:

   ```
   /sbin/init.d/sisipsagent start
   /sbin/init.d/sisidsagent start
   ```

Monitoring and restarting UNIX agents

The Health Check feature monitors and restarts UNIX agents in the event of an unexpected termination. This feature is available through the use of a crontab entry, which calls the daemon startup scripts at regular intervals with a health_check parameter.

For example, to monitor the UNIX agents every hour, add the following lines to the crontab file:

```
0 * * * *  /etc/init.d/sisipsagent health_check
```

`0 * * * *  /etc/init.d/sisidsagent health_check`

`0 * * * * /etc/init.d/sisipsutil health_check` (Solaris and Linux Only)

Use the appropriate crontab file for the UNIX platform:

- AIX
  Crontab: /var/spool/cron/cronttabs/root
  Scripts: /etc/rc.sisidsagent, /etc/rc.sisipsagent
- HP-UX
  Crontab: /var/spool/cron/crontab.root
  Scripts: /sbin/init.d/sisidsagent, /sbin/init.d/sisipsagent
- Linux
  Crontab: /var/spool/cron/tabs/root
  Scripts: /etc/init.d/sisidsagent, /etc/init.d/sisipsagent, /etc/init.d/sisipsutil
- Solaris
  Crontab: /var/spool/cron/crontabs/root
  Scripts: /etc/init.d/sisidsagent, /etc/init.d/sisipsagent, /etc/init.d/sisipsutil
- Tru64
  Crontab: /var/spool/cron/crontabs/root
  Scripts: /sbin/init.d/sisidsagent, /sbin/init.d/sisipsagent

---

Note: The scripts keep the last five core files generated in the agent's respective home directory (/opt/Symantec/scspagent/IDS/bin and /opt/Symantec/scspagent/IPS). To change this setting, modify the MAX_CORES=5 value in the scripts.

Troubleshooting agent issues

ISSUE: An NFS server that does not respond on an agent computer causes the agent installation to hang.

SOLUTION: Press Ctrl+C to exit the installation, and then run df -k. If this causes the agent computer to hang, and you are sure that a mounted share is causing the problem, forcefully unmount the share that is not responding by typing and running the following command:

`umount -f <mount-point>`

Chapter 5

Migrating to the latest version

This chapter includes the following topics:

Migrating legacy installations of Symantec Critical System Protection

You can migrate legacy installations for the following Symantec Critical System Protection software:

- Symantec Critical System Protection 5.0.0 (server, console, agent)
- Symantec Critical System Protection 5.0.1 (server, console, agent)
- Symantec Critical System Protection 5.0.5 (server, console, agent)
- Symantec Critical System Protection 5.1.0 (server, console, agent)

When migrating legacy installations for Symantec Critical System Protection, you should note the following:

- If you upgrade the management server, then you must also upgrade the management console to the same version, and vice versa. The management server and management console must be the same version.
- Upgrading the agent is optional; you can use agent 5.0.0, agent 5.0.1, agent 5.0.5, or agent 5.1 with the latest version of the management server and management console. However, if you upgrade the agent to the latest version, then you must also upgrade the management server and management console.
- To use simple failover, you must upgrade the management server, management console, and agent to version 5.1.1 or higher.
  After upgrading, you use the agent config tool to specify the alternate management servers for the agent.
  See "Specifying the management server list for an agent" on page 103.
- You cannot upgrade Symantec Critical System Protection 4.5. You must uninstall the Symantec Critical System Protection 4.5 software (server, console, and agent) and then install the latest version.

See "Unattended Windows agent migration" on page 103.

Software migration is straightforward. When you install the Symantec Critical System Protection software (server, console, and agent), the installation kit automatically detects legacy installations and migrates the Symantec Critical System Protection software to the latest version.

Providing scspdba password during management server upgrade

During a management server upgrade, you are asked for the password to the scspdba account. If you chose the Evaluation installation when you initially installed the management server, the scspdba password is the same as the sa account password that you specified during the installation. Enter that same password during the upgrade. If you chose the Production installation, you entered the password for this account (the Database Owner account) during the initial installation of the management server. Enter that same password during the upgrade.

If you do not remember the scspdba password, you should change it in the database using SQL Server tools. This account is used strictly for upgrading the software; it is not used operationally by the management server. So changing the password in the database is safe—there is no corresponding change needed for the management server.

If you changed the name of the database owner account during a Production installation, you should enter that account name during the upgrade as well. You should not use the sa account during the upgrade.

Unattended Windows agent migration

You can perform an unattended migration of Windows agents using the agent.exe or agent-windows-nt.exe executable and InstallShield and Windows Installer commands.

The following examples show a command string:

```
agent.exe /s /v"/qn /l*v!+ %temp%\SISAgentSetup.log"
```

or

```
agent-windows-nt.exe /s /v"/qn /l*v!+ %temp%\SISAgentSetup.log"
```

See "Unattended agent installation" on page 59.

Specifying the management server list for an agent

This section explains how to use the agent config tool to specify the primary management server and optional alternate management servers for an agent.

See "About simple failover" on page 25.

You use the agent config tool to do the following:

- After upgrading to Symantec Critical System Protection agent 5.1.1 or higher, add alternate management servers to an agent's configuration
- Change the primary or alternate management servers used by an agent
- Change the fail back interval used by an agent
- Display the current management server list and fail back interval used by an agent
- Test the connection information for a management server

The agent config tool is located in the following directories on an agent computer:

- On Windows, sisipsconfig.exe is located in the agent/ips/bin directory.
- On UNIX-based operating systems, the sisipsconfig tool is named sisipsconfig.sh. It is located in the agent/ips directory.

Table 5-1 lists the management server-related agent config tool commands:

Table 5-1 Agent config tool commands

Command	Syntax	Description
-host	Windows: sisipsconfig -host primary[,alternate1,alternate2,...] UNIX: sisipsconfig.sh –host primary[,alternate1,alternate2,...]	Set the IP address or fully qualified host name of the primary management server and optional alternate management servers used by the agent. The list of management servers must comprise the primary management server, which is always the first server in the list. The remaining optional servers in the list are considered alternate servers. You may specify any number of optional alternate management servers. The management server list that you specify will replace the current management server list used by the agent. You cannot reorder or edit an existing management server list. The management server host names or IP addresses configured for a single agent must be Tomcat servers that talk to a single Symantec Critical System Protection database. Using multiple databases can result in unexpected agent behavior. The management servers must use the same server certificate and agent port.
-failbackinterval	Windows: sisipsconfig -failbackinterval num_mins UNIX: sisipsconfig.sh -failbackinterval num_mins num_mins = number of minutes Default: 60 minutes	Set the fail back interval, in minutes, for the agent to try to communicate with the primary management server. Once an agent fails away from the first (primary) server in the management server list, the agent periodically checks if the first server is back. The agent uses a fail back interval to determine when to perform this server check.
-view	Windows: sisipsconfig -view UNIX: sisipsconfig.sh -view	Display all values that are configurable through the agent config tool. The configurable values include the management server list and fail back interval.

Table 5-1 Agent config tool commands

Command	Syntax	Description
-test	To test first server in list (default): ■ Windows: sisipsconfig -t ■ UNIX: sisipsconfig.sh -t To test nth server in list: ■ Windows: sisipsconfig -t n ■ UNIX: sisipsconfig.sh -t n	Test the connection information for a server in the management server list.

To specify the management server list for an agent

1. At a command prompt, locate the folder that contains the agent config tool, and then navigate to that directory.
2. At a command prompt, type **`sisipsconfig -host`** (Windows) or **`sisipsconfig.sh -host`** (UNIX), followed by a comma-separated list of server host names or IP addresses, and then press **Enter**.

Migrating other legacy agent installations

You can migrate legacy software agent installations for the following software:

- Symantec Intruder Alert™ 3.6 and higher
- Symantec Host Intrusion Detection System (Symantec Host IDS) 4.0 and higher

Agent software migration is straightforward. When you install Symantec Critical System Protection agents, the installation kit automatically detects legacy agents, uninstalls the legacy software, and installs the latest version.

Note: You cannot migrate server or management software. If an agent runs on a computer that also runs a legacy server or manager, you must first uninstall the legacy software before you migrate the agent.

You can migrate legacy customized detection policy files for the following software:

- Symantec Intruder Alert 3.6 and higher
- Symantec Host IDS 4.1 and higher

It is not necessary to migrate uncustomized stock policy files. The new stock policy files are migrated for you.

Policy migration involves using a policy conversion utility that converts legacy .pol and .ini files to XML files and places them in a .zip file, and then using the authoring environment to compile the converted legacy policies to the latest version. The utility runs on Windows only, but will convert UNIX policy files.

You should not migrate policies until you are comfortable working with the Symantec Critical System Protection management console and authoring environment.

Symantec Critical System Protection implements rules differently than Symantec Intruder Alert and Symantec Host IDS, so you must validate your rules before compiling your policies.

Checklist for migrating from Symantec Intruder Alert

Symantec Critical System Protection contains an IDS component similar in functionality to Symantec Intruder Alert. Migrating from Symantec Intruder Alert to Symantec Critical System Protection is a fairly straightforward process.

Before starting the migration process, you should note the following:

- The Symantec Critical System Protection management server only runs on Windows, while the Symantec Intruder Alert server is multi-platform.
  You may want to run Symantec Intruder Alert and Symantec Critical System Protection in parallel, migrating over agents from Symantec Intruder Alert to Symantec Critical System Protection in bunches, until potentially all Symantec Intruder Alert agents are migrated to Symantec Critical System Protection, and the Symantec Intruder Alert server can be retired.
  Symantec Intruder Alert supports agent platforms that are not supported by Symantec Critical System Protection, so you might require a small continuing Symantec Intruder Alert presence to service those platforms. If you install the Symantec Critical System Protection management server on a separate computer from the Symantec Intruder Alert server, you might want to reuse the same communication ports that the Symantec Intruder Alert server uses to communicate with its agents, to simplify your firewall changes. The Symantec Critical System Protection installation process lets you specify which ports you want to use.
- The policy conversion utility migrates your custom Symantec Intruder Alert policies to Symantec Critical System Protection.
  Use the policy conversion utility to convert your custom Symantec Intruder Alert policies into XML that can be imported into the Symantec Critical

System Protection authoring environment (and eventually conditionally applied to your Symantec Critical System Protection agents).
See "Migrating legacy detection policy files" on page 111.
The policy conversion process automatically migrates your existing Symantec Intruder Alert registry and event log settings, but you will need to manually reenter any custom files under observation into the file lists in the following policies:

- Host_IDS_File_Tampering policy
- Template_FileWatch policy
- Your own custom file-watching policy

- The following features of the Symantec Intruder Alert agent are not supported in Symantec Critical System Protection:
  - SNMP, email, and pager alerts (SNMP and email alerts can be configured in the Symantec Critical System Protection management console, whereas pager is no longer supported)
  - Global flags
  - Logging to files on other agents
  - Shared actions
  - C2 and Process Accounting collectors
- Plan how to migrate your Symantec Intruder Alert agents to Symantec Critical System Protection.
  As previously noted, you cannot migrate Symantec Intruder Alert agents that run on client platforms not supported by Symantec Critical System Protection. You should record the policy settings for each group of agents (and each ungrouped agent), noting the stock policies and the custom policies that are applied. You should be able to find equivalent Symantec Critical System Protection policies for the Symantec Intruder Alert stock policies that you applied.
  Uninstall the Symantec Intruder Alert agent, and install the Symantec Critical System Protection agent on each client to be migrated. You should have pre-configured your Symantec Critical System Protection groups using the Symantec Critical System Protection management console, placing the appropriate stock and custom policies in each group and configuring the policy option settings.
- If you were performing event forwarding in Symantec Intruder Alert, perhaps you can configure the Symantec Critical System Protection database to do this for you.

Checklist for migrating from Symantec Host IDS

Symantec Critical System Protection contains an IDS component similar in functionality to Symantec Host IDS. Migrating from Symantec Host IDS to Symantec Critical System Protection is a fairly straightforward process.

Before starting the migration process, you should note the following:

- The Symantec Critical System Protection management server only runs on Windows, while the SESA server is multi-platform.

  You may want to run Symantec Host IDS and Symantec Critical System Protection in parallel, migrating over agents from Symantec Host IDS to Symantec Critical System Protection in bunches, until potentially all Symantec Host IDS agents are migrated to Symantec Critical System Protection, and the SESA server can be retired.

  Symantec Host IDS supports agent platforms that are not supported by Symantec Critical System Protection, so you might require a small continuing Symantec Host IDS presence to service those platforms. If you install the Symantec Critical System Protection management server on a separate computer from the SESA server, you might want to reuse the same communication ports that the SESA server uses to communicate with its agents, to simplify your firewall changes. The Symantec Critical System Protection installation process lets you specify which ports you want to use.

- The policy conversion utility migrates your custom Symantec Host IDS policies to Symantec Critical System Protection.

  Use the policy conversion utility to convert your custom Symantec Host IDS policies into XML that can be imported into the Symantec Critical System Protection authoring environment (and eventually conditionally applied to your Symantec Critical System Protection agents).

  See "Migrating legacy detection policy files" on page 111.

  The policy conversion process automatically migrates your existing Symantec Host IDS registry and event log settings, but you will need to manually reenter any custom files under observation into the file lists in the following policies:

  - Host_IDS_File_Tampering policy
  - Template_FileWatch policy
  - Your own custom file-watching policy

- Plan how to migrate your Symantec Host IDS agents to Symantec Critical System Protection.

  As previously noted, you cannot migrate Symantec Host IDS agents that run on client platforms not supported by Symantec Critical System Protection. You should record the policy settings for each group of agents

(and each ungrouped agent), noting the stock policies and the custom policies that are applied. You should be able to find equivalent Symantec Critical System Protection policies for the Symantec Host IDS stock policies that you applied.

Uninstall the Symantec Host IDS agent, and install the Symantec Critical System Protection agent on each client to be migrated. You should have pre-configured your Symantec Critical System Protection groups using the Symantec Critical System Protection management console, placing the appropriate stock and custom policies in each group and configuring the policy option settings.

- If you were performing event forwarding in Symantec Host IDS, perhaps you can configure the Symantec Critical System Protection database to do this for you.

Migrating legacy agent software

Before you migrate agent software, install the latest version of Symantec Critical System Protection management server and management console, and then log on to the management console. When you log on to the management console for the first time, you are prompted to create the default administrator login credentials. The default user name is symadmin; you create the password the first time that you log on to the management console.

To migrate legacy agent software

- Install the latest version of Symantec Critical System Protection agent on the computers that run the legacy agent software.
  See "Installing a Windows agent" on page 51.

The installation routine automatically uninstalls the legacy software and installs the latest software.

Preparing for detection policy migration

The following procedures are necessary to prepare for migrating legacy detection files:

- Installing the authoring environment and policy conversion utility
- Copying files required for the policy conversion utility

Installing the authoring environment and policy conversion utility

The Symantec Critical System Protection authoring environment and the policy conversion utility were automatically installed during management console installation. No separate installation is required.

See "Installing and configuring the management console" on page 48.

Copying files required for the policy conversion utility

When you installed the management console and authoring environment, you also installed the policy conversion utility, ITAHIDSpolicyMigration.exe, and four files that the conversion utility requires. All files were installed in the following directory:

C:/Program Files/Symantec/Critical System Protection/Console

The four required files are as follows:

- xerces-c_2_5_0.dll
- zlib1.dll
- msvcr71.dll
- msvcp71.dll

Computers that run Windows 2000 require all four files, and computers that run Windows XP/2003 require xerces-c_2_5_0.dll and zlib1.dll only. The other two files are automatically installed with Windows XP/2003.

Note: If you plan to run the policy conversion utility from the \Console directory, you do not need to copy files.

To copy files required for the policy conversion utility

- Do one of the following:
  Copy the required files to the directory where you will run the policy conversion utility. You can run the policy conversion utility from this directory only.
  Copy the required files to a system folder like \WinNT or \WinNT\System32. You can run the policy conversion utility from any directory.

Migrating legacy detection policy files

Your legacy detection policy files may have both enabled and disabled rules. The enabled and disabled status of the rules is also migrated.

Migration involves understanding the following processes and concepts:

- Converting legacy detection policy files
- Importing the zip file
- Creating a new policy
- Validating your rules
- Validating rule types and criteria
- About configuring an option group
- Compiling your policy
- Applying policies created and compiled in the authoring environment

Before attempting migration, you should be comfortable with using the Symantec Critical System Protection authoring environment.

See the *Symantec Critical System Protection Authoring Guide* for instructions creating and compiling detection policies.

You must also understand rule types, which is a new feature.

Converting legacy detection policy files

You run the policy conversion utility from a command prompt. The syntax is as follows:

```
ITAHIDSpolicyMigration.exe <sourceFolderPath> <destFolderPath>
```

The policy conversion utility eliminates spaces in policy and rule names, and supports conversion to policy files. This is accomplished using command line switches.

The -p switch converts legacy detection policy files to Symantec Critical System Protection detection policy files, and creates option groups for the policy so that you can see the policy rules with the management console. The OS switches convert OS-specific policies; if you do not specify an OS switch, then the migrating ITA policies will be converted as Windows policies.

Table 5-2 lists the policy conversion utility command line switches.

Table 5-2 Command line switches

Switch	Default setting	Description
-p	no switch (converts policy files to policy files)	Converts legacy detection policy files to Symantec Critical System Protection detection policy files, and creates option groups for the policy so that you can see the policy rules with the management console. Optional Recommended
-solaris	no switch	Converts Solaris policy files. Required for proper Solaris policy file conversion.
-linux	no switch	Converts Linux policy files. Required for proper Linux policy file conversion.
-aix	no switch	Converts IBM AIX policy files. Required for proper AIX policy file conversion.
-hpux	no switch	Converts Hewlett Packard HP-UX policy files. Required for proper HP-UX policy file conversion.
-tru64	no switch	Converts Hewlett Packard Tru64 policy files. Required for proper Tru64 policy file conversion.

Note: To check for additional supported arguments, run the policy conversion utility without arguments, and browse Readme.txt on the installation CD.

The policy conversion utility processes legacy files in a source directory, and places the converted files into a destination directory. All legacy files are placed in one .zip file in the destination directory.

To convert legacy detection policy files

1. Create source and destination directories.
2. Copy your legacy .pol and .ini files to your source directory.
3. At a command prompt, change to the directory location of ITAHIDSpolicyMigration.exe.
   By default, ITAHIDSpolicyMigration.exe is installed in the following directory:
   C:\Program Files\Symantec\Critical System Protection\Console

4 Type **ITAHIDSpolicyMigration.exe**, type the names of your source and destination directories, and run the command.

Importing the zip file

The zip file in the destination directory contains the legacy policies.

To import the zip file

1 On the computer that runs the Symantec Critical System Protection management console, click **Start > Programs > Symantec Critical System Protection > Authoring Tool**.

2 In the Login dialog, type your user name and password.

3 In the Server box, select a management server, and then click **OK**.

4 In the authoring environment console, click the **Library** tab, and then click the **Add Folder** icon.

5 Click inside the name of the new folder and rename the folder to a descriptive name such as ITA_Policies or HIDS_Policies.

6 Click **File > Import**.

7 In the Import dialog, navigate to and select the .zip file that contains your converted policies, and then click **Import**.

8 In the Import To dialog, in the lower pane, double-click **Library**, double-click the name of your new folder, and then click **Import**.
The yellow icons identify rulesets.

Creating a new policy

When you import your legacy policies, they appear in the authoring environment as rulesets. If the -p switch was used, your imported legacy policies appear in the authoring environment as policy files.

The next procedure is to create a new policy and add one of the legacy rulesets that you imported. Symantec recommends that you follow a one ruleset per policy association to reduce complexity.

To create a new policy

1 On the Library tab, click **File > New**.

2 In the New dialog, click **Detection Policy**, and then click **Open**.

3 In the right pane, on the General tab, in the Name box, type a name for your detection policy.
You might want to use a name that reflects the ruleset.

4 Click **File > Save**.

5 In the Save As dialog, select the folder that you created for converted policies, and then click **Save As**.

6 On the Outline tab, select **Detection Rulesets** in your new policy, click the **Add** icon, and then click **Browse**.

7 Expand the folder that contains your converted policy, select the converted ruleset that you want for your new policy, and then click **Include**.

8 Click **File > Save All**.

9 On the Library tab, expand the folder that you created, if it is not expanded, and then select the name of your new policy.
The blue policy icon indicates an uncompiled policy.

10 Click **Tools > Validate**.

Validating your rules

In Symantec Host IDS and Symantec Intruder Alert, rules are not typed. In Symantec Critical System Protection, rules are typed such as event log, registry, etc. When you validated your new policy, you validated that the initial conversion was successful. You must now validate your rules by using visual inspection because the conversion routine used a best guess to determine the type of each migrated rule. As a result, you need to check that each migrated rule has the correct rule type and select criteria.

The following rule types and items are parsed for select criteria:

Event Log	Windows event log .evt files
Text Log	User-specified text logs
Registry	User-specified registry keys
Filewatch	User-specified files and subdirectories
Syslog	Named pipe as specified in /etc/syslog.conf
WTMP	WTMP file on UNIX-based operating systems (and BTMP file on some operating systems)
Generic	All parsed items in all rules in all policies installed on an Agent
Error	Symantec Critical System Protection agent error messages

Status	Symantec Critical System Protection agent status messages

You should also check other migrated rule elements such as patterns and actions for accuracy. Note that OR'ing of select clauses is no longer supported, so rules with OR'ed select clauses are split into multiple rules. You should also check this split for accuracy.

Some of the more advanced IDS policy features from Symantec Intruder Alert and Symantec Host IDS have not been carried forward to Symantec Critical System Protection, and are not migrated.

Symantec did not implement the following Symantec Intruder Alert features:

- OR'ing of selects within a rule
- Select on another Rule as select or Ignore criteria
- Shared Action, which allows user to reuse the same Action(s) in different policies or rules
- Start and Cancel Timer actions
- Pager Action

Symantec changed the following Symantec Intruder Alert features:

- Select on System is changed due to architecture limitations.
- Email and SNMP is implemented at the management server side.
- Append to file action is limited to the local file system. With Symantec Intruder Alert, you can specify to append to c:\temp\log.txt@anotherITAgentname.

Validating rule types and criteria

The policy conversion utility typically types migrated rules as Generic.

See the *Symantec Critical System Protection Policy Authoring Guide* for complete details about rule types and criteria.

To validate rule types and criteria

1. On the Library tab, display your migrated rulesets.
2. Double-click a ruleset that contains the rules to validate.
3. On the Outline tab, click the **Source** icon.
4. Read the source code for each rule to discover the rule type to which it was converted and note any rules that need to be changed.
5. In the right corner of the right pane, click the arrow icon.

6 For rules that need to be changed, on the Rules tab, right-click the rule and then select the correct conversion menu item.

7 Verify that all other criteria, actions, and values are correctly set for your rules.

8 Click **Tools > Validate**.
If an error prompt appears, troubleshoot the error.

Configuring an option group

By configuring an option group for your policy, you can view your migrated rules when you display the policy in the management console. When you view the rules in the management console, you can also enable and disable the rules. If you do not configure an option group for your converted policy, you cannot view your migrated rules when you display the policy in the management console. Also, the migrated rules retain their original, pre-migrated enabled or disabled value. Configuring option groups is optional.

To use option groups, you must remove all spaces in rule names because you must type your rule using the format `RuleSetName.RuleName` with no spaces. You should also validate your policies after configuring option groups.

See the *Symantec Critical System Protection Policy Authoring Guide* for details on how to configure an option group for detection policies.

Compiling a policy

Once you verify that your rules are properly migrated, you are ready to compile your policy.

To compile a policy

1 On the Library tab, select your new policy, and then click the **Compile** icon.

2 Expand the folder that contains your policy.
The red policy icon indicates a compiled policy.

Applying policies created and compiled in the authoring environment

You use the management console to apply a policy that you created and compiled in the authoring environment.

Using the management console, you do the following:

- Create a workspace policy that is based on your compiled policy.
- Verify the policy option configuration.
- Test the workspace policy.
- Apply the workspace policy to your agents and policy groups.

See the *Symantec Critical System Protection Administration Guide* for instructions on applying policies created and compiled in the authoring environment.

Index

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U

W