



IBM Storage Configuration Manager 2.20.0  
Planning, Installation, and Configuration Guide







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**Note**

Before using this information and the product it supports, read the information in “Notices” on page 39.

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## Chapter 1. Introduction

IBM Storage Configuration Manager is a system management application that enables you to use a Web browser to manage and configure IBM® BladeCenter® devices.

IBM Storage Configuration Manager runs as a Web server that communicates with managed devices. Managed devices include the following:

- IBM BladeCenter SAS Connectivity Module
- IBM BladeCenter S 6-Disk Storage Module
- IBM BladeCenter S SAS RAID Controller Module

**Note:** As of IBM Storage Configuration Manager 2.20.0, IBM ServeRAID MR Controllers and IBM Integrated RAID Controllers are no longer supported devices in IBM Storage Configuration Manager. You can continue to manage these devices using the Storage Management feature in IBM Systems Director.

**Important:** IBM Storage Configuration Manager and IBM Systems Director cannot be installed on the same server.

Except where specifically stated otherwise in this document, the term "SAS Switch" refers to the Serial Attached SCSI (SAS) Connectivity Module for IBM BladeCenter products in a BladeCenter unit.



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## Chapter 2. Requirements

IBM Storage Configuration Manager components have specific requirements for hardware, firmware, and operating systems. This chapter describes those requirements.

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### Hardware requirements

This version of IBM Storage Configuration Manager supports the following hardware:

- IBM BladeCenter SAS Connectivity Module
- IBM BladeCenter S 6-Disk Storage Module
- IBM BladeCenter S SAS RAID Controller Module

IBM Storage Configuration Manager 2.20.0 supports firmware version 1.2.x.x of the IBM BladeCenter S SAS RAID Controller Module. If you want to use firmware version 1.0.x.x for the IBM BladeCenter S SAS RAID Controller Module, you must use IBM Storage Configuration Manager 2.10.x to manage the hardware.

**Note:** As of IBM Storage Configuration Manager 2.20.0, IBM ServeRAID MR Controllers and IBM Integrated RAID Controllers are no longer supported devices in IBM Storage Configuration Manager. You can continue to manage these devices using the Storage Management feature in IBM Systems Director. If you intend to keep

Table 1 lists the hardware requirements for IBM Storage Configuration Manager.

*Table 1. Minimum hardware requirements for x86-compatible systems*

Application	CPU speed	RAM	Disk space	Display
IBM Storage Configuration Manager	Pentium 1.5 GHz	1 GB	120 MB	256 colors (Web browser)

**Restriction:** A single instance of IBM Storage Configuration Manager cannot support more than 4 chassis (see Chapter 3, “Planning,” on page 7).

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## Firmware requirements

Before upgrading the firmware on your managed devices, ensure that you update IBM Storage Configuration Manager with the latest version.

For detailed instructions, refer to the installation and user guide for your managed device.

Before installing IBM Storage Configuration Manager, use Update Express Lite and the Update System Pack Installer to update your Series X configuration to the latest system pack level. Updating to the latest system pack level ensures that all of the required drivers and firmware are installed at compatible levels. You can download and install the appropriate system pack level from IBM using the Update System Pack Installer from the following site:

<http://www.ibm.com/systems/management/xpress.html>

For more information, refer to the following sources:

- README file for UpdateExpress System Pack Installer
- *UpdateXpress System Pack Installer User's Guide*
  - InfoCenter: <http://publib.boulder.ibm.com/infocenter/toolsctr/v1r0/index.jsp>
  - PDF file: <http://www.ibm.com/systems/management/xpress.html>
- UpdateXpress System Pack Advanced Customization (white paper):  
<http://www.ibm.com/systems/management/xpress.html>

IBM BladeCenter and device configuration updates must be compatible to match the IBM Storage Configuration Manager latest version. The hardware configuration update process includes the following sequence of steps:

1. Update or install the latest version of IBM Storage Configuration Manager.
  - Note:** When updating the RAID Controller firmware from 1.0.x.x to 1.2.x.x, pre-verifying the RAID Subsystem is not supported.
2. Perform the following steps for every instance of a manager or agent that is used to monitor or configure the device:
  - a. Stop the IBM Storage Configuration Manager service (see “Stopping and restarting the IBM Storage Configuration Manager service” on page 32).
  - b. Stop the IBM Storage Configuration Manager agents (see “Stopping and restarting the IBM Storage Configuration Agents service” on page 34).
  - c. Disable the IBM Storage Configuration Manager from restarting on reboot during the configuration update process (see “Disabling automatic restart of the IBM Storage Configuration Manager service on Linux” on page 33 and “Disabling automatic restart of the IBM Storage Configuration Manager service on Windows” on page 33).
  - d. Disable the IBM Storage Configuration Manager agents from restarting on reboot during the configuration update process (see “Disabling automatic restart of the IBM Storage Configuration Agents service on Linux” on page 34 and “Disabling automatic restart of the IBM Storage Configuration Agents service on Windows” on page 35).
3. Complete the IBM BladeCenter and device configuration update by following the detailed instructions in the installation guide for the managed device.

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## Supported operating systems

IBM Storage Configuration Manager features can be installed (separately) on a variety of Windows and Linux systems.

The following operating systems support IBM Storage Configuration Manager:

- Microsoft Windows XP
- Microsoft Windows Server 2008
- Microsoft Windows Server 2003 or 2003 R2
  - Enterprise Edition
  - Enterprise x64 Edition
  - Standard Edition
  - Standard x64 Edition
  - Web Edition
- Red Hat Enterprise Linux
  - Version 4 AS for x86/AMD64/EM64T
  - Version 4 ES for x86/AMD64/EM64T
  - Version 5 AS for x86/AMD64/EM64T
  - Version 5 ES for x86/AMD64/EM64T
- SUSE LINUX
  - Enterprise Server 9 for x86/AMD64/EM64T
  - Enterprise Server 10 for x86/AMD64/EM64T
  - Enterprise Server 11 for x86/AMD64/EMT64T

**Important:** All operating system service packs must be installed.

**Note:** The operating systems listed here are also supported as VMWare guest operating systems.

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## Software requirements

If you are installing IBM Storage Configuration Manager on an HS21 or LS21 blade server, you must install the Broadcom Ethernet Software on the blade where you install IBM Storage Configuration Manager.

For more information, see “Downloading the Broadcom Ethernet Software” on page 18.

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## Browser requirements

You can connect to IBM Storage Configuration Manager from any host on the network using one of the following Web browsers:

- Microsoft Internet Explorer 6.x, 7.x, and 8.x
- Mozilla Firefox 2.x and 3.x

**Note:** When using IBM Storage Configuration Manager, do not navigate away from pages that are performing IBM Storage Configuration Manager operations, including wizards.

---

## TCP port access requirements

IBM Storage Configuration Manager processes require access to several TCP ports in the installation environment. If these ports are blocked by a firewall or used by another process, some IBM Storage Configuration Manager functions might not work.

- If the Linux operating system does not have a default installed Common Information Model (CIM) service, the IBM CIM service uses the CIM default ports 5988 and 5989.
- For all other Linux operating systems, the IBM CIM service uses ports 15988 and 15989.

Table 2 lists the TCP ports used by the various IBM Storage Configuration Manager processes. (The ↔ symbol indicates that either component can function as the initiator or the listener.) Table 3 lists the TCP ports used by the various IBM Storage Configuration Manager devices.

*Table 2. TCP ports used by IBM Storage Configuration Manager processes*

Process	TCP port	
	Linux	Windows
IBM Storage Configuration Manager Service ↔ Web browser	32100 32101	32100 32101
IBM Storage Configuration Manager service ↔ CIM service	5988 5989 15988 15989	5988 5989

*Table 3. TCP ports used by IBM Storage Configuration Manager devices*

Device	TCP port	
	Linux	Windows
IBM Storage Configuration Manager XML API port	6641	6641
IBM Storage Configuration Manager firmware upload port	6643	6643
SAS RAID Module port	18084 18087	18084 18087

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## Chapter 3. Planning

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### Planning for IBM Storage Configuration Manager 2.20.0 installed on a network with IBM Systems Director 6.x (optional)

IBM Storage Configuration Manager 2.20.0 is a stand-alone application and does not require IBM Systems Director. IBM Storage Configuration Manager and IBM Systems Director can exist in the same network, but they cannot be installed on the same server.

**Note:** As of IBM Storage Configuration Manager 2.20.0, IBM ServeRAID MR Controllers and IBM Integrated RAID Controllers are no longer supported devices in IBM Storage Configuration Manager. You can continue to manage these devices using the Storage Management feature in IBM Systems Director.

If your environment has multiple instances of IBM Storage Configuration Manager, all instances of IBM Storage Configuration Manager 2.20.0 must be installed on separate servers (Table 4) and must manage separate devices so that no two instances attempt to manage the same instance of a device.

*Table 4. Example standalone*

Server1	IBM Storage Configuration Manager 2.20.0
Server2	IBM Storage Configuration Manager 2.20.0

---

### Planning for IBM Storage Configuration Manager (required)

IBM Storage Configuration Manager 2.20.0 can be installed in a network environment that has IBM Systems Director or an older version of IBM Storage Configuration Manager.

IBM requires that when installed in such an environment that any of the following instances be installed on separate servers:

- IBM Systems Director 5.20.3
- IBM Systems Director 6.x
- IBM Storage Configuration Manager 1.20.0
- IBM Storage Configuration Manager 2.20.0

When using an environment with installed IBM Systems Director 6.x, IBM Storage Configuration Manager is not needed since the Storage Management feature in IBM Systems Director 6.x contains all of the same functionality. For more information on using IBM Systems Director, see the IBM Systems Director Information Center at <http://publib.boulder.ibm.com/infocenter/director/v6r1x/index.jsp>

The planning sections that follow describe the operating system requirements that must be met before installing IBM Storage Configuration Manager. At the end of each section are the potential install errors that may appear in logs if these requirements are not met before attempting to install.

The planning sections then document the install options that can be selected during the installation of IBM Storage Configuration Manager.

## Planning for Linux

### Disable Linux slpd daemons that cannot register agents

IBM Storage Configuration Manager agents cannot be installed on Linux systems running a slpd daemon that is not SLP compliant and does not register agents. You may decide to disable the slpd daemon on a Linux system before attempting to install IBM Storage Configuration Manager, however the IBM Systems Director Platform Agent disables the slpd daemon automatically.

### Setting SE Linux to permissive mode during installation

IBM Systems Director and IBM Storage Configuration Manager do not support install on a Linux system that is running SE Linux.

In order to install on a machine with SE Linux, you must set SE Linux to permissive mode.

To verify that SE Linux is loaded, check if there are files under `/selinux` by typing this command:

```
ls /selinux
```

The following command sets SE Linux to permissive mode:

```
/usr/sbin/setenforce Permissive
```

The following command prints 0 to verify that SE Linux is set to permissive mode:

```
cat /selinux/enforce; echo
```

After the IBM Storage Configuration Manager installation is complete, use the following command to restore SE Linux to enforcing mode:

```
/usr/sbin/setenforce Enforcing
```

The following command prints 1 to verify that SE Linux is set to enforcing mode:

```
cat /selinux/enforce; echo
```

To disable SE Linux for the entire system, you must modify `/etc/grub.conf` or `/etc/selinux/config`. However, this is not necessary if you are only installing IBM Storage Configuration Manager.

## Linux server DNS configuration

Before installing IBM Storage Configuration Manager on a Linux system, you must confirm that the DNS can resolve the IP address for `localhost` and the local hostname, such as `myhostname.xyz.com`. Doing so ensures that IBM Systems Director Platform Agent can run properly and that a browser can connect to the system using either the address of `localhost` or the hostname output by `hostname -f`.

If the DNS is not properly configured on the Linux system, a browser attempting to connect using a URL containing `localhost` or `hostname` generates errors in the browser and fails to connect. The examples below show error messages that can be displayed when you attempt to connect a browser to a Linux machine that does not have DNS properly configured and the Linux machine is running the installed IBM Storage Configuration Manager.

In a browser running on Windows:

---

```
Error 404: Servlet [_ibmjsp.scmrbce.faces.page.rbce.domain._ViewAllBladeCenter]:
Could not find required servlet - _ibmjsp.scmrbce.faces.page.rbce.domain._ViewAllBladeCenter

Error 404: Servlet [_ibmjsp.scmrbce.faces.page.rbce.storage._Storage]:
Could not find required servlet - _ibmjsp.scmrbce.faces.page.rbce.storage._Storage
```

---

In a browser running on Linux:

---

```
Server Page Not Found
```

---

To ensure that the DNS can resolve the IP address for `localhost` and the local hostname, confirm that the file `/etc/hosts` includes lines similar to the following:

```
9.10.20.30 myhostname.xyz.com myhost
9.20.40.50 rsm-7.in.ibm.com rsm-7
127.0.0.1 localhost
```

You can confirm the Linux system has properly configured DNS by testing the following ping commands (note the use of tick marks—this will be executed as a command):

```
ping localhost
ping `hostname -f`
```

You can also confirm that the configuration of `localhost` address `127.0.0.1` in the file `/etc/hosts` has not been changed or modified.

Examples include:

Red Hat Enterprise Linux 5.2:

```
/etc/hosts
127.0.0.1 myhostname localhost.localdomain localhost
```

SUSE Linux Enterprise System 9.3

```
/etc/hosts
127.0.0.1 localhost
```

**Note:** After modifying the DNS configuration, you must restart the network services for the changes to take effect.

## Planning for Red Hat Enterprise Linux 5

If Red Hat Enterprise Linux 5 was installed without selecting the full install mode, some of the Linux libraries required for installing IBM Storage Configuration Manager in wizard mode are not present on the system.

To install IBM Storage Configuration Manager in wizard mode on Red Hat Enterprise Linux 5, you must first ensure that the following Linux libraries (or symlinks to libraries) are installed on the system:

```
/usr/lib/libXp.so.6 -> libXp.so.6.2.0
/usr/lib/libXp.so.6.2.0

/usr/lib/libXmu.so.6 -> libXmu.so.6.2.0
/usr/lib/libXmu.so.6.2.0
```

To test whether the RPMs that include these libraries have been installed, use the following commands:

```
rpm -qa | grep libXp
rpm -qa | grep libXmu
```

If these RPMs have not been installed, you can obtain them from the second CD of the Red Hat Enterprise Linux 5 distribution. Install the missing RPMs as follows:

```
rpm -i libXmu-1.0.2-5.i386.rpm
rpm -i libXp-1.0.0-8.i386.rpm
```

Example using yum to install libXmu and libXp on Linux:

```
yum install libXmu
yum install libXp
```

If these RPMs do not install the required symlinks, then type the following Linux commands:

```
cd /usr/lib
ln -s libXp.so.6.2.0 libXp.so.6
ln -s libXmu.so.6.2.0 libXmu.so.6
```

After you confirm that the required RPMs, libraries, and symlinks are installed on the system, you can proceed with the IBM Storage Configuration Manager installation wizard.

**Note:** Before starting the installer, you must disable the security enforcement settings in `/etc/sysconfig/selinux`. Set `selinux=disabled` and then reboot the host (see “Setting SE Linux to permissive mode during installation” on page 8).

On Red Hat Enterprise Linux 5, plan to first install the required `libstdc++` RPM before you install IBM Storage Configuration Manager or IBM Systems Director Platform Agent. This `libstdc++` RPM is required by both IBM Storage Configuration Manager and IBM Systems Director Platform Agent, so you must install it first if it is missing:

Example to check if `libstdc++` is already installed:

```
rpm -qa | grep libstdc
```

Example to install `libstdc++` on SLES9.2:

```
rpm -Uvh libstdc++-3.3.3-43.41*.rpm
```

Example to install libstdc++ on RHEL5.2:  
rpm -Uvh compat-libstdc++-33\*.i386.rpm

Example using yum to install libstdc++ on Linux:  
yum install compat-libstdc++-33

## IBM Storage Configuration Manager installation location

IBM Storage Configuration Manager can be installed in any location that you specify.

During the installation process, you are prompted to select the drive and directory where IBM Storage Configuration Manager will be installed. If you do not specify a different value, the default location for your operating system is used (see Table 5).

Table 5. Default installation location for IBM Storage Configuration Manager

Operating system	Default installation directory
Windows (32-bit)	C:\Program Files\IBM\SCM
Windows (64-bit)	C:\Program Files (x86)\IBM\SCM
Linux	/opt/ibm/scm

## IBM Storage Configuration Manager installation options

During the installation of IBM Storage Configuration Manager, you are prompted to specify values for several installation options.

If you do not specify a value, the default for that option is used (see Table 6).

Table 6. Default values for IBM Storage Configuration Manager installation options

Option	Default value
IBM Storage Configuration Manager TCP port	32100
IBM Storage Configuration Manager TCP port secure	32101

## IBM Storage Configuration Manager installation types

After the IBM Storage Configuration Manager installer presents the IBM Storage Configuration Manager license and you accept or change the default settings, the installer displays a menu of install types that are used to select the IBM Storage Configuration Manager features that will be installed. For IBM Storage Configuration Manager 2.20.0, only a full install is provided:

Choose the installation type that best suits your needs:

0 SCM Full Install for all devices  
The program will be installed with SCM for all devices.

After you select the install type, a summary page displays the IBM Storage Configuration Manager features that will be installed:

#### Pre-Installation Summary

---

Please Review the Following Before Continuing:

Product Name:

IBM Storage Configuration Manager

Install Folder:

/opt/ibm/scm

Link Folder:

/root/Desktop/IBM Storage Configuration Manager

Disk Space Information (for Installation Target):

Required: 445,915,355 bytes

Available: 92,897,173,504 bytes

PRESS <ENTER> TO CONTINUE

The **SCM Full Install for all devices** installs all IBM Storage Configuration Manager managers and agents for all devices. You will connect a browser to this machine and login to IBM Storage Configuration Manager to manage your devices. Each instance of an IBM Storage Configuration Manager full install can manage up to four chassis. If you have more than four chassis in your environment, you will need to install an additional instance of IBM Storage Configuration Manager on a separate machine for each set of four chassis to be managed.

## IBM Storage Configuration Manager Update Install

IBM Storage Configuration Manager uses the Flexera InstallAnywhere installer (IA) to install the software. When you select the install type, the installer performs one of these basic installs depending on your situation:

### First time install

The installer does not detect a previous version of IBM Storage Configuration Manager, and a new instance of IBM Storage Configuration Manager is installed.

### Update install

The installer detects an older version of IBM Storage Configuration Manager in the install location, and this version updates the older version that is on the machine.

---

## Chapter 4. Configuring Web browsers

To use your preferred Web browser with IBM Storage Configuration Manager, you might have to perform some configuration.

- **Mozilla Firefox** might require configuration of the Linux PATH environment variable.

**Restriction:** IBM Storage Configuration Manager does not support the **Back** and **Forward** buttons of Web browsers (or equivalent keyboard shortcuts). Clicking these buttons while connected to IBM Storage Configuration Manager causes unexpected behavior. Use only the navigation buttons provided by the IBM Storage Configuration Manager in the browser window.

---

### Configuring Mozilla Firefox

Before installing IBM Storage Configuration Manager, make sure that you have addressed the following configuration issues for the Mozilla Firefox Web browser.

**Important:** If the **FireBug** development add-on to Firefox is installed, you **must** disable it. FireBug is not compatible with IBM Storage Configuration Manager and is known to cause unpredictable behavior.

**Linux only:** Firefox is the default browser for accessing IBM Storage Configuration Manager. If you intend to install IBM Storage Configuration Manager on a Linux system, you must ensure that the user PATH environment variable includes the location of the Firefox executable file. Otherwise, the installation process might generate an error message.

**Restriction:** SUSE Linux Enterprise Server 9 does not support Firefox 3.x. Upgrade to a later version of SUSE Linux Enterprise Server or use Firefox 2.x.

---

### Configuring a browser to clear the cache

You must clear the browser cache before reconnecting to the IBM Storage Configuration Manager Web site after any of the following operations:

- Performing an update install to a new IBM Storage Configuration Manager version
- Performing any configuration or port changes to the IBM Storage Configuration Manager Web server
- Performing any configuration or port changes to the CIM Server running the device Agent CIM providers

After completing any of these operations, clear the browser cache *before* attempting to reconnect your browser to the IBM Storage Configuration Manager server. This is important because the pages cached by your browser contain incorrect old data that must be cleared.

In Firefox, select **Tools > Clear Private Data**. By default, a dialog prompts you for the specific items you want to clear. You must select **Cache**. (Optionally, you can also select other items, such as **Browsing History** or **Cookies**.)

In Internet Explorer 7, select **Tools > Delete Browsing History** and click **Delete Files**.

---

## Chapter 5. Installing IBM Systems Director

IBM Storage Configuration Manager 2.20.0 does not require you to install or use IBM Systems Director. If you plan to install IBM Systems Director, the following references are provided.

**Important:**

- IBM Storage Configuration Manager and IBM Systems Director cannot be installed on the same server.
- Each device can only be configured by a single instance of either IBM Systems Director 6.x or IBM Storage Configuration Manager
- As of IBM Storage Configuration Manager 2.20.0, IBM ServeRAID MR Controllers and IBM Integrated RAID Controllers are no longer supported devices in IBM Storage Configuration Manager. You can continue to manage these devices using the Storage Management feature in IBM Systems Director.

For instructions on installing IBM Systems Director 5.20.3 with IBM Storage Configuration Manager 1.20.0, see the following documents:

- Chapter 5 of the *IBM Storage Configuration Manager 1.20.0 Planning, Installation, and Configuration Guide*, available at <http://www.ibm.com/systems/support/management>.
- *IBM Systems Director 5.20 Planning, Installation, and Configuration Guide*, available at <http://www.ibm.com/systems/support/management>

For information on installing IBM Systems Director, see the *IBM Systems Director Planning, Installation, and Configuration Guide* at <http://www.ibm.com/systems/support/management>.



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## Chapter 6. Installing IBM Storage Configuration Manager

IBM Storage Configuration Manager can be installed in wizard, console, or silent mode.

### Wizard mode

Installation is performed using interactive responses to a graphical interface.

### Console mode

Installation is performed remotely using interactive responses to a command line interface.

### Silent mode

Installation is performed without any prompting for responses. A predefined response file determines all installation options.

**Important:** If you use Windows Remote Desktop to install IBM Storage Configuration Manager, use the silent mode command `mstsc /admin` or `mstsc /console`.

**Important:** If you are using Microsoft Windows 2008, IBM Storage Configuration Manager 2.20.0 Windows Setup requires Microsoft Windows Installer (MSI) version 4.5 or above. You must download and install MSI version 4.5 before installing IBM Storage Configuration Manager 2.20.0 on Windows 2008. You can download MSI 4.5 at the following site:

[http://www.microsoft.com/downloads/details.aspx?displaylang=en  
&FamilyID=5a58b56f-60b6-4412-95b9-54d056d6f9f4](http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=5a58b56f-60b6-4412-95b9-54d056d6f9f4)

---

## Downloading the IBM Storage Configuration Manager installer

To install IBM Storage Configuration Manager, download the installation file from the IBM Director Downloads Web site.

### About this task

The IBM Storage Configuration Manager installation file is available as a .zip file for Windows installations, as a .tar file for Linux installations, and as an ISO image if you prefer to create an installation CD.

To download the file you need, perform the following steps:

### Procedure

1. Point your Web browser to: <http://www.ibm.com/systems/support/management>
2. On the **Product Family** menu, select IBM Storage Configuration Manager and click **GO**. The IBM Storage Configuration Manager download page displays.
3. In the **Software installation/configuration** table, select the IBM Storage Configuration Manager version 2.20.0. The IBM Storage Configuration Manager version 2.20.0 page displays.
4. Download the file you need for your installation (TAR, ZIP, or ISO). If you download the .tar file or .zip file, extract the contents into a temporary

directory. If you download the ISO disc image, use your preferred CD-burning application to create an installation CD from the ISO.

## What to do next

To have the installation occur automatically on Linux when you insert the CD into the CD-ROM drive, configure your Linux session managers as instructed in Table 7.

Table 7. Configuring Linux session managers for automatic installation from CD

<b>KDE</b>	<ul style="list-style-type: none"><li>• Ensure that the autorun package is installed on the intended SCM installation machine.</li><li>• Copy the Autostart file to the user \$HOME directory by typing the following command: <pre>cp /etc/skel/.kde/Autostart/Autorun.desktop \$HOME/.kde/Autostart</pre></li></ul> <p>This ensures that the autorun file in the CD root directory is executed at the time of CD insertion when running a KDE desktop.</p>
<b>GNOME</b>	Ensure that the package <code>magicdev</code> is installed. <code>magicdev</code> is a daemon that runs the autorun files on a CD when running a GNOME desktop.

---

## Downloading the Broadcom Ethernet Software

If you install IBM Storage Configuration Manager on an HS21 or LS21 Blade server, you must install the Broadcom Ethernet Software on the blade where you install IBM Storage Configuration Manager.

### About this task

To obtain the Broadcom Ethernet Software, perform the following steps:

#### Procedure

1. Point your Web browser to: <http://www.ibm.com/systems/support/management>
2. Select **BladeCenter** from the navigation menu.
3. Select your Blade type (**BladeCenter HS21** or **BladeCenter LS21**) from the **Product family** list and click **Go**. The Support for BladeCenter page displays.
4. Select **Networking** from the **Refine results** list and click **Go**. A list of available downloads and drivers displays.
5. In the list, select **Broadcom NetXtreme II Gigabit Ethernet Software CD vT4.6**.
6. Download the CD image.
7. Install the CD image on the Blade server where you are installing IBM Storage Configuration Manager.

---

## Installing IBM Storage Configuration Manager (wizard mode)

The simplest way to install IBM Storage Configuration Manager is to use the install wizard.

### Before you begin

To install with the wizard, perform the following steps.

### Procedure

1. If any version of IBM Storage Configuration Manager is already installed, log off from the console and stop the IBM Storage Configuration Manager service (see “Stopping and restarting the IBM Storage Configuration Manager service” on page 32).
2. Start the installation wizard. You can do this in several ways.

#### To install from a CD:

- a. Insert it in the CD-ROM drive.
- b. If the installer does not start automatically, change to the top-level directory of the installation CD and type:

*Linux command:* `sh ./scm/linux/i386/FILES/scminstall.bin`

*Windows command:* `\scm\windows\i386\FILES\scminstall.exe`

#### To install using a downloaded installer file:

- a. Open a Linux or Windows command-line window.
- b. Type the command to start the wizard:

*Linux command:* `sh tempdir/FILES/scminstall.bin`

*Windows command:* `tempdir\FILES\scminstall.exe`

where *tempdir* is the path to the temporary directory where you extracted the contents of the TAR or ZIP archive (see “Downloading the IBM Storage Configuration Manager installer” on page 17).

The IBM Storage Configuration Manager wizard starts.

**Note:** The wizard may take as long as a minute to load and start. While the wizard loads, do not attempt to restart the wizard.

3. Follow the prompts in the wizard.

**Note:** IBM Storage Configuration Manager contains only one install set, the **SCM Full Install for all devices**. This set installs all IBM Storage Configuration Manager features including all managers and agents for all devices. A summary dialog displays a list of the IBM Storage Configuration Manager software that will be installed.

4. When you reach the Pre-Installation Summary page, click **Install** to begin the installation.

**Important:** Do not cancel the installation of IBM Storage Configuration Manager. If you do so, the system might not be completely restored. Allow the installation to complete and then uninstall IBM Storage Configuration Manager (see Chapter 8, “Uninstalling IBM Storage Configuration Manager,” on page 27).

**Note:** The progress bar that displays during the installation may pause during the installation. This is normal if you have long running tasks on your system.

When the long running tasks complete, the installation continues and the progress bar will resume indicating progress.

5. When the install completes, click **Done** to exit the wizard.

## What to do next

**Note:** If a power loss or network failure causes the IBM Storage Configuration Manager installation to fail, reboot your system before attempting the installation again.

---

## Installing IBM Storage Configuration Manager (console mode)

You can use console mode to install IBM Storage Configuration Manager if you need access to a command-line interface during installation. This can be useful for installing remotely if graphics capabilities are not available.

### Before you begin

Verify that IBM Systems Director 6.x is not installed on the same server before performing the following steps.

When you install in console mode, you can specify the installation directory, installation type, and port settings. After making your selection, you see the choices displayed in Figure 1 that allow you to select how to continue. Your choices are the following:

- Accept the settings and continue.
- Go back to the previous screen.
- Cancel installation.
- Redisplay the selection to allow you to change the selection.

Figure 1 shows an example of what is displayed when you are installing in console mode.

```
-----  
IBM Storage Configuration Manager (SCM)  
  
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] 1  
-----
```

*Figure 1. Console mode example*

In this example, press **1** to continue.

**Tip:** You can change the default installation settings for console mode by specifying a response file option on the command line.

**Note:** Default settings are used for all options other than the installation directory and installation type. You must use an options file to change those settings. Also, for all other options, the message shown in Figure 1 is displayed repeatedly for each option and nothing is displayed for you to select. You must repeatedly Press 1 for Next to continue to the next dialog. Your choices are limited to the following:

- Accept the settings and continue.
- Go back to the previous screen.
- Cancel installation.

Perform the following steps to install IBM Storage Configuration Manager when you want to use a command-line interface for installation.

## Procedure

1. If any version of IBM Storage Configuration Manager is already installed, log off from the console and stop the IBM Storage Configuration Manager service (see “Stopping and restarting the IBM Storage Configuration Manager service” on page 32).
2. Use the `cd` command to set the current directory to the one containing the installer.
3. To start the IBM Storage Configuration Manager installer, type the appropriate command for your operating system:

*Table 8. Command to start IBM Storage Configuration Manager installer*

Operating system	Command
Windows	<code>scminstall.exe -i console</code>
Linux	<code>scminstall.bin -i console</code>

The IBM Storage Configuration Manager install console starts.

**Note:** The installer may take as long as a minute to load and start. Wait for the installer to begin and do not attempt to restart the installer command.

4. Following the prompts, choosing **SCM Full Install for all devices** to install all features including all managers and agents for all devices..

## Results

**Note:** The progress bar that displays during the installation may pause during the installation. This is normal if you have long running tasks on your system. When the long running tasks complete, the installation continues and the progress bar will resume indicating progress.

**Important:** Do not attempt to interrupt or cancel the installation of IBM Storage Configuration Manager software. If you do so, the system might not be completely restored. Allow the installation to complete and then uninstall IBM Storage Configuration Manager (see Chapter 8, “Uninstalling IBM Storage Configuration Manager,” on page 27).

**Note:** If a power loss or network failure causes the IBM Storage Configuration Manager installation to fail, reboot your system before attempting the installation again.

---

## Installing IBM Storage Configuration Manager (silent mode)

Perform the following steps to install IBM Storage Configuration Manager when you want the installation to complete silently without being prompted for responses.

### Procedure

1. If any version of IBM Storage Configuration Manager is already installed, log off from the console and stop the IBM Storage Configuration Manager service (see “Stopping and restarting the IBM Storage Configuration Manager service” on page 32).
2. To start the IBM Storage Configuration Manager installer, type the appropriate command for your operating system.

**Windows:** `scminstall.exe -f SCMFull.properties -i silent`

**Linux:** `scminstall.bin -f SCMFull.properties -i silent`

### Results

On Windows, control returns to the command line prompt immediately after you run the installation command. The `scminstall.exe` process continues to run in the background. (You can verify this by using the Windows Task Manager.) If you want the Windows installation process to complete before control returns to the command line prompt, add "start /w" to the beginning of the installation command.

### Example

**Example 1:** The following command returns control to the command line prompt immediately while `scminstall.exe` runs in the background.

```
scminstall.exe -f SCMFull.properties -i silent
```

**Example 2:** The following command returns control to the command line prompt only after `scminstall.exe` has finished running.

```
start /w scminstall.exe -f SCMFull.properties -i silent
```

### What to do next

**Note:** If a power loss or network failure causes the IBM Storage Configuration Manager installation to fail, reboot your system before attempting the installation again.

---

## Chapter 7. Post-installation tasks

This chapter describes tasks that you might have to perform after installing IBM Storage Configuration Manager.

- You should configuration security settings to prevent unauthorized access to your managed devices (see “Configuring security”).
- Depending on the options you selected, you might have to manually start a Web browser and establish a connection with IBM Storage Configuration Manager (see “Connecting to IBM Storage Configuration Manager” on page 24).
- You must log in with your operating system ID and password (see “Logging in” on page 25).

---

### Configuring security

To prevent unauthorized access to your managed devices, you should configure several types of security settings.

- To prevent an unauthorized Windows user from logging in to the managed device, ensure that guest account credentials are properly configured. See “Configuring Windows guest credentials” on page 24
- When installing a managed device, change any user passwords immediately after installation. See the IBM Storage Configuration Manager online help for information on changing SAS Switch and RAID Subsystem passwords through IBM Storage Configuration Manager.
- To configure storage, ensure that the host login credentials you are using have administrator privileges on the Windows operating system or root privileges on the Linux operating system.

### Secure Web browser connections

When you use a Web browser to connect to IBM Storage Configuration Manager, use the following tips to establish a secure connection.

- Always specify a Web address that begins with **https:** to force your browser to use the encrypted Secure Socket Layer (SSL) protocol. Addresses that begin with the **http:** prefix are insecure and vulnerable to eavesdropping, tampering, and message forgery.
- After installing IBM Storage Configuration Manager, you should replace the temporary SSL certificates with official ones. For details, refer to:  
[http://wilson.boulder.ibm.com/infocenter/usmitk/v1r0/index.jsp?topic=/com.ibm.usmi.lwi.doc/lwi\\_config\\_lightweightruntimeslconfiguration.html](http://wilson.boulder.ibm.com/infocenter/usmitk/v1r0/index.jsp?topic=/com.ibm.usmi.lwi.doc/lwi_config_lightweightruntimeslconfiguration.html)
- If you use IBM Storage Configuration Manager in a tabbed Web browser, click the **Logout** link in IBM Storage Configuration Manager to securely end your session. Closing the IBM Storage Configuration Manager tab does *not* log you out. You can also close the browser window (all tabs) to end your session.
- If you cannot view the IBM Storage Configuration Manager console in Internet Explorer, perform the following steps to ensure the site is added to your browser's list of trusted sites:
  1. Select **Tools > Internet options > Security > Trusted sites**.
  2. Click **Sites**.
  3. Click **Add**.
  4. Click **Close**.

5. Click OK.

## Configuring Windows guest credentials

To prevent an unauthorized Windows user from logging in to IBM Storage Configuration Manager, ensure that guest account credentials are properly configured.

### Before you begin

To configure the guest credentials, perform the following steps:

### Procedure

1. Select **Control Panel > Administrative Tools > Computer Management**.
2. Select **Local Users and Groups > Users > Guest**.
3. Make sure that the Guest user name and password fields are not empty.

**Note:** Guest accounts are not supported in IBM Storage Configuration Manager. Guest accounts cannot change configuration options.

---

## Connecting to IBM Storage Configuration Manager

You can connect to IBM Storage Configuration Manager by starting the IBM Storage Configuration Manager Launch Manager on that machine using the following installed menu shortcuts.

*Table 9. Shortcut to start IBM Storage Configuration Manager Launch Manager*

Operating system	Shortcut
Linux (KDE)	<b>Desktop &gt; IBM Storage Configuration Manager &gt; IBM Storage Configuration Manager</b>
Windows	<b>Start &gt; Programs &gt; IBM Storage Configuration Manager &gt; IBM Storage Configuration Manager</b>

You can also connect by starting a Web browser and entering the appropriate URL.

### Notes®:

- You can choose where to install IBM Storage Configuration Manager shortcuts during the installation. The default on Linux is `/USER_HOME/Desktop`. The default on Windows is **Start->Programs**.
- For security reasons, you must enter a URL that begins with the **https:** prefix. For details, see “Secure Web browser connections” on page 23.
- To use your preferred Web browser with IBM Storage Configuration Manager, you might have to perform some configuration. For details, see Chapter 4, “Configuring Web browsers,” on page 13.
- If you cannot view the IBM Storage Configuration Manager console in Internet Explorer, ensure the site is added to your browser's list of trusted sites. For details, see “Secure Web browser connections” on page 23.
- IBM Storage Configuration Manager does not support the **Back** and **Forward** buttons of Web browsers (or equivalent keyboard shortcuts). Clicking these buttons while connected to IBM Storage Configuration Manager causes unexpected behavior. Use only the navigation buttons provided by the IBM Storage Configuration Manager in the browser window.

This example connects from a Web browser on the machine where IBM Storage Configuration Manager is installed (localhost):

```
https://localhost:32101/ibm/console/logon.jsp
```

This example connects from a Web browser on a different machine, using an IP address to specify the machine where IBM Storage Configuration Manager is installed:

```
https://IP_address:32101/ibm/console/logon.jsp
```

---

## Logging in

After connecting your Web browser to IBM Storage Configuration Manager, log in by entering your operating system ID and password. To access RAID controller functions, ensure that the host login credentials you are using have administrator privileges on the Windows operating system or root privileges on the Linux operating system.

### **Important:**

- The operating system password must not contain the % character. Use of this character in the password prevents the browser from accessing IBM Storage Configuration Manager pages.
- If your operating system password changes while you are logged into IBM Storage Configuration Manager, you will be disconnected from the server. Any functions on the current page will no longer work, and navigating to a different IBM Storage Configuration Manager page redirects to the login page. This behavior is normal, and you will need to use your new password to log back in to IBM Storage Configuration Manager.

If IBM Storage Configuration Manager is installed on a Windows server configured with multiple domains, you must specify the domain by entering the username in the following format:

```
username@domain
```

For example, to log in as administrator on the 7z4A.local domain, enter your username as:

```
administrator@7z4A.local
```

**Attention:** If guest credentials are not properly configured, it is possible for an unauthorized user to log in to IBM Storage Configuration Manager. For instructions on how to prevent this from happening, see “Configuring Windows guest credentials” on page 24.



---

## Chapter 8. Uninstalling IBM Storage Configuration Manager

You can uninstall IBM Storage Configuration Manager in wizard or silent mode.

### Wizard mode

The uninstall is performed using interactive responses to a graphical interface.

### Silent mode

The uninstall is performed without any prompting for responses.

---

## Uninstalling IBM Storage Configuration Manager (wizard mode)

Perform the following steps to uninstall IBM Storage Configuration Manager using the wizard.

### Procedure

1. Discontinue and log off all currently running sessions.
2. Start the uninstaller. You can do this in several ways.

#### With a menu shortcut:

Use your operating system's menus to select a shortcut that starts the uninstaller (see Table 10)

**Note:** On a Red Hat Enterprise Linux 5 system, libXp RPM must be installed for you to use the shortcut to start the uninstaller. (See “Planning for Red Hat Enterprise Linux 5” on page 10.)

Table 10. Shortcut to uninstall IBM Storage Configuration Manager Launch Manager

Operating system	Shortcut
Linux (KDE)	Main > Development > More Programs > IBM Storage Configuration Manager > Uninstall IBM Storage Configuration Manager
Windows	Start > All Programs > IBM Storage Configuration Manager > Uninstall IBM Storage Configuration Manager

#### With Add or Remove Programs:

On a Windows system, you can also use **Add/Remove Programs** to start the installer.

- a. Select **Start > Control Panel > Add or Remove Programs**.
- b. Select **IBM Storage Configuration Manager** and click **Change/Remove**.

#### From the command line:

You can start the uninstaller using the appropriate command for your operating system, where *installfolder* is the location where IBM Storage Configuration Manager was installed (see Table 5 on page 11):

**Windows:** `installfolder\Uninstall_IBM Storage Configuration Manager\Uninstall IBM Storage Configuration Manager.exe`

**Linux:** `installfolder/Uninstall_IBM Storage Configuration Manager/Uninstall IBM Storage Configuration Manager`

**Tip:** Starting the uninstaller from the command line is useful if you need to automate the uninstallation process with a script.

3. Follow the prompts, selecting all features when prompted for the features you want to uninstall.
4. When the uninstall completes, click **Done** to exit the wizard.

---

## Uninstalling IBM Storage Configuration Manager (silent mode)

Perform the following steps to uninstall IBM Storage Configuration Manager when you want the uninstallation to complete silently without being prompted for responses.

### Procedure

1. Discontinue and log off all currently running sessions.
2. Stop the IBM Storage Configuration Manager service (see “Stopping and restarting the IBM Storage Configuration Manager service” on page 32).
3. To start the uninstaller, type the appropriate command for your operating system, where *installfolder* is the location where IBM Storage Configuration Manager was installed (see “IBM Storage Configuration Manager installation location” on page 11):

**Windows:** *installfolder*\Uninstall\_IBM Storage Configuration Manager\Uninstall IBM Storage Configuration Manager.exe -i silent

**Linux:** *installfolder*/Uninstall\_IBM Storage Configuration Manager\Uninstall IBM Storage Configuration Manager -i silent

IBM Storage Configuration Manager is silently uninstalled.

### Example

**Windows example:** If the value of *installfolder* is C:\Program Files (x86)\IBM\SCM, enter the following command (including quotes):

```
"C:\Program Files (x86)\IBM\SCM\Uninstall_IBM Storage Configuration Manager\Uninstall IBM Storage Configuration Manager.exe" -i silent
```

**Linux example:** If the value of *installfolder* is /opt/ibm/scm, type the following command:

```
/opt/ibm/scm/Uninstall_IBM Storage Configuration Manager/Uninstall IBM Storage Configuration Manager -i silent
```

---

## Uninstalling IBM Storage Configuration Manager (console mode)

Perform the following steps to uninstall IBM Storage Configuration Manager when you want access to a command-line interface during the uninstallation.

### Procedure

1. Discontinue and log off all currently running sessions.
2. Stop the IBM Storage Configuration Manager service (see “Stopping and restarting the IBM Storage Configuration Manager service” on page 32).
3. To start the uninstaller, type the appropriate command for your operating system, where *installfolder* is the location where IBM Storage Configuration Manager was installed (see “IBM Storage Configuration Manager installation location” on page 11):

**Windows:** *installfolder*\Uninstall\_IBM Storage Configuration Manager\Uninstall IBM Storage Configuration Manager.exe -i console

**Linux:** *installfolder*/Uninstall\_IBM Storage Configuration Manager\Uninstall IBM Storage Configuration Manager -i console

### Example

**Windows example:** If the value of *installfolder* is C:\Program Files (x86)\IBM\SCM, enter the following command (including quotes):

```
"C:\Program Files (x86)\IBM\SCM\Uninstall_IBM Storage Configuration Manager\Uninstall IBM Storage Configuration Manager.exe" -i console
```

**Linux example:** If the value of *installfolder* is /opt/ibm/scm, type the following command:

```
/opt/ibm/scm/Uninstall_IBM Storage Configuration Manager/Uninstall IBM Storage Configuration Manager -i console
```



---

## Chapter 9. Troubleshooting

This topic contains scenarios and solutions to common IBM Storage Configuration Manager installation issues.

You can use the information here to resolve a technical issues on your own, by identifying the source of a problem, gathering diagnostic information, and knowing how to search knowledge bases to get online fixes. If you need to contact IBM Support, you can find out what diagnostic information the service technicians need to help you address your technical issue.

---

### Error displays when you install remotely using Microsoft Remote Desktop Connection for Mac

If you are performing a console mode install of IBM Storage Configuration Manager remotely using Microsoft Remote Desktop Connection for Mac, you may see an Incorrect Terminal Session error. To avoid this error, ensure you are an administrator on the local machine, then use the following steps to log in to a console session on the remote Windows server.

1. Open Remote Desktop Connection.
2. In the **Computer** field, enter the name or IP address of the Windows-based computer that you want to connect to, followed by /console. For example:  
MyFileServer/console
3. Click **Connect**
4. Enter your user name, password, and domain (if required).

---

### Troubleshooting known issues

This topic details some of the conditions that produce known issues for IBM Storage Configuration Manager.

#### Errors displayed following a reboot

The following errors may display when IBM Storage Configuration Manager reboots. You can ignore these errors as they do not affect IBM Storage Configuration Manager performance.

- IBM Director has encountered a problem and needs to close.
- tier1slp.exe has encountered a problem and needs to close.

## Warnings displayed during an install

The following warning messages may display during the IBM Storage Configuration Manager install or uninstall. You can ignore these warnings as they do not affect IBM Storage Configuration Manager performance.

- libxcb: WARNING!! Program tries to unlock a connection without having acquired a lock first, which indicates a program problem. There will be no further warnings about this issue.
- libxcb: Program tried to unlock an already locked connection, which indicates a program error. There will be no further warnings about this issue.

---

## Contacting IBM support

For inquiries regarding the IBM Storage Configuration Manager, IBM BladeCenter SAS Connectivity Module, or the IBM BladeCenter S SAS RAID Controller Module, use the IBM BladeCenter Support site at <http://www.ibm.com/systems/support/bladecenter>.

Use the Collect Support Data page in IBM Storage Configuration Manager to gather device status and log information if needed for IBM support.

---

## Stopping and restarting the IBM Storage Configuration Manager service

After installation, the IBM Storage Configuration Manager service starts automatically.

You can use it immediately to configure the managed devices. After configuration is complete, you can stop the IBM Storage Configuration Manager service on the server and restart it as needed. The procedures for stopping and starting the service vary depending on the operating system used by the server.

## Stopping and restarting the IBM Storage Configuration Manager service on Linux

You can stop and restart the IBM Storage Configuration Manager service by using menu shortcuts or by typing commands at the Linux command line.

On a system using the KDE desktop environment, you can use the following menu shortcuts to stop and start the IBM Storage Configuration Manager service:

- **Desktop > IBM Storage Configuration Manager > Stop IBM Storage Configuration Manager Server**
- **Desktop > IBM Storage Configuration Manager > Start IBM Storage Configuration Manager Server**

To stop or start the service from the command line, change to the directory where IBM Storage Configuration Manager was installed (see “IBM Storage Configuration Manager installation location” on page 11) and type the appropriate command as shown in Table 11.

*Table 11. Stop and start commands for IBM Storage Configuration Manager service (Linux)*

Action	Command
Stop	lwistop.sh

Table 11. Stop and start commands for IBM Storage Configuration Manager service (Linux) (continued)

Action	Command
Start	scmlwistart.sh

### Disabling automatic restart of the IBM Storage Configuration Manager service on Linux

By default, the IBM Storage Configuration Manager service on a Linux server automatically restarts after a reboot. To disable automatic restart, edit the system file `/etc/inittab` and comment out the following line:

```
#lwi::once:/opt/ibm/scm/lwi/bin/scmlwistart.sh > /dev/console 2>&1
```

## Stopping and restarting the IBM Storage Configuration Manager service on Windows

You can stop or start the IBM Storage Configuration Manager service by using shortcuts on the Start menu.

To stop or start the IBM Storage Configuration Manager service, use one of the following shortcuts:

- **Start > Programs > IBM Storage Configuration Manager > Stop IBM Storage Configuration Manager Server**
- **Start > Programs > IBM Storage Configuration Manager > Start IBM Storage Configuration Manager Server**

### Disabling automatic restart of the IBM Storage Configuration Manager service on Windows

By default, the IBM Storage Configuration Manager service on a Windows server automatically restarts after a reboot. To disable automatic restart, perform the following steps:

#### Procedure

1. Select **Start > Control Panel > Administrative Tools > Services**. A list of current Windows services is displayed.
2. Right-click **IBM SCM Service**.
3. Select **Properties**.
4. Change **Startup type** to **Manual**.

---

## Stopping and restarting the IBM Storage Configuration Agents service

After installation, the IBM Storage Configuration Agents service starts automatically. You might need to stop the agents to perform a firmware update. The procedures for stopping and starting the service vary depending on the operating system used by the server.

### Stopping and restarting the IBM Storage Configuration Agents service on Linux

You can stop and restart the IBM Storage Configuration Agents service by typing commands at the Linux command line.

To stop the agents:

```
/etc/init.d/dirsnmpd stop
/etc/init.d/tier1slpinst stop
/etc/init.d/cimserverd stop
/etc/init.d/cimlistenerd stop
/etc/init.d/ibmsa stop
```

To restart the agents:

```
/etc/init.d/ibmsa start
/etc/init.d/cimlistenerd start
/etc/init.d/cimserverd start
/etc/init.d/tier1slpinst start
/etc/init.d/dirsnmpd start
```

### Disabling automatic restart of the IBM Storage Configuration Agents service on Linux

By default, the IBM Storage Configuration Agents service on a Linux server automatically restarts after a reboot.

To disable automatic restart, use the following command:

```
/sbin/chkconfig cimserverd off
```

To enable automatic restart, use the following command:

```
/sbin/chkconfig cimserverd on
```

### Stopping and restarting the IBM Storage Configuration Agents service on Windows

You can stop or start the IBM Storage Configuration Agents service by using the Windows Services control panel.

#### Stopping the agents

To stop the agents, go to **Control Panel > Administrative Tools > Services** and stop the following services in the order specified:

1. IBM SLP SA
2. IBM Director Agent SLP Attributes
3. IBM Director CIM Listener
4. IBM Director Agent WMI CIM Server

Open the Windows Task Manager. From the **Processes** tab, select the `wmicpa.exe` process if it is running and click **End Task** to stop it.

## Restarting the agents

To restart the agents, go to **Control Panel > Administrative Tools > Services** and stop the following services in the order specified:

1. IBM Director Agent WMI CIM Server
2. IBM Director CIM Listener
3. IBM Director Agent SLP Attributes
4. IBM SLP SA

## Disabling automatic restart of the IBM Storage Configuration Agents service on Windows

By default, the IBM Storage Configuration Agents service on a Windows server automatically restarts after a reboot.

### About this task

To disable automatic restart, you must change the startup type of the following four Windows services:

- IBM SLP SA
- IBM Director Agent SLP Attributes
- IBM Director CIM Listener
- IBM Director Agent WMI CIM Server

### Procedure

1. Select **Start > Control Panel > Administrative Tools > Services**. A list of current Windows services is displayed.
2. For each of the four Windows services listed above, do the following:
  - a. Right-click the name of the service
  - b. Select **Properties**.
  - c. Change **Startup type** to **Manual**.

### Results

Automatic restart is disabled. To re-enable it, change the **Startup type** for the same four services to **Automatic**.



---

## Appendix. Log files

This appendix lists log files generated by the installation and operation of IBM Storage Configuration Manager. In the event of an installation-related failure, the contents of these log files can be reviewed to determine informational and error messages.

### Linux logs

**Note:** The IBM Systems Director logs only exist if IBM Systems Director has been installed.

*Table 12. Log files on a Linux system*

File	Description
/opt/ibm/scm/logs/*	IBM Storage Configuration Manager install logs for each install executable stdout and stderr
/opt/ibm/scm/base/log/*	IBM Storage Configuration Manager log for PCL logs
/opt/ibm/scm/lwi/logs/*	IBM Storage Configuration Manager Light Weight Infrastructure (LWI) logs for IBM Storage Configuration Manager service

### Windows logs

*Table 13. Log files on a Windows system*

File	Description
C:\Program Files\IBM\SCM\scminst.log	IBM Storage Configuration Manager install log
C:\Program Files\IBM\SCM\logs\*	IBM Storage Configuration Manager install logs for each install executable stdout and stderr
C:\Program Files\IBM\SCM\base\log\*	IBM Storage Configuration Manager log for PCL logs
C:\Program Files\IBM\SCM\lwi\logs\*	IBM Storage Configuration Manager LWI logs for IBM Storage Configuration Manager service



---

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