

IBM System Storage SAN Volume Controller



# Installation and configuration overview

*Version 4.3.1*

**Note:**

Before using this information and the product it supports, read the information in **Notices**.

This edition applies to version 4, release 3, modification 1 of the IBM System Storage SAN Volume Controller and to all subsequent releases and modifications until otherwise indicated in new editions.

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# SAN Volume Controller installation and configuration overview

The installation and configuration of a SAN Volume Controller cluster requires the completion of various tasks, some of which are normally completed by an IBM® service representative.

Additional publications are included with some of the hardware components; however, use the installation and configuration procedures in the documents that are listed here.

When you plan or perform the installation and configuration tasks, have the following SAN Volume Controller publications available:

- *IBM System Storage SAN Volume Controller Planning Guide*
- *IBM System Storage SAN Volume Controller Hardware Installation Guide* for the model that was ordered.
- *IBM System Storage SAN Volume Controller Software Installation and Configuration Guide*

To access the SAN Volume Controller publications, click the product documentation link, and then click your language from the following Web site:

[www.ibm.com/storage/support/2145](http://www.ibm.com/storage/support/2145)

The IBM System Storage™ Productivity Center (SSPC) is the management environment for SAN Volume Controller clusters. For SSPC planning, installation, and configuration information, see the following publications:

- *IBM System Storage Productivity Center Introduction and Planning Guide*, SC23-8824
- *Read This First: Installing the IBM System Storage Productivity Center*, GI11-8938
- *IBM System Storage Productivity Center User's Guide*, SC27-2336

To access the SSPC publications, go to the **Printable PDFs** section and click the **IBM System Storage Productivity Center** link from the following Web site:

[publib.boulder.ibm.com/infocenter/tivihelp/v4r1/index.jsp](http://publib.boulder.ibm.com/infocenter/tivihelp/v4r1/index.jsp)

**Note:** An existing master console can be upgraded to support clusters that are running the latest SAN Volume Controller software. See the *IBM System Storage SAN Volume Controller Master Console Guide* at the following Web site:

[www.ibm.com/storage/support/2145](http://www.ibm.com/storage/support/2145)

## Planning tasks to complete before installing the SAN Volume Controller

Before you install the SAN Volume Controller, you must complete the following planning tasks or have them completed by an IBM service representative or IBM Business Partner:

1. **Verify that all the SAN Volume Controller installation requirements have been met.**

Review Chapter 2 of the *IBM System Storage SAN Volume Controller Planning Guide* to make sure that space and power requirements have been met before you begin the installation. SAN Volume Controller nodes and uninterruptible power supply units are installed in pairs.

**2. Review SAN fabric and zoning guidelines and develop your SAN Volume Controller cluster, host systems, and storage controllers plan.**

This task helps to assure a seamless configuration. For more information, see Chapters 3 and 4 of the *IBM System Storage SAN Volume Controller Planning Guide*.

**3. Complete all physical planning charts.**

Chapter 2 of the *IBM System Storage SAN Volume Controller Planning Guide* provides instructions for accessing and completing the following charts and tables:

- Hardware location chart
- Cable connection table
- Configuration data table
- Redundant ac-power connection chart

The SAN Volume Controller charts and tables are available at the following Web site:

[www.ibm.com/storage/support/2145](http://www.ibm.com/storage/support/2145)

You can save, edit, and share the charts and tables between members of the installation team.

For the SSPC, complete the planning worksheet in the Appendix of the *IBM System Storage Productivity Center Introduction and Planning Guide*.

## **Hardware installation tasks that an IBM service representative performs**

To install the SAN Volume Controller hardware, an IBM service representative must complete the following tasks:

**1. Verify that you have all of the required parts for the installation.**

Chapter 2 of the *IBM System Storage SAN Volume Controller Hardware Installation Guide* provides a list of all the parts that are required for an installation. The list includes the SAN Volume Controller nodes, uninterruptible power supply units, optional redundant ac-power switches, and associated parts.

**2. Install the SAN Volume Controller hardware.**

Chapter 2 of the *IBM System Storage SAN Volume Controller Hardware Installation Guide* describes the procedures for installing the uninterruptible power supply units, SAN Volume Controller nodes, and the optional redundant ac-power switches.

**3. Install the SSPC server.**

*Read This First: Installing the IBM System Storage Productivity Center* describes how to install the SSPC server.

## **Configuration tasks**

To configure a SAN Volume Controller cluster, you must complete the following tasks or have them completed by an IBM service representative or IBM Business Partner:

**1. Register your product.**

To receive product support notifications from IBM, you must register your product. To register your product, click **Register** at the following Web site:  
[www.ibm.com/systems/support/supportsite.wss/brandmain?brandind=5345868](http://www.ibm.com/systems/support/supportsite.wss/brandmain?brandind=5345868)

2. **Optionally, check for an updated version of the SAN Volume Controller CIM agent and GUI software.**

For the latest information, click **Install/use**, and then click the link for the appropriate recommended software level from the following Web site:

[www.ibm.com/storage/support/2145](http://www.ibm.com/storage/support/2145)

Additionally, preinstalled software on the SSPC console might need to be updated to fully support the latest level of SAN Volume Controller. For the latest information, go to the following Web site:

[www.ibm.com/systems/support/storage/software/sspc](http://www.ibm.com/systems/support/storage/software/sspc)

3. **Configure the IBM System Storage Productivity Center.**

In the *IBM System Storage Productivity Center User's Guide*, the chapter about configuring the SSPC for the SAN Volume Controller describes the procedures for configuring the server and accessing the SAN Volume Controller Console and command-line interface (CLI). This chapter also describes how to use the PuTTY client to generate secure shell (SSH) key pairs that secure data flow between the SAN Volume Controller cluster configuration node and a client.

4. **Create a SAN Volume Controller cluster.**

Chapter 4 of the *IBM System Storage SAN Volume Controller Software Installation and Configuration Guide* describes this procedure, which is completed in two phases:

- a. Use the Create Cluster option on the front panel of one of the SAN Volume Controller nodes that you have installed to create the cluster.

This procedure is usually performed by an IBM representative or IBM Business Partner using information that the customer provides.

- b. Use the Add a Cluster function from the SAN Volume Controller Console.

5. **Complete the initial SAN Volume Controller configuration.**

After you create the SAN Volume Controller cluster, you must perform the configuration procedures that are needed to meet your requirements. You can perform these procedures in stages; for example, add nodes to a cluster, set cluster date and time, and set license features immediately. Later, after your applications are tested and migrated to SAN Volume Controller, create host definitions, assign managed disks (MDisks) to MDisk groups, and set up virtual disks (VDisks) and assign them to hosts.

You can also set up error and event notifications, including Call Home e-mails, to immediately notify you and the IBM Support Center if critical problems occur.

The following chapters include procedures for these tasks:

- Chapter 5 of the *IBM System Storage SAN Volume Controller Software Installation and Configuration Guide* describes how to perform these steps using the SAN Volume Controller Console.
- Chapter 6 of the *IBM System Storage SAN Volume Controller Software Installation and Configuration Guide* describes how to perform these steps using the CLI.



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