Veritas Storage Foundation™ and High Availability Solutions Getting Started Guide

Windows Server 2008 (x64), Windows Server 2008 R2 (x64)

6.0.1

Veritas Storage Foundation and High Availability Solutions Getting Started Guide

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Legal Notice

Symantec Corporation
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Technical Support

Symantec Technical Support maintains support centers globally. Technical Support's primary role is to respond to specific queries about product features and functionality. The Technical Support group also creates content for our online Knowledge Base. The Technical Support group works collaboratively with the other functional areas within Symantec to answer your questions in a timely fashion. For example, the Technical Support group works with Product Engineering and Symantec Security Response to provide alerting services and virus definition updates.

Symantec's support offerings include the following:

■ A range of support options that give you the flexibility to select the right amount of service for any size organization

■ Telephone and/or Web-based support that provides rapid response and up-to-the-minute information

■ Upgrade assurance that delivers software upgrades

■ Global support purchased on a regional business hours or 24 hours a day, 7 days a week basis

■ Premium service offerings that include Account Management Services

For information about Symantec's support offerings, you can visit our Web site at the following URL:

www.symantec.com/business/support/index.jsp

All support services will be delivered in accordance with your support agreement and the then-current enterprise technical support policy.

Contacting Technical Support

Customers with a current support agreement may access Technical Support information at the following URL:

www.symantec.com/business/support/contact_techsupp_static.jsp

Before contacting Technical Support, make sure you have satisfied the system requirements that are listed in your product documentation. Also, you should be at the computer on which the problem occurred, in case it is necessary to replicate the problem.

When you contact Technical Support, please have the following information available:

■ Product release level

- Hardware information
- Available memory, disk space, and NIC information
- Operating system
- Version and patch level
- Network topology
- Router, gateway, and IP address information
- Problem description:
  - Error messages and log files
  - Troubleshooting that was performed before contacting Symantec
  - Recent software configuration changes and network changes

Licensing and registration

If your Symantec product requires registration or a license key, access our technical support Web page at the following URL:

www.symantec.com/business/support/

Customer service

Customer service information is available at the following URL:

www.symantec.com/business/support/

Customer Service is available to assist with non-technical questions, such as the following types of issues:

- Questions regarding product licensing or serialization
- Product registration updates, such as address or name changes
- General product information (features, language availability, local dealers)
- Latest information about product updates and upgrades
- Information about upgrade assurance and support contracts
- Information about the Symantec Buying Programs
- Advice about Symantec's technical support options
- Nontechnical presales questions
- Issues that are related to CD-ROMs or manuals

Documentation

Your feedback on product documentation is important to us. Send suggestions for improvements and reports on errors or omissions. Include the title and document version (located on the second page), and chapter and section titles of the text on which you are reporting. Send feedback to:

doc_feedback@symantec.com

For information regarding the latest HOWTO articles, documentation updates, or to ask a question regarding product documentation, visit the Storage and Clustering Documentation forum on Symantec Connect.

https://www-secure.symantec.com/connect/storage-management/
forums/storage-and-clustering-documentation

Support agreement resources

If you want to contact Symantec regarding an existing support agreement, please contact the support agreement administration team for your region as follows:

Asia-Pacific and Japan	customercare_apac@symantec.com
Europe, Middle-East, and Africa	semea@symantec.com
North America and Latin America	supportsolutions@symantec.com

Getting started with Storage Foundation and High Availability Solutions for Windows

This document includes the following topics:

Introduction

The Veritas Storage Foundation and High Availability Solutions for Windows products are used for enterprise data management and protection, high availability, and disaster recovery. This guide provides an overview of the products in this release and the contents of the product software disks. It also explains how to obtain a product license.

This release of Veritas Storage Foundation and High Availability Solutions for Windows includes the following products:

- Veritas Storage Foundation HA for Windows (SFW HA)

- Veritas Storage Foundation for Windows (SFW)

- Veritas Cluster Server (VCS)

- Veritas Dynamic Multi-Pathing for Windows (DMPW)

About Veritas Storage Foundation HA for Windows

Veritas Storage Foundation and High Availability Solutions for Windows contains the following components:

- Storage Foundation for Windows (SFW)
  Veritas Storage Foundation for Windows brings advanced volume management technology, quick recovery, and fault tolerant capabilities to enterprise computing environments.

- Veritas Cluster Server (VCS)
  Veritas Cluster Server provides a high availability solution that monitors system and application services and restarts services when hardware or software fails. A VCS cluster connects multiple independent systems to provide failover capability thus reducing application downtime. VCS supports local, metropolitan, and global clusters.

- Veritas Dynamic Multi-Pathing for Windows (DMPW) option
  Dynamic Multi-Pathing for Windows adds additional fault tolerance to disk storage by making use of multiple paths between a server/host computer and a disk in a storage array.

- Veritas Volume Replicator (VVR) option
  Veritas Volume Replicator provides continuous data replication over IP networks, enabling rapid and reliable recovery of critical applications at remote recovery sites.

- Symantec High Availability Console

The Symantec High Availability Console enables integration with VMware vSphere Client and allows configuring and controlling application monitoring in a VMware virtual environment.

About Veritas Storage Foundation for Windows

Veritas Storage Foundation for Windows brings advanced volume management technology, quick recovery, and fault tolerant capabilities to enterprise computing environments.

Veritas Storage Foundation for Windows contains the following components:

- Veritas Volume Replicator (VVR) option
  Veritas Volume Replicator provides continuous data replication over IP networks, enabling rapid and reliable recovery of critical applications at remote recovery sites.

- Veritas Dynamic Multi-Pathing for Windows (DMPW) option
  Dynamic Multi-Pathing for Windows adds additional fault tolerance to disk storage by making use of multiple paths between a server/host computer and a disk in a storage array.

About Veritas Cluster Server

Veritas Cluster Server (VCS) provides application management, high availability, and disaster recovery for all major Windows based applications in a Microsoft Logical Disk Manager and NetApp SnapDrive and SnapMirror environment. VCS enables you to monitor systems and applications and restarts services on a different system when hardware or software fails.

A VCS cluster connects multiple independent systems to provide failover capability thus reducing application downtime. VCS supports local and global clusters. VCS provides transparent server, application and data failover.

About Veritas Dynamic Multi-Pathing for Windows

Veritas Dynamic Multi-Pathing for Windows (DMPW) adds additional fault tolerance to disk storage by making use of multiple paths between a server/host computer and a disk in a storage array. DMPW manages the multiple paths so that the data on each of the array's disks is accessible to the server/host computer. If a path to a disk fails, DMPW automatically transmits data to and from the disk over an alternate path. The paths on an array are set up to work in two ways—either in Active/Active mode, which provides load balancing of the data between multiple

paths, or in Active/Passive mode, in which only one path is active and any remaining paths are backups.

DMPW is implemented through Dynamic Multi-Pathing Device Specific Modules (DMP DSMs).

Graphical user interfaces

Veritas Storage Foundation and High Availability Solutions for Windows offers the following GUI:

Veritas Enterprise Administrator (VEA) console

The Veritas Enterprise Administrator console provides a graphical view of your storage. It allows you to monitor and manage storage objects including disk groups, disks, volumes, fibre channel and iSCSI storage arrays.

Cluster Manager (Java console)

Cluster Manager (Java console) offers complete administration capabilities for your cluster. You can use the different views in the Java console to monitor clusters and VCS objects, including service groups, systems, resources, and resource types.

Solutions Configuration Center

The Storage Foundation and High Availability Solutions Configuration Center guides you through setting up your SFW HA environment for various configurations:

- Local area high availability at a single site for new or existing application installations
- Metropolitan area disaster recovery with campus clusters
- Wide area disaster recovery with global clusters
- Quick Recovery for on-host recovery of application data
- Fire drill to test the readiness of your disaster recovery environment

Symantec High Availability Dashboard

Veritas Cluster Server provides the Symantec High Availability Dashboard that is an interface that integrates with the VMware vSphere Client. Use the Dashboard to administer application monitoring at a VMware cluster or datacenter level in a VMware virtual environment involving non-shared VMware virtual disks. This

dashboard is visible in the vSphere Client after you install the Symantec High Availability Console.

Symantec High Availability View

Veritas Cluster Server provides the Symantec High Availability tab that is an interface that is integrated with VMware vSphere Client. Use this tab to configure and control application monitoring on an individual virtual machine in a VMware virtual environment involving non-shared VMware virtual disks. This tab is visible in the vSphere Client after you install the Symantec High Availability Console.

Planning tools

Veritas Storage Foundation and High Availability Solutions for Windows offers the following planning tools:

Veritas Cluster Server Simulator

VCS Simulator allows cluster administrators to simulate and test application failover scenarios without affecting production environments.

To download VCS Simulator, go to http://go.symantec.com/vcsm_download

Veritas Volume Replicator Advisor (VRAdvisor)

The Veritas Volume Replicator Advisor (VRAdvisor) tool allows you to collect and analyze data in order to optimize the replication settings for your environment.

To download this tool, navigate to \Tools\storage_foundation in the software package. For more information, refer to *Veritas Volume Replicator Advisor User's Guide*.

Windows Data Collector

The Windows data collector enables you to gather information about the systems in your network. It thus helps you verify your system configuration before you begin with the product installation.

You can download the Windows data collector either from the SORT Web site or from the CD browser. For more information, refer to the product Installation and Upgrade guide.

What's included

The Veritas Storage Foundation and High Availability Solutions media kit includes multiple software disks. The disk label describes the contents of each disk.

Table 1-1 describes the media kit contents.

Table 1-1 Media kit contents

Disk	Contents
Veritas Storage Foundation	Install bits for Veritas Storage Foundation 6.0 for Windows.
Veritas Storage Foundation™ and High Availability Solutions 6.0 for Windows	Install bits for Veritas Storage Foundation and High Availability Solutions 6.0 for Windows.
Veritas Dynamic Multi-Pathing	Install bits for Veritas Dynamic Multi-Pathing 6.0 for Windows.
Veritas Cluster Server 6.0 for Windows	Install bits for Veritas Cluster Server 6.0 for Windows.
Symantec High Availability Console	Install the Console Server bits for VMware vSphere Client integration to configure and control application monitoring in VMware virtual environment involving non-shared virtual disks.

Licensing

You can use any of the following options to specify the type of license for your product software:

■ Keyless license
  A keyless license type does not require a license key; the embedded keys are installed during the product installation. In case of Keyless license, all the product options are available and selected by default.

■ User entered license
  A license key is available based on the license edition you use. In case of "User entered license key", the product options available are based on the licenses you enter. Each license specifies the number of product instances you may run on a particular operating system at one time.

See the product Installation and Upgrade Guide for more information about product licensing.

To register and receive a valid software license key, access the Symantec Licensing Portal:

https://licensing.symantec.com

You will need the Enterprise License System (ELS) serial number and customer number on your license certificate.

For additional help with Symantec product licenses, email questions to:

license@symantec.com

Installation

The product installer enables you to install the product software. You may select other applicable options during the installation.

You can choose to install the product using either the product installation wizard or the command line. The product installation wizard allows you to install the product on multiple systems simultaneously, whereas command line installation can be used to install the product on only one local or remote system at a time.

About Symantec Operations Readiness Tools

Symantec Operations Readiness Tools (SORT) is a Web site that automates and simplifies some of the most time-consuming administrative tasks. SORT helps you manage your datacenter more efficiently and get the most out of your Symantec products.

SORT can help you do the following:

Prepare for your next installation or upgrade	■ List product installation and upgrade requirements, including operating system versions, memory, disk space, and architecture.
	■ Analyze systems to determine if they are ready to install or upgrade Symantec products.
	■ Download the latest patches, documentation, and high availability agents from a central repository.
	■ Access up-to-date compatibility lists for hardware, software, databases, and operating systems.

Manage risks	■ Get automatic email notifications about changes to patches, array-specific modules (ASLs/APMs/DDIs/DDLs), and high availability agents from a central repository.
	■ Identify and mitigate system and environmental risks.
	■ Display descriptions and solutions for hundreds of Symantec error codes.
Improve efficiency	■ Find and download patches based on product version and platform.
	■ List installed Symantec products and license keys.
	■ Tune and optimize your environment.

Note: Certain features of SORT are not available for all products. Access to SORT is available at no extra cost.

To access SORT, go to:

https://sort.symantec.com

Getting help

For technical assistance, visit the following site and select phone or email support:

http://www.symantec.com/business/support/index.jsp /

This site also provides access to resources such as TechNotes, product alerts, software downloads, hardware compatibility lists, and the Symantec customer email notification service. Use the Knowledge Base Search feature to access additional product information, including current and past releases of product documentation.

Documentation

All product documentation is available in Adobe Portable Document Format (PDF).

You can view and print the PDF documents with Adobe Acrobat Reader. For more information on the latest version of Acrobat Reader, or for help with the Acrobat Reader installation, visit the Adobe web site at:

http://www.adobe.com

Where to find the documentation

Product documentation is available at the following locations:

- On the software disks in the \Docs directory and, in some cases, at the root of the disk directory structure. To view a document, explore the software disk and double-click the file name.

- On the Symantec Support web site at:
  http://www.symantec.com/business/support/index.jsp

Note: The Release Notes file is located on the product disk. Symantec recommends that you copy the document from the disk to the directory %Program Files%\Veritas\Docs\ENU so they are available on your system for reference.

Providing feedback about the documentation

Your feedback on product documentation is important to us. Send suggestions for improvements and reports on errors or omissions to:

doc_feedback@symantec.com

Include the title of the document and chapter and section titles of the text on which you are reporting. Our goal is to ensure customer satisfaction by providing effective, quality documentation.