

# Veritas Storage Foundation™ and High Availability Solutions Getting Started Guide

Linux

5.0 Maintenance Pack 4



# Veritas Storage Foundation and High Availability Solutions Getting Started Guide

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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 maintenance 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 Web-based support that provides rapid response and up-to-the-minute information
- Upgrade assurance that delivers automatic software upgrade protection
- Global support that is available 24 hours a day, 7 days a week
- Advanced features, including Account Management Services

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

[www.symantec.com/techsupp/](http://www.symantec.com/techsupp/)

## Contacting Technical Support

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

[www.symantec.com/techsupp/](http://www.symantec.com/techsupp/)

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:

<https://licensing.symantec.com>

## Customer service

Customer service information is available at the following URL:

[www.symantec.com/business/support/assistance\\_care.jsp](http://www.symantec.com/business/support/assistance_care.jsp)

Customer Service is available to assist with 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 maintenance 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

## Maintenance agreement resources

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

Asia-Pacific and Japan	<a href="mailto:customercare_apac@symantec.com">customercare_apac@symantec.com</a>
Europe, Middle-East, and Africa	<a href="mailto:semea@symantec.com">semea@symantec.com</a>
North America and Latin America	<a href="mailto:supportsolutions@symantec.com">supportsolutions@symantec.com</a>

## Additional enterprise services

Symantec offers a comprehensive set of services that allow you to maximize your investment in Symantec products and to develop your knowledge, expertise, and global insight, which enable you to manage your business risks proactively.

Enterprise services that are available include the following:

Symantec Early Warning Solutions	These solutions provide early warning of cyber attacks, comprehensive threat analysis, and countermeasures to prevent attacks before they occur.
Managed Security Services	These services remove the burden of managing and monitoring security devices and events, ensuring rapid response to real threats.
Consulting Services	Symantec Consulting Services provide on-site technical expertise from Symantec and its trusted partners. Symantec Consulting Services offer a variety of prepackaged and customizable options that include assessment, design, implementation, monitoring, and management capabilities. Each is focused on establishing and maintaining the integrity and availability of your IT resources.
Educational Services	Educational Services provide a full array of technical training, security education, security certification, and awareness communication programs.

To access more information about Enterprise services, please visit our Web site at the following URL:

[www.symantec.com](http://www.symantec.com)

Select your country or language from the site index.

# Contents

Technical Support .....	4	
Chapter 1	Product overview .....	9
	About this release .....	9
	Veritas Storage Foundation product suites .....	10
Chapter 2	How the software media are organized .....	15
	Contents of the software media in the media kit .....	15
	Contents of the product software media .....	15
	Software media directory structure .....	16
Chapter 3	Where to find more information .....	19
	Documentation .....	19
	Service and support .....	19





# Product overview

This chapter includes the following topics:

- [About this release](#)
- [Veritas Storage Foundation product suites](#)

## About this release

Veritas Storage Foundation and High Availability Solutions 5.0 Maintenance Pack 4 supports following operating systems:

- Red Hat Enterprise Linux 4 Update 3 and later on x86\_64
- Red Hat Enterprise Linux 5 Update 1 and later on x86\_64
- Red Hat Enterprise Linux 5 Update 2 and later on PowerPC
- Oracle Enterprise Linux 4 Update 4 and later on x86\_64
- Oracle Enterprise Linux 5 Update 1 and later on x86\_64
- SUSE Linux Enterprise Server 9 Service Pack 3 on x86\_64
- SUSE Linux Enterprise Server 9 Service Pack 4 on x86\_64
- SUSE Linux Enterprise Server 10 Service Pack 2 on x86\_64
- SUSE Linux Enterprise Server 10 Service Pack 3 on x86\_64
- SUSE Linux Enterprise Server 10 Service Pack 2 on PowerPC
- SUSE Linux Enterprise Server 10 Service Pack 3 on PowerPC
- SUSE Linux Enterprise Server 11 on x86\_64
- SUSE Linux Enterprise Server 11 on PowerPC

The following documentation is updated and available on the product disc for this 5.0 Maintenance Pack 4 release:

- *Veritas Storage Foundation and High Availability Solutions Getting Started Guide*
- *Veritas Storage Foundation Release Notes*

For additional information, refer to the 5.0 Maintenance Pack 3 (MP3) documentation. The 5.0 MP3 documentation is available on the 5.0 MP3 software media, and online from the Symantec support website:

<http://www.symantec.com/business/support/overview.jsp?pid=15107>

## Veritas Storage Foundation product suites

The following table lists the Symantec products and optionally licensed features available with each Veritas Storage Foundation product suite.

**Table 1-1** Contents of Veritas Storage Foundation products

Storage Foundation version	Products and features
Storage Foundation Basic	Veritas File System Veritas Volume Manager
Storage Foundation Standard	Veritas File System Veritas Volume Manager Optionally licensed features: Veritas Volume Replicator
Storage Foundation Standard HA	Veritas File System Veritas Volume Manager Veritas Cluster Server Optionally licensed features: Veritas Volume Replicator
Storage Foundation Enterprise	Veritas File System Veritas Volume Manager Veritas Storage Checkpoint option Optionally licensed features: Veritas Volume Replicator

**Table 1-1** Contents of Veritas Storage Foundation products (*continued*)

Storage Foundation version	Products and features
Storage Foundation Enterprise HA	Veritas File System Veritas Volume Manager Veritas Storage Checkpoint option Veritas Cluster Server Optionally licensed features: Veritas Volume Replicator
Storage Foundation for Oracle Standard	Veritas File System Veritas Volume Manager Veritas Extension for Oracle Disk Manager option Optionally licensed features: Veritas Volume Replicator
Storage Foundation for Oracle Enterprise	Veritas File System Veritas Volume Manager Veritas Extension for Oracle Disk Manager option Veritas Storage Checkpoint option Veritas Storage Mapping option Veritas Database Flashsnap Veritas Database Dynamic Storage Tiering Veritas Concurrent I/O Optionally licensed features: Veritas Volume Replicator

**Table 1-1** Contents of Veritas Storage Foundation products (*continued*)

Storage Foundation version	Products and features
Storage Foundation for Oracle Enterprise HA	Veritas File System Veritas Volume Manager Veritas Cluster Server Veritas Extension for Oracle Disk Manager option Veritas Storage Checkpoint option Veritas Storage Mapping option Veritas Database Flashsnap Veritas Database Dynamic Storage Tiering Veritas Concurrent I/O Optionally licensed features: Veritas Volume Replicator
Storage Foundation for DB2 Standard	Veritas File System Veritas Volume Manager Optionally licensed features: Veritas Volume Replicator
Storage Foundation for DB2 Enterprise	Veritas File System Veritas Volume Manager Veritas Storage Checkpoint option Veritas Database Flashsnap Veritas Database Dynamic Storage Tiering Veritas Concurrent I/O Optionally licensed features: Veritas Volume Replicator

**Table 1-1** Contents of Veritas Storage Foundation products (*continued*)

Storage Foundation version	Products and features
Storage Foundation for DB2 Enterprise HA	Veritas File System Veritas Volume Manager Veritas Cluster Server Veritas Extension for Oracle Disk Manager option Veritas Storage Checkpoint option Veritas Storage Mapping option Veritas Database Flashsnap Veritas Database Dynamic Storage Tiering Veritas Concurrent I/O Optionally licensed features: Veritas Volume Replicator
Storage Foundation for Sybase Standard	Veritas File System Veritas Volume Manager Veritas Extension for Oracle Disk Manager option Optionally licensed features: Veritas Volume Replicator
Storage Foundation for Sybase Enterprise	Veritas File System Veritas Volume Manager Veritas Extension for Oracle Disk Manager option Veritas Storage Checkpoint option Optionally licensed features: Veritas Volume Replicator

**Table 1-1** Contents of Veritas Storage Foundation products (*continued*)

Storage Foundation version	Products and features
Storage Foundation for Sybase Enterprise HA	Veritas File System Veritas Volume Manager Veritas Cluster Server Veritas Extension for Oracle Disk Manager option Veritas Storage Checkpoint option Veritas Storage Mapping option Optionally licensed features: Veritas Volume Replicator
Storage Foundation Cluster File System	Veritas File System Veritas Volume Manager Veritas Storage Checkpoint option Veritas Storage Mapping option Optionally licensed features: Veritas Volume Replicator
Storage Foundation Cluster File System HA	Veritas File System Veritas Volume Manager Veritas Cluster Server Veritas Storage Checkpoint option Veritas Storage Mapping option Optionally licensed features: Veritas Volume Replicator
Storage Foundation Cluster File System for Oracle RAC	Veritas File System Veritas Volume Manager Veritas Cluster Server Veritas Extension for Oracle Disk Manager option Veritas Storage Checkpoint option Veritas Storage Mapping option Optionally licensed features: Veritas Volume Replicator

# How the software media are organized

This chapter includes the following topics:

- [Contents of the software media in the media kit](#)
- [Software media directory structure](#)

## Contents of the software media in the media kit

The Veritas Storage Foundation and High Availability Solutions media kit includes multiple software media. The contents of each software media is shown on the media's label.

Find the location of the *Getting Started Guide* and *Release Notes* for each product in the corresponding product sections. Read the *Getting Started Guide* and *Release Notes* for your product before you begin an installation procedure.

You can install only the Symantec software products for which you have purchased a license. Other products are included on the enclosed software media, but are not available.

## Contents of the product software media

The following products are on the software media:

- Veritas Cluster Server
- Veritas File System
- Veritas Volume Manager
- Veritas Volume Replicator

- Veritas Storage Foundation
- Veritas Storage Foundation Cluster File System
- Veritas Storage Foundation for DB2
- Veritas Storage Foundation for Sybase
- Veritas Storage Foundation for Oracle
- Veritas Storage Foundation Cluster File System for Oracle RAC
- Symantec Product Authentication Service

## Software media directory structure

The media kit contains the Veritas product software on multiple discs.

[Table 2-1](#) lists the directories and contents of the directories on disc1. Each of the directories contain the subdirectories listed on [Table 2-3](#).

**Table 2-1** Disc 1 directories: Veritas Storage Foundation and High Availability Solutions 5.0 Maintenance Pack 4 for Red Hat Enterprise Linux

Directory name	Contents
rhe14_i686	Red Hat Enterprise Linux 4 on i686 systems
rhe14_x86_64	Red Hat Enterprise Linux 4 on x86_64 systems
rhe15_i686	Red Hat Enterprise Linux 5 on i686 systems
rhe15_ppc64	Red Hat Enterprise Linux 5 on IBM Power systems
rhe15_x86_64	Red Hat Enterprise Linux 5 on x86_64 systems

[Table 2-2](#) lists the directories and contents of the directories on disc 2. Each of the directories contain the subdirectories listed on [Table 2-3](#).

**Table 2-2** Disc 2 directories: Veritas Storage Foundation and High Availability Solutions 5.0 Maintenance Pack 4 for SuSE Linux Enterprise Server

Directory name	Contents
sles10_i586	SuSE Linux Enterprise Server 10 on i586 systems
sles10_ppc64	SuSE Linux Enterprise Server 10 on IBM Power systems



**Table 2-2** Disc 2 directories: Veritas Storage Foundation and High Availability Solutions 5.0 Maintenance Pack 4 for SuSE Linux Enterprise Server (continued)

Directory name	Contents
sles10_x86_64	SuSE Linux Enterprise Server 10 on x86_64 systems
sles11_ppc64	SuSE Linux Enterprise Server 11 on IBM Power systems
sles11_x86_64	SuSE Linux Enterprise Server 11 on x86_64 systems
sles9_i586	SuSE Linux Enterprise Server 9 on i586 systems
sles9_x86_64	SuSE Linux Enterprise Server 9 on x86_64 systems

**Table 2-3** lists the subdirectories and contents of the subdirectories on all discs in this release. Each of the platform-specific directories on all discs contain the listed subdirectories.

**Table 2-3** Disc subdirectories: Veritas Storage Foundation and High Availability Solutions 5.0 Maintenance Pack 4 for all platforms

Directory name	Contents
authentication_service	Symantec Authentication Services packages and documentation
cluster_server	Veritas Cluster Server packages, scripts, and documentation
cluster_server_agents	Veritas Cluster Server high availability agents for DB2, Oracle, and Sybase packages, scripts, and documentation
file_system	Veritas File System packages, scripts, and documentation
perl	Perl language binaries and library functions
storage_foundation	Veritas Storage Foundation, Veritas File System, and Veritas Volume Manager packages, scripts, and documentation
storage_foundation_cluster_file_system	Veritas Storage Foundation Cluster File System packages, scripts, and documentation

**Table 2-3** Disc subdirectories: Veritas Storage Foundation and High Availability Solutions 5.0 Maintenance Pack 4 for all platforms (*continued*)

Directory name	Contents
storage_foundation_cluster_file_system_for_oracle_rac	Veritas Storage Foundation Cluster File System for Oracle RAC packages, scripts, and documentation
storage_foundation_for_db2	Veritas Storage Foundation for DB2 packages, scripts, and documentation
storage_foundation_for_oracle	Veritas Storage Foundation for Oracle packages, scripts, and documentation
storage_foundation_for_sybase	Veritas Storage Foundation for Sybase packages, scripts, and documentation
volume_manager	Veritas Volume Manager packages and scripts
volume_replicator	Veritas Volume Replicator packages, scripts, and documentation

# Where to find more information

This chapter includes the following topics:

- [Documentation](#)
- [Service and support](#)

## Documentation

The following documentation is updated and available on the software media for this Veritas Storage Foundation and High Availability Solutions (SFHA) 5.0 Maintenance Pack 4 (MP4) release:

- *Veritas Storage Foundation and High Availability Solutions Getting Started Guide*
- *Veritas Storage Foundation Release Notes*
- *Veritas Cluster Server Release Notes*

For additional information, refer to the Veritas Storage Foundation (SF) 5.0 Maintenance Pack 3 (MP3) documentation set online:

<http://www.symantec.com/business/support/overview.jsp?pid=15107>

Veritas documents are in Adobe Portable Document Format (PDF) on the product discs or downloaded software.

## Service and support

To access the self-service knowledge base, go to the following URL:

<http://entsupport.symantec.com>

