Veritas Storage Foundation™ and High Availability Solutions Release Notes

Windows Server 2003, Windows Server 2008

5.1 Application Pack 1

symantec™

Veritas Storage Foundation and High Availability Solutions Release Notes for Application Pack 1

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Technical support

For technical assistance, visit http://www.symantec.com/business/support/index.jsp and select phone or email support. This site also provides access to resources such as TechNotes, product alerts, software downloads, hardware compatibility lists, and the Veritas customer email notification service. Use the Knowledge Base Search feature to access additional product information, including current and past releases of product documentation.

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Veritas Storage Foundation and High Availability Solutions Application Pack 1 Release Notes

Introduction

This document provides important information about Application Pack 1 for

- Veritas Storage Foundation™ 5.1 for Windows (SFW)

- Veritas Storage Foundation™ HA 5.1 for Windows (SFW HA).

Please review this entire document before using Application Pack 1 for SFW or SFW HA.

General information regarding Veritas Storage Foundation and High Availability Solutions for Windows is available on the Symantec website.

http://www.symantec.com

For the latest version of this document, see the *Veritas Storage Foundation and High Availability Solutions 5.1 Application Pack 1 Release Notes* at:

http://seer.entsupport.symantec.com/docs/306318

For the latest information on supported software, see the Software Compatibility list at:

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

For the latest updates to array support and for supported hardware configurations, see the Hardware Compatibility list at
http://www.symantec.com/business/support/index.jsp

New features and changes in this release

This section describes the changes introduced in Veritas Storage Foundation for Windows (SFW) and Veritas Storage Foundation HA for Windows version 5.1 (SFW HA) Application Pack 1.

New features available in Veritas Storage Foundation for Windows and Storage Foundation HA for Windows version 5.1 are described in the *Veritas Storage Foundation and High Availability Solutions 5.1 Release Notes.*

Support for Microsoft SQL Server 2008

Support for Microsoft SQL Server 2008 includes the following:

■ SFW supports VSS-based backup and restore operations with SQL Server 2008. It includes support for FILESTREAM enabled database objects.

■ SFW HA supports HA and DR configurations for SQL Server 2008.
Refer to the *Veritas Storage Foundation and High Availability Solutions HA and Disaster Recovery Solutions Guide for Microsoft SQL 2008* to configure a new HA and DR environment for SQL 2008.

■ The Microsoft SQL Server tab of the Symantec Solutions Configuration Center supports SQL Server 2008 solutions. The SQL Server 2008 Configuration Wizard can be launched from the Solutions Configuration Center to configure SQL Server 2008 service groups. The online help and PDF files in the Solutions Configuration Center include documentation for SQL Server 2008 solutions.

Microsoft Windows Server 2008 Hyper-V

Veritas Storage Foundation for Windows 5.1 (SFW) and Veritas Storage Foundation and High Availability 5.1 for Windows (SFW HA) are enabled to run in a Windows Server 2008 Hyper-V child partition (Guest) with full functionality of all features and options. The installation and configuration process for SFW and SFW HA is similar to that on a physical server.

Certain limitations exist for this support.

See "Software limitations" on page 35.

VCS MOM 2005 management pack for SQL 2008

SFW HA 5.1 Application Pack 1 includes a VCS Management Pack for Microsoft SQL Server 2008. This management pack is for Microsoft Operations Manager 2005. The management pack file (.akm) is integrated with the Application Pack 1 package but you will need to import it separately. There is no change in the procedures for using this VCS management pack. Refer to the *Veritas Storage Foundation and High Availability Solutions Management Pack Guide for Microsoft Operations Manager 2005* for instructions on how to use this management pack to monitor SQL 2008 using Microsoft Operations Manager (MOM) 2005 in a VCS environment.

High availability support for VMware VirtualCenter

SFW HA 5.1 for Windows includes support for VMware VirtualCenter. You can configure a high availability and a disaster recovery environment for VirtualCenter.

Note: Support for VMware VirtualCenter is not available on VCS 5.1 for Windows.

Refer to the following application note for more detailed information:

http://support.veritas.com/docs/313422

Changes to the VCS wizards

The VCS application and service group configuration wizards provide an option (Advanced button on the Network Configuration panel or the virtual server configuration panel) to add the virtual server name to the Active Directory. The wizards discover all the Organization Units (OU) in the domain and populate them in a drop-down list. You specify an OU by selecting the OU name from the drop-down list.

This functionality is enhanced in the application pack. The wizards now allow you to type the Organization Unit name or search the OU name in the domain using the Windows "Find Organizational Units" dialog box. This makes searching and specifying an OU significantly easier in cases where there are a large number of Organizational Units in the domain and where the OU structure is deeply nested.

You can type the OU details in the format "CN=Computers,DC=domainname,DC=com". If you wish to search for an OU, you can click the ellipsis button and specify the search criteria in the Windows "Find Organizational Units" dialog box.

Requirements

Review these product installation requirements before installing Veritas Storage Foundation 5.1 for Windows Application Pack 1.

For the latest information on supported software, see the Software Compatibility list at:

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

Application Pack 1 can only be applied to an existing installation of SFW 5.1 or SFW 5.1 HA. For SFW 5.1 and SFW 5.1 HA installation requirements and operating system requirements, see the *Veritas Storage Foundation and High Availability Solutions 5.1 Installation and Upgrade Guide.*

Supported software

In addition to the software supported by SFW 5.1 and SFW HA 5.1, this release includes support for the following:

■ Microsoft iSCSI software Initiator version 2.03 or later versions.

■ Microsoft SQL Server 2008 and their operating systems. Note that all systems must be running the same operating system.

Table 1-1   SQL Server 2008 and Windows Server support

SQL Server versions	Windows Server versions
Microsoft SQL Server 2008, 32-bit Standard Edition or Enterprise Edition or Web Edition	■ Windows Server 2003 (32-bit) Standard Edition, Enterprise Edition or Datacenter Edition (SP2 required) ■ Windows Server 2003 R2 (32-bit) Standard Edition, Enterprise Edition, or Datacenter Edition (SP2 required) ■ Windows Server 2003 for Itanium-based Systems Enterprise Edition or Datacenter Edition (SP2 required for both) ■ Windows Server 2003 Standard x64 Edition, Enterprise x64 Edition, or Datacenter x64 Edition (SP2 required) ■ Windows Server 2003 x64 Editions (for AMD64 or Intel EM64T): Standard x64 R2 Edition, Enterprise x64 R2 Edition, or Datacenter x64 R2 Edition (SP2 required)

SQL Server versions	Windows Server versions
Microsoft SQL Server 2008, 32-bit Standard Edition or Enterprise Edition or Web Edition	■ Windows Server 2008 (32-bit) Standard Edition, Enterprise Edition, or Datacenter Edition
Microsoft SQL Server 2008, 64-bit Standard Edition or Enterprise Edition or Enterprise IA64 Edition or Web Edition	■ Windows Server 2003 for Itanium-based Systems Enterprise Edition or Datacenter Edition (SP2 required for both) ■ Windows Server 2003 Standard x64 Edition, Enterprise x64 Edition, or Datacenter x64 Edition (SP2 required) ■ Windows Server 2003 x64 Editions (for AMD64 or Intel EM64T): Standard x64 R2 Edition, Enterprise x64 R2 Edition, or Datacenter x64 R2 Edition (SP2 required)
Microsoft SQL Server 2008, 64-bit Standard Edition or Enterprise Edition or Enterprise IA64 Edition or Web Edition	■ Windows Server 2008 for 64-bit Itanium (IA64) ■ Windows Server 2008 x64 Editions (for AMD64 or Intel EM64T): Standard x64 Edition, Enterprise x64 Edition, or Datacenter x64 Edition

Microsoft SQL Server 2005 and Microsoft SQL Server 2008 can exist in the same cluster and operate on or fail over to the same systems. However, only one default instance can exist on a system at one time. Additional instances that operate on or fail over to that system must be named instances. The number of named instances is limited only by the normal limit of instances for that version of SQL Server.

Installing Application Pack 1

This section provides information related to installing the application pack.

Application Pack 1 can only be applied to an existing installation of SFW 5.1 or SFW HA 5.1. The SFW HA-specific tasks described in this application pack release notes presume that you have already configured a VCS cluster and created service groups in the SFW HA environment.

If you have not configured the VCS cluster, Symantec recommends that you first configure the cluster and then proceed with the steps described here. You can use the VCS Cluster Configuration Wizard (VCW) for cluster configuration. Refer to the *Veritas Cluster Server Administrator's Guide* for detailed steps.

Read the following topics:

■ See "Download locations" on page 13.

■ See "Preparing to install the application pack" on page 14.

■ See "Installing Application Pack 1 using the GUI" on page 18.

■ See "Installing Application Pack 1 using the command line" on page 19.

■ See "Tasks after installing Application Pack 1" on page 21.

Download locations

Download the packages for this release from the following locations:

Table 1-2   Application Pack 1 download paths

To install	Download packages from
SFW HA 5.1 App Pack 1 (32-bit)	http://entsupport.symantec.com/docs/315675
SFW HA 5.1 App Pack 1 (64-bit)	http://entsupport.symantec.com/docs/315676

Preparing to install the application pack

Ensure the following before installing the application pack:

- In case of a VCS cluster environment, Symantec recommends that you configure the VCS cluster, if not configured already. You can use the VCS Cluster Configuration Wizard (VCW) for cluster configuration. Refer to the *Veritas Cluster Server Administrator's Guide* for detailed steps.

- Make sure that you back up all your data.

- Make sure you back up the system state.

- Ensure that you have network access to each remote computer.

- Test the system after each upgrade, especially after applying other product upgrades. An incremental upgrade eases the troubleshooting process.

Preparing a VVR environment

If you have VVR to replicate data from a primary site to a secondary site, use the following procedures to stop the replication. For additional information, refer to the *Veritas Volume Replicator 5.1 Administrator's Guide*.

Note: For VVR environments with multiple secondary sites, any operations that need to be performed at a secondary site must be repeated on all secondary sites.

Read the following topics:

- For VVR sites without a cluster (VCS or Microsoft Clustering), complete these steps.
  See "Preparing a non-clustered VVR environment" on page 15.

- For sites with VVR and a cluster (either VCS or Microsoft Clustering), complete these steps.
  - See "Preparing an SFW HA environment" on page 16.
  - See "Preparing a Microsoft Clustering environment" on page 15.

Preparing a non-clustered VVR environment

To prepare the sites from the VEA GUI in a non-clustered environment

1. On the primary site, stop the application that uses VVR to replicate data between the sites.

2. Select the primary RVG, right-click and select **Disable Data Access** from the menu.

3. Select the secondary RVG, right-click and select **Disable Data Access** from the menu.

To prepare the sites from the command line in a non-clustered environment

1. On the primary site, stop the application that uses VVR to replicate data between the sites.

2. On the primary site, disable data access to the volumes using the vxrvg command. Type the following command at the command prompt:

   vxrvg -g *diskgroup_name* stop *rvg_name*

3. On the secondary site, disable data access to the volumes using the **vxrvg** command. Type the following command at the command prompt:

   vxrvg -g *diskgroup_name* stop *rvg_name*

Preparing a DMP environment

If you have a previous installation of DMP on your system, disconnecting DMP paths should not be necessary for this application pack update. Always back up your data before upgrading.

For instructions about disconnecting DMP paths, refer to the *Veritas Storage Solutions 5.1 for Windows Installation and Upgrade Guide*.

Preparing a Microsoft Clustering environment

Before installing the application pack in a Microsoft Clustering environment, make sure that Microsoft Clustering is running on the cluster.

Install the application pack on the inactive node or nodes of the cluster first, then use the Move Group command in Microsoft Clustering to move the active node. Install the application pack on the cluster's remaining node. Refer to the *Veritas Storage Solutions 5.1 for Windows Installation and Upgrade Guide,* and the Microsoft Clustering chapter in the *Veritas Storage Foundation 5.1 for Windows Administrator's Guide* for more information about the Move Group command.

Preparing an SFW HA environment

The preparation tasks described here presume that you have already configured a VCS cluster and created service groups in the SFW HA environment.

To prepare the sites in a VCS environment

1   On the primary site, take offline the service group for the application that uses VVR to replicate data between the sites.

2   On the primary site, take the RVG service group offline.

3   On the secondary site, take the RVG service group offline.

4   Complete the following procedures:

    ■   See "Removing VCS Management Console" on page 16.

    ■   See "Saving and closing the cluster configuration" on page 16.

Removing VCS Management Console

If one or more nodes in the cluster have Veritas Cluster Server Management Console 5.1 installed, you must remove the management console before installing the application pack.

To remove VCS Management Console 5.1

1   Stop the VCS Management Console. If the management console is clustered, take the CMC_MS service group offline.

2   Back up the console's data directory and datadir.conf files.
    Typically, the files are located at the following paths:

    ■   `C:\Program Files\Symantec\VRTScmcm`
    or
    ■   `C:\Program Files(x86)\Symantec\VRTScmcm`

3   Remove VCS Management Console 5.1 from all nodes in the cluster using Windows Add/Remove Programs.
    You can reinstall the management console later, after the upgrade.

Saving and closing the cluster configuration

Use the VCS Cluster Manager (Java Console) to save and close the configuration. This operation involves saving the latest configuration to disk and changing the configuration state to read-only mode. You must also bring the service groups offline and stop VCS before installing the application pack.

To save and close the configuration

◆   From the VCS Cluster Manager (Java Console), click **File > Save** and **File > Close Configuration** on the Cluster Explorer toolbar.

To bring the service groups offline

◆ From the VCS Cluster Manager (Java Console), right-click the service group and then click **Offline**.

or

From the command prompt, type:

```
hagrp -offline group_name -sys system_name
```
where *group_name* is the name of the service group and *system_name* is the node on which the group is online.

Repeat this for all service groups that are online.

To stop the VCS High Availability Engine (HAD)

◆ Stop HAD on all the cluster nodes that you wish to upgrade.

Type the following at command prompt:

```
hastop -all -force
```

Setting Windows driver signing options

When installing on remote or local systems running Windows Server 2003, you must set the Windows driver signing options to either Ignore or Warn. If the driver signing option is set to Ignore then the software will be automatically installed. If the driver signing option is set to Warn then a dialog box may prompt you to accept unsigned drivers.

If you do not change these options, the installation may fail on that computer during validation. After you complete the installation, reset the driver signing options to their previous states.

The driver signing options can be changed manually on each local system.

To change the driver signing options on each local system

1   Open the Control Panel and click **System**.

2   Click the **Hardware** tab and click **Driver Signing**.

3   In the Driver Signing Options dialog box, note the current setting, and select **Ignore** or **Warn** to allow installation to proceed.

4   Click **OK**.

5   Repeat for each computer.

With the Group Policy Object, the driver signing options can be changed using Microsoft's Group Policy Object in a Windows Server 2003 domain.

To change the driver signing options using the Group Policy Object

1   From the Domain Controller, click **Start > Programs > Administrator Tools**.

2   In the Active Directory Users and Computers snap-in, right-click the domain root, click **Properties**, and then click the **Group Policy** tab.

3   Click the default domain policy, and then click **Edit**.

4   Expand Computer Configuration, expand Windows Settings, and then expand Security Settings.

5   Expand Local Policies, expand Security Options, and then modify Device: Unsigned driver installation behavior to the setting **Silently succeed**.

6   To force an immediate refresh, type gpupdate at the command line.

Installing Application Pack 1 using the GUI

Download the Application Pack 1 installation files from the Symantec support page on the Symantec Web site.

See "Download locations" on page 13.

To install Application Pack 1 using the GUI

1   Navigate to the location of the extracted files and double click **Setup.exe**.

2   On the Symantec Product Installer panel, complete the following steps:

  ■   Click **Run Configuration Checker** if you wish to run the configuration checker wizard to verify the configuration.
      Refer to the *Veritas Storage Foundation and High Availability Solutions 5.1 Installation and Upgrade Guide* for more information about the configuration checker tool.

  ■   Click **Veritas Storage Foundation and High Availability Solutions 5.1 for Windows Application Pack 1** to launch the application pack installer wizard.

3   Review the prerequisites on the Welcome screen and click **Next**.

4   On the Options Selection panel, do the following and then click **Next**:

  ■   Check **Veritas Storage Foundation and High Availability Solutions 5.1 for Windows Application Pack 1** check box, if not checked already.

  ■   Check the **Microsoft SQL Server 2008 support** check box, if you wish to configure SQL Server 2008 in an SFW HA environment.

  ■   Clear the **NetApp SnapDrive 6.0** check box, if checked already. This option is not applicable for SFW or SFW HA installations.

5   On the Computer Selection panel, specify the computers for the application pack installation and then click **Next**.
    Perform the following steps:

- ■ Select the domain from the Domain dropdown list. This is the domain to which all the systems belong.
- ■ Select a computer from the Computer dropdown list, or alternately, type the name of the computer and then click **Add**. Repeat this for all systems on which you wish to install the application pack.
- ■ Specify the domain and computers for the installation. You can select the domain and computer from the drop down list. The list may take some time to populate depending on the domain and network size, speed, and activity. You can also type the computer name in the **Computer** field.
- ■ To add a computer for installation, click **Add**.
- ■ To remove a computer, click the computer in the Selected Computers for installation field, and click **Remove**.
  Repeat these steps for each computer.

6 The installer checks the prerequisites for the selected computers and displays the results. Review the information and click **Next**. If the validation fails, address the issue and click **Validate Again**. Click **Next** after all the computers are successfully validated.

7 Review the Install Report, which displays the information about options selected for installation and then click **Install** to begin the installation.
The installation shows the status and progress of the installation.

8 After the installation is complete on the selected systems, click **Next**.

9 Review the installation summary report and click **Next**.

10 Click **Finish** to complete the installation.

Installing Application Pack 1 using the command line

Download the Application Pack 1 installation files from the Symantec support page on the Symantec Web site.

See "Download locations" on page 13.

You can perform a silent installation of Application Pack 1 using the Setup.exe command from command line. With a silent installation, you can only install on one computer at a time.

Note: For Windows Server 2008, all CLI commands must run in the command window in the "run as administrator" mode.

To install Application Pack 1 using the command line

1   Click **Start > Run**, type **cmd** and then click **OK** to open the command prompt.

2   From the command prompt, navigate to the location where you have copied the application pack installation files.

3   To install Application Pack 1, type the following command at the command prompt:

```
Setup.exe /s INSTALL_MODE=<InstallMode>
SOLUTIONS=<SolutionID> NODE=<nodename> options=<Option
ID>
```

Table 1-3 describes the values that the parameters can take.

Table 1-3   Setup.exe: Silent install parameters

Parameter	Usage
/s	Set for silent mode. If not entered, the product installer GUI starts.
Install_Mode	Set to indicate an installation or uninstallation. *1* = To install or upgrade the product *5* = To uninstall the product The installer automatically detects whether it is a fresh install or an upgrade and performs the necessary tasks accordingly. The default value is 1. Example: INSTALL_MODE=1
Solutions	Set this value to 5 for Application Pack 1
Node	Set the node name. Specify only one node at a time. The default setting is the local node. Example: Node=SysA
options	Option to select a feature to be installed. This can take the following values: ■ SQL2008 (SQL 2008 feature) ■ NTAP60 (NetApp Snapdrive 6.0 feature) This option is not applicable for SFW or SFW HA installations. You can choose either or both options. When using both options they must be separated by a comma. Enclose the options in double quotes. Example: Option Id="SQL2008,NTAP60"

Silent installation example: Local Server

This command installs the application pack on the local node. The application pack is installed to the same directory as the 5.1 base installation.

```
Setup.exe /s INSTALL_MODE=1 SOLUTIONS=5 options="SQL2008"
```

Silent installation example: Remote Server

This command installs the application pack on a remote node. It states that the node it is installing is SysA. The application pack is installed to the same directory as the 5.1 base installation.

```
Setup.exe /s INSTALL_MODE=1 SOLUTIONS=5 NODE=SysA
options="SQL2008"
```

Tasks after installing Application Pack 1

Tasks after installing the application pack may include the following depending on the environment at the site:

- See "Re-installing VCS Management Console 5.1" on page 21.

- See "Re-enabling VVR after the update" on page 22.

- See "Re-enabling VCS resources after the update" on page 24.

- See "Re-enabling DMP after the update" on page 24.

- See "Upgrading SQL Server 2000/2005 to SQL Server 2008" on page 25.

Re-installing VCS Management Console 5.1

To re-install VCS Management Console

1   Install VCS Management Console 5.1.
    Refer to the *Veritas Cluster Server Management Console Implementation Guide*.

2   Restore the backed-up VCS Management Console 5.1 data files. These are the files that you had backed-up before installing the application pack.
    See "Removing VCS Management Console" on page 16.

3   Start the VCS Management Console. If the management console is clustered, bring the CMC_MS service group online.

Re-enabling VVR after the update

After upgrading an environment where VVR replicates data from a primary site to a secondary site, use the following procedures to begin replication.

Note: For a VVR environment with multiple secondary sites, any operation that needs to be performed on a secondary site must be repeated on all other secondary sites.

Read the following topics:

■ For sites with VVR and VCS cluster, re-enable VVR before preparing the cluster.

■ For sites without a cluster, complete these steps.

Re-enabling VVR in a VCS cluster environment after the update

To enable the updated objects from the VCS Cluster Manager (Java Console)

1   On the primary site, bring the RVG service group online.
    From the VCS Cluster Manager (Java Console), right-click the RVG service group and select **Online**.

2   On the secondary site, bring the RVG service group online.
    From the VCS Cluster Manager (Java Console), right-click the RVG service group and select **Online**.

3   On the primary site, bring the application service group online.
    From the VCS Cluster Manager (Java Console), right-click the application service group and select **Online**.

4   If bringing the service groups online does not start the application, perform any necessary tasks to start the application. Depending on options available in your environment, these tasks may include mounting databases or manually starting the application.

To enable the updated objects from the command line

1   Click **Start > Run**, type **cmd** and then click **OK** to open the command prompt.

2   On the primary site, run the hagrp command to bring the RVG service group online. Type the following command at the command prompt:
    `hagrp -online group_name -sys system_name`

3   On the secondary site, run the hagrp command to bring the RVG service group online. Type the following at the command prompt:

    hagrp -online *group_name* -sys *system_name*

4   On the primary site, run the hagrp command to bring the application service group online. Type the following at the command prompt:

    hagrp -online *group_name* -sys *system_name*

5   If bringing the service groups online does not start the application, perform any necessary tasks to start the application. Depending on the options available in your environment, these tasks may include mounting databases or manually starting the application.

Re-enabling VVR in an environment without clusters

To enable the updated objects from VEA

1   Select the primary RVG, right-click, and select the **Enable Data Access** option from the menu.

2   Select the secondary RVG, right-click, and select the **Enable Data Access** option from the menu.

3   If needed, perform any necessary tasks to start the application. Depending on the options available in your environment, these tasks may include mounting databases or manually starting the application.

To enable the updated objects from the command line

1   Click **Start > Run**, type **cmd** and then click **OK** to open the command prompt.

2   On the secondary site, enable data access to the volumes under RVG using the vxrvg command. Type the following at the command prompt:

    vxrvg -g *diskgroup* start *rvg_name*

3   On the primary site, enable data access to the volumes under RVG using the vxrvg command. Type the following at the command prompt:

    vxrvg -g *diskgroup* start *rvg_name*

4   If needed, perform any necessary tasks to start the application. Depending on the options available in your environment, these tasks may include mounting databases or manually starting the application.

Re-enabling VCS resources after the update

Ensure that all service groups that were taken offline prior to the update are brought online again, in the appropriate order based on resource dependencies.

To bring a service group online

1   Bring a service group online, in the appropriate order based on resource dependencies.

    ■   From the VCS Cluster Manager (Java Console), right-click the service group and click **Online**.

        or

    ■   From the command prompt, type:

        hagrp -online *group_name* -sys *system_name*

        where *group_name* is the name of the service group and *system_name* is the node on which the group is online.

2   Repeat for additional service groups.

Re-enabling DMP after the update

If you have disconnected DMP paths, you can reconnect them. For instructions about reconnecting DMP paths, refer to the *Veritas Storage Solutions 5.1 for Windows Installation and Upgrade Guide*.

Upgrading SQL Server 2000/2005 to SQL Server 2008

The following steps describe how to upgrade your existing clustered SQL Server 2000 or SQL Server 2005 setup to SQL Server 2008. Complete these steps on all the cluster nodes that are part of the SQL service group, one node at a time.

At a high level, upgrading to SQL Server 2008 involves the following tasks:

■ Upgrade SQL Server on the first cluster node

■ Upgrade SQL Server on each additional failover node

■ In case of a Disaster Recovery configuration, repeat the SQL upgrade procedures on the nodes at the secondary site. First upgrade the first cluster node at the DR site and then the additional failover nodes.

■ Delete the existing SQL 2000 or 2005 service group, including the service group at the DR site, if applicable.

■ Create a SQL Server 2008 service group using the SQL Server 2008 Configuration Wizard. In case of a DR setup, create a service group at the DR site.

Note: In case of a Disaster Recovery setup, you must first upgrade SQL on the cluster nodes at the primary site and then proceed with the nodes at the secondary site. You must follow the same upgrade sequence at both sites, upgrade first node and then the additional nodes, as described in the procedures in this section.

These steps are applicable only if you already have SQL 2000 or SQL 2005 set up in a SFW HA cluster environment.

To configure a new HA and DR environment for SQL Server 2000 or SQL Server 2005, refer to the *Veritas Storage Foundation and High Availability Solutions HA and Disaster Recovery Solutions Guide for Microsoft SQL.*

To configure a new HA and DR environment for SQL Server 2008, refer to the *Veritas Storage Foundation and High Availability Solutions HA and Disaster Recovery Solutions Guide for Microsoft SQL 2008.*

Ensure that you do the following before proceeding with the upgrade tasks:

■ Take a backup of the SQL databases.

■ In case of a Disaster Recovery environment, ensure that the databases at the primary and secondary sites are synchronized.

■ Ensure that you have installed SFW HA 5.1 Application Pack 1 for Windows and the VCS database agents for SQL 2008, on all the SQL service group cluster nodes that you wish to upgrade.
See "Installing Application Pack 1" on page 13.

■ Make a note of the SQL virtual server name and all the IP addresses configured at both the primary and the secondary site, for the SQL setup in the DR environment. This includes the IP addresses used for the replication service group. You will need these details later.

Upgrading SQL on the first cluster node

These steps assume a single SQL Server instance configured in a two-node cluster configuration.

To upgrade SQL Server on the first cluster node

On the node on which the SQL service group is online, take all the resources up to but excluding the MountV resource, offline. Keep the MountV resource online.

From the VCS Cluster Manager (Java Console), right-click the resource and select **Offline**. Click **Yes** in the confirmation pop-up box to take the resource offline.

3 Bring the registry replication (RegRep) resource online.

4 Make a backup copy of the SQL Server 2000 or SQL Server 2005, and the Registry (RegRep) directories from the shared disk and store them in a temporary location.
You will need the backed-up directories while upgrading SQL on the additional failover nodes, later.

5 Freeze the SQL Server service group.
From the Cluster Manager (Java Console), right-click the SQL Server service group in tree view on the left pane, and click **Freeze > Persistent**.

6 Launch the Microsoft SQL Server 2008 installer and install SQL Server 2008 on the node. Make sure that you select the option to upgrade the existing SQL Server instance(s), when prompted to do so. The SQL Server 2008 installer then automatically places the SQL data files in the appropriate location.
Refer to the Microsoft SQL Server 2008 documentation for instructions.

7 Unfreeze and then take the SQL Server service group offline.
From the VCS Cluster Manager (Java Console), right-click the SQL Server service group in tree view on the left pane and click **Unfreeze**, and then take the entire service group offline on the node.

This completes the upgrade steps on the first cluster node. Proceed to upgrading SQL on the additional failover nodes.

Upgrading SQL on the additional failover node

Perform the following steps on each additional failover node that is part of the SQL service group.

To upgrade SQL Server on the additional failover node

1   Bring the SQL service group resources up to and including the MountV resource, online.
    From the VCS Cluster Manager (Java Console), right-click the resource and click **Online**. Click **Yes** in the confirmation pop-up box to bring the resource online.

2   Rename the SQL Server and the Registry (RegRep) directories on the shared disks. These directories were updated after the SQL 2008 install on the first node. You can also delete these directories, if desired.

3   Copy the backed-up SQL Server 2000 or SQL Server 2005, and the Registry (RegRep) directories from the temporary location to the shared disks. The backup directories are the same that you had backed up earlier while upgrading SQL on the first cluster node.

4   Bring the RegRep resource online.
    From the VCS Cluster Manager (Java Console), right-click the resource and select **Online**. Click **Yes** in the confirmation pop-up box to bring the resource online.

5   Freeze the SQL Server service group.
    From the Cluster Manager (Java Console), right-click the SQL Server service group in tree view on the left pane and click **Freeze > Persistent**.

6   Launch the Microsoft SQL Server 2008 installer and install SQL Server 2008 on the node. Make sure that you select the option to upgrade the existing SQL Server instance(s), when prompted to do so. The SQL Server 2008 installer automatically places the SQL data files in the appropriate location. Refer to the Microsoft SQL Server 2008 documentation for instructions.

7   Unfreeze and then take the SQL Server service group offline.
    From the VCS Cluster Manager (Java Console), right-click the SQL Server service group in tree view on the left pane and click **Unfreeze**, and then take the entire service group offline on the node.
    This completes the upgrade steps on an additional failover node. Proceed to configuring the SQL Server 2008 service group in the cluster.

Configuring SQL service group

Perform the following steps on one of the cluster nodes at the primary site.

Note: This procedure requires you to run the SQL Server 2008 Configuration Wizard to configure the SQL 2008 service group. The SQL 2008 service group configuration steps are not described here. Refer to the *Veritas Storage Foundation and High Availability Solutions HA and Disaster Recovery Guide for Microsoft SQL 2008* for instructions.

To configure SQL service group

1   Rename the Registry (RegRep) directory on the shared disk.

2   On one of the cluster node, bring the VMDg and MountV resources of the SQL service group, online.

3   If you have configured a VVR-based replication for SQL, delete the replication service group created for the SQL Server service group.
    From the Cluster Manager (Java Console), right-click the replication service group in tree view and click **Delete**. Click **Yes** when prompted to confirm if you want to delete the service group.

4   Delete the existing SQL Server 2000 or 2005 service group from the VCS Cluster Manager (Java Console).

5   In case of a DR configuration, repeat steps 1 to 4 on a node at the secondary site. Then perform the next steps on a node at the primary site.

6   Create the SQL Server 2008 service group using the SQL Server 2008 Configuration Wizard.
    Refer to the *Veritas Storage Foundation and High Availability Solutions HA and Disaster Recovery Guide for Microsoft SQL 2008* for detailed instructions on how to create the service group using the SQL Server 2008 Configuration Wizard.

7   In case of a DR configuration, complete the required procedures for setting up the Global Cluster Option (GCO) and the replication components.
    Note that you must use the same SQL virtual server name, IP addresses and other details, that were used by the SQL 2000 or 2005 setup earlier.
    Refer to the *Veritas Storage Foundation and High Availability Solutions HA and Disaster Recovery Guide for Microsoft SQL Server 2008* for instructions.

8   In case of a DR configuration, after completing the service group and replication components at the primary site, run the Disaster Recovery Wizard to set up the DR configuration between the primary and secondary sites.

Note that you must use the same SQL virtual server name, IP addresses and other details, that were used by the SQL 2000 or 2005 setup earlier.

Refer to the DR workflow in the *Veritas Storage Foundation and High Availability Solutions HA and Disaster Recovery Guide for Microsoft SQL Server 2008* for instructions.

9 After creating the SQL service group, verify the configuration by switching the service group to another node in the cluster.

10 Delete the RegRep directory that you renamed in the first step. Repeat this at the DR site, if applicable.

11 If you had configured an MSDTC service group on Windows 2008 systems in your cluster, then after upgrading to SQL 2008 you have to reconfigure the MSDTC server using the SQL Server Configuration Wizard (not the SQL Server 2008 Configuration Wizard) and the MSDTC client manually.

You do not have to reconfigure MSDTC if it is configured on Windows 2003 systems.

Refer to the *Veritas Storage Foundation and High Availability Solutions HA and Disaster Recovery Guide for Microsoft SQL Server 2008* for instructions.

Removing Application Pack 1

If you are removing the application pack and SFW HA 5.1, the application pack must be removed first. For information on removing SFW or SFW HA 5.1, refer to the *Veritas Storage Foundation and High Availability Solutions 5.1 Installation and Upgrade Guide*.

Warning: Application Pack 1 contains support for several features including Microsoft SQL Server 2008. If you have configured these applications, then after removing Application Pack 1 you will not be able to use the supported features and applications in a SFW HA 5.1 for Windows clustered environment.

Read the following topics:

■ See "Preparing the SFW HA 5.1 cluster" on page 30.

■ See "Removing Application Pack 1 using the GUI" on page 31.

■ See "Removing Application Pack 1 from the command line" on page 32.

Preparing the SFW HA 5.1 cluster

Before removing the application pack, delete the SQL Server 2008 service group if it is configured in the cluster. Then use the VCS Cluster Manager (Java Console) to save and close the configuration. This operation involves saving the latest configuration to disk and changing the configuration state to read-only mode. You must also bring the service groups offline and stop VCS before removing the application pack.

Warning: Some configurations may require other steps. Before removing the application pack or performing the following steps, check the Support website at the following URL for updates or additions to the procedure: http://entsupport.symantec.com/docs/316327

Perform the following steps.

To save and close the configuration

◆ From the VCS Cluster Manager (Java Console), click **Save and Close Configuration** on the Cluster Explorer toolbar.

To bring the service groups offline

◆ From the VCS Cluster Manager (Java Console), right-click the service group and select the **Offline** menu option.

or

From the command prompt, type:

`hagrp -offline group_name -sys system_name`

where *group_name* is the name of the service group and *system_name* is the node on which the group is online.

Repeat this command for all service groups that are online.

To stop VCS High Availability Engine (HAD)

◆   Stop the Veritas High Availability Engine (HAD) on all the cluster nodes that you wish to remove the application pack from.

Type the following at the command prompt:

`hastop -all -force`

Removing Application Pack 1 using the GUI

The following procedure describes how to remove SFW HA 5.1 Application Pack 1 for Windows from the cluster. After removing the application pack, the system is restored to the SFW HA 5.1 version level.

To remove the application pack using the GUI

1   Open the Windows Control Panel and double-click **Add or Remove Programs**.

2   From the Add or Remove Programs dialog box, click **Veritas Storage Foundation and High Availability Solutions 5.1 for Windows Application Pack 1** and then click **Remove**.

3   Review the Welcome message and click **Next**.

4   Select the systems where you wish to remove the application pack from the Domain and Computer drop-down menus and click **Add**. Optionally, type the computer's name in the Computer field. Repeat this step to add other computers to the list.

The local system is listed in the Selected computers for uninstall list by default. To remove a system from the Selected computers for uninstall list, click the system and click **Remove**.

5   After specifying the required cluster nodes, click **Next**. On the Validation screen, the installer checks the prerequisites for the selected systems and displays the results.

6   Review the information and click **Next**.

If a system fails validation, click the system in the systems list to display information about the failure. Address the problem and click **Validate Again** to repeat the validation process.

7   Review the information and click **OK**.

The Summary screen displays the settings and systems selected for removal.

8   Click **Uninstall** to begin the process. The Uninstall Status screen displays status messages and the progress of the removal.

If a removal fails, the status screen shows a failed status. Click **Next** to review the report, address the reason for failure, and repeat the removal on that computer.

If the removal is successful on all computers, the removal report screen appears. The status screen appears and lists all computers selected for removal, along with the status of each removal.

9   Click **Finish** to complete the task.

Removing Application Pack 1 from the command line

The following procedure describes how to remove SFW HA 5.1 Application Pack 1 for Windows using the Setup.exe command to perform a silent removal from the command line. With a silent removal, you can remove the application pack on only one computer at a time. After removing the application pack, the system is restored to the SFW HA 5.1 for Windows version level.

Examples showing the removal of the application pack are included at the end of this section.

Note: For Windows Server 2008, all CLI commands must run in the command window in the "run as administrator" mode.

To install Application Pack 1 using the command line

1   Click **Start > Run**, type **cmd** and then click **OK** to open the command prompt.

2   From the command prompt, navigate to the location where you have copied the application pack installation files.

3   To remove Application Pack 1, type the following command at the command prompt:

```
Setup.exe /s INSTALL_MODE=<InstallMode>
SOLUTIONS=<SolutionID> NODE=<nodename> options=<Option
ID>
```

Table 1-4 describes the values that the parameters can take.

Table 1-4   Setup.exe: Silent install parameters

Parameter	Usage
/s	Set for silent mode. If not entered, the product installer GUI starts.
Install_Mode	Set to indicate an installation or uninstallation. *1* = To install or uninstall the product *5* = To uninstall the product The installer automatically detects whether it is a fresh install or an upgrade and performs the necessary tasks accordingly. The default value is 1. Example: INSTALL_MODE=1
Solutions	Set this value to 5 for Application Pack 1
Node	Set the node name. Specify only one node at a time. The default setting is the local node. Example: Node=SysA
options	Option to select a feature to be installed. This can take the following values: ■ SQL2008 (SQL 2008 feature) ■ NTAP60 (NetApp Snapdrive 6.0 feature) This option is not applicable for SFW or SFW HA installations. You can choose either or both options. When using both options they must be separated by a comma. Enclose the options in double quotes. Example: Option Id="SQL2008,NTAP60"

Silent removal example: Local Server

This command removes the application pack from the local node.

```
Setup.exe /s INSTALL_MODE=5 SOLUTIONS=5 options="SQL2008"
```

Silent removal example: Remote Server

This command removes the application pack from a remote node. It states that the node it is removing it from is SysA.

```
Setup.exe /s INSTALL_MODE=5 SOLUTIONS=5 NODE=SysA
options="SQL2008"
```

Repairing the installation

The product installer provides a Repair option to repair the existing installation. This installer can only repair the local system.

Note: In the Repair Option, only the missing files are added. Other changes like changes in the types.cf must be made manually.

To repair the installation

1   In the Windows Control Panel menu, select **Add or Remove Programs**.
    For Windows Server 2003, if it is not already selected, select **Change or Remove Programs** from the left-hand pane.

2   Click the **Veritas Storage Foundation and High Availability for Windows Application Pack 1** entry and click **Change**.

3   The installer screen appears. Select **Repair** to restore the installation to its original state and then click **Next**.
    The Validation screen appears. The installer checks the prerequisites for the system and displays the results.

4   Review the information and click **Next**.
    If a system fails validation, click the system in the systems list to display information about the failure. Address the problem and click **Validate Again** to repeat the validation process.
    The Summary screen appears. Review the information and click **Repair** to begin the repair process. The Repair Status screen appears. Status messages and the progress of the repair are displayed. If an installation fails, click **Next** to review the report and address the reason for failure. You may have to uninstall and re-install the software.

5   When complete, review the summary and click **Next**.

6   On the Thank You screen, click **Finish**.

Software limitations

The following limitations apply to the Application Pack 1 for Veritas Storage Foundation 5.1 for Windows and Veritas Storage Foundation HA 5.1 for Windows.

For the latest information on updates, patches, and software issues regarding this release, see the following TechNote:

http://entsupport.symantec.com/docs/303042

Veritas Storage Foundation

This section covers limitations specific to Storage Foundation functionality.

SFW CLI command, vxsnapsql, does not support Microsoft SQL Server 2008

The vxsnapsql CLI command does not support Microsoft SQL Server 2008. However, the vxsnap CLI command supports SQL Server 2008 and can be used instead.

Dynamic Disk Groups are not imported after system reboot in a Hyper-V environment (1406512)

In a Hyper-V environment, dynamic disk groups that reside on virtual disks that are attached to a SCSI controller are not imported automatically. This is a known Microsoft problem.

Workaround: Configure the system to use the Veritas DG Delayed Import Service (VxDgDI) for these dynamic disk groups. Alternatively, you can manually import these disk groups after the system has completed the boot process.

Cannot boot system from a SCSI disk in a Hyper-V environment (1406512)

Booting a system from a SCSI disk in a Hyper-V environment fails. You can only boot the system from an IDE disk. This is a known Microsoft problem.

Only iSCSI disks shared by Microsoft Failover Cluster in a Hyper-V environment

In an environment running Microsoft Failover Cluster in Hyper-V child partitons, only iSCSI disks can be shared between the two child partitons. This is a known Microsoft limitation.

Dynamic Muliti-Pathing (DMP) only supports iSCSI in a Hyper-V environment

The Hyper-V guest needs to configure iSCSI connections directly for DMP to work and is configured the same as a physical server that connects to physical iSCSI storage.

Known issues

The following known issues exist in the Application Pack 1 for Veritas Storage Foundation 5.1 for Windows and Veritas Storage Foundation HA 5.1 for Windows.

For the latest information on updates, patches, and software issues regarding this release, see the following TechNote:

http://entsupport.symantec.com/docs/303042

Veritas Storage Foundation

This section provides information on known Storage Foundation issues.

Existing snapshot schedules fail when adding/deleting volumes or changing file paths to database (1469732)

Changing the file paths of a database or adding/deleting volumes from a database cause existing snapshot schedules for the database to fail. Database changes are not automatically reflected in the snapshot schedule job history (command string).

Workaround: Create a new snapshot schedule after completing any database configuration changes. When changing the file paths of a database or adding a new volume, make sure to Prepare/Snap Start the volume before the schedule executes.

Veritas Cluster Server

This section provides information on Veritas Cluster Server known issues.

VCS Cluster Configuration Wizard (VCW) does not detect the cluster after removing SFW HA 5.1 Application Pack 1 (1475202)

The VCS Cluster Configuration Wizard (VCW) fails to detect the existing cluster if SFW HA 5.1 Application Pack 1 is removed from the cluster nodes. This issue occurs only if you had created the cluster after installing Application Pack 1 on the cluster nodes.

This does not affect the cluster functionality. The Veritas High Availability Engine (HAD) is in running state and the service groups can fail over between the nodes.

Currently there is no fix available for this issue. Contact Symantec technical support for more information.

SQL instance running on 64-bit machine is not discovered by MOM 2005 server (1449804)

A SQL Server 2008 instance running on a 64-bit cluster node is not discovered by MOM 2005 Server. This problem occurs because the MOM 2005 agent is 32-bit while the SQL instance is 64-bit.

Workaround

Create the following registry key in the 32-bit registry hive, if it does not exist already:

HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\

CurrentVersion\Uninstall\Microsoft SQL Server 10

Note: You need not create any registry value under this key.

Version conflict error while importing the VCS 5.1 SQL management pack for MOM 2005 (1471181)

A management pack version conflict error occurs when you try to import the VCS 5.1 management pack for SQL server in a Microsoft Operations Manager 2005 monitoring environment. This occurs if you have already imported the Microsoft SQL Server 2008 management pack before you import the VCS management pack.

The following error is displayed:

```
Version of Rule Group 'State Monitoring and Service
Discovery' - '09.0.3043.0000' should be newer than
'10.1.0001.0000'.
```

Workaround:

You can ignore the error and click **Continue** to proceed with the VCS management pack import process. There is no change in the SQL 2005 monitoring scripts included in the Microsoft SQL management pack version 10.1.0001.0000. The VCS management pack file (VCS_SQL2005_MOM2005.akm) version 09.0.3043.0000 will work as it is with Microsoft SQL management pack version 10.1.0001.0000.

VCS cluster configuration fails if Symantec Endpoint Protection 11.0 MR3 version is installed (1455690)

The VCS Cluster Configuration Wizard (VCW) fails to configure the cluster on systems where Symantec Endpoint Protection 11.0 MR3 version is installed.

The following error is displayed:

```
Failed to start the cluster. Error=FFFFFFFF. Failed to start
services on all the nodes.
```

Workaround:

Perform the following steps to resolve this issue:

1   Create a custom rule in the SEP firewall rules table.
    Specify the following details for the rule:

    ■   Rule type: Application

    ■   Application name: llt.sys

    ■   Action: allow

2   Move this rule to the top of the firewall rules table and then apply the
    firewall policy again.

3   Ensure that the SEP clients on the systems receive this policy and then
    proceed with the cluster configuration task.

Refer to the SEP documentation for detailed instructions on creating custom
firewall rules.

In addition see the following additional SEP configuration requirement to allow
ICMP traffic in both directions.

Symantec Endpoint Protection security policy may block the VCS Cluster Configuration Wizard (1315813)

While configuring a cluster, the VCS Cluster Configuration Wizard (VCW) may
fail to ping systems that are selected to be a part of the cluster. As a result, you
cannot configure the cluster.

This may happen in case Symantec Endpoint Protection (SEP) client is installed
on the selected systems. VCW uses Internet Control Message Protocol (ICMP) to
ping systems and ICMP traffic is blocked in SEP, by default.

Workaround

Create a custom rule in SEP to allow ICMP traffic in both directions. Ensure that
you create this rule on all the systems that are going to be part of the cluster.
Refer to the SEP documentation for instructions.

Memory leak occurs in the VCS agent for SQL 2008 (1466183)

A memory leak occurs in the VCS agent for SQL Server 2008. This issue is
observed when DBList based SQL database detail monitoring is configured. In
this mode of detail monitoring, the VCS agent for SQL 2008 uses Microsoft
ActiveX Data Objects (ADO) to access the SQL databases. The memory leak
occurs due to the ADO connections made by the agent to each database
configured in the DBList agent attribute. The amount of memory leak is
negligible and should not cause any adverse effects on the SQL Server
operations in the cluster.

Currently there is no fix available for this issue. Contact Symantec technical
support for more information.

Solutions Configuration Center (SCC) fails to launch after Application Pack 1 is removed (1386580)

The Solutions Configuration Center (SCC) may fail to launch after removing Application Pack 1 from a cluster node. This issue also occurs if you install SQL Server 2008 on a node on which Veritas Storage Foundation and High Availability Solutions version 5.1 is installed.

Workaround:

Install Application Pack 1 on the node. Support for SQL 2008 is included in Application Pack 1.

SQL Server 2008 Analysis and Agent service resources may go in to an unknown state (1466012)

The SQL Server 2008 Analysis service and SQL Server 2008 Agent service resources may go in to an UNKNOWN state when you bring the SQL Server 2008 service group online.

The following error is logged in the GenericService agent log:

```
VCS ERROR V-16-10051-6012
GenericService:MSOlap-NEW:online:Failed to wait for the
service 'MSOLAP$NEW' to start. Error = 258
VCS ERROR V-16-10051-6012
GenericService:SQLServerAgent-NEW:online:Failed to wait for
the service 'SQLAgent$NEW' to start. Error = 258
```

Workaround

Probe the resources if they are in the UNKNOWN state.

Issue while configuring a secure cluster (1466003)

While configuring a secure cluster you may get the following error on the Configure Security Service Options panel of the VCS Cluster Configuration Wizard (VCW):

```
Symantec Product Authentication Service Configuration
utility failed. Exit Code : 11
```

As a result, you may not be able to configure a secure cluster.

Workaround:

Note the following requirements before configuring a secure cluster:

■ Disable Windows Firewall, if it is enabled.

■ While specifying the Root Broker details in the VCW panel, specify the physical host name (instead of the IP address) of the Root Broker system.

If the error persists, perform the following steps:

1   From the command prompt, navigate to the following directory on the cluster system:

    `C:\Program Files\Veritas\Security\Authentication\bin`
    For 64-bit systems the path is as follows:

    `C:\Program`
    `Files(x86)\Veritas\Security\Authentication\bin`
    Here, `C:\Program Files` (`C:\Program Files(x86)` for 64-bit) is presumed to be the installation directory for VCS.

2   Run the following command from the command prompt:

    `"vssregctl.exe -s -l -b`
    `"Security\Authentication\AuthenticationBroker\AtPlugi`
    `ns\vx" -k`
    `"ABAuthSourceLocation" -v "C:\Program`
    `Files\Veritas\Security\Authentication\systemprofile\A`
    `BAuthSource" -t string"`
    For 64-bit systems, the command is as follows:

    `"Security\Authentication\AuthenticationBroker\AtPlugi`
    `ns\vx" -k`
    `"ABAuthSourceLocation" -v "C:\Program`
    `Files(x86)\Veritas\Security\Authentication\systemprof`
    `ile\ABAuthSource" -t string"`

3   Proceed to configure a secure cluster using VCW.

SQLFilestream resource remains online on the DR site after the DR Wizard finishes configuring DR for SQL Server 2008 (1459551)

If FILESTREAM is enabled for SQL Server 2008, then after running the Disaster Recovery Configuration Wizard to configure disaster recovery, the SQLFilestream resource remains online in the application service group on the secondary site. As a result you cannot switch the SQL service group to the DR cluster.

Workaround: After running the DR Wizard, manually bring offline the SQLFilestream resource on the secondary site cluster.

Alternatively, disable FILESTREAM on the secondary site before running the DR Wizard to clone the service group.

Software fixes and enhancements

Fixed issues and software enhancements are referenced by Symantec incident number and described briefly below.

Veritas Cluster Server

The following issues were fixed in this release.

Table 1-5 Fixed issues for Veritas Cluster Server

Incident Number	Description
1298649	The VCS Exchange wizards may crash when folder mount points are present on the regrep volume.
1319212	Provide the Windows Active Directory dialog box to select and search Organizational Unit in the Exchange Setup Wizard for VCS.
1398535	The VCS SQL Configuration Wizard always sets Lanman attributes ADUpdateRequired and ADCriticalForOnline to 'TRUE', no matter what the user specifies.

Documentation changes

The information in this section updates information provided in the product documentation for Veritas Storage Foundation 5.1 for Windows and Veritas Storage Foundation HA 5.1 for Windows.

Veritas Storage Foundation and High Availability Solutions HA and Disaster Recovery Solutions Guide for Microsoft SQL 2008

This refers to Chapter 6, Installing and configuring SFW HA, in the guide.

The chapter contains instructions for installing SFW HA 5.1, and Application Pack 1 and then configuring the cluster. The order in which you should perform these steps is incorrect.

You must install SFW HA 5.1 and configure the cluster using the VCS Cluster Configuration Wizard (VCW) first, and then install Application Pack 1.

Veritas Storage Foundation and High Availability Solutions HA and Disaster Recovery Solutions Guide for Microsoft SQL

This refers to Chapter 8, Configuring an MSDTC service group for high availability in the guide.

The chapter contains instructions on using the SQL Server Configuration Wizard to configure the MSDTC client.

After installing Application Pack 1, you can no longer use the SQL Server Configuration Wizard to create or edit MSDTC client configuration for an MSDTC high availability setup. You have to manually configure the MSDTC client. The SQL Server Configuration Wizard does not support that task.

Refer to the *Veritas Cluster Server Implementation Guide for Microsoft SQL Server 2008* for instructions on how to configure the MSDTC client manually.

The same applies to the *Veritas Cluster Server Database Agent for Microsoft SQL Configuration Guide*. The MSDTC client configuration information appears in Chapter 5, Configuring the MSDTC service group.

Veritas Cluster Server Administrator's Guide

This refers to Chapter 16, Connecting clusters-Creating global clusters in the guide. The topic "Cluster setup" under "Prerequisites for global clusters" on page 579, line number 4 incorrectly states that the operating system versions can be different for systems participating in a global cluster.

Replace the sentence: "Clusters must be running on the same platform; the operating system versions can be different." with the following sentence: "Clusters must be running the same platform and operating system versions."

Veritas Storage Foundation and High Availability Solutions HA and Disaster Recovery Solutions Guide for Microsoft Exchange

This refers to the usage of the vxclus UseSystemBus ON command to create clustered disk groups. The command is mentioned on page 438.

The command in incorrectly mentioned in the guide as follows:

```
xclus UseSystemBus ON
```

The correct syntax of the command is as follows:

```
vxclus UseSystemBus ON
```

This error occurs in the following guides:

Veritas Storage Foundation and High Availability Solutions HA and Disaster Recovery Solutions Guide for Microsoft Exchange 2007 (pages 434)

Veritas Storage Foundation and High Availability Solutions HA and Disaster Recovery Solutions Guide for Microsoft SQL (pages 547, and 663)

Veritas Storage Foundation and High Availability Solutions Installation and Upgrade Guide

In chapter 2, "Installing SFW or SFW HA", refer to the section "Installing from the command line". The following information applies to the "Install_Mode" parameter description for the Setup.exe command on page 44.

The "Install_Mode" parameter default value 1 indicates to install or to upgrade the software. The installer automatically detects whether it is a fresh product install or an upgrade case, and performs the required tasks accordingly. In either cases, you must specify the required install features in the "Options" parameter for the Setup.exe command.

Documentation

Storage Foundation for Windows documentation is included on the product software discs for Veritas Storage Foundation and High Availability Solutions 5.1 for Windows in Adobe Portable Document Format (PDF). Explore the `\Docs` directory of the software disc and double-click the file name to view a document.

The Application Pack 1 release includes the following new and updated documents.

Table 1-6   New and Updated Documents for SFW HA 5.1 Application Pack 1

Title	File Name
Veritas Storage Foundation and High Availability Solutions HA and Disaster Recovery Solutions Guide for Microsoft SQL 2008	SFW_HA_DR_SQL2008_Solutions.pdf
Veritas Storage Foundation and High Availability Solutions Microsoft Clustering Solutions Guide for Microsoft SQL 2008	SFW_MSCS_SQL2008_Solutions.pdf
Veritas Storage Foundation and High Availability Solutions Quick Recovery Solutions Guide for Microsoft SQL 2008	SFW_QR_SQL2008_Solutions.pdf
Veritas Storage Foundation and High Availability Solutions 5.1 Application Pack 1 Release Notes	SFWHA_ReleaseNotes.pdf

Note: Updates to release notes can be found at:
http://entsupport.symantec.com/docs/303042

Table 1-7   Veritas Storage Foundation and High Availability Solutions for Windows Documentation Set

Title	File Name
Veritas Storage Foundation and High Availability Solutions	
Veritas Storage Foundation and High Availability Solutions 5.1 Getting Started Guide	SFW_GettingStarted.pdf
Veritas Storage Foundation and High Availability Solutions 5.1 Installation and Upgrade Guide	SFW_InstallUpgrade.pdf
Veritas Storage Foundation and High Availability Solutions 5.1 Release Notes	SFW_ReleaseNotes.pdf
Veritas Storage Foundation and High Availability Solutions 5.1 Solutions Guide	SFW_Solutions.pdf

Table 1-7   Veritas Storage Foundation and High Availability Solutions for Windows Documentation

Title	File Name
Veritas Storage Foundation and High Availability Solutions 5.1 HA and Disaster Recovery Solutions Guide for Microsoft Exchange	SFW_HA_DR_Exch2003_Solutions.pdf
Veritas Storage Foundation and High Availability Solutions 5.1 HA and Disaster Recovery Solutions Guide for Microsoft Exchange 2007	SFW_HA_DR_Exch2007_Solutions.pdf
Veritas Storage Foundation and High Availability Solutions 5.1 Quick Recovery and Microsoft Clustering Solutions Guide for Microsoft Exchange	SFW_QR_MSCS_Exch_Solutions.pdf
Veritas Storage Foundation and High Availability Solutions 5.1 HA and Disaster Recovery Solutions Guide for Microsoft SQL	SFW_HA_DR_SQL_Solutions.pdf
Veritas Storage Foundation and High Availability Solutions 5.1 Quick Recovery and Microsoft Clustering Solutions Guide for Microsoft SQL	SFW_QR_MSCS_SQL_Solutions.pdf
Veritas Storage Foundation	
Veritas Storage Foundation 5.1 Administrator's Guide	SFW_Admin.pdf
Veritas Cluster Server	
Veritas Cluster Server 5.1 Administrator's Guide	VCS_Admin.pdf
Veritas Cluster Server 5.1 Agent Developer's Guide	VCS_AgentDev.pdf
Veritas Cluster Server 5.1 Bundled Agents Reference Guide	VCS_BundledAgents.pdf
Veritas Cluster Server 5.1 Application Note: Disaster Recovery for Microsoft SharePoint Server	VCS_AppNote_Sharepoint.pdf
Veritas Cluster Server 5.1 Application Agent for Microsoft Exchange, Configuration Guide	VCS_Exch_Agent.pdf
Veritas Cluster Server 5.1 Database Agent for Oracle, Configuration Guide	VCS_Oracle_Agent.pdf
Veritas Cluster Server 5.1 Database Agent for Microsoft SQL, Configuration Guide	VCS_SQL_Agent.pdf
Veritas Cluster Server 5.1 Hardware Replication Agent for EMC SRDF, Configuration Guide	VCS_SRDF_Agent.pdf

Table 1-7   Veritas Storage Foundation and High Availability Solutions for Windows Documentation

Title	File Name
Veritas Storage Foundation and High Availability Solutions 5.1 HA and Disaster Recovery Solutions Guide for Microsoft Exchange	SFW_HA_DR_Exch2003_Solutions.pdf
Veritas Storage Foundation and High Availability Solutions 5.1 HA and Disaster Recovery Solutions Guide for Microsoft Exchange 2007	SFW_HA_DR_Exch2007_Solutions.pdf
Veritas Storage Foundation and High Availability Solutions 5.1 Quick Recovery and Microsoft Clustering Solutions Guide for Microsoft Exchange	SFW_QR_MSCS_Exch_Solutions.pdf
Veritas Storage Foundation and High Availability Solutions 5.1 HA and Disaster Recovery Solutions Guide for Microsoft SQL	SFW_HA_DR_SQL_Solutions.pdf
Veritas Storage Foundation and High Availability Solutions 5.1 Quick Recovery and Microsoft Clustering Solutions Guide for Microsoft SQL	SFW_QR_MSCS_SQL_Solutions.pdf
Veritas Storage Foundation	
Veritas Storage Foundation 5.1 Administrator's Guide	SFW_Admin.pdf
Veritas Cluster Server	
Veritas Cluster Server 5.1 Administrator's Guide	VCS_Admin.pdf
Veritas Cluster Server 5.1 Agent Developer's Guide	VCS_AgentDev.pdf
Veritas Cluster Server 5.1 Bundled Agents Reference Guide	VCS_BundledAgents.pdf
Veritas Cluster Server 5.1 Application Note: Disaster Recovery for Microsoft SharePoint Server	VCS_AppNote_Sharepoint.pdf
Veritas Cluster Server 5.1 Application Agent for Microsoft Exchange, Configuration Guide	VCS_Exch_Agent.pdf
Veritas Cluster Server 5.1 Database Agent for Oracle, Configuration Guide	VCS_Oracle_Agent.pdf
Veritas Cluster Server 5.1 Database Agent for Microsoft SQL, Configuration Guide	VCS_SQL_Agent.pdf
Veritas Cluster Server 5.1 Hardware Replication Agent for EMC SRDF, Configuration Guide	VCS_SRDF_Agent.pdf

Table 1-7　　　Veritas Storage Foundation and High Availability Solutions for Windows Documentation

Title	File Name
Veritas Cluster Server 5.1 Hardware Replication Agent for EMC SRDF/Star, Configuration Guide	VCS_SRDFStar_Agent.pdf
Veritas Cluster Server 5.1 Hardware Replication Agent for Hitachi MirrorView, Configuration Guide	VCS_MirrorView_Agent.pdf
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