

# Symantec™ VirtualStore 6.0.1 Release Notes - Linux

# Symantec™ VirtualStore Release Notes

The software described in this book is furnished under a license agreement and may be used only in accordance with the terms of the agreement.

Product version: 6.0.1

Document version: 6.0.1 Rev 5

## Legal Notice

Copyright © 2015 Symantec Corporation. All rights reserved.

Symantec, the Symantec Logo, the Checkmark Logo, Veritas, Veritas Storage Foundation, CommandCentral, NetBackup, Enterprise Vault, and LiveUpdate are trademarks or registered trademarks of Symantec Corporation or its affiliates in the U.S. and other countries. Other names may be trademarks of their respective owners.

The product described in this document is distributed under licenses restricting its use, copying, distribution, and decompilation/reverse engineering. No part of this document may be reproduced in any form by any means without prior written authorization of Symantec Corporation and its licensors, if any.

THE DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID. SYMANTEC CORPORATION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE FURNISHING, PERFORMANCE, OR USE OF THIS DOCUMENTATION. THE INFORMATION CONTAINED IN THIS DOCUMENTATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

The Licensed Software and Documentation are deemed to be commercial computer software as defined in FAR 12.212 and subject to restricted rights as defined in FAR Section 52.227-19 "Commercial Computer Software - Restricted Rights" and DFARS 227.7202, "Rights in Commercial Computer Software or Commercial Computer Software Documentation", as applicable, and any successor regulations. Any use, modification, reproduction release, performance, display or disclosure of the Licensed Software and Documentation by the U.S. Government shall be solely in accordance with the terms of this Agreement.

Symantec Corporation  
350 Ellis Street  
Mountain View, CA 94043

<http://www.symantec.com>

# 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 website at the following URL:

[www.symantec.com/business/support/index.jsp](http://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](http://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/](http://www.symantec.com/business/support/)

## Customer service

Customer service information is available at the following URL:

[www.symantec.com/business/support/](http://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

## 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	<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>

## Documentation

Product guides are available on the media in PDF format. Make sure that you are using the current version of the documentation. The document version appears on page 2 of each guide. The latest product documentation is available on the Symantec website.

<https://sort.symantec.com/documents>

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](mailto: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>

## About Symantec Connect

Symantec Connect is the peer-to-peer technical community site for Symantec's enterprise customers. Participants can connect and share information with other product users, including creating forum posts, articles, videos, downloads, blogs and suggesting ideas, as well as interact with Symantec product teams and Technical Support. Content is rated by the community, and members receive reward points for their contributions.

<http://www.symantec.com/connect/storage-management>

# Symantec VirtualStore Release Notes

This document includes the following topics:

- [About this document](#)
- [Component product release notes](#)
- [About Symantec VirtualStore](#)
- [Important release information](#)
- [Changes introduced in SVS 6.0.1](#)
- [System requirements](#)
- [SVS: Issues fixed in 6.0.1](#)
- [Known issues](#)
- [Software limitations](#)
- [Documentation](#)

## About this document

This document provides important information about Symantec VirtualStore (SVS) version 6.0.1 for Linux. Review this entire document before you install or upgrade SVS.

The information in the Release Notes supersedes the information provided in the product documents for SVS.

This is "Document version: 6.0.1 Rev 5" of the *Symantec VirtualStore Release Notes*. Before you start, make sure that you are using the latest version of this guide. The latest product documentation is available on the Symantec Web site at:

<https://sort.symantec.com/documents>

For the latest information on updates, patches, and known issues regarding this release, see the following TechNote on the Symantec Technical Support website:

<http://www.symantec.com/docs/TECH141448>

## Component product release notes

In addition to reading this Release Notes document, review the component product release notes before installing the product.

Product guides are available at the following location on the software media in PDF formats:

`/docs/product_name`

Symantec recommends copying the files to the `/opt/VRTS/docs` directory on your system.

This release includes the following component product release notes:

- *Veritas Storage Foundation Release Notes* (6.0.1)
- *Veritas Cluster Server Release Notes* (6.0.1)
- *Veritas Storage Foundation Cluster File System High Availability Release Notes* (6.0.1)

## About Symantec VirtualStore

Symantec VirtualStore (SVS) powered by Veritas Storage Foundation Cluster File System High Availability (SFCFSHA) serves as a highly scalable, highly available NAS solution optimized for deploying and hosting virtual machine. VirtualStore is built on top of Cluster File System (CFS), which provides high availability and linear scalability across the cluster.

## Important release information

- For important updates regarding this release, review the Late-Breaking News TechNote on the Symantec Technical Support website:

<http://www.symantec.com/docs/TECH164885>

- For the latest patches available for this release, go to:  
<https://sort.symantec.com/>
- The hardware compatibility list contains information about supported hardware and is updated regularly. For the latest information on supported hardware visit the following URL:  
<http://www.symantec.com/docs/TECH170013>  
Before installing or upgrading Storage Foundation and High Availability Solutions products, review the current compatibility list to confirm the compatibility of your hardware and software.

## Changes introduced in SVS 6.0.1

This section lists the changes in Symantec VirtualStore 6.0.1.

### New versioning process for SFHA Solutions products

Symantec made some changes to simplify the versioning process to ensure that customers have a unified experience when it comes to deploying our different products across Storage, Availability, Backup, Archiving and Enterprise Security products. With this change, all the products will have a 3 digit version. In complying with this approach, the current SFHA Solutions release is available as version 6.0.1.

### New directory location for the documentation on the software media

The PDF files of the product documentation are now located in the `/docs` directory on the software media. Within the `/docs` directory are subdirectories for each of the bundled products, which contain the documentation specific to that product. The `sfha_solutions` directory contains documentation that applies to all products.

### Changes related to installation and upgrades

The product installer includes the following changes in 6.0.1.

#### Locally-installed installation and uninstallation scripts now include the release version

When you run local scripts (`/opt/VRTS/install`) to configure Veritas products, the names of the installed scripts now include the release version.

---

**Note:** If you install your Veritas product from the install media, continue to run the `installsvs` command without including the release version.

---

To run the script from the installed binaries, run the `installsvs<version>` command.

Where `<version>` is the current release version with no periods or spaces.

For example, to configure the 6.0.1 version of your product, run this command:

```
# /opt/VRTS/install/installsvs601 -configure
```

## VxVM private region backup pre-checks for disk groups prior to upgrade

The installer verifies that recent backups of configuration files of all the disk groups in VxVM private region have been saved in the `/etc/vx/cbr/bk` directory prior to doing an upgrade. If not, a warning message is displayed.

---

**Warning:** Backup `/etc/vx/cbr/bk` directory.

---

## Installer support to configure Coordination Point servers

You can now use the `-configcps` option in the installer to configure CP servers. This functionality to configure CP servers is now integrated with the installer. The `configure_cps.pl` script used earlier to configure CP servers is now deprecated.

You can also configure CP servers by generating response files. You can use the `-responsefile '/tmp/sample1.res'` option in the installer to configure CP servers.

See the *Installation Guide* for more details.

## Support for tunables file templates

You can use the installer to create a tunables file template. If you start the installer with the `-tunables` option, you see a list of all supported tunables, and the location of the tunables file template.

## Additional installation postcheck options

The `postcheck` option has been enhanced to include additional checks.

You can use the installer's post-check option to perform the following checks:

- General checks for all products.
- Checks for Volume Manager (VM).
- Checks for File System (FS).

- Checks for Cluster File System (CFS).

## Changes related to Symantec VirtualStore (SVS)

Symantec VirtualStore includes the following changes in 6.0.1:

### Citrix XenDesktop

SymantecVirtualStore (SVS) 6.0.1 is capable of rapidly creating space-optimized virtual machine clones for use with Citrix XenDesktop. The VirtualStore vCenter plugin provides integration between VMware vSphere, Citrix XenDesktop, and VirtualStore, making virtual machine management painless.

### Symantec VirtualStore 6.0.1 with VMware vSphere 5.0

Symantec VirtualStore (SVS) 6.0.1 has been tested and Symantec certifies that all SVS features and capabilities, including those of the file system and vSphere plug-in, perform correctly when used in conjunction with VMware vSphere 5.0.

## Changes to LLT

This release includes the following change to LLT:

### Setting the value of peerinact in the `/etc/llttab` file

Symantec recommends not to set the value of `peerinact` to 0. To achieve the infinite timeout functionality for `peerinact`, you must set `peerinact` to a large value. The supported range of value is between 1 through 2147483647.

## Changes to I/O fencing

This section covers the new features and changes related to I/O fencing in this release.

### Enhancement to the CoordPoint agent

The CoordPoint agent monitors changes to the Coordinator Disk Group constitution, such as when a disk is deleted from the Coordinator Disk Group due to accidental execution of a VxVM administrative command or if the VxVM private region of a disk is corrupted.

The agent performs detailed monitoring on the CoordPoint resource and reports faults. You can tune the frequency of the detailed monitoring by setting the `LevelTwoMonitorFreq` attribute introduced in this release. For example, if you set

this attribute to 5, the agent monitors the Coordinator Disk Group constitution in every fifth monitor cycle.

For more information on the CoordPoint agent, see the *Veritas Cluster Server Bundled Agents Reference Guide*.

For information on configuring the CoordPoint agent using script-based installer and manually configuring the CoordPoint agent to monitor coordinator disks, see the *Veritas Cluster Server Installation Guide*.

For more information on replacing I/O fencing coordinator disks or coordinator diskgroup when the cluster is online, see the *Veritas Cluster Server Administrator's Guide*.

## System requirements

This section describes the system requirements for this release.

### Supported Linux operating systems

This section lists the supported operating systems for this release of Veritas products. For current updates, visit the Symantec Operation Readiness Tools Installation and Upgrade page: [https://sort.symantec.com/land/install\\_and\\_upgrade](https://sort.symantec.com/land/install_and_upgrade).

Table 1-1 shows the supported operating systems for this release.

**Table 1-1** Supported operating systems

Operating systems	Levels	Kernel version	Chipsets
Red Hat Enterprise Linux 6	Update 1, 2, 3	2.6.32-131.0.15.el6 2.6.32-220.el6 2.6.32-279.el6	64-bit x86, EMT*/Opteron 4.1 64-bit only
Red Hat Enterprise Linux 5	Update 5, 6, 7, 8, 9	2.6.18-194.el5 2.6.18-238.el5 2.6.18-274.el5 2.6.18-308.el5 2.6.18-348.el5	64-bit x86, EMT*/Opteron 4.1 64-bit only
SUSE Linux Enterprise 11	SP1, SP2	2.6.32.12-0.7.1 3.0.13-0.27.1	64-bit x86, EMT*/Opteron 4.1 64-bit only

**Table 1-1** Supported operating systems (*continued*)

Operating systems	Levels	Kernel version	Chipsets
SUSE Linux Enterprise 10	SP4	2.6.16.60-0.85.1	64-bit x86, EMT*/Opteron 4.1 64-bit only
Oracle Linux 6	Update 1, 2, 3	2.6.32-131.0.15.el6 2.6.32-220.el6 2.6.32-279.el6	64-bit x86, EMT*/Opteron 4.1 64-bit only
Oracle Linux 5	Update 5, 6, 7, 8, 9	2.6.18-194.el5 2.6.18-238.el5 2.6.18-274.el5 2.6.18-308.el5 2.6.18-348.el5	64-bit x86, EMT*/Opteron 4.1 64-bit only

\* Extended Memory Technology

---

**Note:** Only 64-bit operating systems are supported.

---



---

**Note:** For SLES11 SP2 kernel versions later than February, 2012, you need to apply the following Veritas patch: sf-sles11\_x86\_64-6.0.1.100. This patch is available on the patch download page at <https://sort.symantec.com/patch/detail/6732>.

---

If your system is running an older version of either Red Hat Enterprise Linux, SUSE Linux Enterprise Server, or Oracle Linux, upgrade it before attempting to install the Veritas software. Consult the Red Hat, SUSE, or Oracle documentation for more information on upgrading or reinstalling your operating system.

Symantec supports only Oracle, Red Hat, and SUSE distributed kernel binaries.

Symantec products operate on subsequent kernel and patch releases provided the operating systems maintain kernel Application Binary Interface (ABI) compatibility.

## Required Linux RPMs for SVS

Make sure you install the following operating system-specific RPMs on the systems where you want to install or upgrade SVS. SVS will support any updates made to the following RPMs, provided the RPMs maintain the ABI compatibility.

[Table 1-2](#) lists the RPMs that SVS requires for a given Linux operating system.

**Table 1-2** Required RPMs

Operating system	Required RPMs
RHEL 5	policycoreutils-1.33.12-14.8.el5.x86_64 parted-1.8.1-27.el5.i386 parted-1.8.1-27.el5.x86_64 glibc-2.5-58.i686 pam-0.99.6.2-6.el5_5.2.i386 libstdc++-4.1.2-50.el5.i386 libgcc-4.1.2-50.el5.i386 perl-5.8.8-32.el5_5.2.x86_64 glibc-2.5-58.x86_64 libacl-2.2.39-6.el5.i386 findutils-4.2.27-6.el5.x86_64 ncurses-5.5-24.20060715.x86_64 ed-0.2-39.el5_2.x86_64 coreutils-5.97-23.el5_4.2.x86_64 module-init-tools-3.3-0.pre3.1.60.el5_5.1.x86_64 readline-5.1-3.el5.x86_64 libgcc-4.1.2-50.el5.x86_64 libacl-2.2.39-6.el5.x86_64 libstdc++-4.1.2-50.el5.x86_64 openssl-0.9.8e-12.el5_5.7.x86_64 ksh-20100202-1.el5_5.1.x86_64

**Table 1-2** Required RPMs (*continued*)

Operating system	Required RPMs
RHEL 6	glibc-2.12-1.25.el6.i686 glibc-2.12-1.25.el6.x86_64 policycoreutils-2.0.83-19.8.el6_0.x86_64 parted-2.1-13.el6.x86_64 nss-softokn-freebl-3.12.9-3.el6.i686 libstdc++-4.4.5-6.el6.i686 libstdc++-4.4.5-6.el6.x86_64 libgcc-4.4.5-6.el6.i686 libgcc-4.4.5-6.el6.x86_64 pam-1.1.1-8.el6.i686 perl-5.10.1-119.el6.x86_64 findutils-4.4.2-6.el6.x86_64 ncurses-libs-5.7-3.20090208.el6.x86_64 ed-1.1-3.3.el6.x86_64 coreutils-8.4-13.el6.x86_64 module-init-tools-3.9-17.el6.x86_64 readline-6.0-3.el6.x86_64 libacl-2.2.49-4.el6.x86_64 openssl-1.0.0-10.el6.x86_64 ksh-20100621-6.el6.x86_64

**Table 1-2** Required RPMs (*continued*)

Operating system	Required RPMs
SLES 10	parted-1.6.25.1-15.35.15.x86_64 glibc-32bit-2.4-31.81.11.x86_64 pam-32bit-0.99.6.3-28.23.15.x86_64 libstdc++-4.1.2_20070115-0.32.53.x86_64 libgcc-4.1.2_20070115-0.32.53.x86_64 glibc-2.4-31.81.11.x86_64 libacl-32bit-2.2.41-0.15.x86_64 findutils-4.2.27-14.22.18.x86_64 ncurses-5.5-18.11.x86_64 ed-0.2-881.9.1.x86_64 coreutils-5.93-22.21.17.x86_64 module-init-tools-3.2.2-32.38.1.x86_64 libacl-2.2.41-0.15.x86_64 ksh-93t-13.17.19.x86_64

**Table 1-2** Required RPMs (*continued*)

Operating system	Required RPMs
SLES 11	parted-1.8.8-102.21.8.x86_64 glibc-32bit-2.11.1-0.17.4.x86_64 pam-32bit-1.0.4-0.5.12.x86_64 libstdc++43-32bit-4.3.4_20091019-0.7.35.x86_64 libgcc43-32bit-4.3.4_20091019-0.7.35.x86_64 glibc-2.11.1-0.17.4.x86_64 libacl-32bit-2.2.47-30.34.29.x86_64 findutils-4.4.0-38.24.11.x86_64 libncurses5-5.6-90.55.x86_64 ed-0.2-1001.22.x86_64 coreutils-6.12-32.17.x86_64 module-init-tools-3.11.1-1.3.5.x86_64 libgcc43-4.3.4_20091019-0.7.35.x86_64 libacl-2.2.47-30.34.29.x86_64 libstdc++43-4.3.4_20091019-0.7.35.x86_64 ksh-93t-9.9.8.x86_64

## Supported VMware software versions

- VMware vSphere 4 (ESX 4.0 Update 1 and later with vCenter Server 4.0 Update 1 and later)
- VMware vSphere 4.1 (ESX 4.1 and later with vCenter Server 4.1 and later)
- VMware vSphere 5.0 (ESX 5.0 and later with vCenter Server 5.0 and later)
- VMware vSphere 5.1 (ESX 5.1 and later with vCenter Server 5.1 and later)

## Supported guest operating system for guest operating system customization while cloning

- Windows XP
- Windows Server 2003
- Windows 7

- Windows Server 2008
- Red Hat Enterprise Linux (RHEL 5)
- Red Hat Enterprise Linux (RHEL 6)
- SUSE Linux Enterprise Server (SLES 10)
- SUSE Linux Enterprise Server (SLES 11)

---

**Note:** Customization of some guest operating systems and versions requires vCenter Server to be of sufficient version. Refer to [http://www.vmware.com/pdf/vsphere4/r40/vsp\\_compatibility\\_matrix.pdf](http://www.vmware.com/pdf/vsphere4/r40/vsp_compatibility_matrix.pdf) for details.

---

## Supported guest operating systems for VMware View integration while cloning

- Windows XP
- Windows 7

## Supported Citrix XenDesktop version

- Citrix XenDesktop 5

## SVS: Issues fixed in 6.0.1

This section covers the incidents that are fixed in SVS 6.0.1.

### Symantec VirtualStore: issues fixed in 6.0.1

There are no Symantec VirtualStore fixed issues in 6.0.1.

### Veritas File System: issues fixed in 6.0.1

This section describes the incidents that are fixed in Veritas File System in this release.

**Table 1-3** Veritas File System fixed issues

Incident	Description
2764861	Uncompress by vxcompress ignores quota limitation.
2753944	The file creation threads can hang.

**Table 1-3** Veritas File System fixed issues (*continued*)

Incident	Description
2735912	The performance of tier relocation using fspadm enforce is poor when moving a large amount of files.
2712392	Threads hung in VxFS.
2709869	System panic with redzone violation when vx_free() tried to free fiostat.
2682550	Access a VxFS file system via NFS could cause system panic on Linux while unmount is in progress.
2674639	The cp(1) command with the -p option may fail on a file system whose File Change Log (FCL) feature is enabled. The following error messages are displayed: cp: setting permissions for 'file_name': Input/output error cp: preserving permissions for 'file_name': No data available.
2670022	Duplicate file names can be seen in a directory.
2655788	Using cross-platform data sharing to convert a file system that has more than 32k nlinks does not update the vx_maxlink and maxlink_enable tunables.
2651922	ls -l command on local VxFS file system is running slow and high CPU usage is seen.
2597347	fsck should not coredump when only one of the device record has been corrupted and the replica is intact.
2584531	vxfs hangs on ls, du and find.
2566875	The write(2) operation exceeding the quota limit fails with an EDQUOT error (Disc quota exceeded) before the user quota limit is reached.
2559450	Command fsck_vxfs(1m) may core-dump with SEGV_ACCERR error.
2536130	fscdsconv fails to convert FS between specific platforms if FCL is enabled.
2272072	GAB panics the box because VCS engine HAD did not respond. The lobolt wraps around.
2086902	Spinlock held too long on vxfs spinlock, and there is high contention for it.
1529708	Formatting issue with the output of vxrepquota.

## Veritas File System: Issues fixed in 6.0 RP1

This section describes the incidents that are fixed in Veritas File System (VxFS) in 6.0 RP1.

**Table 1-4** Veritas File System 6.0 RP1 fixed issues

Fixed issues	Description
2679361	Network Customization screen doesn't show any NICs in I18N-level0 environment.
2678096	The fiostat command dumps core when the count value is 0.
2672201	Certain commands get blocked by kernel, causing EACCES(ERRNO = 13).
2672148	vxdelestat (1M) when invoked with -v option goes into infinite loop.
2663750	Abrupt messages are seen in engine log after complete storage failure in cvm resiliency scenario.
2655786	'Shared' extents are not transferred as 'shared' by the replication process.
2655754	Deadlock because of wrong spin lock interrupt level at which delayed allocation list lock is taken.
2653845	When the fsckptadm(1M) command with the '-r' and '-R' option is executed, two mutually exclusive options gets executed simultaneously.
2649367	Kernel crashes in vx_fopen because of NULL pointer dereference.
2646936	The replication process dumps core when shared extents are present in the source file system.
2646930	Permission denied errors(EACCES) seen while doing I/O's on nfs shared filesystem.
2645435	The following error message is displayed during the execution of the fsmap(1M) command:'UX:vxfs fsmap: ERROR: V-3-27313'.
2645112	write operation on a regular file mapping to shared compressed extent results in corruption.
2645109	In certain rare cases after a successful execution of vxfilesnap command, if the source file gets deleted in a very short span of time after the filesnap operation, then the destination file can get corrupted and this could also lead to setting of VX_FULLFSCK flag in the super block.
2645108	In certain cases write on a regular file which has shared extent as the last allocated extent can fail with EIO error.
2634483	On RHEL6U1 writing to VxFS /proc hidden interface fails with EINVAL.
2630954	The fsck(1M) command exits during an internal CFS stress reconfiguration testing.

**Table 1-4** Veritas File System 6.0 RP1 fixed issues (*continued*)

Fixed issues	Description
2613884	Metadata corruption may be seen after recovery.
2609002	The De-duplication session does not complete.
2599590	Expanding or shrinking a DLV5 file system using the fsadm(1M)command causes a system panic.
2583197	Upgrade of a file system from version 8 to 9 fails in the presence of partition directories and clones.
2552095	The system may panic while re-organizing the file system using the fsadm(1M) command.
2536130	The fscdsconv(1M) command which is used to convert corrupted or non-VxFS file systems generates core.
2389318	Enabling delayed allocation on a small file system sometimes disables the file system.

## Installation and upgrades: issues fixed in 6.0.1

This section describes the incidents that are fixed related to installation and upgrades in this release.

**Table 1-5** Fixed issues related to installation and upgrades

Incident	Description
2329580	Unable to stop some SFCFSHA processes.
2873102	Perl module error on completion of SFHA installation
2627076	Incorrect server names sometimes display if there is a clock synchronization issue.
2622987	sfmh discovery issue when you upgrade your Veritas product to 6.0.1
2585899	On RHEL, unable to create storage for OCR and Vote disk when using FQDN instead of using only the node name.
2526709	DMP-OSN tunable value not get persistence after upgrade from 5.1SP1 to 6.0.
2088827	During product migration the installer overestimates disk space use.

## Installation and upgrades: Issues fixed in 6.0 RP1

There are no new fixed incidents for installation and upgrades in 6.0 RP1.

## Known issues

This section covers the known issues in this release.

### Symantec VirtualStore issues

#### The cluster node may panic (2524087)

On SLES 10 SP4, the cluster node may panic while iSCSI initiator access the LUN from the target.

##### Workaround

There is no workaround at this time.

#### CFS commands might hang when run by non-root (2403263)

The CFS commands might hang when run by non-root.

##### Workaround

##### To resolve this issue

- ◆ Use `halogin` command to save the authentication information before running any CFS commands on a non-root sessions.

When you run the `halogin` command, VCS stores encrypted authentication information in the user's home directory.

#### NFS resource might not come online while configuring CNFS share (2488685)

If SELinux is configured as `enforcing` or `permissive`, NFS resource might not come online and go into `FAULTED` state while configuring CNFS share `cfsnfs` service group.

Sample output:

```
# hastatus -sum

-- SYSTEM STATE
-- System State Frozen
```

```

A  swlx14                                RUNNING                                0

-- GROUP STATE
-- Group                                System    Probed    AutoDisabled    State

B  cfsnfssg                               swlx14    Y          N                OFFLINE | FAULTED
B  cfsnfssg_dummy                         swlx14    Y          N                OFFLINE
B  cvm                                     swlx14    Y          N                ONLINE
B  vip1                                    swlx14    Y          N                OFFLINE

-- RESOURCES FAILED
-- Group                                Type      Resource    System

D  cfsnfssg                               NFS       nfs         swlx14

```

### Workaround

To resolve this issue you need to add the Ethernet port into the trusted list for SELinux.

- In the System Setup->Firewall configuration, select customize.
- In the Trusted device, select the Ethernet port.

## VirtualStore machine clones created while the VirtualStore cluster reboots will probably not start (2164664)

In some cases when you clone while rebooting the SVS nodes, you may receive several of the following error messages:

```
clone vms could not start X server
```

### Workaround

Delete all the clones that got created while the node crashed and redo the cloning operation.

## Cloning may not work (2348628)

If you cannot clone and you are using the VMware vAPP and OVF templates, then you must disable the vApp.

### Workaround

**To disable the vAPP**

- 1 In VI Client, right-click on the virtual machine > **Edit Settings** > **Options** > **vApp Options**.
- 2 Click **Disable**.

**Need intelligent NDMP/NBU backups for virtual machines (2378396)**

When using NDMP or the NBU client to backup a virtual machine, the space consumed by the backup is equivalent to the size of the disks in the virtual machine, even though not all of the disk space in the virtual machine is used.

If a VMDK (Virtual Machine Disk) file is 10GB in size, but only consumes 1GB of disk space, an backup done by NDMP or the NBU client generates 10GB of backup data, even though the original VMDK file contains 9GB of unassigned disk space.

**Workaround**

Use VMware-specific backup applications (such as NetBackup for VMware) to create space-efficient backups.

**The Symantec Quick Clone Virtual Machine Wizard may not behave as expected when multiple instances are open (2309702)**

The wizard may not behave as expected, if you invoke multiple parallel session of the wizard from a single vSphere Client at the same time.

For example, if you do the following:

- Right-click wingoldvm1 and invoke the wizard.
- Then soon after, right-click slesgoldvm1 and invoke the wizard.

This causes you to have two instances of the wizard running from the same vSphere Client and can cause unexpected behavior.

**Workaround**

To resolve this issue:

- Close both instances of the wizard.
- Reopen a new instance of the wizard.

## Virtual machines created by the Symantec Quick Clone Virtual Machine Wizard might not boot correctly if during the process the FileStore cluster node, the ESX Server, or the vCenter Server reboots (2164664, 2374229)

In some cases when you clone using the wizard, and one of the following servers crashes or reboots while the clone process is in progress, the clones might not get created correctly:

- FileStore nodes
- ESX host on which the clones are being created
- vCenter Server

Even if the clones appear in the vCenter inventory as created, the clones GuestOS might not be able to boot.

### Workaround

Delete all of the clones that were created when the servers crashed or were rebooted, and redo the wizard operation.

## Error message does not always display when you select an incorrect cluster to clone (2372713)

In cases where multiple FileStore clusters are registered with the same Virtual Center, the Symantec Quick Clone Virtual Machine Wizard might not provide a warning that you selected an incorrect cluster to clone a golden image. This could happen if all of the FileStore clusters are exporting the same file system path, such as `/mnt`. Instead of an advanced warning that you selected the wrong cluster, you instead see an error on the final page of the wizard when the wizard attempts to clone the disks (vmdks) of the golden image. The error that displays is similar to the following example:

```
/mnt/goldvm/goldvm.vmdk no such file or directory...
```

### Workaround

There is no workaround for this issue.

## The installer output states, "Registering SVS license," even if you enabled keyless licensing

When installing, if you enable keyless licensing, the installer's output includes the following message:

```
Registering SVS license
```

**Workaround:** This message is harmless and can be ignored. The product will successfully install without a license key.

## Veritas File System known issues

This section describes the known issues in this release of Veritas File System (VxFS).

### Taking a FileSnap over NFS multiple times with the same target name can result in the 'File exists' error (2353352)

The "File exists" error occurs as a result of the caching behavior of the NFS client. Because the link operation is successful, the NFS client assumes that a file with the specified target name, such as `file2::snap:vxfs:`, was created. As a result, the NFS client caches a file with this name.

**Workaround:** Remove the target file after a snapshot is created. This forces the NFS client to remove the name from the cache. For example:

```
# ln file1 file2::snap:vxfs:
# rm file2::snap:vxfs:
```

### Enabling delayed allocation on a small file system sometimes disables the file system (2389318)

When you enable delayed allocation on a small file system, such as around 100 MB, the file system can get disabled. In this case, the following error message displays in the system console log:

```
mesg 001: V-2-1: vx_nospace - file_system file system full
(size block extent)
```

**Workaround:**

Use the `vxtunefs` command to turn off delayed allocation for the file system.

### Delayed allocation sometimes gets turned off automatically when one of the volumes in a multi-volume file system nears 100% usage even if other volumes have free space (2438368)

Delayed allocation sometimes gets turned off automatically when one of the volumes in a multi-volume file system is nearing 100% usage even if other volumes in the file system have free space.

**Workaround:**

After sufficient space is freed from the volume, delayed allocation automatically resumes.

## Task blocked messages display in the console for RHEL6 (2560357)

On RHEL6, the kernel occasionally displays messages in the console similar to the following example:

```
INFO: task seq:16957 blocked for more than 120 seconds.
```

These messages display because the task is blocked for a long time on sleep locks. However, the task is not hung and the messages can be safely ignored.

**Workaround:** You can disable these messages by using the following command:

```
# echo 0 > /proc/sys/kernel/hung_task_timeout_secs
```

## Deduplication can fail with error 110 (2591473)

In some cases, data deduplication fails with a message similar to the following example:

Saving	Status	Node	Type	Filesystem
00%	FAILED	node01	MANUAL	/data/fs1
-----				
2011/10/26 01:38:58 End full scan with error				

In addition, the deduplication log contains an error similar to the following example:

```
2011/10/26 01:35:09 DEDUP_ERROR AddBlock failed. Error = 110
```

These errors indicate that the deduplication process is running low on space and needs more free space to complete.

**Workaround:**

Make more space available on the file system.

## vxresize fails while shrinking a file system with the "blocks are currently in use" error (2437138)

The `vxresize` shrink operation may fail when active I/Os are in progress on the file system and the file system is being shrunk to a size closer to its current usage. You see a message similar to the following example:

```
UX:vxfs fsadm: ERROR: V-3-20343: cannot shrink /dev/vx/rdisk/dg1/voll -  
blocks are currently in use.
```

```
VxVM vxresize ERROR V-5-1-7514 Problem running fsadm command for volume  
voll, in diskgroup dg1
```

**Workaround:**

Rerun the shrink operation after stopping the I/Os.

**fsppadm operations issued on multi-volume file system fail if there are other mounted file systems with a disk layout Version less than 6 (2909206, 2909203)**

The `fsppadm` command checks all mounted file systems, and if it finds any file systems with a disk layout Version that is less than 6, then it exits with the following error message:

```
# fsppadm assign /dst_vset /tmp/pol_test.xml
```

```
UX:vxfs fsppadm: ERROR: V-3-26510: Low level Volume enumeration failure  
on / with message Function not implemented
```

This error occurs because the `fsppadm` command functionality is not supported on a disk layout Version that is less than 6.

**Workaround:**

There is no workaround for this issue.

## LLT known issues

This section covers the known issues related to LLT in this release.

**Cannot use CPI response files to add nodes to a cluster that is using LLT over UDP (2869763)**

When you run the `addnode -responsefile` command, if the cluster is using LLT over UDP, then the `/etc/llttab` file generated on new nodes is not correct. So, the procedure fails and you cannot add nodes to a cluster using CPI response files.

Workaround: None

## GAB known issues

This section covers the known issues related to GAB in this release.

## I/O fencing known issues

This section covers the known issues related to I/O fencing in this release.

### After you run the `vxfsnwap` utility the CoordPoint agent may fault (3462738)

After you run the `vxfsnwap` utility, if the value of the `FaultTolerance` attribute of the CoordPoint agent is more than the majority (more than 50%) of the coordination points then the Coordination Point agent faults.

**Workaround:** Manually set the value of the `FaultTolerance` attribute of CoordPoint agent to be less than the majority (more than 50%) of the coordination points.

### In absence of cluster details in CP server, VxFEN fails with pre-existing split-brain message (2433060)

When you start server-based I/O fencing, the node may not join the cluster and prints error messages in logs similar to the following:

In the `/var/VRTSvcs/log/vxfen/vxfen.log` file:

```
VXFEN vxfenconfig ERROR V-11-2-1043  
Detected a preexisting split brain. Unable to join cluster.
```

In the `/var/VRTSvcs/log/vxfen/vxfen.log` file:

```
operation failed.  
CPS ERROR V-97-1400-446 Un-authorized user cpsclient@sys1,  
domaintype vx; not allowing action
```

The `vxfend` daemon on the application cluster queries the coordination point server (CP server) to check if the cluster members as seen in the GAB membership are registered with the CP server. If the application cluster fails to contact the CP server due to some reason, then fencing cannot determine the registrations on the CP server and conservatively assumes a pre-existing split-brain.

**Workaround:** Before you attempt to start VxFEN on the application cluster, ensure that the cluster details such as cluster name, UUID, nodes, and privileges are added to the CP server.

### The `vxfsnwap` utility does not detect failure of coordination points validation due to an RSH limitation (2531561)

The `vxfsnwap` utility runs the `vxfenconfig -o modify` command over RSH or SSH on each cluster node for validation of coordination points. If you run the `vxfsnwap` command using RSH (with the `-n` option), then RSH does not detect

the failure of validation of coordination points on a node. From this point, `vxfenswap` proceeds as if the validation was successful on all the nodes. But, it fails at a later stage when it tries to commit the new coordination points to the VxFEN driver. After the failure, it rolls back the entire operation, and exits cleanly with a non-zero error code. If you run `vxfenswap` using SSH (without the `-n` option), then SSH detects the failure of validation of coordination of points correctly and rolls back the entire operation immediately.

**Workaround:** Use the `vxfenswap` utility with SSH (without the `-n` option).

## Fencing does not come up on one of the nodes after a reboot (2573599)

If VxFEN unconfiguration has not finished its processing in the kernel and in the meantime if you attempt to start VxFEN, you may see the following error in the `/var/VRTSvcs/log/vxfen/vxfen.log` file:

```
VXFEN vxfenconfig ERROR V-11-2-1007 Vxfen already configured
```

However, the output of the `gabconfig -a` command does not list port b. The `vxfenadm -d` command displays the following error:

```
VXFEN vxfenadm ERROR V-11-2-1115 Local node is not a member of cluster!
```

**Workaround:** Start VxFEN again after some time.

## CP server repetitively logs unavailable IP addresses (2530864)

If coordination point server (CP server) fails to listen on any of the IP addresses that are mentioned in the `vxcps.conf` file or that are dynamically added using the command line, then CP server logs an error at regular intervals to indicate the failure. The logging continues until the IP address is bound to successfully.

```
CPS ERROR V-97-51-103 Could not create socket for host  
10.209.79.60 on port 14250  
CPS ERROR V-97-1400-791 Coordination point server could not  
open listening port = [10.209.79.60]:14250  
Check if port is already in use.
```

**Workaround:** Remove the offending IP address from the listening IP addresses list using the `rm_port` action of the `cpsadm` command.

See the *Symantec VirtualStore Administrator's Guide* for more details.

## Fencing port b is visible for few seconds even if cluster nodes have not registered with CP server (2415619)

Even if the cluster nodes have no registration on the CP server and if you provide coordination point server (CP server) information in the `vxfenmode` file of the cluster nodes, and then start fencing, the fencing port b is visible for a few seconds and then disappears.

**Workaround:** Manually add the cluster information to the CP server to resolve this issue. Alternatively, you can use installer as the installer adds cluster information to the CP server during configuration.

## The `cpsadm` command fails if LLT is not configured on the application cluster (2583685)

The `cpsadm` command fails to communicate with the coordination point server (CP server) if LLT is not configured on the application cluster node where you run the `cpsadm` command. You may see errors similar to the following:

```
# cpsadm -s 10.209.125.200 -a ping_cps
CPS ERROR V-97-1400-729 Please ensure a valid nodeid using
environment variable
CPS_NODEID
CPS ERROR V-97-1400-777 Client unable to communicate with CPS.
```

However, if you run the `cpsadm` command on the CP server, this issue does not arise even if LLT is not configured on the node that hosts CP server. The `cpsadm` command on the CP server node always assumes the LLT node ID as 0 if LLT is not configured.

According to the protocol between the CP server and the application cluster, when you run the `cpsadm` on an application cluster node, `cpsadm` needs to send the LLT node ID of the local node to the CP server. But if LLT is unconfigured temporarily, or if the node is a single-node VCS configuration where LLT is not configured, then the `cpsadm` command cannot retrieve the LLT node ID. In such situations, the `cpsadm` command fails.

**Workaround:** Set the value of the `CPS_NODEID` environment variable to 255. The `cpsadm` command reads the `CPS_NODEID` variable and proceeds if the command is unable to get LLT node ID from LLT.

## Server-based fencing comes up incorrectly if default port is not mentioned (2403453)

When you configure fencing in customized mode and do not provide default port, fencing comes up. However, the `vxfenconfig -l` command output does not list the port numbers.

**Workaround:** Retain the "port=<port\_value>" setting in the `/etc/vxfenmode` file, when using customized fencing with at least one CP server. The default port value is 14250.

## Unable to customize the 30-second duration (2551621)

When the `vxcpserve` process is not able to bind to an IP address during startup, it attempts to bind to that IP address at an interval of 30 seconds. This interval is not configurable.

**Workaround:** There is no workaround for this issue.

## NIC resource gets created with incorrect name while configuring CPSSG with the `configure_cps.pl` script (2585229)

The name of the NIC resource created by the `configure_cps.pl` script does not come out correct when, for example,  $m^{\text{th}}$  VIP is mapped to  $n^{\text{th}}$  NIC and every  $m$  is not equal to  $n$ . In this case, although CPSSG continues to function without any problem, when you unconfigure CPSSG using `configure_cps.pl`, it fails.

**Workaround:** To unconfigure CPSSG, you must remove the CPSSG configuration from the VCS configuration.

## The `cpsadm` command fails after upgrading CP server to 6.0 or above in secure mode (2846727)

The `cpsadm` command may fail after you upgrade coordination point server (CP server) to 6.0 in secure mode. If the old `VRTSat` RPM is not removed from the system, the `cpsadm` command loads the old security libraries present on the system. As the installer runs the `cpsadm` command on the CP server to add or upgrade the SVS cluster (application cluster), the installer also fails.

**Workaround:** Perform the following procedure on all of the nodes of the CP server.

**To resolve this issue**

- 1 Rename `cpsadm` to `cpsadmbin`:

```
# mv /opt/VRTScps/bin/cpsadm /opt/VRTScps/bin/cpsadmbin
```

- 2 Create a file `/opt/VRTScps/bin/cpsadm` with the following content:

```
#!/bin/sh
EAT_USE_LIBPATH="/opt/VRTScps/lib"
export EAT_USE_LIBPATH
/opt/VRTScps/bin/cpsadmbin "$@"
```

- 3 Change the permissions of the new file to 775:

```
# chmod 755 /opt/VRTScps/bin/cpsadm
```

**CoordPoint agent does not report the addition of new disks to a Coordinator disk group [2727672]**

The LevelTwo monitoring of the CoordPoint agent does not report a fault even if the constituent of a coordinator disk group changes due to addition of new disks in the coordinator disk group

Workaround: There is no workaround for this issue.

**Coordination point server-based fencing may fail if it is configured on 5.1SP1RP1 using 6.0.1 coordination point servers (2824472)**

The 5.1SP1 installer (CPI) cannot set up trust between a 5.1SP1 client and a 6.0 or later server, because there are no separate directories for truststores in the 5.1SP1. When trust cannot be setup, the 5.1SP1 installer cannot configure 5.1SP1 clients to work with 6.0 or later CPS in secure mode.

**Workaround:**

Set up trust manually between the CPS and clients using the `cpsat` or the `vcSAT` command. After that, CPS and client will be able to communicate properly in the secure mode.

## **The upper bound value of FaultTolerance attribute of CoordPoint agent should be less than the majority of the coordination points. (2846389)**

The upper bound value of `FaultTolerance` attribute of `CoordPoint` agent should be less than the majority of the coordination points. Currently this value is less than the number of coordination points.

## **Hostname and username are case sensitive in CP server (2846392)**

The hostname and username on the CP server are case sensitive. The hostname and username used by fencing to communicate with CP server must be in same case as present in CP server database, else fencing fails to start.

Workaround: Make sure that the same case is used in the hostname and username on the CP server.

## **Virtual machine may return the not-responding state when the storage domain is inactive and the data center is down (2848003)**

In a Red Hat Enterprise Virtualization Environment, if the storage domain is in an inactive state and the data center is in down state, the virtual machine may return a not-responding state and the `KVMGuest` resource in `OFFLINE` state.

Workaround: To resolve this issue:

- 1 Activate the storage domain in RHEV-M.
- 2 Check that the data center is in the up state.

## **Cannot run the `vxfsenthdw` utility directly from the install media if `VRTSvxfen` package is not installed on the system (2858190)**

If `VRTSvxfen` package is not installed on the system, then certain script files that are needed for the `vxfsenthdw` utility to function are not available. So, without the `VRTSvxfen` package installed on the system you cannot run the utility from the install media.

Workaround: Install `VRTSvxfen` package, then run the utility from either the install media or from the `/opt/VRTSvcs/vxfen/bin/` location.

## The vxfentsthdw utility fails to launch before you install the VRTSvxfen package (2858190)

Before you install the VRTSvxfen package, the file of `/etc/vxfen.d/script/vxfen_scriptlib.sh` where stores the vxfentsthdw utility does not exist. In this case, the utility bails out.

### Workaround:

Besides installing the VRTSvxfen package, run the vxfentsthdw utility directly from the installation DVD.

## Common product installer cannot setup trust between a client system on release version 5.1SP1 and a server on release version 6.0 or later (2824472)

The issue exists because the 5.1SP1 release version does not support separate directories for truststores. But, release version 6.0 and later support separate directories for truststores. So, because of this mismatch in support for truststores, you cannot set up trust between client systems and servers.

Workaround: Set up trust manually between the coordination point server and client systems using the `cpsat` or `vcsat` command. Now, the servers and client systems can communicate in secure mode.

## Server-based fencing may fail to start after reinstalling the stack (2802682)

Server-based fencing may fail to start if you use the existing configuration files after reinstalling the stack.

### Workaround:

After reinstalling the stack, add the client cluster information on the coordination point server because the client cluster information is removed when the stack is uninstalled. For more details, see the Setting up server-based I/O Fencing manually section in the Symantec VirtualStore Installation Guide. Alternatively, you can manually modify the `/etc/vxfenmode` file and the `main.cf` file to start fencing in disable mode and then configure fencing.

## Installation known issues

This section describes the known issues during installation and upgrade.

## The uninstaller does not remove all scripts (2696033)

After removing SVS, some of the RC scripts remain in the `/etc/rc*.d/` folder. This is due to an issue with the `chkconfig` rpm in RHEL6 and updates. You can manually remove the scripts from the `/etc/rc*.d/` folder after removing the VxVM packages.

Workaround:

Install the `chkconfig-1.3.49.3-1` `chkconfig` rpm from the RedHat portal. Refer to the following links:

<http://grokbase.com/t/centos/centos/117pfhe4zz/centos-6-0-chkconfig-strange-behavior>

<http://rhn.redhat.com/errata/RHBA-2012-0415.html>

## Stopping the Web installer causes Device Busy error messages (2633924)

If you start the Web installer, and then perform an operation (such as prechecking, configuring, or uninstalling), you may get an error message saying the device is busy.

**Workaround:** Do one of the following:

- Kill the `start.pl` process.
- Start the webinstaller again. On the first Web page you see that the session is still active. Either take over this session and finish it or terminate it directly.

## Ignore certain errors after an operating system upgrade—after a product upgrade with encapsulated boot disks (2030970)

Ignore certain errors after an operating system upgrade after a product upgrade with encapsulated boot disks.

You can ignore the following errors after you upgrade the operating system after a product upgrade that occurred with an encapsulated boot disk. Examples of the errors follow:

```
The partitioning on disk /dev/sda is not readable by
The partitioning tool parted, which is used to change the
partition table.
You can use the partitions on disk /dev/sda as they are.
You can format them and assign mount points to them, but you
cannot add, edit, resize, or remove partitions from that
disk with this tool.
```

Or

```
Root device: /dev/vx/dsk/bootdg/rootvol (mounted on / as reiserfs)
Module list: pilix mptspi gla2xxx silmage processor thermal fan
reiserfs aedd (xennet xenblk)
```

```
Kernel image: /boot/vmlinuz-2.6.16.60-0.54.5-smp
Initrd image: /boot/initrd-2.6.16.60-0.54.5-smp
```

The operating system upgrade is not failing. The error messages are harmless.

**Workaround:** Remove the `/boot/vmlinuz.b4vsvm` and `/boot/initrd.b4vsvm` files (from an un-encapsulated system) before the operating system upgrade.

### **After finishing a kernel upgrade on a master node the cvm group on a slave node does not come online (2439439)**

After successfully finishing a kernel upgrade on one node, the cvm group does not come online on the second node.

**Workaround:** Check that your cluster is not in a jeopardy state before you perform a rolling upgrade.

### **Web installer does not ask for authentication after the first session if the browser is still open (2509330)**

If you install or configure SVS and then close the Web installer, if you have other browser windows open, the Web installer does not ask for authentication in the subsequent sessions. Since there is no option to log out of the Web installer, the session remains open as long as the browser is open on the system.

**Workaround:** Make sure that all browser windows are closed to end the browser session and subsequently log in again.

### **Upgrading from Veritas Storage Foundation 5.1 Service Pack 1 Rolling Patch 2 to 6.0.1 with rootability enabled fails (2581313)**

Upgrading from Veritas Storage Foundation (SF) 5.1 Service Pack (SP) 1 Rolling Patch (RP) 2 to 6.0.1 while using an encapsulated root disk fails because the post installation scripts of Veritas Volume Manager (VxVM) are unable to start the `initrd` daemon.

**Workaround:** To upgrade from 5.1 SP1 RP2 to 6.0.1 while using an encapsulated root disk, you must reinstall the `nash` utility on the system prior to the upgrade.

**To upgrade from 5.1 SP1 RP2 to 6.0.1 while using an encapsulated root disk**

- 1 Encapsulate the root disk.
- 2 Reinstall the nash utility.
- 3 Upgrade to the SF 6.0.1 release.

**Stopping the installer during an upgrade and then resuming the upgrade might freeze the service groups [2574731]**

The service groups freeze due to upgrading using the product installer if you stopped the installer after the installer already stopped some of the processes and then resumed the upgrade.

**Workaround:**

You must unfreeze the service groups manually after the upgrade completes.

**To unfreeze the service groups manually**

- 1 List all the frozen service groups

```
# hagr -list Frozen=1
```

- 2 Unfreeze all the frozen service groups:

```
# haconf -makerw
# hagr -unfreeze service_group -persistent
# haconf -dump -makero
```

**After a locale change restart the vxconfig daemon (2417547)**

You need to restart the vxconfig daemon you change the locale of nodes that use it. The vxconfig daemon starts at boot. If you have changed locale, you need to restart the daemon.

**Workaround:** See the *Veritas Storage Foundation Cluster File System High Availability Administrator's Guide* for more information on vxconfigd daemon recovery.

**Error messages in syslog (1630188)**

If you install or uninstall a product on a node, you may see the following warnings in syslog: /var/log/message. These warnings are harmless and can be ignored.

```
Jul  6 10:58:50 swlx62 settroubleshoot: SELinux is preventing the
semanage from using potentially mislabeled files
```

```
(/var/tmp/installer-200907061052eVe/install1.swlx62.VRTSvxvm). For complete SELinux messages. run sealert -l ed8978d1-0b1b-4c5b-a086-67da2a651fb3  
Jul  6 10:58:54 swlx62 setroubleshoot: SELinux is preventing the semanage from using potentially mislabeled files  
(/var/tmp/installer-200907061052eVe/install1.swlx62.VRTSvxvm). For complete SELinux messages. run sealert -l ed8978d1-0b1b-4c5b-a086-67da2a651fb3  
Jul  6 10:58:59 swlx62 setroubleshoot: SELinux is preventing the restorecon from using potentially mislabeled files
```

## NetBackup 6.5 or older version is installed on a VxFS file system (2056282)

If you have NetBackup 6.5 or older version installed on a VxFS file system and before upgrading to Veritas Storage Foundation (SF) 6.0.1, if you unmount all VxFS file systems including the one that hosts the NetBackup binaries (`/usr/opensv`), then while upgrading to SF 6.0.1, the installer fails to check if NetBackup is installed on the same machine and uninstalls the shared infrastructure RPMs `VRTSspbx`, `VRTSat`, and `VRTSicisco`. This causes NetBackup to stop working.

**Workaround:** Before you unmount the VxFS file system that hosts NetBackup, copy the `/usr/opensv/netbackup/bin/version` file and `/usr/opensv/netbackup/version` file to the `/tmp` directory. If you have clustered NetBackup installed, you must also copy the `/usr/opensv/netbackup/bin/cluster/NBU_RSP` file to the `/tmp` directory. After you unmount the NetBackup file system, manually copy these two version files from `/tmp` to their original directories. If you have clustered NetBackup installed, you must also copy the `/usr/opensv/netbackup/bin/cluster/NBU_RSP` file from `/tmp` to its original directory.

If the `version` files' directories do not exist, create the directories:

```
# mkdir -p /usr/opensv/netbackup/bin
```

Run the installer to finish the upgrade process. After upgrade process completes, remove the two version files and their directories.

If your system is already affected by this issue, then you must manually install the `VRTSspbx`, `VRTSat`, and `VRTSicisco` RPMs after the upgrade process completes.

## During upgrade from 5.1SP1 with an encapsulated root disk, splitting the root mirror fails if the target disk group name is used by a deported disk group (2280560)

During an upgrade from SVS 5.1 SP1 with an encapsulated root disk, splitting the root mirror fails if the target disk group name for the split operation is used by an existing deported disk group.

### Workaround:

Specify a different disk group name as a target for the split operation.

## Installer is unable to split a cluster that is registered with one or more CP servers (2110148)

Splitting a cluster that uses server-based fencing is currently not supported.

You can split a cluster into two and reconfigure Symantec VirtualStore HA on the two clusters using the installer. For example, you can split a cluster *clus1* into *clus1A* and *clus1B*.

However, if you use the installer to reconfigure the Symantec VirtualStore HA, the installer retains the same cluster UUID of *clus1* in both *clus1A* and *clus1B*. If both *clus1A* and *clus1B* use the same CP servers for I/O fencing, then the CP server allows registration only from the cluster that attempts to register first. It rejects the registration from the cluster that attempts next. Thus, the installer reports failure during the reconfiguration of the cluster that uses server-based fencing.

**Workaround:** There is no workaround for this issue.

## After upgrade from VxVM version 6.0, 6.0.1, or 6.0.3 with an encapsulated boot disk, the system fails to boot (2750782)

On Red Hat Enterprise Linux 6 (RHEL6), during the Veritas Volume Manager (VxVM) upgrade from 6.0, 6.0.1, or 6.0.3 to higher versions, the RPM runs the installation scripts of the VxVM higher version first. Then, the RPM runs the uninstallation scripts of the VxVM 6.0, 6.0.1, or 6.0.3 version. Due to a defect in the 6.0, 6.0.1, and 6.0.3 uninstallation scripts, it corrupts the file installed by the higher version. This leads to the boot failure.

### Workaround:

- 1 Unroot the encapsulated root disk.
- 2 Uninstall `VRTSVxvm` (6.0, 6.0.1, or 6.0.3) RPM.
- 3 Install `VRTSVxvm` of higher version (above 6.0.3).

## Veritas File System modules fail to unload during uninstall or upgrade if a break-off snapshot volume is created or reattached (2851403)

If a break-off snapshot volume is created or reattached on the system, the Veritas File System modules, `vxportal` and `vxfs`, may fail to unload during uninstall or upgrade. The situation occurs if the SmartMove feature is enabled, which is the default setting. When you use the installer to uninstall or upgrade, you may see a message similar to the following:

```
Veritas Storage Foundation Shutdown did not complete successfully
```

```
vxportal failed to stop on dblxx64-21-v1
```

```
vxfs failed to stop on dblxx64-21-v1
```

### Workaround:

- 1 Open a new session and manually unload the modules that failed to unload. Use commands similar to the following:

```
# /sbin/modprobe -r vxportal
```

```
# /sbin/modprobe -r vxfs
```

- 2 Because some processes failed to stop, the installer recommends a reboot and asks you if you want to continue.

Press `y` to continue to the next phase. You can ignore the reboot requirement.

## Software limitations

The following are software limitations in the 6.0.1 release of Veritas Storage Foundation Cluster File System High Availability (SFCFSHA).

### Limitations related to installation

This section covers installation-related limitations.

### Limitations related to rolling upgrade

Rolling upgrade with responsefile to 6.0.1 is not supported.

### VMware vSphere extension for VirtualStore limitations

The following are the software limitations for VMware vSphere extension for VirtualStore that are known in this release.

## **F5 usage is not supported for wizard refreshing (2362940)**

F5 usage is not supported for wizard refreshing.

### **Workaround**

To get new or refreshed data, it is important to restart the wizard and not use the F5 key.

## **Virtual machines with VMware Snapshots cannot be used as golden images (2514969)**

Any virtual machine (or template) which has VMware Snapshots stored, cannot be used as a golden image for making clones with the FileSnap wizard. To use such virtual machines (or templates), first delete the Snapshots, then use the FileSnap wizard.

## **Replication software limitations**

The following are replication software limitations in this release of Symantec VirtualStore.

### **Softlink access and modification times are not replicated on RHEL5 and SLES10 for VFR jobs**

When running a file replication job on RHEL5 and SLES10, softlink access and modification times are not replicated.

## **Limitations related to I/O fencing**

This section covers I/O fencing-related software limitations.

### **Uninstalling VRTSvxvm causes issues when VxFEN is configured in SCSI3 mode with dmp disk policy (2522069)**

When VxFEN is configured in SCSI3 mode with dmp disk policy, the DMP nodes for the coordinator disks can be accessed during system shutdown or fencing arbitration. After uninstalling VRTSvxvm RPM, the DMP module will no longer be loaded in memory. On a system where VRTSvxvm RPM is uninstalled, if VxFEN attempts to access DMP devices during shutdown or fencing arbitration, the system panics.

# Documentation

Product guides are available in the PDF format on the software media in the `/docs/product_name` directory. Additional documentation is available online.

Make sure that you are using the current version of documentation. The document version appears on page 2 of each guide. The publication date appears on the title page of each document. The latest product documentation is available on the Symantec website.

<http://sort.symantec.com/documents>

## Documentation set

[Table 1-6](#) lists the documentation for Veritas Storage Foundation Cluster File System High Availability.

**Table 1-6** Veritas Storage Foundation Cluster File System High Availability documentation

Document title	File name
<i>Veritas Storage Foundation Cluster File System High Availability Release Notes</i>	sfdfs_notes_601_lin.pdf
<i>Veritas Storage Foundation Cluster File System High Availability Installation Guide</i>	sfdfs_install_601_lin.pdf
<i>Veritas Storage Foundation Cluster File System High Availability Administrator's Guide</i>	sfdfs_admin_601_lin.pdf

[Table 1-7](#) lists the documentation for Symantec VirtualStore.

**Table 1-7** Symantec VirtualStore documentation

Document title	File name
<i>Symantec VirtualStore Release Notes</i>	virtualstore_notes_601_lin.pdf
<i>Symantec VirtualStore Installation and Configuration Guide</i>	virtualstore_install_601_lin.pdf
<i>Symantec VirtualStore Administrator's Guide</i>	virtualstore_admin_601_lin.pdf

If you use Veritas Operations Manager (VOM) to manage Veritas Storage Foundation and High Availability products, refer to the VOM product documentation at:

<http://sort.symantec.com/documents>

## Manual pages

The manual pages for Veritas Storage Foundation and High Availability Solutions products are installed in the `/opt/VRTS/man` directory.

Set the `MANPATH` environment variable so the `man(1)` command can point to the Veritas Storage Foundation manual pages:

- For the Bourne or Korn shell (`sh` or `ksh`), enter the following commands:

```
MANPATH=$MANPATH:/opt/VRTS/man
export MANPATH
```

- For C shell (`csh` or `tcsh`), enter the following command:

```
setenv MANPATH ${MANPATH}:/opt/VRTS/man
```

See the `man(1)` manual page.

Manual pages are divided into sections 1, 1M, 3N, 4, and 4M. Edit the `man(1)` configuration file `/etc/man.config` to view these pages.

### To edit the `man(1)` configuration file

- 1 If you use the `man` command to access manual pages, set `LC_ALL` to "C" in your shell to ensure that the pages are displayed correctly.

```
export LC_ALL=C
```

See incident 82099 on the Red Hat Linux support website for more information.

- 2 Add the following line to `/etc/man.config`:

```
MANPATH /opt/VRTS/man
```

where other `man` paths are specified in the configuration file.

- 3 Add new section numbers. Change the line:

```
MANSECT          1:8:2:3:4:5:6:7:9:tcl:n:l:p:o
```

to

```
MANSECT          1:8:2:3:4:5:6:7:9:tcl:n:l:p:o:3n:1m
```

The latest manual pages are available online in HTML format on the Symantec website at:

<https://sort.symantec.com/documents>