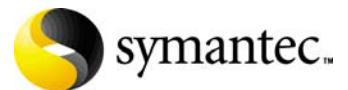


VeritasTM Cluster Server README

HP-UX 11iv3

5.0 Rolling Patch 2

June 2009



Veritas Cluster Server README

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Veritas Cluster Server 5.0 Rolling Patch 2

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Introduction

This document provides important information about the Veritas Cluster Server 5.0 Rolling Patch 2 (5.0 RP2) on HP-UX 11i v3. Review the entire document before installing this patch.

Patches included in Rolling Patch 2

The VCS 5.0 RP2 release includes the following patches:

PHNE_39146	1.0	VCS 5.0 RP2 VRTSllt Kernel patch
PHNE_39147	1.0	VCS 5.0 RP2 VRTSgab Kernel patch
PHCO_39120	1.0	VCS 5.0 RP2 VRTSvxifen Command patch
PHKL_39119	1.0	VCS 5.0 RP2 VRTSvxifen Kernel patch
PVCO_03865	1.0	VCS 5.0 RP2 VRTSvcs Command patch
PVCO_03866	1.0	VCS 5.0 RP2 VRTSvcsmg Command patch
PVCO_03867	1.0	VCS 5.0 RP2 VRTSvcsag Command patch
PVCO_03868	1.0	VCS 5.0 RP2 VRTSvcsor Command patch
PVCO_03869	1.0	VCS 5.0 RP2 VRTSvcessy Command patch

Supported operating system

HP-UX 11i v3 operating system.

Symantec recommends applying the latest HP-UX operating system patches available from HP.

Installing the 5.0 Rolling Patch 2 on a VCS 5.0 cluster

This section describes how to install patches on a VCS 5.0 cluster with an HP-UX 11iv3 operating system.

If you are applying this patch to a Veritas suite of products, such as SFRAC that includes VCS as a component, refer to the patch installation procedures for that product.

To install the patches on a VCS 5.0 cluster with HP-UX 11iv3

- 1 Take a backup of lltab, llthosts, gabtab and main.cf files.

```
# cp /etc/lltab /etc/lltab.bkp
# cp /etc/llthosts /etc/llthosts.bkp
# cp /etc/gabtab /etc/gabtab.bkp
# cp /etc/VRTSvcs/conf/config/main.cf
/etc/VRTSvcs/conf/config/main.cf.bkp
# cp /etc/VRTSvcs/conf/config/types.cf
/etc/VRTSvcs/conf/config/types.cf.bkp
```

- 2 Prepare the cluster. On any node, do the following.

- a List the service groups in your cluster along with their status.

```
# hagrp -state
```

- b Take the service group offline if it is online.

```
# hagrp -offline <group_name> -sys <system>
```

- c Make the VCS configuration writable.

```
# haconf -makerw
```

- d Freeze all the service groups.

```
# hagrp -freeze <service_group> -persistent
```

- e Verify that the service groups are frozen. On any VCS node, type:

```
# hastatus -sum
```

The output of this command should show that service groups are frozen.

- f Save the main.cf file with the groups frozen.

```
# haconf -dump -makero
```

- 3 Stop VCS. On each individual node, perform the following steps:

- a Shut down VCS.

```
# hastop -local
```

If the system returns an error message and fails to shut down VCS, type:

```
# hastop -all -force
```

- b Check that VCS has shut down. On each node, type

```
# ps -ef | grep -i had
```

If the output indicates that HAD is not running, VCS has shut down.

- 4 Stop Fencing on each node.

```
# vxfenconfig -U
```

- 5 Stop GAB on each node.

```
# gabconfig -U
```

Check that GAB has shut down.

```
# gabconfig -a
```

If the system returns no ports, GAB has stopped.

- 6** Stop LLT on each node.

```
# lltconfig -Uo
```

- 7** Install the patch. Perform the following steps on each node.

- a** Change the directory to the patch location.

```
# cd <patch_location>
```

- b** Install the patch.

```
# swinstall -x autoreboot=true -s `pwd` PHCO_39120
PHKL_39119 PHNE_39146 PHNE_39147 PVCO_03865 PVCO_03866
PVCO_03867
```

- c** Update the types.cf file to the new version.

```
# cp -p /etc/VRTSvcs/conf/types.cf
/etc/VRTSvcs/conf/config/types.cf
```

Note: The types.cf file gets modified if you change the configuration using the Java GUI or Command line. If you modified the types.cf file, you have to apply the same changes to the new types.cf file.

- 8** Verify the installation.

After installation is complete, you can verify that the patch has been installed using the following command on any node:

```
# swlist | grep -i rp2
```

The following information is displayed after successful patch installation.

PVCO_03865	1.0	VRTS 5.0 RP2 VRTSvcs Command Patch
PVCO_03866	1.0	VRTS 5.0 RP2 VRTSvcsmsg Command Patch
PVCO_03867	1.0	VRTS 5.0 RP2 VRTSvcsag Command Patch
PHCO_39120	1.0	VRTS 5.0 RP2 VRTSvxifen Command Patch
PHKL_39119	1.0	VRTS 5.0 RP2 VRTSvxifen Kernel Patch
PHNE_39146	1.0	VRTS 5.0 RP2 VRTS11t Kernel Patch
PHNE_39147	1.0	VRTS 5.0 RP2 VRTSgab Kernel Patch

Restart all the nodes in the cluster.

- 9** Check the state of GAB, LLT, and fencing on each node.

```
# swlist -v VRTS11t | grep ^state
# swlist -v VRTSgab | grep ^state
# swlist -v VRTSvxifen | grep ^state
```

The system should report the states as "configured".

For installing enterprise agents' (Oracle and Sybase) patches, follow the installation procedure from the respective README documents provided along with the patch.

Removing the VCS 5.0 Rolling Patch 2

You can use the following procedure to uninstall VCS 5.0 RP2.

To uninstall VCS 5.0 RP2

- 1 List the service groups in your cluster along with their status. On any node, type:

```
# hagrp -state
```

- 2 Take the ClusterService group offline if it is configured.

```
# hagrp -offline -force ClusterService -sys <system>
```

- 3 Make the VCS configuration writable. On any node, type:

```
# haconf -makerw
```

- 4 Freeze all service groups. On any node, type:

```
# hagrp -freeze service_group -persistent
```

where service_group is the name of the service group.

Note that the ClusterService group cannot be frozen.

- 5 Save the configuration (main.cf) file with the groups frozen. On any node, type:

```
# haconf -dump -makero
```

- 6 Take a backup of the current main.cf and all types.cf configuration files.

For example, on one of the nodes in the cluster, type:

```
# cp /etc/VRTSvcs/conf/config/main.cf  
/etc/VRTSvcs/conf/main.cf.save  
# cp /etc/VRTSvcs/conf/config/types.cf  
/etc/VRTSvcs/conf/types.cf.save
```

- 7 Shut down VCS and the VCS CmdServer. On any node, type:

```
# hastop -all -force  
# CmdServer -stop
```

- 8 Verify that VCS has shut down. On each node, type:

```
# gabconfig -a
```

The output resembles

```
GAB Port Memberships  
Port a gen 23dc0001 membership 01
```

Note that the output shows no membership for port h.

- 9 Stop vxifen on each cluster node, if the VCS cluster uses the fencing option.

```
# vxifenconfig -U
```

- 10 Unconfigure GAB. On each node, type:

```
# gabconfig -U
```

- 11 Unconfigure LLT. On each node, type:

```
# lltconfig -Uo
```

- 12 Remove the VCS patches from each node in the cluster. Type the following command:

```
# swremove -x autoreboot=true PHCO_39120 PHKL_39119 PHNE_39146  
PHNE_39147 PVCO_03865 PVCO_03866 PVCO_03867
```

- 13 Restore the types.cf configuration files from the location where you saved them, or manually edit the /etc/VRTSvcs/conf/config/types.cf to remove the newly added attributes.
- 14 Restart all the nodes in the cluster.

```
# shutdown -ry now
```
- 15 After VCS has started, perform the following steps:
 - a Verify all resources have been probed. On each node, type:

```
# hastatus -summary
```
 - b Unfreeze all service groups. On any node, type:

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

where service_group is the name of the service group.
 - c Bring the ClusterService group online, if necessary. On any node type:

```
# hagrp -online ClusterService -sys <system>
```

where system is the system name.

Upgrading to VCS 5.0 Rolling Patch 2

This release provides support for rolling upgrade with VCS 5.0 MP2 on HP-UX 11iv2.

Upgrading from VCS 5.0 MP2 (11iv2) to VCS 5.0 RP2(11iv3)

This topic describes how to upgrade from VCS 5.0 MP2 to VCS 5.0 RP2.

To upgrade from VCS 5.0 MP2 to VCS 5.0 RP2

- 1 Log in to one of the nodes (say node 1) in your VCS 5.0MP2 cluster.
- 2 Bring all service groups online on node 1.
- 3 On the other node (say node 2), upgrade the HP-UX operating system using Hewlett-Packard's update-ux utility. Refer to Hewlett-Packard's documentation for details regarding this utility.

```
#/usr/sbin/update-ux -s
igniteserver:/March09.11.31/0903_LR_DCOE_HPUX11i-DC-OE
VRTSvxvm VRTSvxfs
```
- 4 Run the installvcs command line utility on node 2 to upgrade to VCS 5.0.
- 5 Install the VCS 5.0RP2 patches on node 2 and reboot it.

This node can join the VCS cluster that has VCS 5.0MP2 stack installed on node 1. The VCS High Availability Daemon (HAD) is able to communicate because the VCS versions are the same.

- 6 Switch all the service groups from node1 that has the VCS 5.0MP2 stack to the upgraded node 2.
- 7 Repeat steps 3 to 6 on the node with the VCS 5.0 MP2 stack to upgrade the operating system and Veritas Cluster Server RP2.

Fixed Issues

The following incidents have been fixed in this release.

Table 1-1 Fixed Issues

Issue	Description
797703	The output for the command <code>vxfenadm -d</code> displays an unknown character “M”.
914752	Informational messages i.e. CFS codes that appear during log replay as part of CFS recovery could be misinterpreted as system errors.
1078230	The command <code>vxfentsthdw</code> produces error with the <code>-f <mapfile></code> option, if the mapfile is created with absolute disk paths.
990610	The man page for the <code>vxfentsthdw</code> command does not have information about <code>-d</code> option.
1073342	Memory leak in LLT message recovery <code>llt_msg_recv()</code> .
1074605	System panics with <code>vxfen</code> critical as the panic string.
1084656	Executing WMT on cluster nodes causes GAB to panic.
1113791	The <code>vxfen</code> utility in a Service Guard environment produces errors due to the presence of stale <code>vxfen</code> device files on the system.
1120189	Shutting down <code>vxfen</code> fails to create the <code>vxfen</code> log file and returns error and exits when there is no <code>/var/VRTSvcs/log</code> directory.
1195685	Split brain occurs because LLT is unable to communicate and subsequently the cluster nodes form separate GAB membership.
1204594	GAB takes longer time than expected to form membership in a cross-link scenario.
1250544	HP-UX MultiNICB agent reports false interface failures with multiple Auto Port Aggregation (APA) interfaces.

Table 1-1 Fixed Issues

Issue	Description
1179686	Cookie APIs do not provide atomic clearing of the cookie.
1241260	ActionTimeout attributes (OnlineRetryCount, OnlineWaitCount and OfflineWaitCount) must be reset when the resource is flushed.
1219148	When monitoring a global group, the RemoteGroup agent produces core dumps.
1054674	The wac process must produce an appropriate log message when it receives an affirmative response.
1209193	Repeated requests for password when ha commands are executed using a system based user.
1226137	Steward produces core dumps when a cluster attempts to perform an enquiry in secure mode.
1193980	A non-root user fails to authenticate on a secure cluster if a stale ~/vcspwdis file is present.
1201174	The hastart command produces core dumps when GAB is not configured.
1156843	Sybase agent configuration with the -s option in the Sybase home path fails to bring the device group online.
1203620	Setting the AutoEndBkup to 1 (i.e. stop backup) does not end the backup process.
862507	GAB_F_SEQBUSY flag is set even when the sequence request is not sent.
1057465	The command vxfsntsthwd with the -f option attempts to copy a file even if source and destination location of the file is the same.
1091284	Bug in printing port latency statistics.
1102457	Unresolved kernel interruption during vxfen startup.
1214464	Use the getent passwd command when checking user details of the Owner attribute in the Sybase online, offline, clean, and SqlTest.pl files.
1137118	vxfen startup may indicate split brain due to pre-existing transient keys on coordinator disks.
1393158	The MultiNICA agent incorrectly reports that it is online even though the connection with NIC is lost.
1410287	Issues with HPUX MultiNICA agent.

Table 1-1 Fixed Issues

Issue	Description
1187580	User is unable to change the value of the ActionTimeout attribute since it is influenced by the value of the MonitorInterval attribute.
1234622	The DNS resource must not come online when the value of the hostname is specified with an underscore “_” character.
1186414	The hastart command and triggers must run on the locale specified by the <i>LANG</i> variable.
1210437	Running the command hares -flushinfo on CVMVolDg or CFSMount resources produces core dumps.
1237028	Adding encrypted passwords and maintaining clear text passwords are supported for backward compatibility for enterprise agents.

Enhancements

This section includes the enhancements included in this release.

Support for rolling upgrade with VCS 5.0 MP2 on HP-UX11iv2

The Veritas Cluster Server now supports rolling upgrade with VCS 5.0 MP2 on HP11iv2.

Support for mixed clusters (HP-UX 11iv2 / HP-UX 11iv3)

This release provides support for mixed clusters (HP-UX 11iv2/ HP-UX 11iv3).

Support for Oracle 11g R1

This release provides support for Oracle 11g R1.

Known Issues

The following issues are open for this release of VCS:

Extra definitions seen in types.cf

Extra definitions are seen in the types.cf for types HPVirtualMachine and HPVSwitch. These definitions can be ignored. [1460688]

Intentional offline attribute has incorrect value in OracleTypes.cf

Workaround: Set the IntentionalOffline attribute to zero in the OracleTypes.cf [1465604]

Documentation Errata

Veritas Cluster Server Bundled Agents Reference Guide for VCS 5.0.

Ignore the dependency mentioned for LVMVolumeGroup agent on page 28.

Documentation feedback

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