Symantec™ ApplicationHA Release Notes

Solaris on Oracle VM Server for SPARC

6.0

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Symantec ApplicationHA Release Notes

This document includes the following topics:

- Introduction
- What is Symantec ApplicationHA
- Salient features
- Software limitations
- Known issues

Introduction

This document provides important information about Symantec ApplicationHA 6.0. Review this entire document before you install or upgrade ApplicationHA.

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

For the latest patches available for this release, go to: https://sort.symantec.com/patch/matrix.

What is Symantec ApplicationHA

Symantec ApplicationHA provides monitoring capabilities for applications running inside logical domains in the Oracle VM Server for SPARC virtualization environment. Symantec ApplicationHA adds a layer of application awareness to the core high availability (HA) functionality offered by Veritas™ Cluster Server (VCS) in the control domain.

Symantec ApplicationHA is based on VCS and uses similar concepts such as agents, resources, and service groups. However, it does not include the high availability cluster components such as the Group Membership and Atomic Broadcast (GAB), Low Latency Transport (LLT), Asynchronous Monitoring Framework (AMF), and Veritas Fencing (VxFEN). Symantec ApplicationHA has a lightweight server footprint that allows faster installation and configuration.

Key benefits include the following:

- Out of the box integration with VCS.

- Full visibility and control over applications with the ability to start, stop, and monitor applications running inside guest domains.

- High availability of the application as well as the guest domain inside which the application runs.

- Graded application fault-management responses such as:-

  - Application restart

  - ApplicationHA-initiated, graceful internal reboot (soft reboot) of a guest domain

  - VCS-initiated, external reboot (hard reboot) of guest domain

  - Failover of the guest domain to another VCS node.

- Standardized way to manage applications using a single interface that is integrated with the Veritas Operations Manager (VOM) console.

- Specialized Application Maintenance mode, in which ApplicationHA allows you to intentionally take an application out of its purview for maintenance or troubleshooting.

Salient features

Following are the salient features of ApplicationHA:

- Support for enterprise applications such as Oracle Database and Apache HTTP Server.

- Simple workflow for installation and configuration

- Ability to view component dependency of configured applications over the GUI

- Ability to configure graceful reboot of virtual machines in case of an application failure

- Continued updates and additional application support distributed via Symantec Agent Pack releases

Software limitations

The following limitations apply to this release of the product.

Configuration wizard does not support hardware monitoring

You cannot configure hardware components such as storage and network, using the ApplicationHA wizard.

Workaround

■ You can ensure that these components do not require monitoring. For example, for storage, you can add appropriate entries in the /etc/fstab file.

■ Alternately, you can configure hardware components by using the Command Line Interface of Veritas Cluster Server (VCS) or Veritas Operations Manager (VOM).

ApplicationHA supports only one application per guest domain

You can use the Symantec ApplicationHA Configuration wizard to monitor only one application per virtual guest domain.

Workaround

If you are familiar with underlying VCS and VOM concepts, you can add more applications or application components for monitoring.

For more information on how to use VCS commands orVOM to configure additional applications, see the following technical note:

http://www.symantec.com/docs/TECH159846

You cannot edit an application monitoring configuration

Once you configure an application, ApplicationHA does not support edits or additions to the configuration.

Workaround

Remove existing configuration and then re-configure

Simultaneous multiple installations may be slow

If you try to install ApplicationHA guest components on a large number of systems, the process may take a long time.

Workaround

Specify smaller batches of systems while using the ApplicationHA install program
or response file for multi-system installations.

VCS support for ApplicationHA cannot be enabled remotely

You must run the enable_applicationha script on each VCS node (control domain).
You cannot run it remotely from another VCS node in the same cluster, or from
a central console.

Known issues

The following known issues exist in this release of the product.

App.RestartAttempts setting does not take effect if value is set to 2 or more

App.RestartAttempts configuration option defines the number of times Symantec
ApplicationHA tries to restart a failed application or its component. Its value can
range from 1 to 6.

For certain application configurations, this setting fails to take effect if its value
is set to 2 or more. After successfully configuring an application, if there is a fault
in the application or its dependent component, ApplicationHA attempts to restart
it once. If the application fails to start, ApplicationHA reports the application
state as faulted. (2508392)

This issue is applicable only for the following applications/components:

On Solaris

■ Custom Application

Workaround

Currently there is no workaround to resolve this issue.

Symantec recommends that for applications mentioned earlier, you set the
App.RestartAttempts value to 1.

This ensures that ApplicationHA makes at least one attempt to restart the failed
component. If the component still fails to start, ApplicationHA then declares it
as faulted and takes further action as per the configuration settings (for example,
a graceful reboot of the guest domain).

Symantec ApplicationHA commands do not display the time as per the locale settings

This issue occurs with all the ApplicationHA commands that display the date and time stamp in the output. The date and time stamp do not display as per the locale settings on the system. They are displayed only in English. (2142740)

ApplicationHA fails to work if Veritas Operations Manager is uninstalled

The Managed Host components of Veritas Operations Manager (VOM) are installed on the control domain and the guest domain, during the ApplicationHA installation. (2361128, 2323516)

Uninstallation of VOM removes the VRTSsfmh package which breaks the ApplicationHA functionality. The sfmh package contains the 'Veritas Storage Foundation Messaging Service' (xprtld) that is used by both, ApplicationHA and VOM.

Note: This issue also occurs when you uninstall the Veritas Operations Manager Central Server.

Workaround

Perform the following steps

1   Insert the ApplicationHA software disc into your system drive and navigate to the directory that contains the package for the Solaris SPARC operating system:

    # **cd cdrom_root/unix-sparc-ldom/sol_sparc/pkgs**

2   Run the following command:

    # **pkgadd -a VRTSsfmh.pkg**

3   Stop the xprtld service.

    # **svcadm disable svc:/system/xprtld:default**

4   Ensure that the file /etc/opt/VRTSsfmh/xprtld.conf contains the following text:

    namespaces vcs=/opt/VRTSvcs/portal

5   Start the xprtld service.

    # **svcadm enable svc:/system/xprtld:default**

Refreshing the ApplicationHA view multiple times displays a network connectivity error

This issue is typically observed in case of IE7 browser.

ApplicationHA view refreshes the application status every 60 seconds. However, in case of network failure if you manually refresh the ApplicationHA view multiple times, IE displays a network connectivity error. (2379946, 2379707)

If you click **Ok** on the error message and then click another virtual machine on the VOM console, then the ApplicationHA tab displays the application status of an unknown application.

This issue also occurs if you refresh the ApplicationHA view and simultaneously reset the virtual machine.

Workaround

For details, refer to the following knowledge base article from Microsoft.

http://support.microsoft.com/kb/927917#more_information

VCS configuration incorrectly retains read-write mode

When you execute the enable_applicationha script on the control domain, if an error occurs, the script exits. However, the VCS configuration remains in the read-write mode. In this mode, the configuration is vulnerable to unintentional editing. (2607134)

Workaround

Revert the VCS configuration to the read-only mode by using the following command:

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

Configuration option of ApplicationHA installer malfunctions

When you run the Symantec ApplicationHA installer, it displays the following option to configure ApplicationHA: **Configure an Installed Product**.

If you specify this option, the installer fails to configure ApplicationHA. Instead, the installer starts stopping certain ApplicationHA processes. (2621468)

Workaround

Do not use the installer option to configure an application. Instead, to configure Symantec ApplicationHA for monitoring an application, use one of the following methods:

- If you have already installed ApplicationHA, navigate to the following URL, and use the **Configure Application Monitoring** link to launch the Symantec ApplicationHA Application Monitoring Configuration Wizard:

  ```
  https://<logicalDomainNameorIPaddress>:5634/vcs/admin/
  application_health.html?priv=ADMIN
  ```

- You can launch the wizard from the ApplicationHA tab of the Veritas Operations Manager console.
  For more information on working with VOM and accessing the ApplicationHA, see the *Symantec ApplicationHA User's Guide*.

Heartbeat service group may fail to come online

If the high availability daemon (HAD) on the guest domain is restarted, the configured heartbeat service group (VCSAppMonHBSG) does not automatically come online. (2605506)

Workaround

To continue application monitoring, you must manually bring the VCSAppMonHBSG online by using the following command:

```
# /opt/VRTSvcs/bin/hagrp -online VCSAppMonHBSG -sys System
```

Where *System* is name of the guest domain.

Attributes of a guest domain may retain stale values

If the physical host crashes, the guest domains may indicate stale values for attributes such as ConnectionState and SysState. The settings are updated after a guest domain fails over to a new physical host. (2611726)

Communication between guest domains and control domain is non-secure

In a secure VCS cluster, the communication between the guest domains and the associated control domain is through a non-secure TCP/IP channel. (2625819)