

Symantec™ ApplicationHA Release Notes

Linux

5.1

Symantec™ ApplicationHA Release Notes

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- Version and patch level
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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:

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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>

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Symantec ApplicationHA Release Notes

This chapter includes the following topics:

- [Introduction](#)
- [What is Symantec ApplicationHA?](#)
- [Salient features](#)
- [Before installing Symantec ApplicationHA](#)
- [Software limitations](#)
- [Known issues](#)

Introduction

This document provides important information regarding the following product:

- Symantec ApplicationHA 5.1 for Linux

This is Document version: 5.1.2.

Before you start, make sure that you are using the latest version of this document. You can find it here:

https://vos.symantec.com/documents/doc_details/sfha/5.1/Linux/ProductGuides/

This document provides important information about Symantec™ ApplicationHA 5.1 for Linux. 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://vos.symantec.com/patch/matrix>.

What is Symantec ApplicationHA?

Symantec ApplicationHA provides monitoring capabilities for applications running inside virtual machines hosted on ESX or ESXi hosts managed by a VMware vCenter Server. Symantec ApplicationHA adds a layer of application awareness to the core High Availability functionality offered by VMware virtualization technology.

Symantec ApplicationHA is based on Veritas™ Cluster Server (VCS) and internally uses similar concepts such as agents, resources, and service groups. However, it does not include the high availability cluster components such as the Global Atomic Broadcast (GAB) and Low Latency Transport (LLT). Symantec ApplicationHA has a lightweight server footprint that allows faster installation and configuration.

Key benefits include:

- Out of box integration with VMwareHA and VMware vCenter Server.
- Full visibility and control over applications with the ability to start, stop, and monitor applications running inside virtual machines
- Standardized way to manage applications using a single interface that is integrated with VMware vSphere Client
- 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 SAP, Oracle Database, and WebLogic Server
- Simple workflow for installation and configuration
- Single sign-on across virtual machines in a vCenter
- Discretionary access control based on user privileges
- Single GUI for applications running on Windows and Linux platforms
- Continued updates and additional application support distributed via Symantec Agent Pack releases

Before installing Symantec ApplicationHA

You can install Symantec ApplicationHA on Linux systems. The system where you want to install ApplicationHA must meet the hardware and the software requirements.

This is document version 5.1. Before you continue, make sure that you are using the current version of this guide. It is online at:

https://vos.symantec.com/documents/doc_details/sfha/5.1/Linux/ProductGuides/

Virtual machine requirements

Table 1-1 lists the hardware requirements for Symantec ApplicationHA

Table 1-1 Hardware requirements for Symantec ApplicationHA

Item	Description
Symantec ApplicationHA nodes	Virtual machines running on ESX or ESXi 4.1 installed with supported Linux operating systems. See “Supported Linux operating systems” on page 12.
Disk space	See “Required disk space” on page 11. Note: During installation, Symantec ApplicationHA may require temporary disk space greater than the required disk space.
RAM	Each virtual machine requires at least 256 megabytes.

Required disk space

The approximate disk space usage for Symantec ApplicationHA RPMs is as follows:

Table 1-2 Required disk space

RPMs	Disc space required
/	3 MB
/opt	241 MB
/etc	3 MB
/var	25 MB

Virtual machine prerequisites

The following prerequisites apply to the virtual machines where you wish to configure Symantec ApplicationHA for application monitoring:

- Ensure that VMware Tools is installed. Install the version that is the same as or later than that available with VMware ESX 4.1.
- Ensure that your firewall settings allow access to ports used by Symantec ApplicationHA install program, wizards, and services. See [“Ports and firewall settings”](#) on page 12.

Note: Install ApplicationHA Console before installing guest components.

Supported Linux operating systems

The Symantec ApplicationHA 5.1 release supports the following operating systems:

- Red Hat Enterprise Linux 5 (RHEL 5) with Update 4 (2.6.18-128.el5 kernel) or later, Architecture: x86_64

Supported applications

[Table 1-3](#) lists the applications that Symantec ApplicationHA currently supports on virtual machines.

Table 1-3 Symantec ApplicationHA supported applications

Application	Version
SAP	SAP NetWeaver 7.0 (NW04)
Oracle Database	10g, 11gR1, and 11gR2
WebLogic	9 and 10

Note: Alternatively, you can use the Custom Application wizard to configure and monitor applications that are not listed in the above support matrix.

Ports and firewall settings

Symantec ApplicationHA uses certain ports and services during installation and configuration. If you have configured a firewall, ensure that the firewall settings allow access to these ports and services on the virtual machines.

Table 1-4 displays the services and ports used by Symantec ApplicationHA.

Table 1-4 Services and ports used by Symantec ApplicationHA

Component Name	Port/Protocol	Settings	Description
Veritas Storage Foundation Messaging Service (xprtld.exe)	https/5634	Allow inbound and outbound	Used for communications between the ApplicationHA Console host machine and the virtual machines.
vCenter Server communication port	443 (Default port)	Allow inbound and outbound	Used by the install program to register the ApplicationHA plugin and add ApplicationHA privileges to the vCenter Server.
Symantec ApplicationHA authentication service	14152, 14545	Allow inbound and outbound	Used by ApplicationHA Console for the single sign-on feature.

Required Linux RPMs for Symantec ApplicationHA

Make sure that you have installed the following operating system-specific RPMs on the systems where you want to install ApplicationHA. ApplicationHA will support any updates made to the following RPMs, provided the RPMs maintain the ABI compatibility.

Table 1-5 lists the RPMs that ApplicationHA requires for a specific Linux operating system.

Table 1-5 Required Linux RPMs

Operating system	Required RPMs
RHEL 5	compat-libgcc-296-2.96-138.i386.rpm compat-libstdc++-33-3.2.3-61.i386.rpm compat-libstdc++-296-2.96-138.i386.rpm glibc-2.5-24.i686.rpm libgcc-4.1.2-42.el5.i386.rpm libstdc++-3.4.6-10.i386.rpm compat-libstdc++-33-3.2.3-61.x86_64.rpm glibc-2.5-24.x86_64.rpm glibc-common-2.5-24.x86_64.rpm libgcc-4.1.2-42.el5.x86_64.rpm libstdc++-3.4.6-10.x86_64.rpm java-1.4.2-gcj-compat-1.4.2.0-40jpp.115.noarch.rpm

Software limitations

The following limitations apply to this release of the product.

- 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).
- Symantec ApplicationHA supports only one application per virtual machine.
- Once you configure an application, ApplicationHA does not support edits or additions to the configuration.

Workaround

Remove existing configuration and then re-configure.

- 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.

Known issues

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

Compatibility with other clustering products

Symantec ApplicationHA runs on Veritas Cluster Server (VCS). The version of VCS used by ApplicationHA is a customized version of VCS. Many components have been removed in order to provide a lighter footprint inside the virtual machine. You cannot run both ApplicationHA and VCS together inside the same virtual machine. There is no method to upgrade from ApplicationHA to VCS.

Additionally ApplicationHA does not co-exist with other clustering solutions offered by Symantec. These include, Veritas Storage Foundation High Availability, Clustered File System, Clustered File System High Availability and Clustered Volume Manager.

Errors in Veritas Storage Foundation installation

When you install ApplicationHA on a virtual machine, and then try to install Veritas Storage Foundation (SF), you may notice errors in the SF installation. (2141382)

Workaround

To install ApplicationHA and SF on the same virtual machine, first install SF, and then install ApplicationHA.

ApplicationHA tab issue

If you install both Veritas Storage Foundation (SF) and ApplicationHA on the same virtual machine, and then remove SF, the ApplicationHA tab on the vSphere client stops working. (2136077)

Workaround

When you install ApplicationHA on a virtual machine, and then try to install Veritas Storage Foundation (SF), you may notice errors in the SF installation.

When you remove SF, you automatically remove the VRTSsfmh rpm from the system. The vSphere client needs the VRTSsfmh rpm to communicate with the virtual machine.

To reinstate VRTSsfmh, perform the following steps:

1 Install VRTSspt and VRTSsfmh rpms from the ApplicationHA install media.

2 Stop the xprtld service:

```
# /etc/init.d/xprtld stop
```

3 Add following line to the /etc/opt/VRTSsfmh/xprtld.conf file, if not present:

```
namespace vcs=/opt/VRTSvcsvcs/portal
```

4 Start the xprtld service:

```
# /etc/init.d/xprtld start
```

Application monitoring configuration freezes

This issue occurs if you configure application monitoring on systems where host names start with a hyphen. (2038685)

The application monitoring configuration may freeze and the ApplicationHA view in the vSphere Client may not display the status of the application. If the configured application fails, ApplicationHA takes no action.

Symantec recommends that you rename systems whose host names start with a hyphen before installing ApplicationHA and configuring application monitoring on those systems.

ApplicationHA tab may freeze

The ApplicationHA tab in the vSphere Client console may freeze if ApplicationHA is unable to establish a connection with the virtual machine. The application status in the ApplicationHA view appears to be in a hung state and does not refresh. (2125902)

Workaround

This may occur if the virtual machine fails to respond to ApplicationHA http requests. Either the virtual machine has moved to a suspended state or is in the process of migrating to an alternate ESX host.

Perform the following actions:

- Verify that the virtual machine is powered on and accessible over the network.
- Close the ApplicationHA tab and open it again.
In the vSphere Client, click another virtual machine, then click the original virtual machine again and then select the ApplicationHA tab, or exit the vSphere Client and launch it again.

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)

Issues while working with VMware snapshots and migrating virtual machines

The following issues may occur while you are performing virtual machine administration on systems where Symantec ApplicationHA is actively monitoring applications:

- While working with virtual machine snapshots
While taking a virtual machine snapshot, the ApplicationHA view may freeze momentarily and may not display the current state of the applications being monitored. Also, after you revert a snapshot, the virtual machine may reboot after the operation completes.
The Events view on the Tasks & Events tab in the vSphere Client displays the following warning messages:
Application heartbeat **failed** for <virtualmachinedisplayname> on <ESX host> in cluster <clustername> in <datacentername>
Application heartbeat status changed to **appStatusRed** for <virtualmachinedisplayname> on <ESX host> in cluster <clustername> in <datacentername>
Application heartbeat status changed to **appStatusGreen** for <virtualmachinedisplayname> on <ESX host> in cluster <clustername> in <datacentername>
- While migrating virtual machines to an alternate ESX host
When you initiate a virtual machine migrate, the ApplicationHA view may freeze momentarily and may not display the current state of the applications being monitored.
The Events view on the Tasks & Events tab in the vSphere Client displays multiple instances of the following warning messages:
Application heartbeat status changed to **appStatusGray** for <virtualmachinedisplayname> on <ESX host> in cluster <clustername> in <datacentername>
Application heartbeat status changed to **appStatusGreen** for <virtualmachinedisplayname> on <ESX host> in cluster <clustername> in <datacentername>

Workaround

This is a known issue with VMware HA. Check the following VMware KB article for more information about the hotfix for this issue:

<http://kb.vmware.com/kb/1027413>

Symantec recommends that you disable the application heartbeat (Disable Application Heartbeat button in the ApplicationHA view) on the virtual machine before working with snapshots or migrating the virtual machine. After the virtual machine administration activity is complete, enable the application heartbeat (Enable Application Heartbeat button in the ApplicationHA view) again.

Veritas Operations Services

This appendix includes the following topics:

- [About Symantec Operations Readiness Tools](#)

About Symantec Operations Readiness Tools

Symantec™ Operations Readiness Tools (SORT) is a set of Web-based tools and services that lets you proactively manage your Symantec enterprise products. SORT automates and simplifies administration tasks, so you can manage your data center more efficiently and get the most out of your Symantec products. SORT lets you do the following:

- Collect, analyze, and report on server configurations across UNIX or Windows environments. You can use this data to do the following:
 - Assess whether your systems are ready to install or upgrade Symantec enterprise products
 - Tune environmental parameters so you can increase performance, availability, and use
 - Analyze your current deployment and identify the Symantec products and licenses you are using
- Upload configuration data to the SORT Web site, so you can share information with coworkers, managers, and Symantec Technical Support
- Compare your configurations with one another or with a standard build, so you can determine if a configuration has "drifted"
- Search for and download the latest product patches
- Get notifications about the latest updates for:
 - Patches

- Hardware compatibility lists (HCLs)
- Array Support Libraries (ASLs)
- Array Policy Modules (APMs)
- High availability agents
- Determine whether your Symantec enterprise product configurations conform to best practices
- Search for and browse the latest product documentation
- Look up error code descriptions and solutions

Note: Certain features of SORT are not available for all products.

To access SORT, go to:

<http://sort.symantec.com>