

Symantec™ ApplicationHA Release Notes

Windows

5.1 Service Pack 1

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Symantec™ ApplicationHA Release Notes

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North America and Latin America

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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 Service Pack 1 for Windows

You can download the latest version of this document from the Symantec VOS website.

<http://vos.symantec.com>

This document provides important information about Symantec™ ApplicationHA 5.1 Service Pack 1 for Windows. 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 Microsoft Exchange Server 2010, Microsoft SQL Server 2008 and 2008 R2, and Microsoft IIS
- 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

Before you proceed with the installation verify that the systems where you want to install ApplicationHA meet the Symantec ApplicationHA hardware and the software requirements.

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 Windows operating systems. See “Supported operating systems for virtual machines” 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 1 GB of memory.

Required disk space

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

Table 1-2 Required disk space

Component	Disk space required
ApplicationHA Console components	350 MB
ApplicationHA guest components for virtual machine	300 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 13.

Supported operating systems for virtual machines

Table 1-3 lists the operating systems that ApplicationHA currently supports on virtual machines.

Table 1-3 Supported operating systems for virtual machines

Server	Architecture	Edition	Service Pack
Windows Server 2003	x64	Standard Edition, Enterprise Edition, Datacenter Edition	SP2 required
Windows Server 2003 R2	x64	Standard Edition, Enterprise Edition, Datacenter Edition	SP2 required
Windows Server 2003 R2	x64	Small Business Server	SP2 required
Windows Server 2008	x64	Standard Edition, Enterprise Edition, Datacenter Edition, Web Edition, Small Business Server	SP1 required SP2 supported
Windows Server 2008 R2	x64	Standard Edition, Enterprise Edition, Datacenter Edition, Web Edition	

Supported operating systems for Console host

Table 1-4 lists the operating systems that Symantec ApplicationHA currently supports for ApplicationHA Console host.

Table 1-4 Supported operating systems for Console host

Server	Architecture	Edition	Service Pack
Windows Server 2008	x64	Standard Edition, Enterprise Edition, Datacenter Edition, Web Edition, Small Business Server	SP1 required, SP2 supported
Windows Server 2008 R2	x64	Standard Edition, Enterprise Edition, Datacenter Edition, Web Edition	

Supported applications

[Table 1-5](#) lists the applications that Symantec ApplicationHA currently supports on virtual machines.

Table 1-5 Symantec ApplicationHA supported applications

Server	Architecture	Edition	Service Pack
Microsoft Exchange Server 2010 (Mailbox Server role required)	x64	Standard Edition, Enterprise Edition	
Microsoft SQL Server 2008 and SQL Server 2008 R2	x86, x64	Standard Edition, Enterprise Edition, Web Edition	
Internet Information Server (IIS) 6.0 and later versions			
Custom applications and generic services			

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 1-6](#) displays the services and ports used by Symantec ApplicationHA.

Table 1-6 Services and ports used by Symantec ApplicationHA

Component Name	Port/Protocol	Settings	Description
Services used by Symantec ApplicationHA installer			
File and Printer Sharing		Allow inbound and outbound	Used by the installer to copy the installation files to the machine.
Windows Management Instrumentation (WMI) service		Allow inbound and outbound	Used by the installer to discover virtual machines.
Ports and services used by Symantec ApplicationHA Console			
VMware Web Service	443 (Default port)	Allow inbound and outbound	Used by the installer to register ApplicationHA plugin and add ApplicationHA privileges to the vCenter Server.
Symantec ApplicationHA Service	14152	Allow inbound and outbound	Used by the ApplicationHA Console host to run Java Servlets that fetch the application monitoring status from the virtual machines and display the information on the ApplicationHA tab in the vSphere Client.
Symantec ApplicationHA Authentication Service	14153	Allow inbound and outbound	Used by the ApplicationHA Console to authenticate the single sign-on account configured for a virtual machine.
Ports and services used by Symantec ApplicationHA Console and guest components (virtual machines)			

Table 1-6 Services and ports used by Symantec ApplicationHA (*continued*)

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.

Software limitations

The following limitations apply to this release of the product.

DBCS characters are not supported

This release does not support Double Byte Character Set (DBCS) characters. Objects such as user names, systems names, directory paths, application instance names, and application component names should not contain DBCS characters. If the system names and directory paths specified while installing the Symantec ApplicationHA Console and guest components contain DBCS characters, the installation may complete successfully. However, you may not be able to configure the virtual machine administrator account on the ApplicationHA Console. The Symantec ApplicationHA Configuration Wizard may fail to configure application monitoring and the ApplicationHA view in the VMware vSphere Client may not display the status of the virtual machine. (2124936)

Application monitoring is not supported for mounts configured on cluster disk groups

This release does not support application monitoring for volumes and mounts created on cluster disk groups. If you wish to monitor storage managed using Storage Foundation for Windows (SFW), use dynamic disk groups. (2126853)

Application monitoring is not supported for mapped network drives

Symantec ApplicationHA does not support application monitoring for mapped network drives.

Known issues

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

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.

Symantec ApplicationHA installer fails to discover systems in a workgroup

This issue occurs while installing guest components on Windows systems belonging to a workgroup.

The installer fails to discover the workgroup systems if the name of the workgroup is not "Workgroup". The browse systems dialog box on the System Selection page does not show such systems. (2110460)

Workaround

You can add such workgroup systems using any of the following methods:

- Add each workgroup system manually using the Add button on the System Selection page.
- To add multiple workgroup systems simultaneously, specify systems using their virtual machine display names. The installer provides an option to discover systems in the vCenter inventory.

VRTSPerl issue after uninstalling Storage Foundation for Windows (SFW)

This issue occurs if Symantec ApplicationHA is configured on systems where Storage Foundation for Windows (SFW) is installed. If you uninstall SFW from the systems, it also removes the Perl components (VRTSPerl) that are used by Symantec ApplicationHA. (2140464, 2137991)

Workaround

After removing SFW, repair the Symantec ApplicationHA installation on the system.

From Windows Add or Remove Programs, select the ApplicationHA component and then click Change to launch the installer. Select the Repair option and complete the wizard.

Refer to the *Symantec ApplicationHA Installation and Configuration Guide* for more information on repairing the installation.

Configuration wizard may fail if folder mount path contains ampersand (&)

This issue occurs while configuring application monitoring using the Application Monitoring Configuration Wizard. If you select folder mounts that contain the ampersand (&) character in the path, the wizard may fail while performing the application monitoring configuration tasks. (2132797)

The wizard's Implementation panel may display the following error:

```
Invalid name in entity. [Ln: #, Col: #]
```

Workaround

Do not use the ampersand character (&) in folder mount paths if you wish to configure application monitoring using the configuration wizard.

If you wish to use this character, configure the MountMonitor agent resource using the VCS commands from the command line.

ApplicationHA view shows the mount point status as green even if there is a storage disconnect

This issue may occur if the application monitoring configuration contains mount points that reside on shared storage. The ApplicationHA view displays the mount point status as mounted and accessible even if there is a network disconnect between the shared storage and the virtual machine ESX host.

The Events view on the Tasks and Events tab in the vSphere Client may display the following message that confirms the storage disconnect:

```
Lost access to volume <vol> (SharedDataStore) due to connectivity issue.  
Recovery attempt is in progress and outcome will be reported shortly.
```

The Symantec ApplicationHA MountMonitor agent that monitors the configured mount points is unable to detect the storage unavailability.

When the storage is connected, application monitoring is restored back to normal.

Veritas Operations Services

This appendix includes the following topics:

- [About Veritas Operations Services](#)

About Veritas Operations Services

Veritas Operations Services (VOS) is a set of Web-based tools and services that lets you proactively manage your Symantec enterprise products. VOS automates and simplifies administration tasks, so you can manage your data center operations more efficiently and get the most out of your Symantec products.

VOS 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 VOS Web site, so you can share information with coworkers, managers, and Symantec Technical Support
- Compare your configurations to one other or to 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)
- VCS Agents
- Determine whether your Symantec enterprise product configurations conform to best practices
- Search and browse the latest product documentation
- Look up error code descriptions and solutions

To access VOS, go to:

<http://vos.symantec.com/>