

Symantec™ ApplicationHA Getting Started Guide

Windows

5.1 Service Pack 1

Symantec™ ApplicationHA Getting Started Guide

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www.symantec.com/business/support/index.jsp

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www.symantec.com/business/support/contact_techsupp_static.jsp

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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

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- 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

Documentation feedback

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:

sfha_docs@symantec.com

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

customercare_apac@symantec.com

Europe, Middle-East, and Africa

semea@symantec.com

North America and Latin America

[supportolutions@symantec.com](mailto:supportsolutions@symantec.com)

Symantec ApplicationHA Getting Started Guide

This document includes the following topics:

- [Overview](#)
- [What is Symantec ApplicationHA?](#)
- [Symantec ApplicationHA agents](#)
- [Supported platforms and software](#)
- [How the discs are organized](#)
- [Documentation](#)

Overview

This guide provides an overview of the software that is included in this release and the contents of the product software discs.

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.

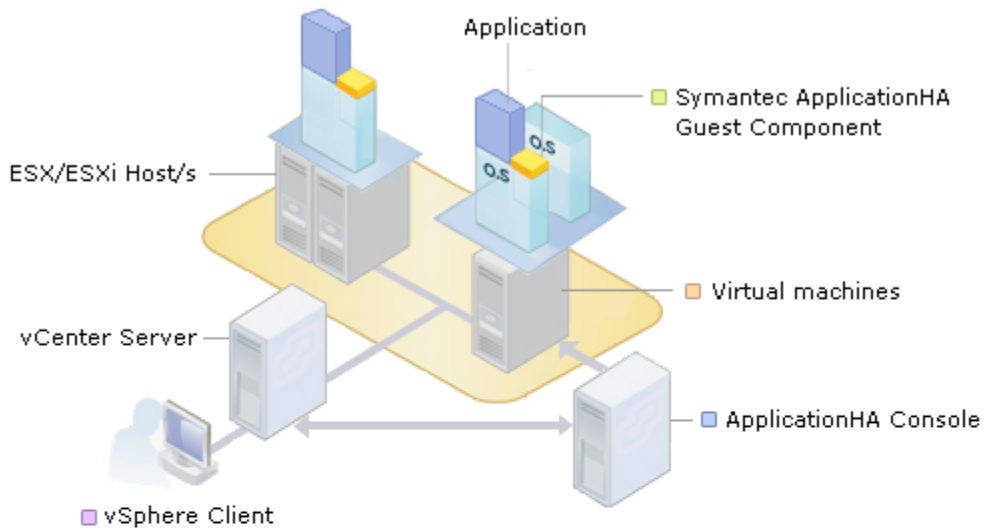
Key benefits include:

- 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

How Symantec ApplicationHA works with VMware HA and vCenter Server

Symantec ApplicationHA communicates directly with VMware HA. Symantec ApplicationHA conveys the application health status in the form of an application heartbeat. This allows VMware HA to automatically reset or restart a virtual machine if the application heartbeat is not received within a specified interval.

The following figure displays the sample deployment of Symantec ApplicationHA



- **Symantec ApplicationHA Guest Component**
 - Include Heartbeat components integrated with VMware HA
 - Include other components for monitoring application status

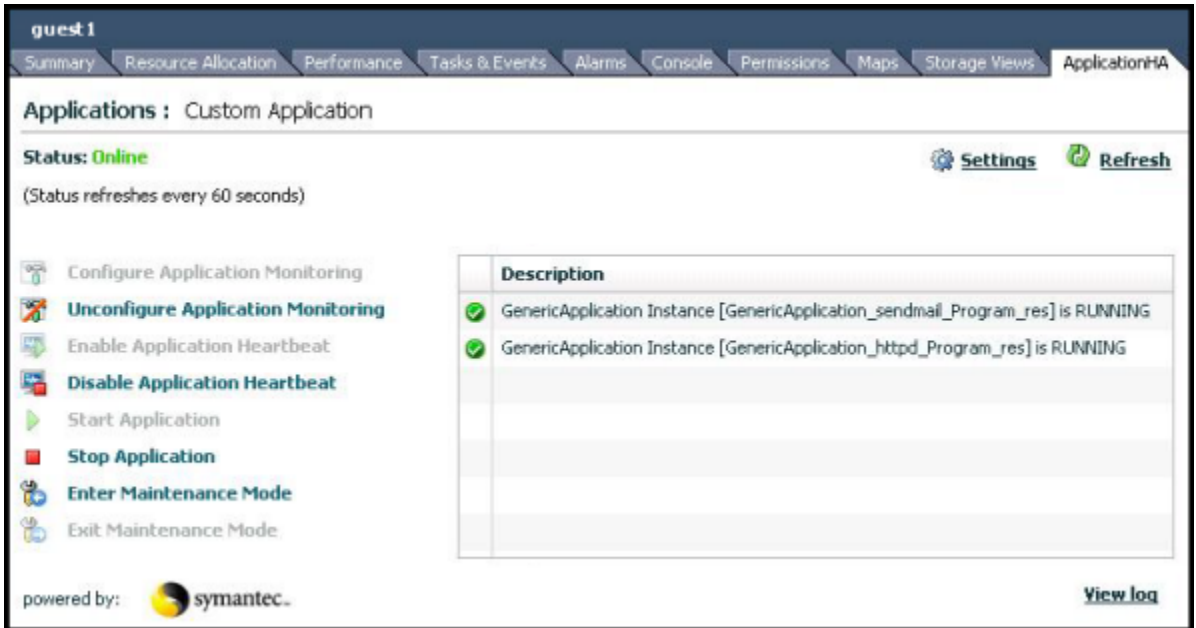
- **Virtual machines**
 - Running Windows OS or Linux OS

- **ApplicationHA Console**
 - Integrates with vSphere Client
 - Has vCentre privileges to provide discretionary access control (DAC)
 - Offers single sign-on to virtual machines under ApplicationHA control
 - Can be installed on a virtual machine or a physical machine

- **vSphere Client**
 - Integrates with Symantec ApplicationHA View

Symantec ApplicationHA provides a vCenter plug-in for configuring application monitoring and administering the configured applications. A new tab named ApplicationHA appears in the vSphere Client after you install the ApplicationHA Console. The ApplicationHA tab is the primary interface for performing the application monitoring operations on a virtual machine.

The following figure displays the ApplicationHA tab.



From this view you configure application monitoring and then monitor and control the configured application on the virtual machine. After configuring application monitoring, the Symantec ApplicationHA view displays the state of the application.

How Symantec ApplicationHA detects application failures

Symantec ApplicationHA architecture uses the agent framework to monitor the state of the applications and their dependent components running on the virtual machines. To monitor the overall health and detect failure of an application, Symantec ApplicationHA issues certain commands, tests, or scripts. The Symantec ApplicationHA agents ensure that the configured applications are running on the virtual machine. For more details, see the agent functions section of the application-specific agent guides or the generic agent guide distributed with ApplicationHA.

The ApplicationHA Heartbeat agent is configured when you configure application monitoring. The Heartbeat agent sends the application heartbeat to VMware High Availability. Symantec ApplicationHA uses the application heartbeat as the communication medium to convey the status of the application to VMware HA.

If an application fails, the agents attempt to restart the application for a configurable number of times. If the agents are unable to start the application, Symantec ApplicationHA stops sending the application heartbeat to VMware HA.

Depending on the configuration, VMware HA takes the necessary corrective action. VMware HA can restart the virtual machines.

After the virtual machine is restarted, Symantec ApplicationHA agents attempt to start the application components in a predefined order.

For more details about configuring the number of application restart attempts, refer to *Symantec ApplicationHA Installation and Configuration Guide*

Symantec ApplicationHA agents

Agents are application-specific modules that manage applications and resources of predefined resource types configured for applications and components on a system. The agents are installed when you install Symantec ApplicationHA. These agents start, stop, monitor, and restart the resources configured for the applications and report state changes.

Symantec ApplicationHA agents are classified as follows:

- Infrastructure agents

Infrastructure agents are packaged (bundled) with the base software and include agents for mount points, generic services, and processes. These agents are immediately available for use after you install Symantec ApplicationHA. Refer to the *Symantec ApplicationHA Installation and Configuration Guide* for more details about these agents.

- Application agents

Application agents are used to monitor third party applications such as Microsoft SQL Server, Oracle, and Microsoft Exchange. These agents are packaged separately and are available in the form of an agent pack that gets installed when you install Symantec ApplicationHA.

An agent pack is released on a quarterly basis. The agent pack includes support for new applications as well as fixes and enhancements to existing agents. You can install the agent pack on an existing ApplicationHA guest components installation.

Refer to the Veritas Operations Services (VOS) Web site for information on the latest agent pack availability.

<http://vos.symantec.com>

For more information on Infrastructure agents, refer to *Veritas Cluster Server Documentation*. See the agent-specific configuration guide for more details about the application agents.

Supported platforms and software

This section describes the platforms and applications that ApplicationHA supports on virtual machines. For support information related to ApplicationHA Console host, refer to *Symantec ApplicationHA Installation and Configuration Guide*.

Supported operating systems for virtual machines

[Table 1-1](#) lists the operating systems that ApplicationHA currently supports on virtual machines.

Table 1-1 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 1-2](#) lists the operating systems that Symantec ApplicationHA currently supports for ApplicationHA Console host.

Table 1-2 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 1-3](#) lists the applications that Symantec ApplicationHA currently supports on virtual machines.

Table 1-3 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			

How the discs are organized

The Symantec ApplicationHA media kit includes multiple software discs. The supported platforms are shown on the disc label.

You can install only the Symantec software products for which you have purchased a license, even if other products are included on the software discs.

Software disc contents

[Table 1-4](#) lists the contents of the software discs in this release.

Table 1-4 Software disc contents

DVD	Disc name	Contents
Windows Disc	Symantec ApplicationHA 5.1 Service Pack 1 for Windows	<ul style="list-style-type: none"> ■ Symantec ApplicationHA Console installer ■ Symantec ApplicationHA guest components for virtual machine installer ■ Related documentation
Linux Disc	Symantec ApplicationHA 5.1 Service Pack 1 for Linux	<ul style="list-style-type: none"> ■ Symantec ApplicationHA virtual machine component installer ■ Related documentation

Note: This guide provides information only related to the Windows disc.

Windows disc directory structure for ApplicationHA

[Table 1-5](#) lists the Symantec ApplicationHA directories and contents of Windows disc.

Table 1-5 Windows disc directory structure

Directory or file name	Description
Bin	ApplicationHA files for the disc browser
Docs	ApplicationHA documentation
Installer	Product installation scripts that Setup.exe uses
Pkgs	ApplicationHA packages
License	ApplicationHA license

Documentation

The following sections contain important information about ApplicationHA product documentation.

Email your comments about the documentation to:

clustering_docs@symantec.com

Finding product documentation

Product documents are in Adobe Portable Document Format (PDF) on the software discs.

To access product documentation

- ◆ Go to the `DOCS` subdirectory under the platform-specific directory on any ApplicationHA software disc.

All Symantec ApplicationHA product documentation is included in this location except the *Symantec ApplicationHA Getting Started Guide* and the *Symantec ApplicationHA Release Notes*. These guides are available at the top level of each ApplicationHA software disc.

Note: Product documentation is not installed with the product. Symantec recommends that you copy the documentation to your local disc for future reference.

The latest version of the product documentation is available on the VOS Web site here:

<https://vos.symantec.com>

About the guides

Table 1-6 contains a list of titles and file names of the ApplicationHA guides available on Windows.

Table 1-6 Symantec ApplicationHA documentation set for Windows

Document	File Name	Description
<i>Symantec ApplicationHA Getting Started Guide for Windows</i>	appha_getting_started_51sp1_win.pdf	Provides an overview of the product and the contents of the software discs

Table 1-6 Symantec ApplicationHA documentation set for Windows (*continued*)

Document	File Name	Description
<i>Symantec ApplicationHA Release Notes</i>	appha_release_notes_51sp1_win.pdf	Describes the new features and software and system requirements. This document also contains a list of limitations and issues known at the time of the release.
<i>Symantec ApplicationHA Installation and Configuration Guide</i>	appha_install_51sp1_win.pdf	Describes the steps for installing and configuring Symantec ApplicationHA in a Windows environment. This document also contains the steps for configuring application monitoring for the Symantec ApplicationHA Console and Windows services, processes, and storage mounts on a virtual machine. Some of the most common troubleshooting steps are also documented in this guide.
<i>Symantec ApplicationHA Agent for Microsoft Exchange Server Configuration Guide</i>	appha_exch_agent_51sp1_win.pdf	Describes how to configure application monitoring for Microsoft Exchange Server 2010.
<i>Symantec ApplicationHA Agent for Microsoft SQL Server 2008 and 2008 R2 Configuration Guide</i>	appha_sql_agent_51sp1_win.pdf	Describes how to configure application monitoring for Microsoft SQL Server 2008 and 2008 R2.
<i>Symantec ApplicationHA Agent for Microsoft IIS Configuration Guide</i>	appha_iis_agent_51sp1_win.pdf	Describes how to configure application monitoring for Microsoft IIS.