

Symantec™ ApplicationHA Getting Started Guide

Linux

5.1

Symantec™ ApplicationHA Getting Started Guide

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Document version: 5.1.1

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Symantec Corporation
350 Ellis Street
Mountain View, CA 94043
<http://www.symantec.com>

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Symantec's support offerings include the following:

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- Upgrade assurance that delivers software upgrades
- Global support purchased on a regional business hours or 24 hours a day, 7 days a week basis
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For information about Symantec's support offerings, you can visit our Web site at the following URL:

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

All support services will be delivered in accordance with your support agreement and the then-current enterprise technical support policy.

Contacting Technical Support

Customers with a current support agreement may access Technical Support information at the following URL:

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

Before contacting Technical Support, make sure you have satisfied the system requirements that are listed in your product documentation. Also, you should be at the computer on which the problem occurred, in case it is necessary to replicate the problem.

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

Licensing and registration

If your Symantec product requires registration or a license key, access our technical support Web page at the following URL:

www.symantec.com/business/support/

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Customer service information is available at the following URL:

www.symantec.com/business/support/

Customer Service is available to assist with non-technical questions, such as the following types of issues:

- Questions regarding product licensing or serialization
- 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

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	supportsolutions@symantec.com

Documentation

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:

docs@symantec.com

About Symantec Connect

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>

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](#)
- [About installation](#)
- [Documentation](#)

Overview

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

It also describes the method for installing Symantec™ ApplicationHA.

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.

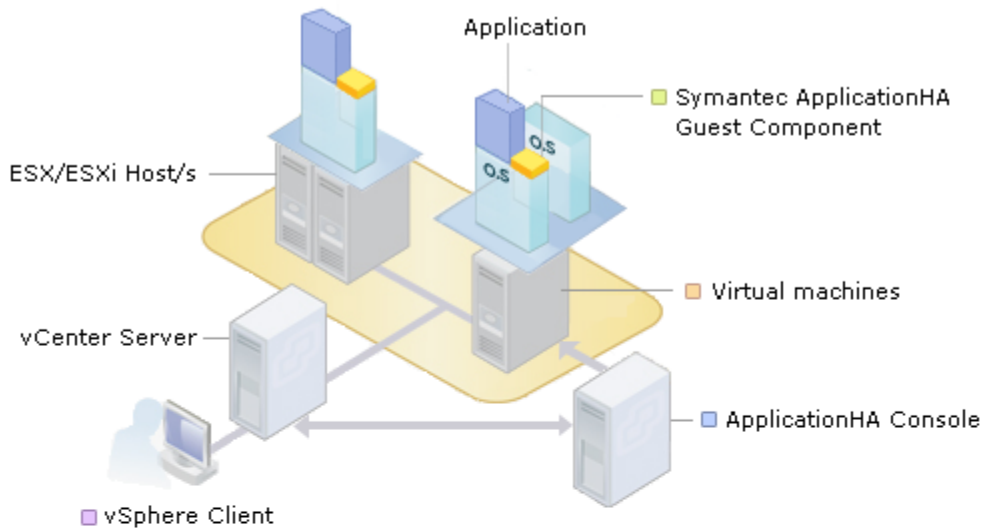
Key benefits include:

- 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

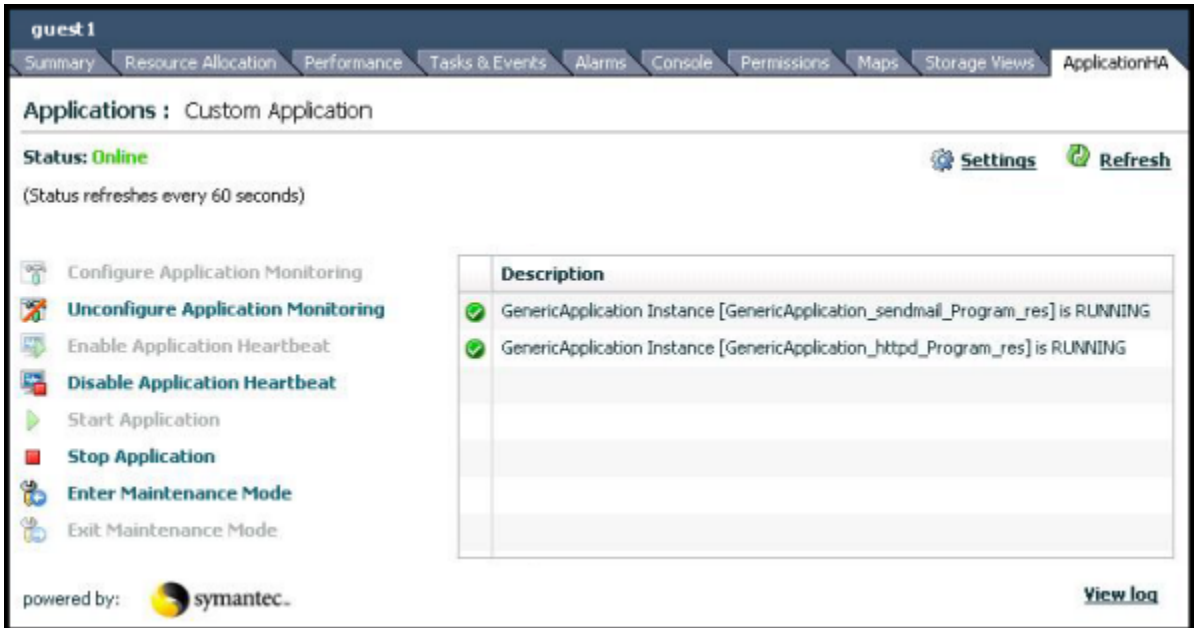


- **Symantec ApplicationHA Guest Component**
 - Include Heartbeat components integrated with VMware HA
 - Include other components for monitoring application status
- **Virtual machines**
 - Running Windows OS or Linux OS

- **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 include mount points, IP, NIC, and processes. These agents are immediately available for use after you install Symantec ApplicationHA.
- **Application agents**
Application agents are used to monitor third party applications such as Oracle, WebLogic Server, and SAP Application Server. Some application agents are packaged with the Symantec ApplicationHA base package. Updates to these pre-packaged agents as well as new agents are distributed as part of Symantec's quarterly agent pack release.

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, refer to Windows Documentation.

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

Table 1-1 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.

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 1-2](#) lists the contents of the software discs in this release.

Table 1-2 Software disc contents

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

Table 1-2 Software disc contents (*continued*)

DVD	Disc name	Contents
Linux Disc	Symantec ApplicationHA 5.1 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 Linux disc.

Linux Disc directory structure for ApplicationHA

The Symantec ApplicationHA software discs include directories for each supported platform.

[Table 1-3](#) lists the Symantec ApplicationHA directories and contents of Linux disc.

Table 1-3 Linux disc directory structure

Directory or file name	Description
cluster_server	ApplicationHA packages
docs	ApplicationHA documentation
installer	Product installation script
perl	Perl language binaries and library functions
scripts	Scripts used by the installer

About installation

The ApplicationHA product installation consists of:

- Installing and configuring the ApplicationHA Console
- Installing the ApplicationHA guest components for virtual machines

Use the product installer to install ApplicationHA. The product installer menu makes it easier to select installation options.

Before you install ApplicationHA, read the following:

- *Symantec ApplicationHA Release Notes*

- *Symantec ApplicationHA Installation and Configuration Guide*
The *Symantec ApplicationHA Installation and Configuration Guide* includes information about creating and using response files for bulk or unattended ApplicationHA client installations.

Note: ApplicationHA Console is available only on Windows.

For more information on installing ApplicationHA Console, refer to the *Symantec ApplicationHA Installation and Configuration Guide* on the Windows disc.

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/documents/doc_details/sfha/5.1/Linux/ProductGuides/

About the guides

Table 1-4 lists the titles and file names of the ApplicationHA guides.

Table 1-4 Symantec ApplicationHA documentation set

Document	File name	Description
<i>Symantec ApplicationHA Getting Started Guide for Linux</i>	appha_getting_started_51_lin.pdf	Provides an overview of the product and the contents of the software discs
<i>Symantec ApplicationHA Release Notes for Linux</i>	appha_release_notes_51_lin.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 (Linux)</i>	appha_install_51_lin.pdf	Describes the steps for installing and configuring Symantec ApplicationHA in a Linux environment. Some of the most common troubleshooting steps are also documented in this guide.
<i>Symantec ApplicationHA Agent for Oracle Installation and Configuration Guide</i>	appha_oracle_agent_51_lin.pdf	Describes how to configure application monitoring for Oracle.
<i>Symantec ApplicationHA Agent for SAP NetWeaver Installation and Configuration Guide</i>	appha_sap_agent_51_lin.pdf	Describes how to configure application monitoring for SAP NetWeaver.
<i>Symantec ApplicationHA Agent for WebLogic Server Installation and Configuration Guide</i>	appha_weblogicserver_agent_51_lin.pdf	Describes how to configure application monitoring for WebLogic Server.
<i>Symantec ApplicationHA Generic Agent Installation and Configuration Guide</i>	appha_gen_agent_51_lin.pdf	Describes how to configure application monitoring for a generic application.

