

Symantec™ ApplicationHA Getting Started Guide

Linux

5.1 Service Pack 2

Symantec™ ApplicationHA Getting Started Guide

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Product version: 5.1 SP2

Document version: 5.1SP2.0

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Symantec's support offerings include the following:

- A range of support options that give you the flexibility to select the right amount of service for any size organization
- Telephone and/or Web-based support that provides rapid response and up-to-the-minute information
- 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.

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

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

Licensing and registration

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

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Customer service information is available at the following URL:

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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:

- [What is Symantec ApplicationHA](#)
- [Symantec ApplicationHA agents](#)
- [Supported platforms and software](#)
- [About Symantec ApplicationHA licensing](#)
- [Software disc contents](#)
- [Getting started with ApplicationHA](#)
- [Documentation](#)

What is Symantec ApplicationHA

Symantec ApplicationHA provides monitoring capabilities for applications running inside virtual machines managed by a VMware vCenter Server. Symantec ApplicationHA adds a layer of application awareness to the core HA functionality offered by VMware virtualization technology.

Symantec ApplicationHA is based on Veritas™ Cluster Server (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 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 the following:

- Out of the box integration with the VMware vCenter Server HA

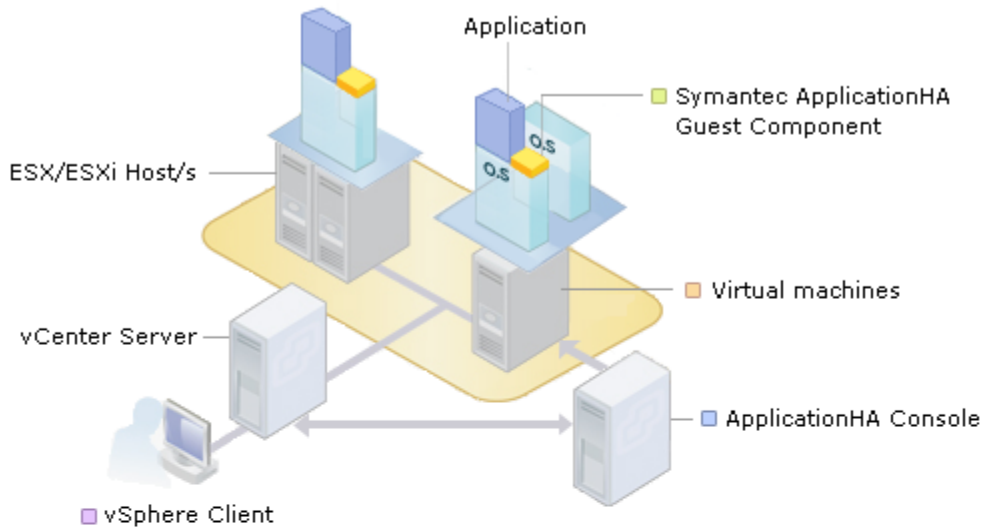
- Full visibility and control over applications with the ability to start, stop, and monitor applications running inside virtual machines
- Standardized way to manage applications using a single interface that is integrated with VMware vSphere Client
- Specialized Application Maintenance mode, in which ApplicationHA allows you to intentionally take an application out of its purview for maintenance or troubleshooting

How Symantec ApplicationHA works with VMware vCenter Server

Symantec ApplicationHA communicates directly with VMware HA. 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.

In a VMware SRM environment, ApplicationHA provides application monitoring continuity after the virtual machines failover to the recovery site.

The following figure displays the sample deployment of Symantec ApplicationHA.



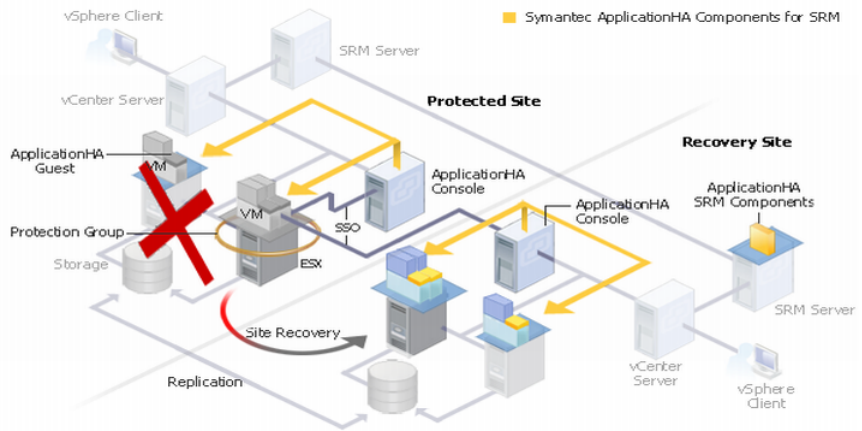
- **Symantec ApplicationHA Guest Component**
 - Include Heartbeat components integrated with VMware HA
 - Include other components for monitoring application status

- **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

The following figure displays the sample deployment of Symantec ApplicationHA in a VMware SRM environment.



Symantec ApplicationHA agents

Agents are application-specific modules that plug into the ApplicationHA framework that manages applications and resources of predefined resource types configured for applications and components on a system. The agents are installed when you install Symantec ApplicationHA guest components. These agents start, stop, and monitor the resources configured for the applications and report state changes. If an application or its components fail, these agents also restart the applications and its resources on the virtual machine.

Symantec ApplicationHA agents are classified as follows:

- **Infrastructure agents**
Agents such as NIC, IP, and Mount are bundled in the base guest package. For more details about the infrastructure agents, refer to the *VCS 5.1 SP1 Bundled Agents Reference Guide (Linux)*.
- **Application agents**
Application agents are used to monitor third party applications such as SAP, Oracle, and WebLogic. These agents are packaged separately and are available in the form of an agent pack that gets installed when you install Symantec ApplicationHA guest components.
The ApplicationHA 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 Symantec Operations Readiness Tools (SORT) Web site for information on the latest agent pack availability.

<https://sort.symantec.com>

Refer to 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 more information on installation requirements, refer to *Symantec™ ApplicationHA Installation and Upgrade Guide*.

Supported VMware versions

The release supports the following VMware versions:

- VMware ESX\ESXi 4.1
- VMware ESX\ESXi 4.1 U1

Supported operating systems for ApplicationHA Console

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

Table 1-1 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 | SP1 |

Supported operating systems for guest virtual machines

The Symantec ApplicationHA 5.1 Service Pack 2 release supports the following operating systems:

- Red Hat Enterprise Linux (RHEL) 5 with Update 3 (2.6.18-128.el5 kernel) or later, Architecture: x86_64
- SUSE Linux Enterprise Server (SLES) 11 Service Pack 1 (2.6.32.12-0.7 kernel) or later, Architecture: x86_64
- Oracle Enterprise Linux (OEL) 5 with Update 3 (2.6.18-128.0.0.1.el5) or later, Architecture: x86_64

Supported applications

Table 1-2 lists the applications that Symantec ApplicationHA currently supports on virtual machines.

Table 1-2 Symantec ApplicationHA supported applications

| Application | Version |
|------------------------------|--------------------------|
| SAP | SAP NetWeaver 7.0 (NW04) |
| Oracle Database | 10g, 11gR1, and 11gR2 |
| WebLogic | 9.x and 10.x |
| WebSphere Application Server | 7.x |
| WebSphere MQ | 7.x |

Note: Alternatively, you can use the Generic Agent to configure other applications that are not listed in the above support matrix. For more information refer to *Symantec ApplicationHA Generic Agent Configuration Guide*.

About Symantec ApplicationHA licensing

Symantec ApplicationHA is a licensed product. Licensing for Symantec ApplicationHA is based on the server operating systems in use. A license is required for each system that runs any of the Symantec products.

An evaluation license key is embedded in the product. This license key is valid only for a period of 2 months. You can use the embedded Symantec ApplicationHA license key or enter a key while installing the product.

You can update the license key by adding or removing specific licenses.

Refer to *Symantec™ ApplicationHA Installation and Upgrade Guide* for more information about product licensing.

Software disc contents

The Symantec ApplicationHA media kit includes platform-specific software discs. Each of the platform specific disc contains the install bits for the following ApplicationHA components:

- Symantec ApplicationHA Console
- Symantec ApplicationHA Guest Components
- Symantec ApplicationHA Components for VMware SRM

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

Linux Disc directory structure for ApplicationHA

The Symantec ApplicationHA 5.1 Service Pack 2 Linux disc contains the following directories for each supported architecture.

| Platform | Directory |
|--|---------------|
| Red Hat Enterprise Linux and Oracle Enterprise Linux | rhel5_x86_64 |
| SUSE Linux Enterprise Server | sles11_x86_64 |
| Windows | win2k8_x86_64 |

[Table 1-3](#) lists the directory and contents of the Symantec ApplicationHA 5.1 Service Pack 2 Linux disc for RHEL and SLES platforms.

Table 1-3 Directory structure for RHEL and SLES

| Directory name | Description |
|----------------|---|
| VII | ApplicationHA binaries used by the vCenter for installation |
| cluster_server | ApplicationHA guest components installation scripts |
| docs | ApplicationHA documentation |
| perl | Perl language binaries and library functions |
| rpms | ApplicationHA packages |
| scripts | Scripts used by the installer |

Note: In the Symantec ApplicationHA 5.1 Service Pack 2 Linux disc, the directory `win2k8_x86_64` contains the `applicationha_console` install program for Symantec ApplicationHA Console. You can install the Symantec ApplicationHA Console on Windows Server 2008 or Windows Server 2008 R2 servers only.

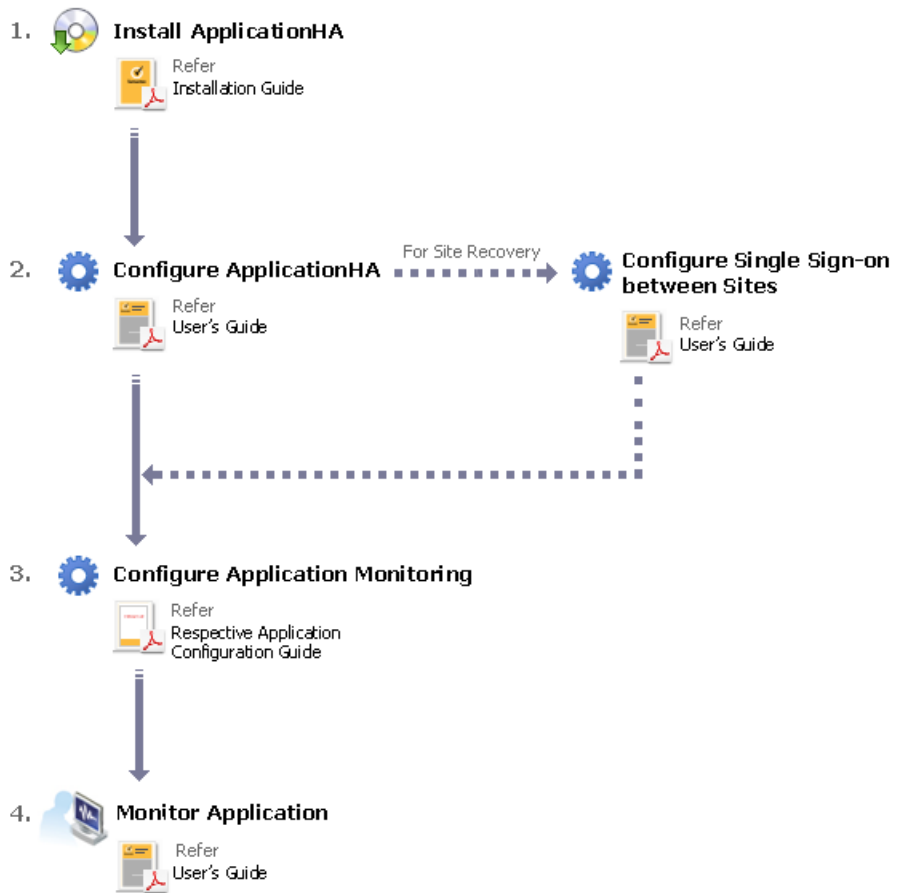
For more information on how to install Symantec ApplicationHA Console, refer to the *Symantec ApplicationHA Installation and Upgrade Guide*.

Getting started with ApplicationHA

You can get started with ApplicationHA following three simple steps:

- Install ApplicationHA
- Configure ApplicationHA
- Configure application monitoring

The following figure represents the workflow for getting started with ApplicationHA and the corresponding document you must refer for details.



Documentation

The following sections contain important information about ApplicationHA product documentation.

Your feedback on product documentation is important to us. Send suggestions for improvements and reports on errors or omissions to the following email address:

sfha_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*. The latter two guides are under the respective directory for each operating system.

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 Symantec Operations Readiness Tools (SORT) Web site here:

<https://sort.symantec.com>

About the guides

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

Table 1-4 Symantec ApplicationHA Linux documentation set

| Document | File name | Description |
|--|-------------------------------------|---|
| <i>Symantec ApplicationHA Getting Started Guide</i> | appha_getting_started_51sp2_lin.pdf | Provides an overview of the product and the contents of the software discs |
| <i>Symantec ApplicationHA Release Notes</i> | appha_release_notes_51sp2_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 Upgrade Guide</i> | appha_install_51sp2_lin.pdf | Describes the steps for installing and configuring Symantec ApplicationHA. Some of the most common troubleshooting steps are also documented in this guide. |

Table 1-4 Symantec ApplicationHA Linux documentation set (*continued*)

| Document | File name | Description |
|--|--|--|
| <i>Symantec ApplicationHA Agent for Oracle Configuration Guide</i> | appha_oracle_agent_51sp2_lin.pdf | Describes how to configure application monitoring for Oracle. |
| <i>Symantec ApplicationHA Agent for SAP NetWeaver Configuration Guide</i> | appha_sap_agent_51sp2_lin.pdf | Describes how to configure application monitoring for SAP NetWeaver. |
| <i>Symantec ApplicationHA Agent for WebLogic Server Configuration Guide</i> | appha_weblogicserver_agent_51sp2_lin.pdf | Describes how to configure application monitoring for WebLogic Server. |
| <i>Symantec ApplicationHA Generic Agent Configuration Guide</i> | appha_gen_agent_51sp2_lin.pdf | Describes how to configure application monitoring for a generic application. |
| <i>Symantec ApplicationHA Agent for WebSphere MQ Configuration Guide</i> | appha_webspheremq_agent_51sp2_lin.pdf | Describes how to configure application monitoring for WebSphere MQ. |
| <i>Symantec ApplicationHA Agent for WebSphere Application Server Configuration Guide</i> | appha_websphereas_agent_51sp2_lin.pdf | Describes how to configure application monitoring for WebSphere Application Server . |

