

Symantec™ ApplicationHA Getting Started Guide

Windows

6.0

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Symantec Technical Support maintains support centers globally. Technical Support's primary role is to respond to specific queries about product features and functionality. The Technical Support group also creates content for our online Knowledge Base. The Technical Support group works collaboratively with the other functional areas within Symantec to answer your questions in a timely fashion. For example, the Technical Support group works with Product Engineering and Symantec Security Response to provide alerting services and virus definition updates.

Symantec's support offerings include the following:

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- Telephone and/or Web-based support that provides rapid response and up-to-the-minute information
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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

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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

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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www.symantec.com/business/support/

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

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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

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:

doc_feedback@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 Group Membership and 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:

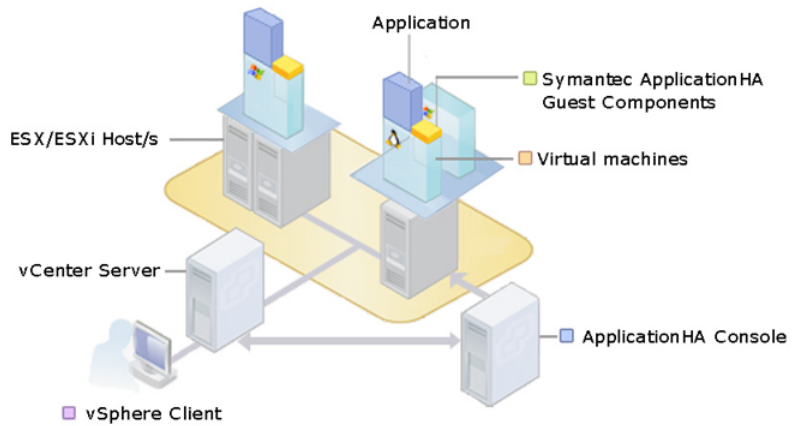
- Out of the box integration with the VMware vCenter Server HA
- Full visibility and control over applications with the ability to start, stop, and monitor applications running inside virtual machines.
- Standardized way to manage applications using a single interface that is integrated with VMware vSphere Client
- Specialized Application Maintenance mode, in which ApplicationHA allows you to intentionally take an application out of its purview for maintenance or troubleshooting.
- Integration with VMware SRM Server that provides the capability to resume application monitoring after the virtual machines are started on the recovery site.

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 Components

- Include Heartbeat components integrated with VMware HA
- Include other components for monitoring application status

Virtual machines

- Running Windows OS or Linux OS

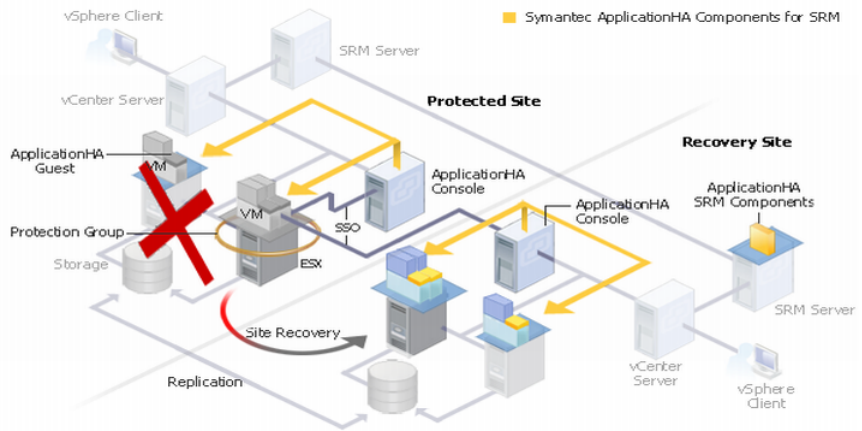
ApplicationHA Console

- 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**
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 Generic Agents Guide* for more details about the infrastructure 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 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 following VMware Servers and management clients are currently supported:

- VMware ESX Server version 4.0 (for ApplicationHA initiated reboot only), 4.1, 4.1 Update 1, 4.1 Update 2
- VMware ESXi Server version 4.0, 4.1, 5.0
- VMware vCenter Server version 4.0, 4.1, 4.1 Update 1, 5.0

Note: VMware Fault Tolerance is not supported in case of vCenter Server 4.1

- VMware vSphere Client version 4.0, 4.1, 5.0
- VMware vCenter Site Recovery Manager (SRM) 4.1, 5.0

Note: VMware SRM 4.0 is currently not supported.

Supported Symantec Backup Exec versions

The following Symantec Backup Exec version is currently supported:

- Backup Exec 2010 R3

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

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

Table 1-2 Symantec ApplicationHA supported operating systems

Server	Architecture	Edition	Service Pack
Windows Server 2003	x86, x64	Standard Edition, Enterprise Edition, Datacenter Edition	SP2 required
Windows Server 2003 R2 *	x86, x64	Standard Edition, Enterprise Edition, Datacenter Edition, Small Business Server	SP2 required
Windows Server 2008	x86, 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

* In this release, ApplicationHA does not support 32-bit Windows Server 2003 R2 guest virtual machines deployed in a VMware SRM environment. This restriction is limited only for SRM environments; you can configure ApplicationHA on 32-bit Windows Server 2003 R2 guest virtual machines in a local site configuration. ApplicationHA however supports 64-bit Windows Server 2003 R2 and other supported operating systems on guest virtual machines in an SRM environment.

Supported applications

Table 1-3 lists the applications that Symantec ApplicationHA currently supports on virtual machines.

Table 1-3 Symantec ApplicationHA supported applications

Application	Architecture	Edition	Service Pack
Microsoft Exchange 2007 (Mailbox Server role required)	x64	Standard Edition, Enterprise Edition	SP1, SP2, and SP3
Microsoft Exchange Server 2010 (Mailbox Server role required)	x64	Standard Edition, Enterprise Edition	
Microsoft SQL Server 2005	x64	Standard Edition, Enterprise Edition	
Microsoft SQL Server 2008 and SQL Server 2008 R2	x86, x64	Standard Edition, Enterprise Edition, Web Edition	SP1
Internet Information Server (IIS) 6.0 and later versions	x86, x64		
Microsoft SharePoint Server 2010	x64		
ApplicationHA Console	x64		
Custom applications and generic services	x86, x64		
FileShare	x86, x64		
PrintShare	x64		
SAP NetWeaver	x64		

Table 1-3 Symantec ApplicationHA supported applications (*continued*)

Application	Architecture	Edition	Service Pack
SAP Web Application Server	x64		
Oracle	x64		

For the latest information on the list of supported applications, refer to the Symantec ApplicationHA Software Compatibility List (SCL).

<http://www.symantec.com/business/support/index?page=content&id=DOC5051>

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 Windows disc.

ApplicationHA directory structure

[Table 1-4](#) lists the Symantec ApplicationHA directories and contents of Windows disc.

Table 1-4 ApplicationHA disc directory structure for Windows

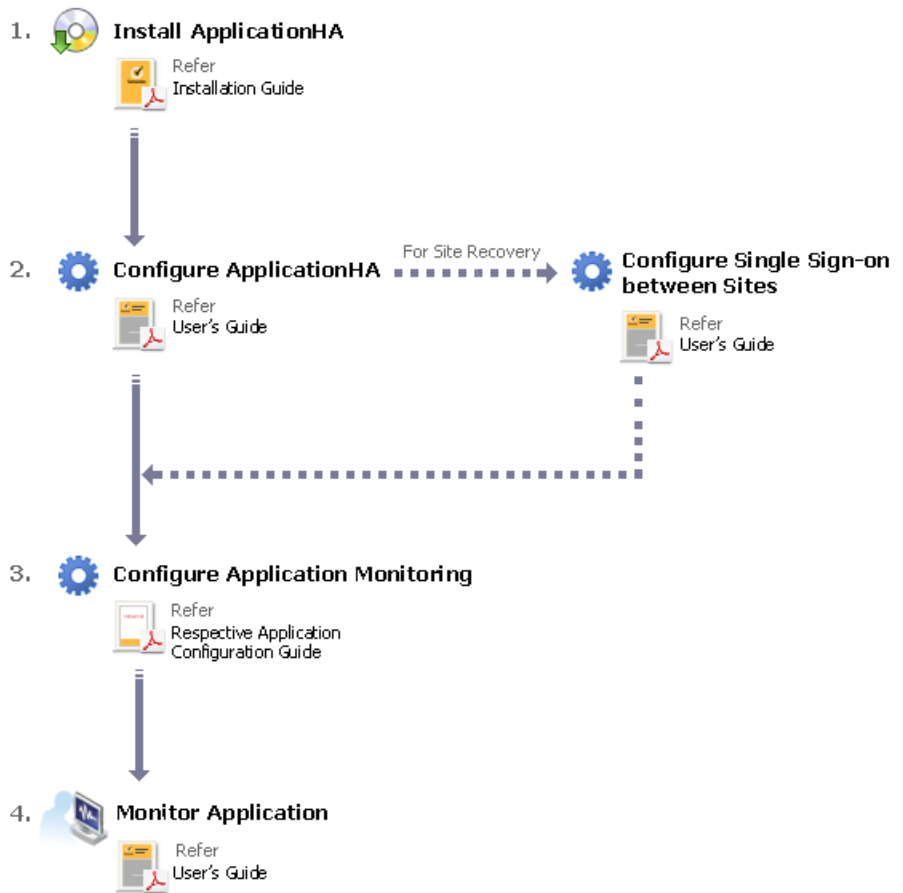
Directory or file name	Description
Bin	ApplicationHA files for the disc browser
Docs appha_getting_started_60_win.pdf appha_release_notes_60_win.pdf	ApplicationHA documentation
Installer	Product installation scripts that Setup.exe uses
Pkgs	ApplicationHA packages
License	ApplicationHA license
VII	ApplicationHA guest installation scripts that vSphere Client menu uses
Autorun.inf Setup.exe	ApplicationHA installer file that launches the CD browser
EULA.pdf	ApplicationHA end-user license agreement

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). The documentation is available at the following locations:

- On the software disc in the `Docs` subdirectory under the platform-specific directory on the 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.

- On the Symantec Operations Readiness Tools (SORT) Web site at: <https://sort.symantec.com>

About the guides

[Table 1-5](#) contains a list of titles and file names of the ApplicationHA guides available on Windows.

Table 1-5 Symantec ApplicationHA documentation set for Windows

Document	File Name	Description
<i>Symantec ApplicationHA Getting Started Guide for Windows</i>	appha_getting_started_60_win.pdf	Provides an overview of the product and the contents of the software discs
<i>Symantec ApplicationHA Release Notes</i>	appha_release_notes_60_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 Upgrade Guide</i>	appha_install_60_win.pdf	Describes the steps for installing and upgrading Symantec ApplicationHA in a Windows environment. Some of the most common troubleshooting steps are also documented in this guide.

Table 1-5 Symantec ApplicationHA documentation set for Windows (*continued*)

Document	File Name	Description
Symantec ApplicationHA User's Guide	appha_userguide_60_win.pdf	Provides information about configuring ApplicationHA in a local VMware cluster environment and the VMware site recovery environment. Some of the most common troubleshooting steps are also documented in the guide.
<i>Symantec ApplicationHA Generic Agents Guide</i>	appha_generic_agent_60_win.pdf	Provides information about the Symantec ApplicationHA infrastructure agents including the new FileShare agent. This document also contains the steps for configuring application monitoring for Windows services, processes, and storage mounts on a virtual machine.
<i>Symantec ApplicationHA Agent for Microsoft Exchange Server 2007 Configuration Guide</i>	appha_exch2007_agent_60_win.pdf	Provides information about the Symantec ApplicationHA agent for Microsoft Exchange Server 2007 and describes how to configure application monitoring for Exchange Server 2007.
<i>Symantec ApplicationHA Agent for Microsoft Exchange Server 2010 Configuration Guide</i>	appha_exch2010_agent_60_win.pdf	Provides information about the Symantec ApplicationHA agent for Microsoft Exchange Server 2010 and describes how to configure application monitoring for Exchange Server 2010.
<i>Symantec ApplicationHA Agent for Microsoft SQL Server 2008 and 2008 R2 Configuration Guide</i>	appha_sql2008_agent_60_win.pdf	Provides information about the Symantec ApplicationHA agent for Microsoft SQL Server 2008 and 2008 R2 and describes how to configure application monitoring for Microsoft SQL Server 2008 and 2008 R2.
<i>Symantec ApplicationHA Agent for Microsoft Internet Information Services (IIS) Configuration Guide</i>	appha_iis_agent_60_win.pdf	Provides information about the Symantec ApplicationHA agent for Microsoft Internet Information Services (IIS) and describes how to configure application monitoring for Microsoft IIS.
<i>Symantec ApplicationHA Agent for Microsoft SharePoint Server 2010 Configuration Guide</i>	appha_sps2010_agent_60_win.pdf	Provides information about the Symantec ApplicationHA agent for Microsoft SharePoint Server 2010 and describes how to configure application monitoring for SharePoint Server 2010.

Table 1-5 Symantec ApplicationHA documentation set for Windows (*continued*)

Document	File Name	Description
<i>Symantec ApplicationHA Agent for FileShare Configuration Guide</i>	appha_fileshare_agent_60_win.pdf	Provides information about the Symantec ApplicationHA agent for FileShare and describes how to configure application monitoring for FileShare.
<i>Symantec ApplicationHA Agent for SAP Netweaver Configuration Guide</i>	appha_sapnw_agent_60_win.pdf	Provides information about the Symantec ApplicationHA agent for SAP Netweaver and configuring application monitoring for SAP NetWeaver.
<i>Symantec ApplicationHA Agent for SAP Web Application Server Configuration Guide</i>	appha_sapwebas_agent_60_win.pdf	Provides information about the Symantec ApplicationHA agent for SAP Web Application Server and configuring application monitoring for SAP Web Application Server.
<i>Symantec ApplicationHA Agent for Microsoft SQL Server 2005 Configuration Guide</i>	appha_sql2005_agent_60_win.pdf	Provides information about the Symantec ApplicationHA agent for Microsoft SQL Server 2005 and describes how to configure application monitoring for Microsoft SQL Server 2005.
<i>Symantec ApplicationHA Agent for PrintShare Configuration Guide</i>	appha_printshare_agent_60_win.pdf	Provides information about the Symantec ApplicationHA agent for PrintShare and describes how to configure application monitoring for print shares.
<i>Symantec ApplicationHA Agent for Oracle Configuration Guide</i>	appha_oracle_agent_60_win.pdf	Provides information about the Symantec ApplicationHA agent for Oracle and describes how to configure application monitoring for Oracle.

