

Symantec™ ApplicationHA Getting Started Guide

Linux on VMware and KVM

6.0

Symantec™ ApplicationHA Getting Started Guide

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

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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.

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Symantec ApplicationHA for Linux on VMware

This chapter includes the following topics:

- [What is Symantec ApplicationHA](#)
- [Symantec ApplicationHA agents](#)
- [About Symantec ApplicationHA licensing](#)
- [Getting started with ApplicationHA](#)
- [Software disc contents for VMware](#)
- [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 by Symantec (VCS), and uses similar concepts such as agents, resources, and service groups. However, Symantec ApplicationHA has a lightweight server footprint that allows faster installation and configuration in virtualization environments.

Key benefits include the following:

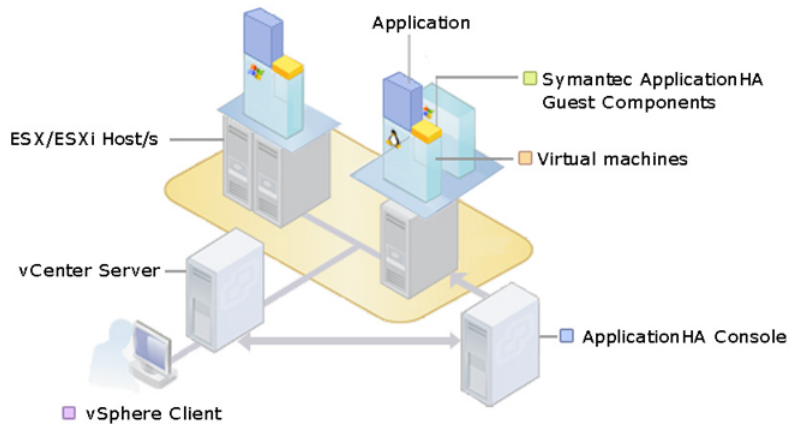
- Out of the box integration with VMware vCenter Server HA
- Full visibility and control over applications, including the ability to start, stop, and monitor applications running inside virtual machines.

- High availability of the application as well as the virtual system on which the application runs.
- Standardized way to manage applications using a single interface that is integrated with VMware vSphere Client
- Specialized Application Maintenance mode, in which ApplicationHA lets you intentionally take an application out of its purview for maintenance or troubleshooting.
- Integration with VMware vCenter Site Recovery Manager (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.

The following figure displays a 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

ApplicationHA provides a vCenter plug-in for integration with VMware vSphere Client, and adds the following interfaces for performing application monitoring tasks. These interfaces appear in the vSphere Client after you install the ApplicationHA Console.

- **ApplicationHA tab:** The ApplicationHA tab is the primary interface for performing the application monitoring operations on a virtual machine. From this view, you can configure application monitoring, and then monitor and control the configured application on the virtual machine. After configuring application monitoring, the Symantec ApplicationHA tab displays the state of the application and the component dependencies.

The following figure displays the ApplicationHA tab where Oracle database is configured for monitoring.

Applications: Oracle

Status: Online (Status refreshes every 60 seconds) [Refresh](#) [Settings](#) [Licenses](#)

- Configure Application Monitoring
- Unconfigure Application Monitoring
- Enable Application Heartbeat
- Disable Application Heartbeat
- Start Application
- Stop Application
- Enter Maintenance Mode
- Exit Maintenance Mode

Component List	Component Dependency
	Oracle database [orcl] is running.
	Oracle Net Listener [LISTENER] is running.

ApplicationHA (Version 6.0.00000.410) | [View log](#)

- **ApplicationHA dashboard:** The ApplicationHA dashboard is the primary interface for administering configured applications on a VMware cluster or datacenter. After configuring application monitoring, the ApplicationHA dashboard displays the state of the application.

The following figure displays the ApplicationHA dashboard where various applications are configured for monitoring.

Symantec ApplicationHA Dashboard

Clusters: 3 | Total Apps: 88 | Faulted Apps: 0 | Partial Apps: 3 | Online Apps: 38 | Offline Apps: 47

Clusters / Hosts	Total Apps	Faulted Apps	Partial Apps	Online Apps	Offline Apps	Overall Status
Intranet_Cluster	0	0	0	0	0	0% online
Production_Cluster	53	0	3	4	46	7% online
Recovery_Cluster	35	0	0	34	1	97% online

Virtual Machines From: **Recovery Cluster**

Applications	Virtual Machines	Application Status	Alerts and Description
Microsoft SharePoint Server 2010	Win-10.209.66.24	Online	
Microsoft IIS	Win-10.209.66.25	Online	
Microsoft Exchange 2007	Win-10.209.66.13	Online	
Custom Application	rhelkv10	Partial	Application_SG is in a partial state. One or more application components are not running on t
Custom Application	Win-10.209.66.18	Online	
Custom Application	blesrv01	Offline	DiscoveredGenericApplicationSG is in a offline state.
Microsoft SharePoint Server 2010	Win-10.209.66.17	Online	
Oracle	rhelkv06	Online	
Microsoft Exchange 2007	Win-10.209.66.19	Online	
FileShare	Win-10.209.66.2	Online	
Custom Application	Win-10.209.66.21	Online	
Custom Application	Win-10.209.66.23	Faulted	Application_SG is in a faulted state.
Microsoft Exchange 2010	Win-10.209.66.24	Online	
Custom Application		Online	

ApplicationHA (Version 6.0) | powered by: [View log](#)

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, ApplicationHA restarts the application and its resources on a virtual system.

Symantec ApplicationHA agents are classified as follows:

- Infrastructure agents

Agents such as NIC, IP, and Mount are classified as infrastructure agents. Infrastructure agents are automatically installed as part of an ApplicationHA installation on virtual machines.

For more details about the infrastructure agents, refer to the operating system-specific *Veritas Cluster Server 6.0 Bundled Agents Reference Guide*.

- Application agents

Application agents are used to monitor third party applications such as Oracle. 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/agents>

Refer to the agent-specific configuration guide for more details about the application agents.

About Symantec ApplicationHA licensing

Symantec ApplicationHA is a licensed product. Licensing for Symantec ApplicationHA is applicable for ApplicationHA guest components and is based on the server operating systems in use.

An evaluation license key is embedded in the product. This license key is valid only for a period of two months. When you install ApplicationHA for the first time, you can use the embedded license key or procure a permanent license key and enter the same while installing the product.

You can add or view the license keys from a virtual machine that has ApplicationHA guest components installed. You can add a license key through the command line or the ApplicationHA tab.

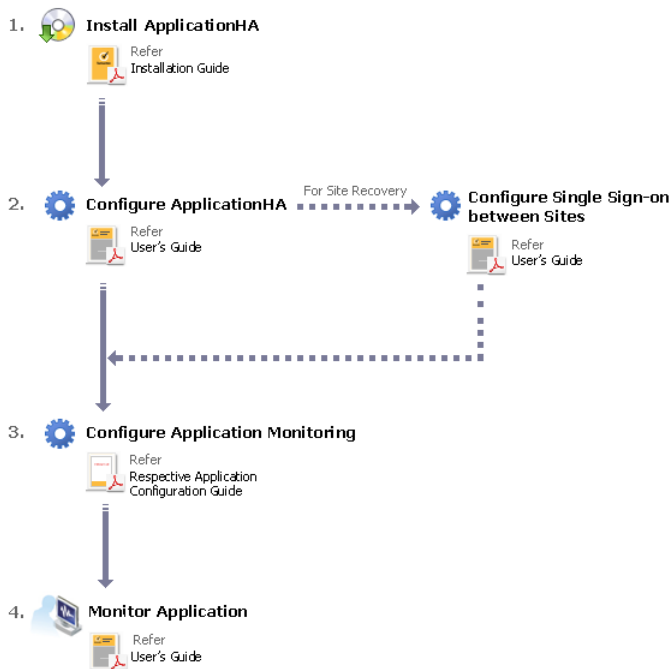
For more information, see the *Symantec ApplicationHA User's Guide*.

Getting started with ApplicationHA

You can get started with ApplicationHA by 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.



Software disc contents for VMware

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

- Symantec ApplicationHA Console
- Symantec ApplicationHA Guest Components
- Symantec ApplicationHA Components for VMware vCenter Site Recovery Manager

Note: The Linux disc contains the ApplicationHA install bits for both VMware and KVM technologies. This section contains information related only to the VMware environment.

ApplicationHA disc directory structure

This Symantec ApplicationHA 6.0 disc contains the following directories for Linux on VMware.

Operating System	Directory
Oracle Enterprise Linux 5	rhel5_x86_64
Red Hat Enterprise Linux 5	rhel5_x86_64
Red Hat Enterprise Linux 6	rhel6_x86_64
SUSE Linux Enterprise Server 10	sles10_x86_64
SUSE Linux Enterprise Server 11	sles11_x86_64

[Table 1-1](#) lists the directories and contents of the ApplicationHA 6.0 disc for the RHEL and SLES operating systems.

Table 1-1 Directory structure for Linux

Directory name	Description
VII	ApplicationHA binaries used by vCenter for installation
applicationha	ApplicationHA guest components installation scripts
docs	ApplicationHA documentation
perl	Perl language binaries and library functions

Table 1-1 Directory structure for Linux (*continued*)

Directory name	Description
rpms	ApplicationHA packages
scripts	Scripts used by the installer

Note: In the Symantec ApplicationHA 6.0 Linux disc, the VMware directory includes the `win2k8_x86_64` sub-directory. It contains the `applicationha_console` install program for Symantec ApplicationHA Console and the ApplicationHA components for VMware vCenter Site Recovery Manager. You can install the Symantec ApplicationHA Console only on Windows Server 2008 or Windows Server 2008 R2 servers.

For more information on how to install Symantec ApplicationHA Console and ApplicationHA components for VMware vCenter Site Recovery Manager, refer to the *Symantec ApplicationHA Installation and Upgrade Guide*.

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 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*. 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/documents>

About the guides

Table 1-2 lists the titles and file names of the ApplicationHA guides.

Table 1-2 Symantec ApplicationHA Linux on VMware documentation set

Document	File name	Description
<i>Symantec ApplicationHA Getting Started Guide</i>	appha_getting_started_60_lin.pdf	Provides an overview of the product and the contents of the software discs.
<i>Symantec ApplicationHA Release Notes</i>	appha_release_notes_60_lin_vmware.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_lin_vmware.pdf	Describes the steps for installing and configuring and managing Symantec ApplicationHA. Some of the most common troubleshooting steps are also documented in this guide.

Table 1-2 Symantec ApplicationHA Linux on VMware documentation set
(continued)

Document	File name	Description
<i>Symantec ApplicationHA User's Guide</i>	appha_userguide_60_lin_vmware.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 Agent for Oracle Configuration Guide</i>	appha_oracle_agent_60_lin_vmware.pdf	Describes how to configure application monitoring for Oracle.
<i>Symantec ApplicationHA Agent for SAP NetWeaver Configuration Guide</i>	appha_sap_agent_60_lin_vmware.pdf	Describes how to configure application monitoring for SAP NetWeaver.
<i>Symantec ApplicationHA Agent for WebLogic Server Configuration Guide</i>	appha_weblogicserver_agent_60_lin_vmware.pdf	Describes how to configure application monitoring for WebLogic Server.
<i>Symantec ApplicationHA Generic Agent Configuration Guide</i>	appha_gen_agent_60_lin_vmware.pdf	Describes how to configure application monitoring for a generic application.
<i>Symantec ApplicationHA Agent for WebSphere MQ Configuration Guide</i>	appha_webspheremq_agent_60_lin_vmware.pdf	Describes how to configure application monitoring for WebSphere MQ.
<i>Symantec ApplicationHA Agent for WebSphere Application Server Configuration Guide</i>	appha_websphereas_agent_60_lin_vmware.pdf	Describes how to configure application monitoring for WebSphere Application Server.
<i>Symantec ApplicationHA Agent for DB2 Configuration Guide</i>	appha_db2_agent_60_lin_vmware.pdf	Describes how to configure application monitoring for DB2.
<i>Symantec ApplicationHA Agent for Apache HTTP Server Configuration Guide</i>	appha_apache_agent_60_lin_vmware.pdf	Describes how to configure application monitoring for Apache HTTP Server.

Symantec ApplicationHA for Linux on KVM

This chapter includes the following topics:

- [What is Symantec ApplicationHA](#)
- [Symantec ApplicationHA agents](#)
- [About Symantec ApplicationHA licensing](#)
- [Getting started with ApplicationHA](#)
- [Software disc contents for KVM](#)
- [Documentation](#)

What is Symantec ApplicationHA

Symantec™ ApplicationHA provides monitoring capabilities for applications running inside guest virtual machines in the KVM virtualization environment. Symantec ApplicationHA adds a layer of application awareness to the core high availability (HA) functionality offered by Veritas™ Cluster Server (VCS) in the physical host.

Symantec ApplicationHA is based on VCS, and uses similar concepts such as agents, resources, and service groups. However, Symantec ApplicationHA has a lightweight server footprint that allows faster installation and configuration in virtualization environments.

Key benefits include the following:

- Out of the box integration with VCS.

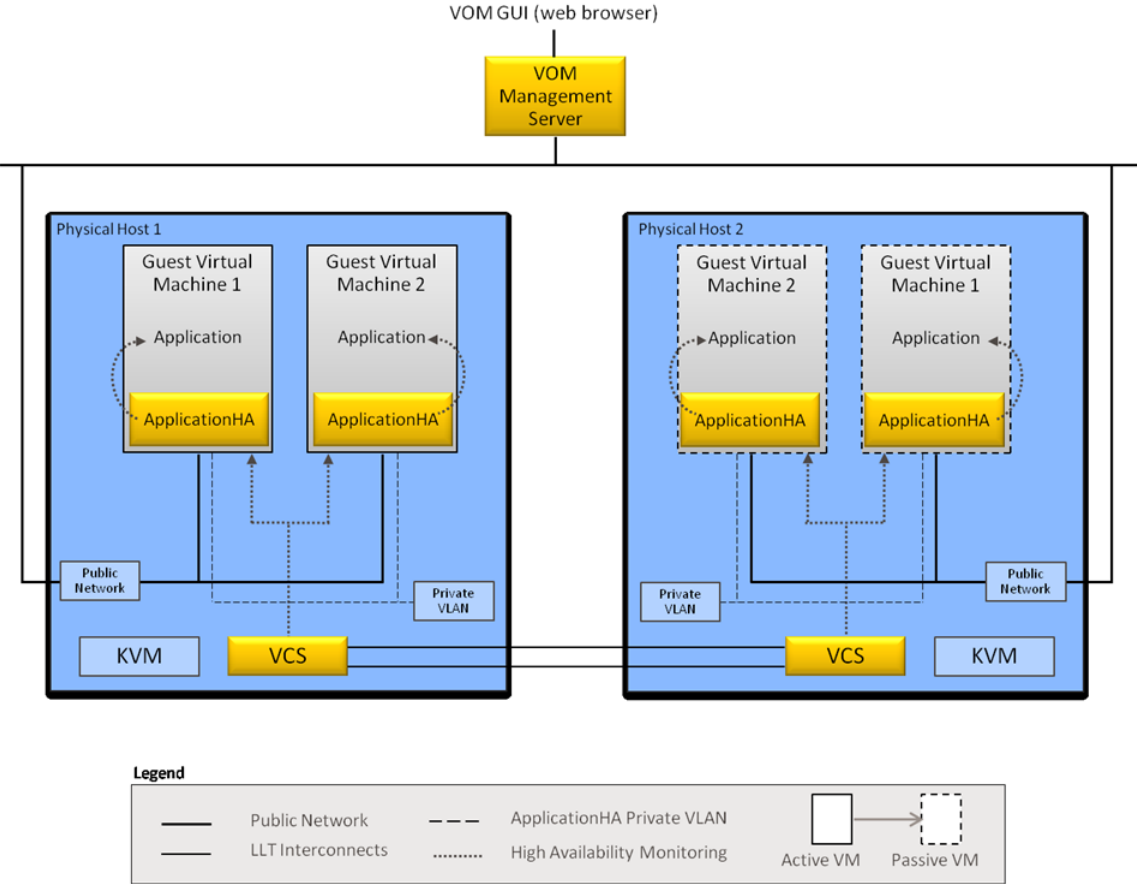
- Full visibility and control over applications, including the ability to start, stop, and monitor applications running inside virtual machines.
- High availability of the application as well as the virtual machine on which the application runs.
- Graded application fault-management responses such as:
 - Application restart
 - ApplicationHA-initiated, internal reboot, or soft reboot of a virtual system
 - VCS-initiated, external reboot or hard reboot of a virtual system
 - Failover of the virtual system to another VCS node.
- Standardized way to manage applications using a single interface that is integrated with the Veritas Operations Manager (VOM) console.
- Specialized Application Maintenance mode, in which ApplicationHA lets you intentionally take an application out of its purview for maintenance or troubleshooting.

How ApplicationHA is deployed in the KVM environment

Kernel-based Virtual Machine (KVM) is a full virtualization solution for Linux on AMD64 and Intel64 hardware. KVM lets you create and manage multiple virtual machines on a single physical host.

ApplicationHA provides high availability of applications running on virtual machines. Veritas Cluster Server (VCS) provides high availability of the virtual machines that run on a physical host.

The following figure illustrates how ApplicationHA and VCS are deployed in a typical KVM virtualization environment.



ApplicationHA is installed on the virtual machine, and provides high availability to a configured application running on the virtual machine. VCS is installed on the physical host, as part of a Storage Foundation Cluster File Server High Availability (SFCFSHA) stack installation. VCS provides high availability to the virtual machine where the configured application runs.

You must enable VCS to support ApplicationHA to ensure application-aware monitoring of virtual machines.

For more information, see the *Symantec ApplicationHA User's Guide*.

When you enable VCS to support ApplicationHA, a private VLAN is created between monitored virtual machines and the VCS node (physical host). The private VLAN facilitates heartbeat communication between VCS in the physical host and ApplicationHA in the virtual machines.

Veritas Operations Manager (VOM) provides you with a centralized management console (GUI) to administer application monitoring with ApplicationHA.

For more information on how VCS monitors virtual machines for high availability, see the *SFHA Virtualization Solutions Guide for Linux*.

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, ApplicationHA restarts the application and its resources on a virtual system.

Symantec ApplicationHA agents are classified as follows:

- Infrastructure agents

Agents such as NIC, IP, and Mount are classified as infrastructure agents.

Infrastructure agents are automatically installed as part of an ApplicationHA installation on virtual machines.

For more details about the infrastructure agents, refer to the operating system-specific *Veritas Cluster Server 6.0 Bundled Agents Reference Guide*.

- Application agents

Application agents are used to monitor third party applications such as Oracle. 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/agents>

Refer to the agent-specific configuration guide for more details about the application agents.

About Symantec ApplicationHA licensing

Symantec ApplicationHA is a licensed product. Licensing for Symantec ApplicationHA is applicable for ApplicationHA guest components and is based on the server operating systems in use.

An evaluation license key is embedded in the product. This license key is valid only for a period of two months. When you install ApplicationHA for the first time, you can use the embedded license key or procure a permanent license key and enter the same while installing the product.

You can add or view the license keys from a virtual machine that has ApplicationHA guest components installed. You can add a license key through the command line or the ApplicationHA tab.

For more information, see the *Symantec ApplicationHA User's Guide*.

Getting started with ApplicationHA

There are two sets of steps that you can use to get started with ApplicationHA. To monitor high availability of an application running on a virtual machine:

See [“Ensuring high availability of applications”](#) on page 23.

To monitor the high availability of the application as well as the virtualization infrastructure on which the virtual machine runs:


















See [“Ensuring high availability of virtualization infrastructure”](#) on page 25.

Ensuring high availability of applications

You can ensure high availability of applications running inside virtual machines by using ApplicationHA. To provide high availability to the applications, perform the following steps:

- Install Veritas Operations Manager Add-on for ApplicationHA Management on the VOM Management Server.
- Install ApplicationHA on the virtual machine.
- Add the virtual machine as a managed host to Veritas Operations Manager (VOM).
- Configure application monitoring on the virtual machine.

The following figure illustrates the workflow for ensuring high availability of applications with ApplicationHA. The figure also indicates the corresponding document that you must refer for detailed instructions at each step.



























-  **1. Install VOM Management Server 4.1.**

 Refer VOM Installation Guide
-  **2. Install VOM Add-on for ApplicationHA on VOM Management Server.**

 Refer ApplicationHA Installation Guide
-  **3. Install ApplicationHA 6.0 on the virtual machines.**

 Refer ApplicationHA Installation Guide
-  **4. Add virtual machines and physical hosts as managed hosts to VOM.**

 Refer ApplicationHA User's Guide
-  **5. Configure application monitoring on the virtual machines.**

 Refer Application specific Agent Guide
-  **6. Monitor application.**
 Refer ApplicationHA User's Guide

Ensuring high availability of virtualization infrastructure

In addition to high availability of applications using ApplicationHA, you can also ensure high availability of the virtualization infrastructure with VCS. By using VCS, you can externally restart virtual machines and fail over the virtual machines in case of application failures or virtual machine failures. To ensure high availability of the virtualization environment, perform the following steps:

- Install Veritas Operations Manager Add-on for ApplicationHA Management on the VOM Management Server.
- Install SFCFS HA on the physical host.
- Enable ApplicationHA capabilities in underlying VCS in the virtual machine.
- Install ApplicationHA on the virtual machine.
- Add virtual machine and physical host as managed hosts to Veritas Operations Manager (VOM).
- Configure application monitoring on the virtual machine.

The following figure illustrates the workflow for ensuring high availability of the applications running inside the virtual machine and the virtualization infrastructure. The figure also indicates the corresponding documents that you must refer for detailed instructions at each step.

1.  **Install VOM Management Server 4.1.**
  Refer VOM Installation Guide
2.  **Install VOM Add-on for ApplicationHA on VOM Management Server.**
  Refer ApplicationHA Installation Guide
3.  **Install SFCFSHA 6.0 on the physical host.**
  Refer SFCFSHA Installation Guide
4.  **Set up virtualization environment on the physical host.**
  Refer SFHA Solutions Virtualization Guide
5.  **Enable VCS for ApplicationHA 6.0 on the physical host.**
  Refer ApplicationHA User's Guide
6.  **Install ApplicationHA 6.0 on the virtual machines.**
  Refer ApplicationHA Installation Guide
7.  **Add virtual machines and physical hosts as managed hosts to VOM.**
  Refer ApplicationHA User's Guide
8.  **Configure application monitoring on the virtual machines.**
  Refer Application specific Agent Guide
9.  **Monitor application.**
 Refer ApplicationHA User's Guide

Software disc contents for KVM

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

- End User License Agreement
- Installation bits for Symantec ApplicationHA Guest Components
- Installer for Symantec ApplicationHA Guest Components
- Product documentation

Note: The Linux disc contains the ApplicationHA install bits for both VMware and KVM technologies. This section contains information related only to the KVM environment.

ApplicationHA disc directory structure

This Symantec ApplicationHA 6.0 disc contains the following directories for Linux on KVM.

Operating System	Directory
Red Hat Enterprise Linux 5	rhel5_x86_64
Red Hat Enterprise Linux 6	rhel6_x86_64

[Table 2-1](#) lists the directories and contents of the ApplicationHA 6.0 disc for the RHEL operating system.

Table 2-1 Directory structure for Linux

Directory name	Description
applicationha	ApplicationHA guest components installation scripts
docs	ApplicationHA documentation
perl	Perl language binaries and library functions
rpms	ApplicationHA packages
scripts	Scripts used by the installer

Documentation

The following sections contain important information about ApplicationHA product documentation.

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sfha_docs@symantec.com

Finding product documentation

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To access product documentation

- ◆ Go to 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*. 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/documents>

About the guides

[Table 2-2](#) lists the titles and file names of the ApplicationHA guides.

Table 2-2 Symantec ApplicationHA Linux on KVM documentation set

Document	File name	Description
<i>Symantec ApplicationHA Getting Started Guide</i>	alpha_getting_started_60_lin.pdf	Provides an overview of the product and the contents of the software discs.

Table 2-2 Symantec ApplicationHA Linux on KVM documentation set
(continued)

Document	File name	Description
<i>Symantec ApplicationHA Release Notes</i>	appha_release_notes_60_lin_kvm.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 Guide</i>	appha_install_60_lin_kvm.pdf	Describes the steps for installing and configuring Symantec ApplicationHA. Some of the most common troubleshooting steps are also documented in this guide.
<i>Symantec ApplicationHA User's Guide</i>	appha_userguide_60_lin_kvm.pdf	Provides information about configuring and managing Symantec ApplicationHA in Kernel-based Virtual Machine (KVM) virtualization environments. Some of the most common troubleshooting steps are also documented in the guide.
<i>Symantec ApplicationHA Agent for Oracle Configuration Guide</i>	appha_oracle_agent_60_lin_kvm.pdf	Describes how to configure application monitoring for Oracle.
<i>Symantec ApplicationHA Generic Agent Configuration Guide</i>	appha_gen_agent_60_lin_kvm.pdf	Describes how to configure application monitoring for a generic application.
<i>Symantec ApplicationHA Agent for WebSphere MQ Configuration Guide</i>	appha_webspheremq_agent_60_lin_kvm.pdf	Describes how to configure application monitoring for WebSphere MQ.
<i>Symantec ApplicationHA Agent for WebSphere Application Server Configuration Guide</i>	appha_websphereas_agent_60_lin_kvm.pdf	Describes how to configure application monitoring for WebSphere Application Server.
<i>Symantec ApplicationHA Agent for DB2 Configuration Guide</i>	appha_db2_agent_60_lin_kvm.pdf	Describes how to configure application monitoring for DB2.

Table 2-2 Symantec ApplicationHA Linux on KVM documentation set
(continued)

Document	File name	Description
<i>Symantec ApplicationHA Agent for Apache HTTP Server Configuration Guide</i>	appha_apache_agent_60_lin_kvm.pdf	Describes how to configure application monitoring for Apache HTTP Server.
<i>Veritas Operations Manager Add-on for ApplicationHA Management User's Guide</i>	This guide is not bundled in this disc. You can download it from the following site: https://sort.symantec.com/documents	Describes how to install and configure the VOM add-on for ApplicationHA.