

Symantec ApplicationHA- What's new in this release

Windows on Hyper-V

6.1

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For information about Symantec's support offerings, you can visit our website at the following URL:

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

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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.

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- 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:
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North America and Latin America	supportsolutions@symantec.com

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What's new in this release

This document includes the following topics:

- [About this document](#)
- [What's new](#)
- [No longer supported](#)

About this document

This document provides important information about Symantec ApplicationHA.

Review this document before you install ApplicationHA. You can download the latest version of this document from the Symantec Operations Readiness Tools (SORT) website here:

<https://sort.symantec.com>

The information in the Release Notes supersedes the information provided in the product documents for ApplicationHA.

For the latest patches available for this release, go to:

<https://sort.symantec.com/patch/matrix>

What's new

The enhancements in this release of Symantec ApplicationHA are as follows:

Change of packaging in the ApplicationHA 6.1 installation media

With this release, Symantec ApplicationHA is packaged along with the Storage Foundation and High Availability (SFHA) 6.1 installation media. This change

eliminates the need to download and manage separate installation media for ApplicationHA.

The CD browser displays a separate tab for installing ApplicationHA. When you select the ApplicationHA tab, two separate links; ApplicationHA (for VMare) and ApplicationHA (for Hyper-V) are available to install ApplicationHA based on the virtualization environment.

Support for Microsoft Hyper-V

ApplicationHA introduces support for Microsoft Hyper-V.

You can now configure application monitoring on virtual machines configured on a Hyper-V host.

When you configure application monitoring, ApplicationHA monitors the application components and conveys its status to the Hyper-V host in form of a heartbeat.

If an application fails, ApplicationHA performs the following actions in the specified sequence:

1. ApplicationHA attempts to restart the components for a configurable number of times.
2. ApplicationHA gracefully restarts the virtual machine. This action is performed only if you have configured ApplicationHA-initiated virtual machine restart. This action is not performed if you have not configured ApplicationHA-initiated virtual machine restart.
3. If the application fails to start, Symantec ApplicationHA sends an "Applications Critical" heartbeat to the Hyper-V host.
4. Depending on the VM Monitoring configuration, the Recovery features of the application take action.

Hyper-V host and guest virtual machines- supported OS versions

ApplicationHA supports the following operating systems for Hyper-V host and guest virtual machines:

For Hyper-V host:

- Windows Server 2012
- Windows Server 2012 R2

For Hyper-V guest virtual machines:

- Windows Server 2008 R2
- Windows Server 2012

- Windows Server 2012 R2

Note: In case of Windows Server 2008 R2 virtual machines you must upgrade the "Integration Service". Failing this, ApplicationHA does not send an "Applications Critical" heartbeat to the Hyper-V host.

New Heartbeat agent for application monitoring

ApplicationHA introduces new Heartbeat agent "HyperVAppMonHB" for monitoring applications in Hyper-V environment.

This heartbeat agent is represented by "HyperVAppMonHB" resource type.

This agent supports intelligent resource monitoring and uses Intelligent Monitoring Framework (IMF) for resource state change notifications.

After you configure application monitoring, a single resource is configured to monitor all components of the configured application.

Note: No separate resources are created, if you configure additional applications using the command line. The single resource that is created monitors all the components, even if multiple applications are configured.

About ApplicationHA licensingApplicationHA licensing

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

During installation, the product installer provides the following options to specify the license details.

- Keyless
 - A keyless license installs the embedded keys. You can use the keyless license for 60 days.
 - If you install the product using the keyless option, a message is logged everyday in the Event Viewer indicating that you must perform any one of the following tasks, within 60 days of product installation. Failing this, a non-compliance error is logged every four hours.
 - Add the system as a managed host to a Veritas Operations Manager (VOM) Management Server.
For more details, refer to the VOM documentation.
 - Add an appropriate and valid license key on this system using the Symantec product installer from Windows Add or Remove Programs.

- User Entered Key
In case of an User Entered Key license, you must procure an appropriate license key from the Symantec license certificate and portal. The User Entered Key license allows you to use the product options based on the license key you enter.
<https://licensing.symantec.com/>

Note: Evaluation licenses are now deprecated.

Support for monitoring nested mount points

If the application data is stored on nested mount points, then it is required to set the dependency between these mount points. This enables ApplicationHA to monitor all the nested mount points.

A MountDependsOn attribute is now added to the MountMonitor agent. This attribute defines the dependency between the nested mount points.

If this attribute is not configured, then ApplicationHA monitors only the last mount point.

The value of this attribute must be specified as a key-value pair.

Where,

Key= mount path

Value= volume name

Instantaneous fault detection using Intelligent Monitoring Framework (IMF)

ApplicationHA introduces Intelligent Monitoring Framework (IMF) that uses an event-driven design for monitoring the configured application. IMF is asynchronous and provides instantaneous resource state change notifications. This significantly improves the fault detection capability allowing ApplicationHA to take corrective actions faster. IMF works in addition to the poll-based monitoring.

All the ApplicationHA agents are IMF enabled. You can disable IMF if you do not want an event-driven monitoring.

The benefits of intelligent monitoring over poll-based monitoring are as follows:

- Instantaneous notification
Faster notification of resource state changes result in improved service group failover times.
- Reduction in system resource utilization

Reduced CPU utilization by ApplicationHA agent processes when number of application components being monitored is high. This provides significant performance benefits in terms of system resource utilization.

- Ability to monitor large number of resources
With reduced CPU consumption, IMF enables ApplicationHA to effectively monitor a large number of components.

ApplicationHA Console and Symantec High Availability Console do not support Microsoft Hyper-V

You must not install ApplicationHA Console or Symantec High Availability Console for configuring application monitoring on virtual machines configured on Hyper-V host.

ApplicationHA Console and Symantec High Availability Console do not support Microsoft Hyper-V.

Compatible Hyper-V features

ApplicationHA is compatible with the following features of Hyper-V

- Live Migration
- Hyper-V Replica

The sequence of ApplicationHA recovery actions remain the same if Hyper-V Live Migration or Hyper-V Replica is configured.

Note: If you have configured Hyper-V Live Migration, then you must configure the virtual machine to use static MAC Address.

Support for 64-bit platforms only

With this release, ApplicationHA provides supports for 64-bit platforms only.

Both, the OS and the application installation must be 64-bit.

Supported applications

With this release, ApplicationHA introduces support for the following applications, in Hyper-V environment:

- Custom application
- IIS

- FileShare
- PrintShare
- Exchange Server 2010
- SQL Server 2008
- SQL Server 2012
- SharePoint Server 2010
- Oracle

No longer supported

Support for the following features, terms, components, or operating systems is discontinued in release 6.1:

- Windows Server 2003 and Windows Server 2008
You cannot install ApplicationHA and configure application monitoring on systems running Windows Server 2003 and Windows Server 2008.
- SQL Server 2005
- Exchange 2007
- Embedded evaluation license keys
- 32-bit architecture (OS and application installations)
- Veritas Operations Manager 5.0 or earlier
- Veritas Operations Manager Add-on for ApplicationHA management