Symantec Storage Foundation™ and High Availability Solutions - What's new in this release

Windows

6.1

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Storage Foundation and High Availability Solutions - What's New in this Release

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- Router, gateway, and IP address information
- Problem description:
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What's new in this release

This document includes the following topics:

Introduction

This document describes the new features, enhancements, and changes introduced in the following products:

- Symantec Storage Foundation for Windows (SFW) 6.1
- Symantec Storage Foundation and High Availability Solutions for Windows (SFW HA) 6.1
- Symantec Cluster Server for Windows (VCS) 6.1
- Symantec Dynamic Multi-Pathing for Windows (DMPW) 6.1

For the complete release details of these products, refer to the product-specific Release Notes.

New features and changes in this release

This section describes the new features and changes introduced in this release.

Changes to product names

Beginning with the 6.1 release, Storage Foundation and High Availability Solutions product names have been changed.

Table 1-1 lists the new Storage Foundation and High Availability Solutions product names.

Table 1-1 New Storage Foundation and High Availability Solutions product names

Old product name	New product name
Veritas Cluster Server for Windows	Symantec Cluster Server for Windows
Veritas Dynamic Multi-Pathing for Windows	Symantec Dynamic Multi-Pathing for Windows
Veritas High Availability Agent Pack	Symantec High Availability Agent Pack
Veritas Storage Foundation for Windows	Symantec Storage Foundation for Windows
Veritas Storage Foundation and High Availability Solutions for Windows	Symantec Storage Foundation and High Availability Solutions for Windows
Veritas Volume Replicator	Symantec Storage Foundation Volume Replicator

Symantec rebranding does not apply to the following:

- Product acronyms
- Command names
- Error messages
- Alert messages
- Modules and components
- Feature names
- License key description
- Installation and configuration files and directory names

Support for Windows Server 2012/R2, Hyper-V Server 2012/R2, and Windows 8

The following Windows operating systems are supported with this release:

- **Windows Server 2012 64-bit (Full/Core):** Standard Edition, Datacenter Edition
- **Windows Server 2012 R2 64-bit (Full/Core):** Standard Edition, Datacenter Edition
- **Microsoft Hyper-V Server 2012, 2012 R2**

Note: Microsoft Hyper-V Server 2012 R2 is only supported for SFW, and not for SFW HA or VCS.

- **Windows 8 client support:** Microsoft Windows 8.1 Enterprise (x64, x86), Microsoft Windows 8.1 Professional (x64, x86)

Support for Cluster Volume Manager (CVM)

With this release, Symantec provides support for a new way to do storage management in a clustered environment called Cluster Volume Manager (CVM). With CVM, failover capabilities are now available at a volume-level granularity. Volumes under CVM allow exclusive write access across multiple nodes of a cluster. In a Microsoft Failover Clustering environment, you can now create clustered storage out of shared disks, which allows you to share volume configurations and enable fast failover support at volume-level. Each node recognizes the same logical volume layout and, more importantly, the same state of all volume resources. The same logical view of disk configuration and any changes to this view are available on all the nodes.

Note: Cluster Volume Manager (CVM) is supported only in a Microsoft Hyper-V environment.

CVM is based on a “Master and Slave” architecture pattern. At any given time, one node of the cluster acts as a Master, while the rest of the nodes take the role of a Slave. The Master node is responsible for maintaining the volume management configuration information. Each time a Master node fails, a new Master node is selected from the surviving nodes.

The following are the main features supported in CVM:

- New cluster-shared disk group (CSDG) and cluster-shared volumes
- Volume accessibility from multiple nodes in a cluster
- Failover at a volume level
- Mirroring across arrays
- Storage migration
- Site-aware read policy
- I/O fencing
- Shared Volume support for Microsoft failover cluster
- New GUI elements in VEA related to the new disk group and volume

Note the following limitations related to CVM:

- Active/Passive (A/P) arrays are not supported in CVM.
- Storage migration on volumes that are offline in the cluster is not supported in CVM.

For more information, see Chapter 15 Cluster Volume Manager (CVM) in the *Symantec Storage Foundation Administrator's Guide*.

SmartIO

SmartIO helps in improving I/O performance of applications and Hyper-V virtual machines by providing a read-only/write-through I/O cache created on Solid State Devices (SSDs).

For more information, see the "SmartIO" chapter in the *SFW Administrator's Guide*.

SFW Fast Failover Configuration Utility name change

The SFW Fast Failover Configuration Utility has been renamed as SFW Configuration Wizard for Microsoft Failover Cluster. This name change is reflected in the wizard as well as the Solutions Configuration Center (SCC) where it is listed.

For more information, see the *SFW Administrator's Guide*.

Support for tagged VLAN and teamed network

In tagged VLAN network configurations or a teamed network configuration; there are multiple independent logical network interfaces that are created within a physical network interface or a teamed network interface. Each of these logical network interfaces may have the same MAC address.

During the application service group configuration, the VCS application configuration wizard enables you to select an interface for each VCS cluster and specify the virtual IP address for the virtual server. The application configuration wizard internally retrieves the MAC address of the specified interface and the MAC address of the interface to which the specified IP address is assigned. It then sets these MAC Addresses as the value of the "MACAddress" attribute of the VCS NIC and IP agent respectively.

If the selected interface or the interface to which the specified IP is assigned shares the MAC address with other logical interfaces, then the NIC agent may begin to monitor an interface other than the one selected and the IP agent may monitor an IP address other than the one specified.

As a resolution, instead of *MACAddress* you can now set the value of the "MACAddress" attribute of the VCS NIC and IP agent to *InterfaceName*.

Using VCS Java Console, you can edit the “MACAddress” attribute and specify its value as the interface name instead of the MAC address. You must enter the interface name in double quotes. For example, MACAddress = “*InterfaceName*”

Notes:

- After you specify the interface name as the “MACAddress” attribute value, if you want to use the VCS wizards to modify any settings, then you must first reset the value of the “MACAddress” attribute to the MAC address of the interface. Failing this, the VCS wizard may fail to identify and populate the selected interface. Use the VCS Java Console to edit the attribute values.
- If you change the interface name, you must update the “MACAddress” attribute value to specify the new name. Failing this, the NIC resource will go in an UNKNOWN state.
- While editing the “MACAddress” attribute to specify the interface name, you must specify the name of only one interface.

For more information, refer to VCS Bundled Agents Reference Guide, and respective application configuration guides.

Support for configuring communication between VMwareDisks agent and vCenter Server

By default, the VMwareDisks agent communicates with an ESX/ESXi host to perfom the disk deatch-attach operation. The VMwareDisks agent-ESX/ESXi host communication introduces a limitation to have the ESX host and the virtual machines in the same domain. Additionally, the operations fail if the ESX itself faults.

VCS now provides support to configure the communication between a VMwareDisks agent and a vCenter Server. In this scenario, in event of a failure, the VMwareDisks agent sends the disk detach and attach requests to the vCenter Server (instead of the ESX hosts). The vCenter Server then notifies the ESX host for these operations. Since the communication is directed through the vCenter Server, the agent successfully detaches and attaches the disks even if the ESX host and the virtual machines reside in a different network.

In case if the ESX/ESXi itself faults, the VMareDisks agent from the target virtual machine sends a request to the vCenter Server to detach the disks from the failed virtual machine. However, since the host ESX has faulted, the request to detach the disks fails. The VMwareDisks agent now sends the disk attach request. The vCenter Server processes this request and disks are attached to the target virtual machine. The application availability is thus not affected.

For more information, refer to *Symantec High Availability Solutions Guide for VMware*.

Support for VMware SRM

With this release, Symantec High Availability solution introduces support for VMware SRM Server. You can now configure application monitoring in a VMware SRM environment.

To configure application monitoring in an SRM environment, Symantec High Availability solution provides scripts that are invoked when the SRM recovery plan is executed.

In event of a failure, the following tasks are performed for application monitoring continuity:

- The virtual machines at the protected site are failed over to the recovery site.
- The pre-online script defined in the form of a command in the SRM recovery plan applies the specified attribute values for the application components.
- The status monitoring script retrieves the application status.
- The network agents bring the network components online and the application-specific agents start the application services on the failover target system.

For more information, refer to *Symantec High Availability Solutions Guide for VMware*.

Improved method for encrypting agent passwords

The vcsencrypt utility now provides a way to generate a security key to create more secure passwords for VCS agents.

Security key-based encryption is not enabled by default.

To generate a security key, the "SecInfo" cluster attribute should be added to the main.cf file with the security key as the value of the attribute.

By default, only administrators can generate security keys.

Note: Security key-based encryption can be performed only using CLI. The Service Group configuration wizards do not encrypt agent passwords, using security keys.

For details refer to *Symantec™ Cluster Server Administrator's Guide*

Added support for VMware versions

The following VMware versions are now supported:

- vSphere Client 5.0 Update 1 a/b, 5.1, 5.5

- vCenter Server 5.0 Update 1 a/b, 5.1, and 5.5
- VMware ESXi Server 5.0 Patch 4, 5.1, and 5.5
- VMware SRM Server 5.1, and 5.5

Windows Server 2012 and 2012 R2 support for Console

With this release, Symantec High Availability Console introduces support for Windows Server 2012 and Windows Server 2012 R2.

You can install the Symantec High Availability Console 6.1 on systems running Windows Server 2012 and Windows Server 2012 R2 operating systems.

For more information, see the *Symantec High Availability Console Installation and Upgrade Guide*.

Support for SharePoint Server 2013

This release introduces high availability support for Microsoft SharePoint Server 2013. The existing VCS agent for SharePoint supports both SharePoint Server 2010 and SharePoint Server 2013. The agent manages SharePoint Server Service Applications, Web Applications, and services in a VCS cluster. The agent provides monitoring support in making SharePoint Server 2013 applications highly available in a VCS environment. VCS also provides a new wizard for configuring the SharePoint 2013 service group.

For more information, see the *Symantec Storage Foundation and High Availability Solutions HA and Disaster Recovery Solutions Guide for SharePoint 2013*.

Support for IIS 8.0 and 8.5

This release introduces high availability support for Microsoft Internet Information Services (IIS) 8.0 and 8.5. The existing VCS IIS agent can be used to monitor IIS components and services. There is no new IIS agent.

For more information on configuring IIS, see the *VCS Administrator's Guide*.

For more information on the IIS agent, see the *VCS Bundled Agents Reference Guide*.

Support for NetApp SnapDrive

This release introduces high availability support for NetApp SnapDrive 6.3, 6.4 and 6.5.

The existing VCS agent for NetApp SnapDrive can be used to monitor the components. There is no new agent.

Support for Oracle 12c

This release introduces high availability support for Oracle 12c. The existing VCS Oracle agent can be used to monitor Oracle databases and services. There is no new Oracle agent.

For more information on configuring Oracle, see *Symantec™ Cluster Server Database Agent for Oracle Configuration Guide*.

VBS support for Microsoft Failover Clustering

With this release, the Virtual Business Services (VBS) feature introduces support for Microsoft Failover Clustering. VBS can manage multi-tier applications in which one or more tiers are managed by Microsoft Failover Clustering. You can create a virtual business service with Microsoft Failover Clustering tiers, Symantec Cluster Server, Application HA tiers, or a mix of these different kinds. Only soft dependencies are allowed between Microsoft Failover Clustering tiers and their parent and child tiers. These dependencies specify the start and stop order, but no fault or recovery action is propagated to any parent or child service group of the Microsoft Failover Clustering tier.

For more information, see the *Virtual Business Service-Availability User's Guide*.

Fire Drill Wizard support for multiple snapshot technologies for EMC SRDF

The Fire Drill Wizard now supports configuring fire drills using the following in an EMC SRDF replication environment:

- TimeFinder Clone technology
  When using the clone technology, you can optionally specify the target devices to be used for creating snapshots.
- TimeFinder Snap technology
  When using the Snap technology, you can optionally specify a custom Save Pool Area to be used when creating snapshots. You need to install the required TimeFinder licenses, and use the appropriate additional devices in the RDF2 device group on the secondary site according to technology being used.

For more information, see the *Symantec Cluster Server Agent for EMC SRDF Configuration Guide*.

Limited monitoring support in SCOM 2012

SFW HA has a list of management packs for monitoring SFW HA and applications configured with SFW HA. This monitoring support is limited in Microsoft System

Center Operations Manager (SCOM) 2012 and supports only the Application Management Packs (MPs). SFW HA and SFW installations and configurations are not monitored by SCOM 2012.

The following management packs are supported for SCOM 2012:

- SQL Server 2008 (Symantec.SQLServer.2008.mp)
- SQL Server 2012(Symantec.SQLServer.2012.mp)
- VCS Library Management Pack (Symantec.VCS.Library.MP)

For the latest information on the supported management pack versions, refer to the following technote:

http://www.symantec.com/docs/TECH198395

Change to SQL Server 2008 Agent Configuration Wizard name

The VCS SQL Server 2008 Agent Configuration Wizard is used to configure a VCS service group for SQL Server 2008, 2008 R2, and 2012. With this release, the wizard name is changed to SQL Server Configuration Wizard. The change is only in the wizard name; all the other functionality remains as is.

Change to the SQL Server Configuration Wizard name

The SQL Server Configuration Wizard is used to configure a VCS service group for SQL Server 2005 and a service group for Microsoft Distributed Transaction Coordinator (MSDTC) Server. The name of the SQL Server Configuration Wizard is changed to MSDTC Configuration Wizard. This wizard now provides only the options to configure an MSDTC service group. SQL Server 2005 configuration options are no longer available as support for SQL Server 2005 is dropped in this release.

No longer supported

This section lists the features that are no longer supported from this release.

Not supported features of SFW

For this release, the following SFW features are not supported to work with Windows Server 2012 and 2012 R2 operating systems:

- Storage Pools & Spaces (Disks used by Storage Pool & Spaces would not be available in SFW)
- ODX

- Scale-Out File Server
- Resilient File System (ReFS)
- Bit Locker

Moreover, the following are supported, but with certain limitations:

- Volume information not visible in Microsoft failover cluster GUI for Symantec storage class resources
- Continuous available file share feature with CVM will get configured only through power shell commands or from Explorer

Windows Server 2008 (x64)

SFW, SFW HA, and VCS for Windows Server and Client components are no longer supported on Windows Server 2008 (x64).

Note: Server and Client components are supported on Windows Server 2008 R2 (x64).

Microsoft SharePoint Server 2007 and Microsoft SQL Server 2005

Microsoft SharePoint Server 2007 and Microsoft SQL Server 2005 are no longer supported. The VCS agents for these applications are no longer available.

Wide-area disaster recovery solution for Microsoft Hyper-V clusters

The wide-area disaster recovery solution for Microsoft Hyper-V is no longer supported in this release. The feature along with all the components and agents associated with the solution are deprecated.

The following components are no longer available:

- Disaster Recovery Manager for Microsoft Hyper-V option in the product
- Disaster Recovery Configuration Wizard for Microsoft Hyper-V
- MonitorVMs agent for Disaster Recovery Manager

Agents not supported on Windows Server 2012 or 2012 R2

The following Symantec Cluster Server (VCS) agents are not supported on Windows Server 2012 and Windows Server 2012 R2:

- The agent for PrintShare is not supported on systems that run Windows Server 2012 or Windows Server 2012 R2.

- The agent for MSMQ is not supported on systems that run Windows Server 2012 R2.

Refer to the Software Compatibility List (SCL) for information on supported software at: http://www.symantec.com/docs/TECH209010