# Veritas™ Operations Manager Release Notes

4.0 Release Update 1



# Veritas™ Operations Manager Release Notes

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Product release level

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# Veritas Operations Manager Release Notes

This document includes the following topics:

- What's new in Veritas Operations Manager 4.0RU1?
- Downloading Veritas Operations Manager 4.0RU1
- Installing Veritas Operations Manager Management Server
- Installing Veritas Operations Manager host management
- Upgrading Management Server to Veritas Operations Manager 4.0RU1
- Upgrading host management to Veritas Operations Manager 4.0RU1
- About upgrading the high availability and the disaster recovery configurations to Veritas Operations Manager 4.0RU1
- Upgrading Management Server in high availability environment to Veritas Operations Manager 4.0RU1
- Uninstalling Management Server on UNIX
- Uninstalling Management Server on Windows
- Uninstalling host management on UNIX
- Uninstalling host management on Windows
- Fixed issues
- Software limitations
- Known issues

# What's new in Veritas Operations Manager 4.0RU1?

Veritas Operations Manager 4.0RU1 includes the following new features and enhancements.

- Agentless discovery of hosts See "Agentless discovery of hosts" on page 8.
- Support for Solaris I/O Multipathing (MPxIO) See "Support for Solaris I/O Multipathing (MPxIO)" on page 9.
- Ability to upgrade Windows Management Server in high availability environment
  - See "Ability to upgrade Windows Management Server in high availability environment" on page 9.
- Discovery of VMware HA cluster See "Discovery of VMware HA cluster" on page 9.
- Enhanced capabilities for enclosure management See "Enhanced capabilities for enclosure management" on page 9.
- Ability to monitor the usage of the thin pools See "Ability to monitor the array thin pool usage" on page 9.
- Backup and restore enhancements for Management Server in high availability environment
  - See "Backup enhancements for Windows-based Management Server in high availability environment" on page 10.
- vomsc script support in high availability environments See "vomsc script support in high availability environments" on page 10.

### Agentless discovery of hosts

Agentless discovery is the ability to discover hosts without installing an agent on the host. With agentless discovery, Veritas Operations Manager remotely accesses the host and runs the discovery scripts that collect data from a host.

Agentless discovery requires that your Veritas Operations Manager Management Server, Control Host, and Storage Insight Add-on are running Veritas Operations Manager 4.0RU1.

For detailed information on using agentless host discovery, refer to the *Veritas* Operations Manager Administrator's Guide.

### Support for Solaris I/O Multipathing (MPxIO)

This release update of Veritas Operations Manager provides support for Solaris MPxIO when you install agent on the host.

This new feature allows you to discover:

- The MPxIO meta-nodes, and the various paths under the disks that MPxIO controls
- The correlation of MPxIO meta-nodes with the volume managers, the file systems or the databases.

Note: To be able to discover MPxIO, ensure that the host has the fcinfo utility installed on it.

### Ability to upgrade Windows Management Server in high availability environment

You can upgrade a Veritas Operations Manager 4.0 Windows Management Server that is configured in the high availability (HA) environment to Veritas Operations Manager 4.0RU1 Management Server.

### Discovery of VMware HA cluster

Veritas Operations Manager uses Control Hosts to discover the VMware HA clusters in your datacenter. In the **Clusters** view, you can view the VMware HA clusters that Veritas Operations Manager discovers.

### Ability to monitor the array thin pool usage

The new version of the Storage Insight Add-on lets you monitor the thin pools in your environment. You can set various threshold levels for the subscribed and the consumed sizes to monitor the thin pools. Veritas Operations Manager triggers various types of alerts when these sizes reach the specified threshold levels.

### Enhanced capabilities for enclosure management

Starting from this release of the Storage Insight Add-on, the waterfall chart in the enclosure summary page is thin-aware. It considers only the consumed size of the LUNs. For the LUNs, LDEVs, devices, and the pool volumes, you can now view the subscribed and the consumed sizes. The configured and the consumed raw sizes give you the complete information on the size of the LUN in relation to its RAID overhead. The new version of the add-on supports the discovery of the external LDEVs that are connected to a HITACHI USPV enclosure.

### Backup enhancements for Windows-based Management Server in high availability environment

You can now back up the data for a Windows-based Management Server in high availability environment. However, you cannot restore the data that you backed up. To restore the backed up data, contact Symantec Technical Support.

### vomsc script support in high availability environments

The vomsc script is now supported for Management Servers in high availability environment, both on UNIX and Windows. You can start and stop the services in high availability environments.

# Downloading Veritas Operations Manager 4.0RU1

Veritas Operations Manager is a free license add-on to Veritas Storage Foundation.

You can download Veritas Operations Manager 4.0RU1 packages from the following URL:

http://go.symantec.com/vom

**Note:** You can download any latest patches available for the release from the Symantec Operations Readiness Tools (SORT) Web site at https://sort.symantec.com/patch/matrix.

See "Downloading Management Server files" on page 10.

See "Downloading managed host files" on page 11.

### **Downloading Management Server files**

To install or upgrade Veritas Operations Manager Management Server, you need to download a .zip file. The .zip file contains the file that you can run to install Management Server.

The names of the .zip file and the installer file for each platform are as follows:

- Linux:
  - Download file name -

Veritas Operations Manager Management Server 4.0RU1 Linux.zip

- Installer file name Veritas Operations Manager CMS 4.0RU1 Linux.bin
- Solaris:
  - Download file name -

Veritas Operations Manager Management Server 4.0RU1 SolSparc.zip

■ Installer file name -

Veritas Operations Manager CMS 4.0RU1 SolSparc.bin

- Windows:
  - Download file name -

Veritas Operations Manager Management Server 4.0RU1 Win.zip

■ Installer file name - Veritas Operations Manager CMS 4.0RU1 Win.exe

### Downloading managed host files

To install or upgrade host management, you need to download the Veritas Operations Manager Managed Host Bundle 4.0RU1.zip file that contains the packages for all the supported operating systems for managed hosts. You can unzip the file and install the package on the host.

Note: To upgrade a managed host to version Veritas Operations Manager 4.0RU1, you can choose to use the Deployment Management feature to upgrade the host. For more information on deploying packages, see the Veritas Operations Manager Administrator's Guide.

Table 1-1 provides information on the file that you need to use to install the managed host for each operating system.

Table 1-1 Managed host installation and upgrade files

Operating system	Installer file name (xxxx is the build number for the release)
AIX	VRTSsfmh_4.0.xxxx.0_AIX.bff.Z
HP-UX	■ For HP-UX 11.23 and HP-UX 11.31:  VRTSsfmh_4.0.xxxx.0_HP-UX.tar.gz  ■ For HP-UX 11.11 with Storage Foundation 3.5:  VRTSsfmh_4.0.xxxx.0_HP-UX_osr_B.11.11.tar.gz

Operating system	Installer file name (xxxx is the build number for the release)
Linux on x86 or Xeon	VRTSsfmh_4.0.xxxx.0_Linux.rpm
Linux on PowerPC	VRTSsfmh_4.0.xxxx.0_Linux_arch_ppc64.rpm
Solaris on SPARC	VRTSsfmh_4.0.xxxx.0_SunOS_arch_sparc.pkg
Solaris on x86	VRTSsfmh_4.0.xxxx.0_SunOS_arch_i386.pkg
Windows 32-bit	VRTSsfmh_4.00.xxxx_Windows_arch_x86.msi
Windows 64-bit	VRTSsfmh_4.00.xxxx_Windows_arch_x64.msi
Windows IA64	VRTSsfmh_4.00.xxxx_Windows_arch_IA64.msi

Table 1-1 Managed host installation and upgrade files (continued)

# **Installing Veritas Operations Manager Management** Server

You can install Management Server on any one of the following hosts:

- A Linux host
- A Solaris host
- A Windows host

After you install Management Server, you have to configure Veritas Operations Manager before you can use it.

For information on system requirements, see the Veritas Operations Manager 4.0 Release Notes.

See "Installing Management Server on UNIX" on page 13.

See "Installing Management Server on Windows" on page 14.

### **Installing Management Server on UNIX**

You can install the Veritas Operations Manager Management Server on a Linux host or a Solaris host using a .bin file. The .bin file installs the VRTSsfmcs and the VRTSsfmh packages on the target host.

**Note:** On a Solaris host, you can install Management Server on both global and non-global zones.

### To install Veritas Operations Manager Management Server on UNIX

- Make sure that the host where you plan to install Management Server meets or exceeds system and operating system requirements.
  - For information on system requirements, see the Veritas Operations Manager 4.0 Release Notes.
- Download and unzip the installation file.
  - See "Downloading Veritas Operations Manager 4.0RU1" on page 10.
- 3 Open an operating system console.
- 4 On the host where you plan to install Management Server, log on as root.
- 5 Change directory to the location where you unzipped the .bin file.
- At the command prompt, enter one of the following:
  - On a Linux host:
    - ./Veritas\_Operations\_Manager\_CMS\_4.0RU1\_Linux.bin
  - On a Solaris host:
    - ./Veritas Operations Manager CMS 4.0RU1 SolSparc.bin

If you see the error Permission Denied, change the permissions for the .bin file so that it can be run. Enter one of the following:

On a Linux host:

```
chmod +x Veritas Operations Manager CMS 4.0RU1 Linux.bin
```

■ On a Solaris host:

```
chmod +x Veritas Operations Manager CMS 4.0RU1 SolSparc.bin
```

To accept the End User License Agreement and proceed with installation,

The installation is complete when you see messages similar to the following:

Installation is complete. You will need to configure Veritas Operations Manager.

Please open your browser and type the following URL to configure: https://myhost.example.com:5634/

- Verify that the packages are installed and the processes are started.
- 9 Configure Veritas Operations Manager.

### **Installing Management Server on Windows**

You can install the Veritas Operations Manager Management Server on a Windows host using the Veritas Operations Manager CMS 4.0RU1 Win.exe file.

#### To install Veritas Operations Manager Management Server on Windows

- Make sure that the host where you plan to install Management Server meets or exceeds system and operating system requirements.
  - For information on system requirements, see the Veritas Operations Manager 4.0 Release Notes.
- 2 On the host where you plan to install Management Server, log on as a user with administrator privileges.
- Download and unzip the installation file.

See "Downloading Veritas Operations Manager 4.0RU1" on page 10.

- To launch the installer, run the Veritas Operations Manager CMS 4.0RU1 Win.exe file.
- To proceed with the Management Server installation, accept the End User License Agreement.
- Click **Install** and follow through the installation process.
- 7 After the installation is complete, click **Finish**. The Web browser is launched to configure Veritas Operations Manager.
- Configure Veritas Operations Manager. 8
- Verify that Management Server is installed and the required services are started.

# Installing Veritas Operations Manager host management

Three varieties of managed hosts are supported in Veritas Operations Manager: a Storage Foundation 5.x managed host, a Storage Foundation 4.x managed host, or a Storage Foundation 3.5 managed host on HP-UX.

You must install the VRTSsfmh package on the host so you can manage it using Veritas Operations Manager Management Server. After you install the VRTSsfmh package on the host, you need to add the host to the Management Server domain. You can add the host using the Veritas Operations Manager console, or the gendeploy.pl script.

For more information on adding hosts to a Management Server domain, see the Veritas Operations Manager Administrator's Guide.

For information on system requirements, see the Veritas Operations Manager 4.0 Release Notes.

See "Installing host management on UNIX" on page 15.

See "Installing host management on Windows" on page 16.

### Installing host management on UNIX

You can install Veritas Operations Manager host management on a UNIX host by installing the VRTSsfmh package on it.

Note: By default, the VRTSsfmh package is installed in the /opt directory. You cannot specify a different location to install the package.

#### To install Veritas Operations Manager host management on a UNIX host

- Make sure that the host where you plan to install host management meets or exceeds system and operating system requirements.
  - For information on system requirements, see the Veritas Operations Manager 4.0 Release Notes.
- Download the managed host installation files bundle, and unzip it. See "Downloading Veritas Operations Manager 4.0RU1" on page 10.
- Open an operating system console.
- On the host where you plan to install host management, log on as root.

- Change directory to the location where you unzipped the installation files bundle.
  - If the host is an AIX host, or an HP-UX host, decompress the downloaded file. See "Downloading managed host files" on page 11.
- At the command prompt, enter one of the following commands to install the package:
  - For AIX, enter the following: installp -ac -d VRTSsfmh\_4.0.xxxx.0\_AIX.bff VRTSsfmh where. **xxxx** is the build number for the release.
  - For HP-UX, enter the following: swinstall -s \$PWD VRTSsfmh
  - For Linux on x86 or Xeon, enter the following: rpm -ivh VRTSsfmh 4.0.xxxx.0 Linux.rpm where, **xxxx** is the build number for the release.
  - For Linux on PowerPC, enter the following: rpm -ivh VRTSsfmh 4.0.xxxx.0 Linux arch ppc64.rpm where. **xxxx** is the build number for the release.
  - For Solaris on SPARC, enter the following: pkgadd -d VRTSsfmh 4.0.xxxx.0 SunOS arch sparc.pkg where. **xxxx** is the build number for the release.
  - For Solaris on x86, enter the following: pkgadd -d VRTSsfmh 4.0.xxxx.0 SunOS arch i386.pkg where. **xxxx** is the build number for the release.
- Verify that the VRTSsfmh package is installed and the required processes have started.

### Installing host management on Windows

You can install Veritas Operations Manager host management on a Windows host by running a .msi file on it.

#### To install Veritas Operations Manager host management on a Windows host

- Log on to the target host as a user with administrator privileges.
- Make sure that the host where you plan to install host management meets or exceeds system and operating system requirements.
  - For information on system requirements, see the Veritas Operations Manager 4.0 Release Notes.
- Download the managed host installation files bundle, and unzip it. See "Downloading Veritas Operations Manager 4.0RU1" on page 10.
- From the directory to which you unzipped the installation files bundle, do one of the following:
  - On a 32-bit host, run VRTSsfmh 4.00.xxxx Windows arch x86.msi
  - On a 64-bit host, run VRTSsfmh 4.00.xxxx Windows arch x64.msi
  - On a IA64 host, run VRTSsfmh 4.00.xxxx Windows arch IA64.msi

where, xxxx is the build number for the release.

See "Downloading managed host files" on page 11.

- 5 On the Welcome screen of the InstallShield Wizard, click **Next**.
- On the Ready to Install the Program screen, click **Install** to start the installation.
- Click **Finish** to exit the InstallShield Wizard.
- 8 Verify that the host management program is installed and the required service has started.

# Upgrading Management Server to Veritas Operations Manager 4.0RU1

To upgrade your existing Management Server installation to Veritas Operations Manager 4.0RU1, you have to download and install the required packages. You can upgrade to Veritas Operations Manager 4.0RU1 from version 3.x, and from version 4.0.

**Note:** To upgrade to Veritas Operations Manager 4.0RU1 from version 2.x, you need to upgrade first to version 3.x. Then, you can upgrade to version 4.0RU1.

You can upgrade Management Server on Linux, Solaris, and Windows hosts.

See "Downloading Veritas Operations Manager 4.0RU1" on page 10.

See "Upgrading Management Server on UNIX" on page 18.

See "Upgrading Management Server on Windows" on page 19.

## **Upgrading Management Server on UNIX**

You can upgrade an existing Management Server on a Linux host or a Solaris host to Veritas Operations Manager 4.0RU1 using a .bin file. When you run the .bin file, the installer first attempts to upgrade the Veritas Operations Manager database to a temporary location. If the database upgrade is successful, the remaining steps in the upgrade process are carried out. If the database upgrade fails, the previous version of Veritas Operations Manager is restored.

#### To upgrade Management Server to Veritas Operations Manager 4.0RU1 on UNIX

- Make sure that the host where you plan to upgrade Management Server meets or exceeds system and operating system requirements.
- Download and unzip the installation file. See "Downloading Veritas Operations Manager 4.0RU1" on page 10.
- Open an operating system console.
- 4 On the host where you plan to upgrade Management Server, log on as root.
- 5 Change directory to the location where you unzipped the .bin file.
- At the command prompt, enter one of the following:
  - On a Linux host:
    - ./Veritas Operations Manager CMS 4.0RU1 Linux.bin
  - On a Solaris host:
    - ./Veritas Operations Manager CMS 4.0RU1 SolSparc.bin

If you see the error Permission Denied, change the permissions for the .bin file so that it can be run. Enter one of the following:

- On a Linux host: chmod +x Veritas Operations Manager CMS 4.0RU1 Linux.bin
- On a Solaris host: chmod +x Veritas Operations Manager CMS 4.0RU1 SolSparc.bin

Type v to confirm that you want to upgrade the previous version of

The upgrade is complete when you see messages similar to the following:

Veritas Operations Manager is upgraded successfully.

- To verify the upgrade, enter one of the following:
  - On a Linux host:

Management Server.

```
rpm -q VRTSsfmcs
```

■ On a Solaris host: pkginfo -1 VRTSsfmcs

Verify that the version for the VRTSsfmcs package is displayed as 4.0RU1.

## **Upgrading Management Server on Windows**

You can upgrade an existing Management Server on a Windows host to Veritas Operations Manager 4.0RU1 using the

Veritas Operations Manager CMS 4.0RU1 Win.exe file. When you run the .exe file, the installer first attempts to upgrade the Veritas Operations Manager database to a temporary location. If the database upgrade is successful, the remaining steps in the upgrade process are carried out. If the database upgrade fails, the previous version of Veritas Operations Manager is restored.

#### To upgrade Management Server to Veritas Operations Manager 4.0RU1 on Windows

- Make sure that the host where you plan to upgrade Management Server meets or exceeds system and operating system requirements.
- On the host where you plan to upgrade Management Server, log on as a user with administrator privileges.
- Download and unzip the installation file.

See "Downloading Veritas Operations Manager 4.0RU1" on page 10.

- To launch the installer, run the Veritas Operations Manager CMS 4.0RU1 Win.exe file.
- In the message window that recommends that you back up data before the upgrade, do one of the following:
  - Click **Yes** to continue with the upgrade.
  - Click **No** to stop the upgrade. You can choose this option to stop the upgrade and back up data for the previous version of Veritas Operations Manager.

- To upgrade Management Server, click **Upgrade**.
  - After the upgrade is complete, you will see the message **Upgrade Completed** Successfully.
- Click **Finish** to close the installer.
- To verify the upgrade, open the **Add or Remove Programs** panel.
- To verify that the version has changed to 4.0RU1, click the support information link under the Veritas Operations Manager for Windows program in the currently installed programs list.

# Upgrading host management to Veritas Operations Manager 4.0RU1

You can upgrade managed hosts in your Management Server domain to Veritas Operations Manager 4.0RU1 to make them compatible with the 4.0RU1 Management Server. You can upgrade both the UNIX-based and the Windows-based managed hosts. You can upgrade to Veritas Operations Manager 4.0RU1 from the following:

- SF Manager 2.x managed host
- Veritas Operations Manager 3.x managed host
- Veritas Operations Manager 4.0 managed host

**Note:** You must upgrade Management Server to 4.0RU1 before you upgrade the managed hosts in its domain to 4.0RU1.

You can do one of the following tasks to upgrade a managed host to Veritas Operations Manager 4.0RU1:

- Upgrade the managed host using the **Settings** > **Deployment Management** tab in the Veritas Operations Manager console.
  - See "Upgrading managed hosts using Veritas Operations Manager console" on page 21.
  - For more information on deploying packages, see the Veritas Operations Manager Administrator's Guide.
- Upgrade the managed host using operating system commands. See "Upgrading host management on UNIX using operating system commands" on page 21.
  - See "Upgrading host management on Windows using operating system commands" on page 23.

### Upgrading managed hosts using Veritas Operations Manager console

You can upgrade multiple managed hosts using the Veritas Operations Manager console. This method is an efficient method to upgrade the VRTSsfmh package remotely on the managed hosts, instead of upgrading it individually. To upgrade the managed hosts, ensure that the VRTSsfmh package is uploaded to the repository. You need not remove any hot fix that is installed on the host for the VRTSsfmh package before the upgrade.

### To upgrade managed hosts using the Veritas Operations Manager console

- In the Veritas Operations Manager console, click **Settings > Deployment** Management.
- In the **Deployment Management** view, do one of the following:
  - Select the VRTSsfmh package, and click Install.
  - Right-click on the VRTSsfmh package. From the submenu, select Install.
- In the **Install Solution** panel, click **Hosts** option, and select the desired managed hosts. To upgrade all the managed hosts that use a specific platform, use the **Platforms** option.
- Click Install.
- 5 Verify the managed host version in the console.

### Upgrading host management on UNIX using operating system commands

You can upgrade an existing managed host on UNIX to Veritas Operations Manager 4.0RU1 by upgrading the VRTSsfmh package on it.

#### To upgrade managed host to Veritas Operations Manager 4.0RU1 on UNIX

- Make sure that the host where you plan to upgrade host management meets or exceeds system and operating system requirements.
- 2 Download the managed host installation files bundle, and unzip it. See "Downloading Veritas Operations Manager 4.0RU1" on page 10.
- 3 Open an operating system console.
- 4 On the host where you plan to upgrade host management, log on as root.
- 5 Change directory to the location where you unzipped the installation files bundle.
  - If the host is an AIX or an HP-UX host, decompress the downloaded file. See "Downloading managed host files" on page 11.

#### Upgrading host management to Veritas Operations Manager 4.0RU1

- At the command prompt, enter one of the following commands to upgrade the package:
  - For AIX, enter the following: installp -ad VRTSsfmh 4.0.xxxx.0 AIX.bff VRTSsfmh where. **xxxx** is the build number for the release.
  - For HP-UX, enter the following: swinstall -s \$PWD VRTSsfmh
  - For Linux on x86 or Xeon, enter the following: rpm -U VRTSsfmh 4.0.xxxx.0 Linux.rpm where. **xxxx** is the build number for the release.
  - For Linux on PowerPC, enter the following: rpm -U VRTSsfmh\_4.0.xxxx.0\_Linux\_arch\_ppc64.rpm where. **xxxx** is the build number for the release.
  - For Solaris on SPARC, enter the following: pkgadd -d VRTSsfmh 4.0.xxxx.0 SunOS arch sparc.pkg -a /opt/VRTSsfmh/etc/VRTSsfmhadmin VRTSsfmh where, xxxx is the build number for the release.
  - For Solaris on x86, enter the following: pkgadd -d VRTSsfmh 4.0.xxxx.0 SunOS arch i386.pkg -a /opt/VRTSsfmh/etc/VRTSsfmhadmin VRTSsfmh where. xxxx is the build number for the release.
- To verify that the package has been upgraded and the version has changed to 4.0RU1, enter one of the following at the command prompt:
  - On AIX, enter the following: lslpp -1 VRTSsfmh
  - On HP-UX, enter the following: swlist VRTSsfmh
  - On Linux, enter the following: rpm -q VRTSsfmh
  - On Solaris, enter the following: pkginfo -1 VRTSsfmh

### Upgrading host management on Windows using operating system commands

You can upgrade an existing managed host on Windows to Veritas Operations Manager 4.0RU1 by upgrading the .msi package on it.

#### To upgrade managed host to Veritas Operations Manager 4.0RU1 on Windows

- Log on to the target host as a user with administrator privileges.
- 2 Download the managed host installation files bundle, and unzip it. See "Downloading Veritas Operations Manager 4.0RU1" on page 10.
- From the directory to which you unzipped the installation files bundle, do one of the following:
  - On a 32-bit host, run VRTSsfmh 4.00.xxxx Windows arch x86.msi
  - On a 64-bit host, run VRTSsfmh 4.00.xxxx Windows arch x64.msi
  - On a IA64 host, run VRTSsfmh 4.00.xxxx Windows arch IA64.msi where, xxxx is the build number for the release.

See "Downloading managed host files" on page 11.

- On the Welcome screen of the InstallShield Wizard, click Next.
- 5 On the Ready to Install the Program screen, click **Install** to start the upgrade.
- 6 Click **Finish** to exit the InstallShield Wizard.
- 7 To verify the upgrade, open the **Add or Remove Programs** panel.
- To verify that the version has changed to 4.0RU1, click the support information link under the Veritas Operations Manager for Windows (Host **Component)** program in the currently installed programs list.

# About upgrading the high availability and the disaster recovery configurations to Veritas Operations Manager 4.0RU1

You can upgrade Veritas Operations Manager 3.x, or 4.0, UNIX-based Management Server that is configured in the high availability (HA) or in the disaster recovery (HA-DR) environment to version 4.0RU1. You can also upgrade Veritas Operations Manager 4.0 Windows-based Management Server that is configured in the high availability (HA) environment to version 4.0RU1. To upgrade, you can download and use the installer for Management Server.

See "Downloading Veritas Operations Manager 4.0RU1" on page 10.

After the upgrade, you can use the HA or the HA-DR environments on the upgraded Veritas Operations Manager 4.0RU1 Management Server.

Note: In the HA configuration for the Windows environment, it is mandatory to use VCS private NT domain to log in to Veritas Operations Manager.

See "Upgrading Management Server in high availability environment to Veritas Operations Manager 4.0RU1" on page 24.

# **Upgrading Management Server in high availability** environment to Veritas Operations Manager 4.0RU1

Before you upgrade Veritas Operations Manager in the high availability environment, keep in mind the following:

- The SFM Services, the SFM SStore, and the SFM Xprtld service groups should be online on one of the nodes of Veritas Operations Manager in the high availability environment, which is the active node.
- Symantec recommends that you take a backup of the Management Server data. For more information on backing up data, see the Veritas Operations Manager 4.0 Installation Guide.

**Note:** You must upgrade the active node before you upgrade the slave nodes.

#### To upgrade Management Server in high availability environment to 4.0RU1

Follow the steps to upgrade Management Server on the active node, and then, on the slave nodes.

See "Upgrading Management Server to Veritas Operations Manager 4.0RU1" on page 17.

After the upgrade on the active node, the SFM Services service group, and the SFM SStore service group, are in a frozen state.

- To unfreeze the service groups on the active node, run the following command:
  - On a UNIX host: /opt/VRTSsfmcs/config/vcs/sfmha start
  - On a Windows host:

"C:\Program Files\Veritas\VRTSsfmh\bin\perl.exe" "C:\Program Files\Veritas\VRTSsfmcs\config\vcs\sfmha" start

You must upgrade all the slave nodes before you unfreeze the service groups on the active node to prevent issues during failover.

In the console, verify that the SFM Services, the SFM SStore, and the SFM Xprtld service groups are online on the active node.

See "About upgrading the high availability and the disaster recovery configurations to Veritas Operations Manager 4.0RU1" on page 23.

# Uninstalling Management Server on UNIX

You can uninstall Veritas Operations Manager Management Server by removing the VRTSsfmcs and VRTSsfmh packages from the Management Server host. When you uninstall Management Server, all data on managed hosts is also removed. If you reinstall Management Server on the host, you have to add the hosts again to the Management Server domain.

Note: You must remove the VRTSsfmcs package before you remove the VRTSsfmh package.

#### To uninstall Veritas Operations Manager Management Server on UNIX

- Open an operating system console.
- On the Management Server host, log on as root.
- Remove the VRTSsfmcs package. Enter one of the following:
  - On a Linux host: rpm -e VRTSsfmcs
  - On a Solaris host: pkgrm VRTSsfmcs
- Remove the VRTSsfmh package. Enter one of the following:
  - On a Linux host: rpm -e VRTSsfmh
  - On a Solaris host: pkgrm VRTSsfmh

# **Uninstalling Management Server on Windows**

You can uninstall Veritas Operations Manager Management Server from a Windows host. When you uninstall Management Server, all data on managed hosts is also removed. If you reinstall Management Server on the host, you have to add the hosts again to the Management Server domain.

#### To uninstall Veritas Operations Manager Management Server on Windows

- 1 Log on to the target host as a user with administrator privileges.
- 2 On the Windows Control Panel, click **Add or Remove Programs**.
- 3 From the list of installed programs, select Veritas Operations Manager for Windows.
- 4 Click Remove.
- In the dialog box, do one of the following:
  - To confirm that you want to uninstall Management Server, click **Yes**.
  - To exit without uninstalling Management Server, click **No** and skip step 6.
- On the message window that indicates that the uninstall was successful, click OK.

# Uninstalling host management on UNIX

You can use an operating system command to remove the VRTSsfmh package from a UNIX managed host. When you remove the package, Veritas Operations Manager host management is uninstalled from the managed host.

**Note:** Before you uninstall the host, remove it from the Management Server domain.

#### To uninstall Veritas Operations Manager host management on UNIX

- Open an operating system console.
- 2 On the managed host where you plan to uninstall host management, log on as root.
- At the command prompt, enter one of the following commands to uninstall the package:
  - On AIX, enter the following: installp -u VRTSsfmh
  - On HP-UX, enter the following: swremove VRTSsfmh
  - On Linux, enter the following: rpm -e VRTSsfmh
  - On Solaris, enter the following:

pkgrm VRTSsfmh

# **Uninstalling host management on Windows**

You can uninstall Veritas Operations Manager host management on a Windows managed host.

Note: Before you uninstall the host, remove it from the Management Server domain.

#### To uninstall Veritas Operations Manager host management on Windows

- Log on to the target host as a user with administrator privileges.
- On the Windows Control Panel, click **Add or Remove Programs**.
- 3 From the list of installed programs, select Veritas Operations Manager (Host Component).
- Click Remove.
- In the dialog box, do one of the following:
  - To confirm that you want to uninstall host management, click **Yes**.
  - To exit without uninstalling host management, click **No**.

### Fixed issues

Table 1-2 lists the issues that have been fixed in release update 4.0RU1.

Table 1-2 List of fixed issues

Incident	Description
2328460	Native and Database discovery fails on Linux hosts that do not have Storage Foundation installed.
2330664	The LDAP authentication request from the Veritas Operations Manager console through a load balancer to one of five LDAP servers times out returning referrals from AD, when the parent scope is selected.
2341746	Incorrect mirror is reported on the same enclosure.
2345887	Information on the disks and the LUNs for a Windows host on which Storage Foundation for Windows is newly installed is not displayed on the console.

List of fixed issues (continued) Table 1-2

Incident	Description
2348139	When two or more volumes of the same name exist, the Create Filesystem wizard of the Storage Foundation Administration for UNIX Add-on does not prompt for the disk group .
2349105	In the Storage Foundation Administration for Windows Add-on, the <b>Back</b> button should be removed from the Change drive letter and path panel of the Create Volume wizard.
2350449	The /etc/vx/dcli/sfm/conf/dcli_conf.ini file is empty when the /var file system is full, and vxdclid is started.
2350484	Missing file system information results in zero sizes that are reported for selected file systems.
2355496	VRTSdcli incorrectly creates a legacy startup script for xprtld.
2358555	When you create a storage template using Veritas Storage Foundation Add-on for Storage Provisioning version 4.0, the file system label under the <b>Parameters</b> tab of the selected file system is not accepted.
2361491	The Veritas Operations Manager "offline patch information download" script is incomplete.
2370636	In the VVR Bandwidth report, the Transmitted column is sorted by string, instead of KB/MB/GB.
2383810	The version for Storage Foundation 5.0.1 RP3 is not displayed correctly for HP-UX hosts.
2385312	In the Storage Foundation Administration for Windows Add-on, when a user runs the Create disk group wizard and clicks the <b>Back</b> and <b>Next</b> buttons of the wizard, the information that the user has entered is lost.
2385320	In the Storage Foundation Administration for Windows Add-on, the Create Volume Wizard > Volume Attributes panel shows the volume size in MB, even when the volume size is specified in GB.
2385334	In the Storage Foundation Administration for Windows Add-on, in the Create Volume Wizard > Volume Attribute panel, the volume size changes every time the user clicks the <b>Next</b> and the <b>Back</b> buttons.
2385952	Adding a host to the Veritas Operations Manager domain fails if the time zone of Management Server has more than 32 characters.

List of fixed issues (continued) Table 1-2

	·
Incident	Description
2389881	In the Storage Foundation Administration for Windows Add-on, in the Create Volume wizard, if a mirror is not selected, the <b>Total mirrors</b> and the <b>Mirror Across</b> options should remain disabled for <b>Concatenated</b> and <b>Striped</b> volumes.
2398479	Unable to initialize a disk, no <b>Next</b> button in pop-up window in Storage Foundation Administration for UNIX Add-on.
2394483	The backup script fails with an "out of memory" error before or after Management Server upgrade to version 4.0.
2401823	The usage subroutine in /opt/VRTSsfmh/bin/mh_ctl.pl is duplicated.
2403174	Veritas Operations Manager agent spawns hundreds of mh_driver processes which cause swap to fill up, and, sometimes, the servers run out of open file handles.
2410402	When a proxy server that does not require a user name or a password is used, the patch does not get downloaded from SORT.
2415785	Oracle discovery fails as the logic to get the owner is incorrect.
2416053	The Volume Migration wizard does not show the version of the Storage Foundation and High Availability product that is installed on the hosts.
2428990	Notification emails are received without the body text in the message.
2438450	Installation of VRTSsfmh 3.1.429.0 causes DB2 errors.
2441590	Stale faults are seen for an ESX server even after VirtualCenter is removed and added back.
2445145	The File Systems view does not show the file systems that are mounted on directories on mounted drives on Windows.
2479627	The passive node which has the SQL instance as offline, reports as online, and asks for password.

# **Software limitations**

This section covers the software limitations of this release.

### Agent discovery of a VMware guest (2495586)

If you install an agent after changing the MAC ID of a VMware guest that is currently being discovered using agentless discovery, you need to manually unconfigure agentless discovery.

Agent configuration of a host that had previously been configured using agentless discovery, should unconfigure agentless discovery on the host. However, changing the MAC ID of the VMware guest does not unconfigure agentless discovery, as changing the MAC ID changes the ID used to identify the host in the Veritas Operations Manager database. As a result, duplicate entries for the host (agent and agentless) are displayed. On the next scheduled discovery or manual refresh of the agentless host, the host will display as faulted. You must manually unconfigure agentless discovery of the host to remove any duplicate entries.

If you do not change the MAC ID of the VMware guest after configuring it using agentless discovery, you do not need to manually unconfigure the host; you can configure the host using an agent.

## Limitations related to the correlation between the disks and the disk groups

The following limitations exist in Veritas Operations Manager, which are related to the correlation between the disks and the disk groups:

- You cannot view the disk information in the file system details view, or in the disk group details view, when one partition of a disk contains a file system that is mounted on it, and the other partition belongs to a disk group.
- You cannot view the disk information in the details view of one of the disk groups, when two partitions of a disk belong to two disk groups.

# Known issues

The following issues exist in 4.0RU1.

### Management Server issues

The following issues relate to Veritas Operations Manager Management Server.

### VMware virtual machine storage mapping information is not populated if the virtual machine name contains a single quote (2510591)

This issue is applicable to VMware virtual machines discovery in Veritas Operations Manager. For any virtual machine that contains a single quote in its name, the virtual machine disk (VMDK) information is not Listed in the Storage **Mapping** tab on the overview page of virtualization servers.

There is no workaround for this issue.

## Managed host issues

The following issues relate to host management.

### Thin LUNs on the hosts that run Storage Foundation for Windows 5.1 SP1 are not discovered as thin (2513466)

In Veritas Operations Manager, the thin LUNs on the hosts that run Storage Foundation for Windows version 5.1 SP1 are not discovered as thin.

Workaround:

Download the hot fix for Storage Foundation for Windows version 5.1 SP1 from the following location, and run it on the host:

https://sort.symantec.com/patch/detail/4697

After the successful installation, restart the host.

### Agentless discovery known issues

The following issues relate to the agentless discovery of hosts.

### Refresh of Windows agentless host from Windows Control Host displays error (2497125)

If you refresh a Windows agentless host from a Windows Control Host, the Veritas Operations Manager console displays the "Refresh did not complete successfully for host" error message if the operation takes more than five minutes to complete. The Veritas Operations Manager console displays the error message even though the refresh operation completes successfully.

### Refresh of agentless host works even when Control Host is disabled (2415708)

If you disable the Control Host Add-On for a given Control Host, performing the refresh operation from the Veritas Operations Manager console successfully completes for agentless hosts that are discovered from the disabled Control host. The refresh operation completes instead of displaying the "Control Host is disabled" error message.

### Agentless configuration of hosts using IPv6 addresses fails (2414252)

Configuration of agentless hosts using IPv6 addresses does not work. You must specify the host name or IPv4 address of the host that you want to configure using agentless discovery.

### Layout of AIX LVM volumes are displayed incorrectly (2479822)

The layout of LVM volumes on AIX hosts that are discovered using agentless discovery are displayed as ifs or ifs2 instead of the actual layouts, which can be simple, mirrored, or striped.

### Agentless configuration of a Windows host on the console fails after five minutes (2495820)

When configuring a Windows hosts using agentless discovery, if the discovery takes more than five minutes to complete, the Veritas Operations Manager host configuration wizard times out and reports errors. If the discovery hangs due to WMI services hanging on the remote hosts (being configured), then the status of the hosts remains as "Probe Pending" in the console, as this discovery does not timeout in the backend.

### Mount points are not discovered properly on Windows agentless hosts with volumes mounted multiple times (2490221)

For Windows hosts being discovered using agentless discovery, if any volumes are mounted on more than one drive letter or folder (or both), then the corresponding mount points are discovered incorrectly in Veritas Operations Manager. Veritas Operations Manager displays only one of the mount points.

### Dynamic disk groups are displayed when there are no dynamic disks (2487229)

For Windows hosts discovered using agentless discovery, Veritas Operations Manager displays a dynamic disk group named hostname-Dg0 even when the host has no dynamic disks. The disk group is displayed as containing 0 disks and 0 volumes.

### Disk state displayed incorrectly for Windows agentless hosts (2487010)

The disk state value is displayed incorrectly for Windows hosts that are configured using agentless discovery in the Veritas Operations Manager console. The disk state value is visible in the Disks table in the **Disks** tab for a given host.

### Removal of agentless host while refresh is in progress results in bad configuration (2480954)

Removal of an agentless host while the refresh operation is in progress, results in a bad configuration state where the host reappears after the refresh operation is complete, but you cannot subsequently perform refresh operations on it. Also periodic discovery will not occur for these hosts. You must remove the host again from the Veritas Operations Manager console to clean up the configuration.

### Agentless discovery of Windows hosts is not supported in MPIO environments (2416221)

If you configure a Windows host using agentless discovery and the host has Windows MPIO configured, or if the host is running Windows 2008 and has EMC PowerPath configured, then the agentless discovery does not report the correlation of disks managed by MPIO (or EMC PowerPath on Windows 2008) with the HBAs on the host as well as the correlation of such disks with LUNs from storage arrays.

### Configuring Windows agentless host with Storage Foundation or Veritas Operations Manager (Host Component) installed displays incorrect error message (2478766)

Attempting to configure a Windows host using agentless discovery that has Veritas Storage Foundation or Veritas Operations Manager (Host Component) installed fails as expected. However the error message states that the host has both Storage Foundation and Veritas Operations Manager (Host Component) installed even when then host has only one or the other installed.

### CPU count incorrect for Windows agentless hosts (2437565)

If you configure a Windows hosts using agentless discovery, the host's CPU count displayed on the Veritas Operations Manager console does not match the actual CPU count on the host. The figure displayed is the count of cores and not the count of physical CPUs.

### Faults are not reported for agentless hosts when PCS is removed (2430265)

If you specify Privilege Control Software (PCS), such as sudo, pmrun, or pbrun, when configuring UNIX hosts using agentless discovery and then the PCS software is later uninstalled, periodic discovery of these hosts does not report faults. The discovery should report faults for the hosts, as some of the commands run during the discovery should fail without the PCS installed.

### Incorrect error message displayed when configuring agentless UNIX hosts without enough free space (2428471)

If you configure a UNIX host using agentless discovery and the host does not have enough free space in the /var/tmp directory, or if the /var/tmp directory on the host is not writable by the user configured for agentless discovery, then the host configuration fails as expected. However, the error message displayed does not identify the cause. The operation fails with the "Cannot configure the host using SSH" error message.

### Agentless configuration of Windows hosts running non-English locale fails (2484139)

If you configure a Windows host using agentless discovery running a non-English locale, the configuration fails with the "Failed to determine free space on the remote host" error message. You cannot configure Windows hosts running non-English locales using agentless discovery. These hosts must be configured using an agent.

### Configuration fails for agentless host with user name containing DBCS characters (2427619)

If you configure a host using agentless discovery that has a user name containing characters from Double Byte Character Set (DBCS), the configuration fails. This generally occurs with user names for locales other than English.

### UNIX host configuration does not pinpoint the cause of SSH failure (2422442)

When configuration of UNIX hosts using agentless discovery fails, the generic "Failed to configure host using SSH" error message is displayed. The error message does not pinpoint the exact cause, which can be that the SSH daemon on the host is not running, the user name and/or password is incorrect, or there is an SSH misconfiguration on the remote host.

### Timezone and GMT offset information not displayed for agentless hosts (2294669)

The timezone and GMT offset information are not displayed for hosts that are configured using agentless discovery.

### fstab information displayed incorrectly for file systems on Linux agentless host (2418023)

Information about whether file systems are in fstab is displayed incorrectly for Linux hosts configured using agentless discovery.

### Path count displayed incorrectly for disks managed by non-supported or no multipathing software (2397372)

For a UNIX host configured using agentless discovery, the path count for disks is not displayed correctly for disks that have multiple paths to them but are not managed by any multipathing software or are managed by a multipathing software not supported by agentless discovery in Veritas Operations Manager. Such disks will always display the total and active path counts as 1 when correlation with LUNs from storage arrays is available. If agentless discovery cannot get correlation of these disks with array LUNs then each path shows separately for a disk.

### Number of columns incorrectly displayed for striped volumes on UNIX agentless hosts (2405802)

The number of columns of striped LVM volumes are not displayed correctly on AIX, Linux, or HP-UX hosts configured using agentless discovery.

### Skipped agentless hosts for policy created on Business Entities (2409821)

If you create policies in Veritas Operations Manager on Business Entities containing hosts configured using agentless discovery, then the policy checks skip the agentless hosts when executed. This is by design. However, the operation does not provide a clear message indicating that the agentless hosts have been skipped.

### Converting a Windows agentless host to an agent host causes duplicates (2509605)

When converting a Windows host configured using agentless discovery to an agent host, the operation may sometimes cause duplicate entries. Ideally the agent host should replace the agentless host, and the agentless host configuration should be removed. However, with Windows hosts, the Windows ipconfig CLI and WIndows API return network adapters in a different order, creating different host IDs for the same host. This creates duplicate entries for the host when you configure the agent on the host that was previously discovered agentlessly. When this occurs, you must manually remove the agentless configuration for the host from the Veritas Operations Manager console.

### VMware ESX server and virtual machine storage correlation works only when you have a single SCSI controller given from the ESX server to the guest (agent - 2485692, agentless -2486793)

This issue is applicable to agent and agentless discoveries of Windows and UNIX managed hosts. VMware ESX server and virtual machine storage correlation works only when you have a single SCSI controller given from the ESX server to the guest. The guest may have other controllers (for example, iSCSI); however, the presence of other controllers on the guest does not affect the host discovery.

## Storage Insight Add-on issues

The following issues relate to the Storage Insight Add-on.

### NetApp enclosures are not discovered after the Storage Insight Add-on is upgraded to version 4.0 RU1 (2492978)

The NetApp enclosures that are configured using the Storage Insight Add-on version 4.0 are not discovered after the add-on is upgraded to version 4.0 RU1.

Workaround:

Remove the configurations for the NetApp enclosures. Configure the enclosures again using the Storage Insight Add-on version 4.0 RU1.

### Storage Provisioning Add-on issues

The following issues relate to the Storage Provisioning Add-on.

### Status of volume migration of a volume from a volume set is not refreshed on the Provisioning and Migration Status page (2481483)

This issue is observed when you migrate a volume that belongs to a volume set using the volume migration wizard. The migration is not displayed on the **Provisioning and Migration Status** page of the Veritas Operations Manager console. This is applicable to Veritas Storage Foundation Add-on for Storage Provisioning version 4.0 and 4.0 Release Update 1.

There is no workaround for this issue.

### Veritas Operations Manager does not report the size of the internal disk, which is not monitored by Veritas Volume Manager

For Linux agent discovery, the LUN size is displayed as zero for the internal disk on the Veritas Operations Manager console. This is because Veritas Operations Manager currently reports sizes of only those internal disks, which are under Veritas Volume Manager control. It is applicable to UNIX and Linux managed hosts.

There is no workaround for this issue.

### Add-on for Veritas Volume Replicator Bandwidth reporting issues

The following issues relate to the Add-on for Veritas Volume Replicator Bandwidth reporting.

### No support for the upgrade of the Add-on for Veritas Volume Replicator Bandwidth reporting

When you install the Add-on for Veritas Volume Replicator Bandwidth reporting on Management Server that has the previous version of the add-on installed on it, all the previous data that is related to the add-on is lost.

#### Workaround:

You need to uninstall the previous version of the Add-on for Veritas Volume Replicator Bandwidth reporting before you install a newer version.

### The details view of the VVR Bandwidth report generated for a specific period contains incomplete data (2512224)

The details view of the VVR Bandwidth report (viewed by clicking the View Details button in report page) for a specific period contains the data only for the date that you have specified in the **To** field. It does not include the data for the entire range.

There is no workaround for this issue.

### Other issues

This section lists additional issues that cannot be categorized in the rest of the Veritas Operations Manager known issues sections.

### Duplicate entries for the disks that are part of a virtual machine (2481982)

If a virtual machine that runs Storage Foundation has non RDM disks on it and the enclosure-based naming scheme is enabled for the disks, Veritas Operations Manager displays the disks twice on the **Hosts** > **Disks** tab. This issue occurs because the disks are discovered by VxVM and the operating system on the enclosures.

Workaround:

Change the disk naming scheme to c#t#d#.

### Composite business entities do not inherit all user configurations done for the child business entities (2349751)

In Veritas Operations Manager, a composite business entity inherits some of the objects and the corresponding configurations of its child business entities. It does not inherit the following:

- Start and stop order of the service groups that were configured using the Veritas Operations Manager Business Entity Operations Add-on
- Virtual machine auto start and stop settings for the business entity that were configured using the Veritas Operations Manager Business Entity Operations Add-on
- LDom capacity planning settings that were configured using the Veritas Operations Manager LDom Capacity Management Add-on

#### Workaround:

You need to re-configure these settings for the composite business entity.

### Patch information for Veritas Operations Manager 3.1 and later is not available on the SORT Web site (2515192)

In the Symantec Operations Readiness Tools (SORT) Web site, the information on the patches for the packages of Veritas Operations Manager 3.1 and later is not available.

There is no workaround for this issue.