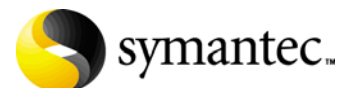


Veritas Storage Foundation™ and High Availability Solutions Management Pack Guide for Microsoft Operations Manager 2005

Windows Server 2003

5.1 Service Pack 2



Veritas Storage Foundation and High Availability Solutions Management Pack Guide for Microsoft Operations Manager 2005

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Introduction

This section includes the following chapters:

- [Chapter 1, “Introducing Veritas Storage Foundation and High Availability Solutions support for MOM 2005”](#) on page 13

Introducing Veritas Storage Foundation and High Availability Solutions support for MOM 2005

- [“About this guide”](#) on page 14
- [“How this guide is organized”](#) on page 14

About this guide

This guide contains information on the following management packs:

- Veritas Storage Foundation for Windows (SFW) Management Pack
- Veritas Cluster Server (VCS) Management Pack

Symantec provides two separate Management Packs for Microsoft Operations Manager (MOM) 2005, one for SFW and the other for VCS. As required, you can choose to use only the SFW MOM pack or both SFW and VCS Management Packs. You will need to deploy two separate .akm files to enable MOM 2005 monitoring for SFW and VCS. The .akm files are part of the product package but you will need to import them separately.

For specific information about MOM 2005, see the MOM 2005 product documentation.

How this guide is organized

This guide explains how to use the SFW and the VCS Management Packs to monitor specific components.

You can read about deployment options of the SFW and VCS Management Pack. You will also learn how the SFW Management Pack monitors the performance using different views and how the VCS Management pack generates reports.

See the following sections for more information:

- [Section 2, “Veritas Storage Foundation for Windows \(SFW\) MOM pack” on page 15](#)
- [Section 3, “Veritas Cluster Server \(VCS\) MOM Pack” on page 83](#)

Veritas Storage Foundation for Windows (SFW) MOM pack

This section contains the following chapters:

- [Chapter 2, “Overview: Veritas Storage Foundations for Windows Management Pack”](#) on page 17
- [Chapter 3, “Deploying the SFW Management Pack”](#) on page 23
- [Chapter 5, “Monitoring and reporting”](#) on page 77
- [Chapter 4, “SFW monitoring rules”](#) on page 29

Overview: Veritas Storage Foundations for Windows Management Pack

- [“About the SFW Management Pack for MOM”](#) on page 18
- [“SFW Management Pack processing rule groups”](#) on page 19
- [“About SFW Management Pack Public View”](#) on page 19

About the SFW Management Pack for MOM

The Veritas Storage Foundation for Windows Microsoft Operations Manager (MOM) 2005 Management Pack monitors events placed in the Windows event logs and selected perfmon counters. With its set of alerts, the SFW Management Pack can help you monitor the events generated by the SFW components such as disks, disk groups, and volumes. The event log displays the following message types: errors, warnings, and informational messages.

The SFW Management Pack alerts are designed to notify you of critical events requiring attention. A public view of the status of Storage Foundation for Windows (SFW) is also provided. This guide also includes the set of rules that indicate the health of SFW components.

This guide is especially intended for the MOM administrator, and provides information about how the SFW Management Pack is used for event monitoring.

Note: The MOM console display for the Management Pack is localized in all languages supported by Veritas Storage Foundation 5.1 for Windows.

SFW Management Pack processing rule groups

This section lists the processing rule groups which are used for monitoring the specific components. Each rule group consists of a set of messages that are used to monitor the specific components.

SFW processing rule groups

The SFW Management Pack supports the following processing rule groups.

Table 2-1 Processing Rule Groups

Rule Group	Description
Disks, Disk Groups, and Volumes	Monitors the operational status of dynamic disks, volumes, and disk groups. Also included is the status of SCSI reservations of cluster and private disk groups. Performance information for dynamic disks and volumes may be enabled.
Dynamic Multi-pathing	Monitors the status of arrays managed by Dynamic Multi-pathing (DMP) Array Support Libraries (ASLs) and DMP Device Specific Modules (DSMs).
FlashSnap	Monitors the FlashSnap operations: Snap Start, Snap Shot, and Snap Back.
Licensing	Monitors when an invalid, duplicate, or expired license situation occurs.
Volume Replicator (VVR)	Monitors the operation of Veritas Volume Replicator RDS, RVG, and RLINK objects. Performance information about VVR memory usage and remote host replication status is also present.
VxCache	Monitors the status of VxCache memory management and I/O operations.

About SFW Management Pack Public View

Public views enable you to view the hardware and software configuration and status data related to the application. The top-level public view for SFW is called Veritas Storage Foundation for Windows. It contains a folder for each of the processing rule groups described in the section “[SFW processing rule groups](#)” on page 19. Each folder contains an alert view and an event view. Depending on the rule and the alert that has been set for an event, an appropriate alert is generated when the event is received on the MOM server.

The following table indicates the alert categories for the Management Packs.

Table 2-2 Alert Categories

Severity Level	Definition
SUCCESS	Successful completion of an operation
INFORMATION	The application raises an informational event
WARNING	Indication of potential future problem, or lower priority issue does not require any immediate action.
ERROR	The application is experiencing transient errors that requires attention, but does not require action immediately and is not an indication of imminent failure.
CRITICAL ERROR	The application is experiencing a serious problem that requires immediate attention. The application requires action to correct an error condition.

In general, the Management Packs have the following default settings for events and alerts.

Table 2-3 Default Settings

Alert	Default Setting
SUCCESS	event rule disabled
INFORMATION	event rule disabled
WARNING	event enabled with alert enabled
ERROR	event enabled with alert enabled
CRITICAL ERROR	event enabled with alert enabled

Note: There are some exceptions to these settings in which lower severity level events are enabled, and for which alerts might also be enabled.

The Management Pack does not include a notification group for automatic alerts by email. If email alerts are required, you must add the alert processing rules manually.

The collection of dynamic disk and volume perfmon counters is disabled by default. Data collection is not limited to a single SFW server, disk, or volume.

In fact, data is collected for all dynamic disks or volumes on all SFW servers managed by the MOM server. If the management domain includes SFW servers with a large number of dynamic disks and volumes, data collection should only be enabled for limited time periods so as not to overpopulate the MOM database.

SFW Management Pack Public Views

The Management Pack provides the following folders under Monitoring views.

Table 2-4 Folders under Monitoring Views

Folders	Description
Alert View for all SFW 4.3 and 5.x Servers	Active alerts for all SFW 4.3x and 5.x SFW servers.
Event View for all SFW 4.3 and 5.x Servers	Events received by Ops Mgr for all SFW 4.3x and 5.x SFW servers.
Performance	Active performance counters for all SFW 4.3x and 5.x servers.
State View for all SFW 4.3 and 5.x Servers	State view for all SFW.4.3x and 5.x servers.
State View for Servers with DMP DSM Option	State view for all SFW servers with installed DMP DSM option.
State View for Servers with MSCS Option	State view for all SFW servers where MSCS is installed.
State View for Servers with Volume Replicator (VVR) Option	State view for all SFW servers with installed VVR option.

Deploying the SFW Management Pack

- [“About deploying the SFW Management Pack”](#) on page 24
- [“Verifying the compatibility considerations”](#) on page 24
- [“Prerequisite”](#) on page 24
- [“Deploying the Management Pack”](#) on page 25
- [“Technical reference”](#) on page 27

About deploying the SFW Management Pack

This guide describes how to deploy and configure the SFW Management Pack into your existing Microsoft Operations Manager (MOM) 2005 environment.

Verifying the compatibility considerations

The SFW Management Pack is compatible with:

- Microsoft Operations Manager 2005 with Service Pack (SP) 1

Note: The MOM console display for the Management Pack is localized in all languages supported by Veritas Storage Foundation 5.1 for Windows.

Supported software and operating systems

This version of the SFW Management Pack is supported on VSFW 4.3 and later versions, on Windows Server 2003.

Prerequisite

Verify that MOM 2005 infrastructure has been set up. For details, see the appropriate MOM documentation.

Deploying the Management Pack

This section provides information about enabling the SFW Management Pack to monitor the events.

Importing the SFW Management Pack

From the MOM 2005 SP1 Administrator Console import the `SFW_MOM2005.akm` to deploy the SFW Management Pack.

Updating the SFW Management Pack

This section provides information about upgrading the SFW MOM 2005 pack when the SFW 4.3 MOM Pack or the SFW 5.0 MOM Pack is already present on your setup.

SFW 4.3 MOM Pack or SFW 5.0 MOM Pack is present and has been modified

If you have the SFW 4.3 MOM Pack or the SFW 5.0 MOM Pack already installed on your setup and if you have modified the Management Pack to include Symantec knowledge base information, then do the following:

- 1 Open the Management Pack Operator Console.
- 2 Right-click the SFW MOM pack public view, *Veritas Storage Foundation by Symantec*, and select **Delete** from the context menu.
- 3 Open the Management Pack Import/Export Wizard.
- 4 Navigate the wizard pages and on the Select Management Packs panel, select **Update existing Management Pack**, and check the **Back up existing Management Pack** checkbox.

SFW 4.3 MOM Pack or SFW 5.0 MOM Pack is present and has not been modified

If you have the SFW 4.3 MOM Pack or the SFW 5.0 MOM Pack already installed on your setup and if you have not modified the Management Pack, then do the following:

- 1 Open the Management Pack Operator Console.
- 2 Right-click the SFW MOM pack public view, *Veritas Storage Foundation by Symantec*, and select **Delete** from the context menu.
- 3 Open the Management Pack Import/Export Wizard.

- 4 Navigate the wizard pages and on the Select Management Packs panel select **Replace existing Management Pack**. In this case you do not need to select the option to backup the existing Management Pack.

Technical reference

Registry

The SFW Management Pack collects the following attributes for computers:

Table 3-1 Registry keys referenced by SFW management pack

Attribute Name	Registry Path
Veritas Storage Foundation for Windows Version Attribute Type: Registry value	SOFTWARE\VERITAS\VxSvc\CurrentVersion\VolumeManager\Version
Veritas Storage Foundation by Symantec Version Attribute Type: Registry value	SOFTWARE\VERITAS\VxSvc\CurrentVersion\VolumeManager\Version
Veritas Storage Foundation by Symantec 64-bit Version Attribute Type: Registry value	SOFTWARE\Wow6432Node\Veritas\VxSvc\CurrentVersion\VolumeManager\Version
Veritas Storage Foundation 5.0 Servers with VVR Option Attribute Type: Registry value	SOFTWARE\VERITAS\VRTSobc\pal33\Agents\StorageAgent\Providers\vvr
Veritas Storage Foundation VVR 5.0 64-bit Servers with VVR Option Attribute Type: Registry value	SOFTWARE\Wow6432Node\Veritas\VRTSobc\pal33\Agents\StorageAgent\Providers\vvr
Veritas Storage Foundation 4.3 Servers with VVR Option Attribute Type: Registry value	Type: Registry value SOFTWARE\VERITAS\VxSvc\CurrentVersion\Providers\vvr

Table 3-1 Registry keys referenced by SFW management pack (Continued)

Attribute Name	Registry Path
Veritas Storage Foundation 4.3 64-bit Servers with VVR Option Attribute Type: Registry value	Type: Registry value SOFTWARE\Wow6432Node\VERITAS\VxSvc\CurrentVersion\Providers\vvr
Veritas Storage Foundation 5.0 Servers with DMP DSM Option Attribute Type: Registry value	Type: Registry value SOFTWARE\VERITAS\VRTSobc\pal33\Agents\StorageAgent\Providers\mpioprov
Veritas Storage Foundation 5.0 64-bit Servers with DMP DSM Option Attribute Type: Registry value	Type: Registry value SOFTWARE\Wow6432Node\Veritas\VRTSobc\pal33\Agents\StorageAgent\Providers\mpioprov
Veritas Storage Foundation Servers with MSCS VMDG Resource Type Attribute Type: Registry value	Type: Registry value Cluster\ResourceTypes\Volume Manager Disk Group

Notification Groups

The Management Pack does not include a notification group.

SFW monitoring rules

- [“About the SFW monitoring rules”](#) on page 30
- [“Disks, Disk Groups, and Volumes monitoring rules”](#) on page 30
- [“Performance processing rules”](#) on page 45
- [“Dynamic Multi-pathing monitoring rules”](#) on page 46
- [“DMP DSM Path performance rules”](#) on page 57
- [“FlashSnap monitoring rules”](#) on page 57
- [“Licensing monitoring rules”](#) on page 59
- [“VxCache monitoring rules”](#) on page 60
- [“Volume Replicator \(VVR\) monitoring rules”](#) on page 62

About the SFW monitoring rules

This chapter lists the monitoring rules for the various SFW modules. The monitoring rules consist of event processing rules and alert processing rules.

Disks, Disk Groups, and Volumes monitoring rules

Disks, Disk Groups, and Volumes (DDGV) rules are located in the Veritas Storage Foundation for Windows folder.

[Table 4-1](#) lists the Disks, Disk Groups, and Volumes rules included in the SFW Management Pack.

Table 4-1 DDGV event rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
700	vmperf	Statistics collection failed.	Error	Yes	No
1	vxboot	Vxboot error.	Error	Yes	Yes
2	vxboot	No mount point. Failed to start volume.	Error	Yes	Yes
3	vxboot	Failed to start volume.	Error	Yes	Yes
4	vxboot	Failed to upgrade selected disks.	Error	Yes	Yes
5	vxboot	Disk group failed. All volumes in the disk group are unavailable.	Error	Yes	Yes
6	vxboot	Failed to auto-import disk group. All volumes in the disk group are unavailable.	Error	Yes	Yes
7	vxboot	Volume started in failed redundancy mode (no mountpoint).	Warning	Yes	Yes
8	vxboot	Volume started in failed redundancy mode.	Warning	Yes	Yes
8	vxboot	VVR objects discovery	Unknown	Yes	No

Table 4-1 DDGV event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
9	vxboot	RAID-5 log is used for fast recovery of volume after system crash.	Information	No	No
10	vxboot	RAID-5 log is used for fast recovery of volume after system crash.	Information	No	No
11	vxboot	DRL is used for fast recovery of volume after system crash.	Information	No	No
12	vxboot	DRL is used for fast recovery of volume after system crash.	Information	No	No
13	vxboot	RAID-5 log failed for volume. Full resynchronization is required.	Information	Yes	No
14	vxboot	RAID-5 log failure. Full resynchronization is required.	Warning	Yes	No
15	vxboot	DRL failed for volume. Full resynchronization is required.	Warning	Yes	Yes
16	vxboot	DRL failure for volume. Full resynchronization is required.	Warning	Yes	No
17	vxboot	Volume was not shut down cleanly. Resynchronization is required.	Warning	Yes	No
18	vxboot	Volume was not resynchronized during previous shutdown. Resynchronization task will be resumed.	Information	Yes	Yes

Table 4-1 DDGV event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
19	vxboot	One or more disks are missing during import of disk group.	Warning	Yes	No
20	vxboot	Volume has duplicate GUID.	Warning	Yes	No
21	vxboot	GUID of volume was changed.	Warning	Yes	No
1	vxio	Device received spurious close request.	Information	No	No
2	vxio	Failed to log DRL volume detach.	Error	Yes	Yes
3	vxio	DRL volume is detached.	Information	No	No
4	vxio	Error on volume.	Error	Yes	Yes
5	vxio	Object detached from volume.	Information	No	No
6	vxio	Overlapping mirror detached from volume.	Information	No	No
7	vxio	Kernel log full, object detached.	Information	No	No
8	vxio	Kernel log update failed, object detached.	Error	Yes	No
9	vxio	Detaching RAID-5 object.	Information	No	No
10	vxio	Object detached from RAID-5 volume.	Information	No	No
11	vxio	RAID-5 volume entering degraded mode operation.	Warning	Yes	No
12	vxio	Double failure condition detected on RAID-5 volume.	Warning	Yes	Yes
13	vxio	Failure during RAID-5 logging operation.	Error	Yes	Yes

Table 4-1 DDGV event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
14	vxio	Log object detached from RAID-5 volume.	Error	Yes	No
15	vxio	Check_iloeks: stranded ilock.	Warning	Yes	No
16	vxio	Check_iloeks: overlapping ilocks.	Warning	Yes	No
17	vxio	Illegal vminor encountered.	Warning	Yes	No
18	vxio	Uncorrectable error.	Error	Yes	No
19	vxio	Uncorrectable error on block.	Error	Yes	No
20	vxio	Kernel error, cannot open disk.	Error	Yes	No
21	vxio	Unexpected status on disk close.	Warning	Yes	No
22	vxio	Corrected read error on volume mirror object.	Information	No	No
23	vxio	Reassigning bad block number on disk.	Information	No	No
24	vxio	Successfully reassigned bad block(s) on disk.	Information	No	No
25	vxio	Failed to reassign bad block(s) on disk.	Warning	Yes	No
26	vxio	Found a bad block on disk.	Information	No	No
27	vxio	Corrected a read error during RAID5 initialization.	Information	No	No
28	vxio	Failed to recover a read error during RAID5 initialization.	Warning	Yes	No
29	vxio	Read error.	Critical Error	Yes	Yes

Table 4-1 DDGV event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
30	vxio	Write error.	Critical Error	Yes	Yes
31	vxio	Write error due to disk removal.	Error	Yes	No
32	vxio	Read error due to disk removal.	Error	Yes	No
33	vxio	Disk is disabled by PnP.	Information	No	No
34	vxio	Disk is re-onlined by PnP.	Information	No	No
35	vxio	Uncorrectable disk read error.	Warning	Yes	No
36	vxio	Uncorrectable read error.	Warning	Yes	No
37	vxio	Uncorrectable disk write error.	Warning	Yes	No
38	vxio	Uncorrectable write error.	Warning	Yes	No
39	vxio	Invalid name for vxio tunable.	Error	Yes	No
40	vxio	Vxio tunable out of range. It has been reset.	Error	Yes	No
41	vxio	Cluster or private disk group has lost access to a majority of its disks. Its reservation thread has been stopped.	Critical Error	Yes	Yes
48	vxio	Bus reset command sent to SCSI port.	Information	No	No
49	vxio	Volume still open during system shutdown.	Warning	Yes	No
50	vxio	Reservation thread stopped for cluster disk group. Cluster software may not be available.	Critical Error	Yes	Yes

Table 4-1 DDGV event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
51	vxio	Vxio tunable value is less than the allocated value.	Information	No	No
52	vxio	Reservation refresh has been suspended.	Error	Yes	Yes
53	vxio	Reservation refresh has been resumed.	Information	Yes	Yes
800	VxSvc_disk	Write disk signature succeeded.	Success	No	No
801	VxSvc_disk	Write disk signature failed.	Error	Yes	No
803	VxSvc_disk	Convert disk succeeded.	Success	No	No
804	VxSvc_disk	Convert disk failed.	Error	Yes	No
8014	VxSvc_disk	S.M.A.R.T. predicts failure on a device.	Warning	Yes	No
807	VxSvc_fsys	Volume capacity reached error condition.	Error	Yes	Yes
810	VxSvc_fsys	Volume free space has reached the warning threshold.	Warning	Yes	No
912	VxSvc_fsys	Volume successfully formatted.	Success	No	No
915	VxSvc_fsys	Format volume failed.	Error	Yes	No
919	VxSvc_fsys	Extend volume file system succeeded.	Success	Yes	Yes
922	VxSvc_fsys	Extend volume file system failed.	Error	Yes	No
926	VxSvc_fsys	Change volume label succeeded.	Success	No	No
929	VxSvc_fsys	Change volume label failed.	Error	Yes	No
933	VxSvc_fsys	Check volume file system succeeded.	Success	No	No

Table 4-1 DDGV event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
936	VxSvc_fsfs	Check volume file system failed.	Error	Yes	No
940	VxSvc_fsfs	Cancel formatting volume succeeded.	Information	No	No
944	VxSvc_fsfs	Format failed because volume size is too small.	Error	Yes	No
948	VxSvc_fsfs	Format failed because volume size is too big.	Error	Yes	No
952	VxSvc_fsfs	Format failed because the allocation size is too small.	Error	Yes	No
956	VxSvc_fsfs	Format failed because the allocation size is too big.	Error	Yes	No
968	VxSvc_fsfs	Successfully shrunk file system on a volume.	Information	Yes	No
972	VxSvc_fsfs	Failed to shrink file system on a volume.	Error	Yes	Yes
800	VxSvc_ftdisk	Create partition succeeded.	Success	No	No
801	VxSvc_ftdisk	Create partition failed.	Error	Yes	No
802	VxSvc_ftdisk	Delete partition succeeded.	Success	No	No
803	VxSvc_ftdisk	Delete partition failed.	Error	Yes	No
804	VxSvc_ftdisk	Mark partition active succeeded.	Success	No	No
805	VxSvc_ftdisk	Mark partition active failed.	Error	Yes	No
806	VxSvc_ftdisk	Resize partition succeeded.	Success	No	No
807	VxSvc_ftdisk	Resize partition failed.	Error	Yes	No
10120	VxSvc_ftdisk	Automatic BOOT.INI update succeeded.	Information	No	No

Table 4-1 DDGV event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
10125	VxSvc_ftdisk	Automatic BOOT.INI update failed.	Error	Yes	No
800	VxSvc_mount	Add drive letter succeeded.	Success	No	No
801	VxSvc_mount	Add drive letter failed.	Error	Yes	No
802	VxSvc_mount	Remove drive letter succeeded.	Success	No	No
803	VxSvc_mount	Remove drive letter failed.	Error	Yes	No
804	VxSvc_mount	Add mount path succeeded.	Success	No	No
805	VxSvc_mount	Add mount path failed.	Error	Yes	No
806	VxSvc_mount	Remove mount path succeeded.	Success	No	No
807	VxSvc_mount	Remove mount path failed.	Error	Yes	No
800	VxSvc_pnp	Device arrived.	Information	No	No
801	VxSvc_pnp	Device removed.	Warning	Yes	No
801	VxSvc_scheduler	Failed to create new schedule.	Error	Yes	Yes
803	VxSvc_scheduler	Failed to delete schedule.	Error	Yes	Yes
805	VxSvc_scheduler	Modify schedule failed.	Error	Yes	Yes
807	VxSvc_scheduler	Launch task failed.	Error	Yes	Yes
809	VxSvc_scheduler	Refresh schedules failed.	Error	Yes	Yes
703	VxSvc_vxvm	Create volume succeeded.	Success	No	No
704	VxSvc_vxvm	Create volume failed.	Error	Yes	No
705	VxSvc_vxvm	Delete volume succeeded.	Success	No	No

Table 4-1 DDGV event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
706	VxSvc_vxvm	Delete volume failed.	Error	Yes	No
711	VxSvc_vxvm	Add mirror succeeded.	Information	No	No
712	VxSvc_vxvm	Add mirror failed.	Error	Yes	No
713	VxSvc_vxvm	Remove mirror succeeded.	Success	No	No
714	VxSvc_vxvm	Remove mirror failed.	Error	Yes	No
715	VxSvc_vxvm	Break mirror succeeded.	Success	No	No
716	VxSvc_vxvm	Break mirror failed.	Error	Yes	No
717	VxSvc_vxvm	Resize volume succeeded.	Success	No	No
718	VxSvc_vxvm	Resize volume failed.	Critical Error	Yes	Yes
719	VxSvc_vxvm	Reactivate volume succeeded.	Success	No	No
720	VxSvc_vxvm	Reactivate volume failed.	Error	Yes	No
721	VxSvc_vxvm	Replace column succeeded.	Success	No	No
722	VxSvc_vxvm	Replace column failed.	Error	Yes	No
729	VxSvc_vxvm	Remove missing disk failed.	Error	Yes	No
741	VxSvc_vxvm	Remove missing disk succeeded.	Success	No	No
746	VxSvc_vxvm	Repair volume succeeded.	Success	No	No
747	VxSvc_vxvm	Repair volume failed.	Error	Yes	No
748	VxSvc_vxvm	Add log succeeded.	Success	No	No
749	VxSvc_vxvm	Add log failed.	Error	Yes	No
750	VxSvc_vxvm	Remove log succeeded.	Success	No	No
751	VxSvc_vxvm	Remove log failed.	Error	Yes	No
752	VxSvc_vxvm	Add fast resync succeeded.	Success	No	No

Table 4-1 DDGV event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
753	VxSvc_vxvm	Add fast resync failed.	Error	Yes	No
754	VxSvc_vxvm	Remove fast resync succeeded.	Success	No	No
755	VxSvc_vxvm	Remove fast resync failed.	Error	Yes	No
756	VxSvc_vxvm	Snap Start succeeded.	Success	No	No
757	VxSvc_vxvm	Snap Start failed.	Error	Yes	No
758	VxSvc_vxvm	Snap Shot succeeded.	Success	Yes	Yes
759	VxSvc_vxvm	Snap Shot failed.	Error	Yes	No
760	VxSvc_vxvm	Snap Back succeeded.	Success	Yes	Yes
761	VxSvc_vxvm	Snap Back failed.	Error	Yes	No
762	VxSvc_vxvm	Snap Clear succeeded.	Success	Yes	No
763	VxSvc_vxvm	Snap Clear failed.	Error	Yes	No
764	VxSvc_vxvm	Snap Abort succeeded.	Success	No	Yes
765	VxSvc_vxvm	Snap Abort failed.	Error	Yes	No
766	VxSvc_vxvm	Split subdisk succeeded.	Success	No	No
767	VxSvc_vxvm	Split subdisk failed.	Error	Yes	No
768	VxSvc_vxvm	Join subdisk succeeded.	Success	No	No
769	VxSvc_vxvm	Join subdisk failed.	Error	Yes	No
770	VxSvc_vxvm	Import dynamic disk group succeeded.	Success	No	No
771	VxSvc_vxvm	Import dynamic disk group failed.	Error	Yes	No
772	VxSvc_vxvm	Deport dynamic disk group succeeded.	Success	No	No
773	VxSvc_vxvm	Deport dynamic disk group failed.	Error	Yes	No
774	VxSvc_vxvm	Split dynamic disk group succeeded.	Success	Yes	Yes

Table 4-1 DDGV event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
775	VxSvc_vxvm	Split dynamic disk group failed.	Error	Yes	No
776	VxSvc_vxvm	Join dynamic disk group succeeded.	Success	No	No
777	VxSvc_vxvm	Join dynamic disk group failed.	Error	Yes	No
790	VxSvc_vxvm	Resynchronize volume succeeded.	Success	No	No
791	VxSvc_vxvm	Resynchronize volume failed.	Error	Yes	No
792	VxSvc_vxvm	Adding mirror succeeded.	Success	No	No
793	VxSvc_vxvm	Adding mirror failed.	Error	Yes	No
794	VxSvc_vxvm	Moving subdisk succeeded.	Success	No	No
795	VxSvc_vxvm	Moving subdisk failed.	Error	Yes	No
798	VxSvc_vxvm	Attaching mirror succeeded.	Success	No	No
799	VxSvc_vxvm	Attaching mirror failed.	Error	Yes	No
800	VxSvc_vxvm	Recover dynamic disk group succeeded.	Success	No	No
801	VxSvc_vxvm	Recover dynamic disk group failed.	Error	Yes	No
808	VxSvc_vxvm	SCSI reservation thread start failure.	Error	Yes	Yes
809	VxSvc_vxvm	SCSI Reservation Thread Stop Failure.	Error	Yes	Yes
810	VxSvc_vxvm	Private group registry entry failure.	Error	Yes	No
811	VxSvc_vxvm	SCSI reservation thread update failure.	Error	Yes	Yes

Table 4-1 DDGV event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
813	VxSvc_vxvm	Rename dynamic disk group succeeded.	Success	No	No
814	VxSvc_vxvm	Rename dynamic disk group failed.	Error	Yes	No
815	VxSvc_vxvm	Destroy dynamic disk group succeeded.	Success	No	No
816	VxSvc_vxvm	Destroy dynamic disk group failed.	Error	Yes	No
819	VxSvc_vxvm	Snap Back using snapshot succeeded.	Success	No	No
820	VxSvc_vxvm	Snap Back using snapshot failed.	Error	Yes	No
825	VxSvc_vxvm	Shrink volume succeeded	Warning	Yes	No
8087	VxSvc_vxvm	Hot Relocation/Spare succeeded.	Success	No	No
8088	VxSvc_vxvm	Hot Relocation/Spare failed.	Error	Yes	No
8089	VxSvc_vxvm	Unrelocate disk succeeded.	Success	No	No
8090	VxSvc_vxvm	Unrelocate disk failed.	Error	Yes	No
8091	VxSvc_vxvm	Remove disk from dynamic disk group succeeded.	Success	No	No
8092	VxSvc_vxvm	Remove disk from dynamic disk group failed.	Error	Yes	No
8093	VxSvc_vxvm	Reactivate disk succeeded.	Success	No	No
8094	VxSvc_vxvm	Reactivate disk failed.	Error	Yes	No
8095	VxSvc_vxvm	Evacuate disk succeeded.	Success	No	No
8096	VxSvc_vxvm	Evacuate disk failed.	Error	Yes	No

Table 4-1 DDGV event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
8097	VxSvc_vxvm	Add disk to dynamic disk group succeeded.	Success	No	No
8098	VxSvc_vxvm	Add disk to dynamic disk group failed.	Error	Yes	No
8099	VxSvc_vxvm	Replace disk succeeded.	Success	No	No
9000	VxSvc_vxvm	Replace disk failed.	Error	Yes	No
9001	VxSvc_vxvm	Merge foreign disk succeeded.	Success	No	No
9002	VxSvc_vxvm	Merge foreign disk failed.	Error	Yes	No
9003	VxSvc_vxvm	Move subdisk succeeded.	Information	No	No
9004	VxSvc_vxvm	Move subdisk failed.	Error	Yes	No
10001	VxSvc_vxvm	Physical disk was removed or is temporarily unavailable.	Warning	Yes	No
10006	VxSvc_vxvm	Force import dynamic disk group succeeded.	Information	No	No
10101	VxSvc_vxvm	Force import dynamic disk group failed.	Error	Yes	No
10106	VxSvc_vxvm	Force deport dynamic disk group succeeded.	Information	No	No
10111	VxSvc_vxvm	Force deport dynamic disk group failed.	Error	Yes	No
10120	VxSvc_vxvm	Automatic BOOT.INI update succeeded.	Information	Yes	Yes
10125	VxSvc_vxvm	Automatic BOOT.INI update failed.	Error	Yes	Yes
10131	VxSvc_vxvm	BOOT.INI update required.	Information	Yes	Yes
10201	VxSvc_vxvm	Mirror resynchronization started.	Information	No	No

Table 4-1 DDGV event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
10211	VxSvc_vxvm	Mirror resynchronization in progress.	Information	No	No
10221	VxSvc_vxvm	Mirror resynchronization completed.	Success	No	No
10226	VxSvc_vxvm	Import cluster dynamic disk group succeeded.	Success	No	No
10229	VxSvc_vxvm	Import cluster dynamic disk group failed.	Error	Yes	Yes
10232	VxSvc_vxvm	Deport cluster dynamic disk group succeeded.	Success	No	No
10235	VxSvc_vxvm	Deport cluster dynamic disk group failed.	Error	Yes	Yes
10238	VxSvc_vxvm	Cluster dynamic disk group deported with active I/O.	Warning	Yes	Yes
10242	VxSvc_vxvm	Could not lock all volumes. Cluster disk group was not deported.	Error	Yes	Yes
10251	VxSvc_vxvm	Mirror resynchronization failed.	Error	Yes	No
10256	VxSvc_vxvm	Dynamic disk group deported with active I/O.	Warning	Yes	No
10260	VxSvc_vxvm	Could not lock all volumes. Dynamic disk group was not deported.	Error	Yes	No
10264	VxSvc_vxvm	Dynamic disk group failed.	Error	Yes	Yes
10268	Vxsvc_vxvm	Attach disk succeeded.	Information	No	No
10272	VxSvc_vxvm	Attach disk failed.	Error	Yes	Yes
10276	Vxsvc_vxvm	Detach disk succeeded.	Information	No	No
10280	VxSvc_vxvm	Detach disk failed.	Error	Yes	Yes
10284	Vxsvc_vxvm	vxabr backup failed.	Error	Yes	Yes

Table 4-1 DDGV event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
10289	Vxsvc_vxvm	Shred volume succeeded.	Information	Yes	No
10293	Vxsvc_vxvm	Shred volume failed.	Error	Yes	Yes
10297	Vxsvc_vxvm	Shred volume started.	Information	Yes	No
10301	Vxsvc_vxvm	vxabr manual backup failed.	Error	Yes	Yes
10306	Vxsvc_vxvm	Manually backup the dynamic disk group configuration.	Information	Yes	No

Performance processing rules

Note: On 64-bit AMD64 and 64-bit Intel Xeon servers running the Microsoft Windows-on-Windows 64-bit (WOW64) subsystem, the SFW performance counters for dynamic disks and volumes cannot be viewed with the MOM 2005 Operator Console.

Table 4-2 Performance processing rules

Rule Group	Rule Name	Provider	Sampling Interval	Rule Enabled
DDGV	Avg Time (microsecond)/Read Block	Dynamic Disks	Every 15 minutes	No
DDGV	Avg Time(microsecond)/Write Block	Dynamic Disks	Every 15 minutes	No
DDGV	Current Disk Queue Length	Dynamic Disks	Every 15 minutes	No
DDGV	Read Block/sec	Dynamic Disks	Every 15 minutes	No
DDGV	Read Request/sec	Dynamic Disks	Every 15 minutes	No
DDGV	Write Block/sec	Dynamic Disks	Every 15 minutes	No
DDGV	Write Request/sec	Dynamic Disks	Every 15 minutes	No
DDGV	Avg Time(microsecond)/Read Block	Dynamic Volume	Every 15 minutes	No
DDGV	Avg Time(microsecond)/Write Block	Dynamic Volume	Every 15 minutes	No
DDGV	Read Block/sec	Dynamic Volume	Every 15 minutes	No
DDGV	Read Request/sec	Dynamic Volume	Every 15 minutes	No
DDGV	Write Block/sec	Dynamic Volume	Every 15 minutes	No

Table 4-2 Performance processing rules (Continued)

Rule Group	Rule Name	Provider	Sampling Interval	Rule Enabled
DDGV	Write Request/sec	Dynamic Volume	Every 15 minutes	No

Dynamic Multi-pathing monitoring rules

Dynamic Multi-pathing rules are located in the Veritas Storage Foundation for Windows folder. The following lists the Dynamic Multi-pathing rules for DMP Array Support Libraries (ASLs) and DMP Device Specific Modules (DSMs) included in the SFW Management Pack.

DMP Array Support Libraries (ASLs)

Table 4-3 Event rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
3	VxDMP	Failed to initialize array specific information for this array.	Error	Yes	Yes
4	VxDMP	Failed to create DMP device object or disk filter device object.	Error	Yes	No
5	VxDMP	Failed to create symbolic link to device.	Error	Yes	No
6	VxDMP	Failure in IOCTL command.	Error	Yes	No
8	VxDMP	Failed to attach to path.	Information	No	No
9	VxDMP	Failed to allocate memory at the specified location within DMP.	Error	Yes	No
10	VxDMP	Failed to create path, device, or array object.	Error	Yes	Yes
11	VxDMP	Failure waiting for object.	Error	Yes	No

Table 4-3 Event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
12	VxDMP	Invalid partition information for device.	Error	Yes	No
13	VxDMP	DMP driver version mismatch for device.	Error	Yes	No
14	VxDMP	Cannot create NT directory object.	Error	Yes	No
15	VxDMP	Cannot create NT thread.	Error	Yes	No
16	VxDMP	Function table creation error.	Error	Yes	No
17	VxDMP	Cannot create notification event for user and kernel communication.	Error	Yes	No
18	VxDMP	Cannot read parameter value.	Information	No	No
19	VxDMP	Check sum error in parameter value.	Error	Yes	No
22	VxDMP	DMP cannot start this device properly. Detaching from device.	Error	Yes	No
23	VxDMP	Failed to open registry key.	Error	Yes	No
24	VxDMP	Failed to create registry key.	Error	Yes	No
25	VxDMP	Failed to close registry key.	Error	Yes	No
26	VxDMP	Failed to read registry key.	Error	Yes	No
27	VxDMP	Invalid parameter passed in function.	Error	Yes	No

Table 4-3 Event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
28	VxDMP	Buffer passed is smaller than the amount of data to be copied.	Error	Yes	No
31	VxDMP	SCSI miniport was excluded from DMP in AddDevice.	Information	No	No
32	VxDMP	Block I/O failed on harddisk.	Information	No	No
33	VxDMP	IRP failing with error status after VxDMP has attempted to send it through all connected paths.	Error	Yes	No
0	VxSvc_dmpprov	Path failed.	Error	Yes	No
1005	VxSvc_dmpprov	Set array monitor interval time succeeded.	Success	No	No
1010	VxSvc_dmpprov	Failed to set the array monitor interval time.	Error	Yes	No
1015	VxSvc_dmpprov	Enable path succeeded.	Success	No	No
1020	VxSvc_dmpprov	Enable path failed.	Error	Yes	No
1025	VxSvc_dmpprov	Disable path succeeded.	Success	No	No
1030	VxSvc_dmpprov	Disable path failed.	Error	Yes	No
1035	VxSvc_dmpprov	Successfully set mode to Active/Active.	Success	No	No
1040	VxSvc_dmpprov	Failed to set mode to Active/Active.	Error	Yes	No
1045	VxSvc_dmpprov	Successfully set mode to Active/Passive.	Success	No	No
1050	VxSvc_dmpprov	Failed to set the disk to Active/Passive mode.	Information	No	No
1055	VxSvc_dmpprov	Device exclude succeeded.	Success	No	No

Table 4-3 Event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1060	VxSvc_dmpprov	Device exclude failed.	Error	Yes	No
1065	VxSvc_dmpprov	Device include succeeded.	Success	No	No
1070	VxSvc_dmpprov	Device include failed.	Error	Yes	No
1075	VxSvc_dmpprov	Array successfully set to Active/Active mode.	Success	No	No
1080	VxSvc_dmpprov	Failed to set the array to Active/Active mode.	Error	Yes	No
1085	VxSvc_dmpprov	Array successfully set to Active/Passive mode.	Success	No	No
1090	VxSvc_dmpprov	Failed to set the array to Active/Passive mode.	Error	Yes	No
1095	VxSvc_dmpprov	Array exclude succeeded.	Success	No	No
1100	VxSvc_dmpprov	Array exclude failed.	Error	Yes	No
1105	VxSvc_dmpprov	Array include succeeded.	Success	No	No
1110	VxSvc_dmpprov	Array include failed.	Error	Yes	No
1115	VxSvc_dmpprov	Successfully set preferred path.	Success	No	No
1120	VxSvc_dmpprov	Set preferred path failed.	Error	Yes	No
1125	VxSvc_dmpprov	Purge disks succeeded.	Information	No	No
1130	VxSvc_dmpprov	Purge disks failed.	Error	Yes	No
1135	VxSvc_dmpprov	Get tunable values succeeded.	Success	No	No
1140	VxSvc_dmpprov	Get tunable values failed.	Error	Yes	No
1145	VxSvc_dmpprov	Set tunable values succeeded.	Success	No	No

Table 4-3 Event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1150	VxSvc_dmpprov	Set tunable values failed.	Error	Yes	No
1155	VxSvc_dmpprov	Failed path is now healthy.	Success	No	No

DMP Device Specific Modules (DSMs)

Note: In the table below, "MPIO DSM" in the Module column represents all the following:

- vemcclar (EMC CLARiiON arrays)
- vemcsymm (EMC DMX/Symmetrix arrays)
- vhdsap (HDS 95xx/WMS/AMS arrays)
- vhdsaa (HDS TagmaStore/99xx and HP XP arrays)
- vhpeva (HP EVA/MSA arrays)
- vibmaads (IBM DS8000/ESS800 arrays)
- vibmap (IBM DS6000 arrays)
- vengap (IBM DS4000 and Sun 6000 arrays)
- vnetapp (NetApp arrays)
- vitarget (Windows Storage Server 2003 R2 iSCSI arrays)
- vsparaa (3PARDATA arrays)
- vpillar (Pillar arrays)
- vibmapds (IBM DS AP arrays)

Table 4-4 Event rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1	MPIO DSM	MPIO Driver Specific Module (DSM) loaded.	Success	No	No
2	MPIO DSM	Failed to create DSM context.	Critical Error	Yes	Yes
3	MPIO DSM	Failed to create array context.	Critical Error	Yes	Yes

Table 4-4 Event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
4	MPIO DSM	Failed to create path context.	Critical Error	Yes	Yes
5	MPIO DSM	Failed to create device container context for SCSI ID.	Critical Error	Yes	Yes
6	MPIO DSM	Failed to register DSM with Microsoft Multipath I/O (MPIO).	Critical Error	Yes	Yes
7	MPIO DSM	Insufficient memory resources.	Critical Error	Yes	Yes
8	MPIO DSM	Failed to create device container. Maximum number of device containers exceeded.	Critical Error	Yes	Yes
9	MPIO DSM	Device explicitly excluded.	Information	No	No
10	MPIO DSM	Failed to perform path failover. Failing path not found.	Error	Yes	Yes
11	MPIO DSM	No path available to perform failover.	Critical Error	Yes	Yes
12	MPIO DSM	Device removed from array.	Warning	Yes	No
13	MPIO DSM	New device added to array.	Information	No	No
14	MPIO DSM	Path removed from array.	Warning	Yes	Yes
15	MPIO DSM	New path added to array.	Information	No	No
16	MPIO DSM	Cleared statistical information for all of array's devices.	Information	No	No

Table 4-4 Event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
17	MPIO DSM	Successfully changed load balance value for device(s) in array.	Information	No	No
18	MPIO DSM	Changed load balance value on all devices of array.	Information	No	No
19	MPIO DSM	Preferred path set for device(s) in array.	Information	No	No
20	MPIO DSM	Preferred path set for all devices in array.	Information	No	No
21	MPIO DSM	Changed array control parameters.	Information	No	No
22	MPIO DSM	Loaded global array control values.	Information	No	No
23	MPIO DSM	Loaded array control values.	Information	No	No
24	MPIO DSM	Loaded global load balance value.	Information	No	No
25	MPIO DSM	Loaded load balance value for array.	Information	No	No
26	MPIO DSM	Loaded group load balance value for device in array.	Information	No	No
27	MPIO DSM	Setting preferred path for array.	Information	No	No
28	MPIO DSM	Setting preferred path for group containing device in array.	Information	No	No
29	MPIO DSM	Failed to create registry key.	Error	Yes	No
30	MPIO DSM	Failed to create or replace registry value.	Error	Yes	No

Table 4-4 Event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
31	MPIO DSM	Failed to open registry key.	Error	Yes	No
32	MPIO DSM	Failed to close registry key.	Error	Yes	No
33	MPIO DSM	Failed to flush registry key.	Error	Yes	No
34	MPIO DSM	Failed to allocate memory for registry key.	Error	Yes	No
35	MPIO DSM	Found invalid value type in registry.	Error	Yes	No
36	MPIO DSM	Registry operation failed. Buffer too small.	Error	Yes	No
37	MPIO DSM	Registry value not found.	Error	Yes	No
38	MPIO DSM	Cannot create registry value.	Error	Yes	No
39	MPIO DSM	MPIO version mismatch.	Critical Error	Yes	Yes
40	MPIO DSM	Array product ID not supported by DSM.	Information	No	Yes
41	MPIO DSM	Special device type will not be claimed by DSM for array.	Information	No	No
42	MPIO DSM	Clear all statistical information for a device.	Information	No	No
43	MPIO DSM	Clear all statistical information for an array's devices.	Information	No	No
44	MPIO DSM	Enable SCSI-3 support in the registry for an array.	Information	No	No

Table 4-4 Event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
45	MPIO DSM	Disable SCSI-3 support in the registry for an array.	Information	No	No
46	MPIO DSM	No change of SCSI-3 support in the registry for an array.	Information	No	No
47	MPIO DSM	Ignore Scsi-3 support setting. The internal logic of DSM uses SCSI-3 for the array.	Information	No	No
48	MPIO DSM	Enable SCSI-3 support in the registry for a DSM.	Information	No	No
49	MPIO DSM	Disable SCSI-3 support in the registry for a DSM.	Information	No	No
50	MPIO DSM	Require action after setting SCSI-3 support.	Information	No	No
51	MPIO DSM	No change in the registry for SCSI-3 support setting of DSM.	Information	No	No
52	MPIO DSM	No change in the registry for SCSI-3 support setting with Next Generation Cluster.	Information	No	No
53	MPIO DSM	Ignore SCSI-3 support setting. The internal logic of DSM only uses SCSI-2 on the array.	Information	No	No
54	MPIO DSM	Successfully update Scsi-3 support for an array.	Information	No	No
55	MPIO DSM	Require action after setting SCSI-3 support.	Information	No	No

Table 4-4 Event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
56	MPIO DSM	Successfully update Scsi-3 support for a DSM.	Information	No	No
100	VxSvc_mpioprov	Path removed.	Warning	Yes	Yes
110	VxSvc_mpioprov	Path arrived.	Information	No	No
120	VxSvc_mpioprov	Array removed.	Warning	Yes	No
130	VxSvc_mpioprov	Array arrived.	Information	No	No
140	VxSvc_mpioprov	Successfully changed device load balance policy.	Success	No	No
150	VxSvc_mpioprov	Successfully set device primary path.	Success	No	No
160	VxSvc_mpioprov	Successfully changed array load balance policy.	Success	No	No
170	VxSvc_mpioprov	Successfully changed array primary path.	Success	No	No
180	VxSvc_mpioprov	Successfully changed array parameters.	Success	No	No
190	VxSvc_mpioprov	Successfully changed DSM load balance policy.	Success	No	No
200	VxSvc_mpioprov	Successfully changed DSM primary path.	Success	No	No
210	VxSvc_mpioprov	Successfully changed DSM parameters.	Success	No	No
220	VxSvc_mpioprov	Successfully reset device performance statistics.	Information	No	No
230	VxSvc_mpioprov	Successfully reset array performance statistics.	Information	No	No

Table 4-4 Event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
240	VxSvc_mpioprov	Successfully reset DSM performance statistics.	Information	No	No
250	VxSvc_mpioprov	Enable SCSI-3 support of DSM in the registry.	Information	No	No
254	VxSvc_mpioprov	Disable SCSI-3 support of DSM in the registry.	Information	No	No
260	VxSvc_mpioprov	Enable SCSI-3 support of an array in the registry.	Information	No	No
264	VxSvc_mpioprov	Disable SCSI-3 support of an array in the registry.	Information	No	No
270	VxSvc_mpioprov	No change of SCSI-3 support of an array.	Information	No	No
280	VxSvc_mpioprov	No change of SCSI-3 support status of DSM.	Information	No	No
290	VxSvc_mpioprov	Perform actions after SCSI-3 support setting.	Information	No	No
300	VxSvc_mpioprov	Change of SCSI-3 support is taking effect on the array.	Information	No	No
310	VxSvc_mpioprov	Next Generation Cluster support has been installed.	Information	No	No
320	VxSvc_mpioprov	SCSI-3 support status is always enabled.	Information	No	No
330	VxSvc_mpioprov	DSM uses SCSI-2 on the array only.	Information	No	No
340	VxSvc_mpioprov	Change of SCSI-3 is taking effect on DSM.	Information	No	No
350	VxSvc_mpioprov	The current status of SCSI-3 support on the array.	Information	No	No

Table 4-4 Event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
360	VxSvc_mpiopro	The current status of SCSI-3 support on DSM.	Information	No	No

DMP DSM Path performance rules

The following lists the DMP DSM path performance rules included in the SFW Management Pack. The Dynamic Multi-pathing\Veritas DMP DSMs (MPIO Device Specific Modules)\Get MPIO Performance Data rule must be enabled to generate this data. See “[DMP DSM performance data counters](#)” on page 81.

Table 4-5 DMP DSM event processing rules

Rule Group	Rule Name	Provider	Sample Interval	Rule Enabled
DMP DSMs	Number of Reads	DSM Path	15 minutes	No
DMP DSMs	Number of Writes	DSM Path	15 minutes	No
DMP DSMs	Bytes Read	DSM Path	15 minutes	No
DMP DSMs	Bytes Written	DSM Path	15 minutes	No

FlashSnap monitoring rules

FlashSnap rules are located in the Veritas Storage Foundation for Windows folder. The following lists the FlashSnap rules included in the SFW Management Pack.

Table 4-6 Event rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
29	VxSvc_fastfileresync	Fast File Resync failed.	Error	Yes	No
31	VxSvc_fastfileresync	Fast File Resync completed successfully.	Success	No	No

Table 4-6 Event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1001	VxSvc_vssprov	Snapshot succeeded.	Success	No	No
1002	VxSvc_vssprov	Snapshot failed.	Error	Yes	No
1015	VxSvc_vssprov	Eseutil consistency check failed.	Error	Yes	No
1019	VxSvc_vssprov	Successfully refreshed VSS writers and components.	Success	No	No
1023	VxSvc_vssprov	Database restored successfully.	Success	No	No
1027	VxSvc_vssprov	Snap Back (reattach) database succeeded.	Success	No	No
1031	VxSvc_vssprov	Started Eseutil check on file.	Information	No	No
1035	VxSvc_vssprov	Successfully completed Eseutil check on file.	Success	No	No
1039	VxSvc_vssprov	Successfully Dismounted the database(s).	Information	No	No
1043	VxSvc_vssprov	Successfully Mounted the database(s).	Information	No	No
1047	VxSvc_vssprov	Failed to Dismount the database(s).	Information	No	No
1051	VxSvc_vssprov	Failed to Mount the database(s).	Information	No	No
1064	VxSvc_vssprov	Synchronized snapshot validation failed.	Error	Yes	Yes
1068	VxSvc_vssprov	Synchronized snapback validation failed.	Error	Yes	Yes
1072	VxSvc_vssprov	VSS Writers refresh failure.	Information	No	No

Table 4-6 Event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1079	VxSvc_vssprov	Log Replay failed.	Error	Yes	Yes
1083	VxSvc_vssprov	Started Replaying log file.	Information	No	No
1087	VxSvc_vssprov	Successfully replayed log file.	Information	No	No
1092	VxSvc_vssprov	Database(s) restored successfully to recovery storage group.	Success	No	No
1096	VxSvc_vssprov	Database(s) restore to recovery storage group failed.	Error	Yes	No

Licensing monitoring rules

Licensing rules are located in the Veritas Storage Foundation for Windows folder. The following lists the Licensing rules included in the SFW Management Pack.

Table 4-7 Licensing event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
7000	VxSvc_sysprov	Duplicate license detected.	Warning	Yes	Yes
7004	VxSvc_sysprov	Evaluation license will expire shortly.	Warning	Yes	Yes
7008	VxSvc_sysprov	Evaluation license expired.	Warning	Yes	Yes
7012	VxSvc_sysprov	Product license is invalid.	Warning	Yes	Yes
7016	VxSvc_sysprov	License authorized usage exceeded.	Warning	Yes	Yes

VxCache monitoring rules

VxCache rules are located in the Veritas Storage Foundation for Windows folder. The following lists the VxCache rules included in the SFW Management Pack.

Table 4-8 Event rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
2	vxcache	Cache configured successfully.	Information	No	No
3	vxcache	Cache configuration failed.	Error	Yes	No
4	vxcache	Failed to enable caching for specified volume.	Error	Yes	No
5	vxcache	Caching enabled successfully for specified volume.	Information	No	No
6	vxcache	Successfully disabled caching on the specified volume.	Information	No	No
7	vxcache	Error disabling cache on object.	Error	Yes	No
11	vxcache	I/O between cache and disk failed.	Critical Error	Yes	Yes
12	vxcache	Failed to create filter device object.	Error	Yes	No
13	vxcache	Failure while attaching device to PDO.	Error	Yes	No
14	vxcache	Device IO offset error.	Warning	Yes	No
15	vxcache	Device IOCTL error.	Error	Yes	No
17	vxcache	Failure during alignment check.	Critical Error	Yes	Yes
18	vxcache	All I/O buffers in use, will retry.	Warning	Yes	No
19	vxcache	I/O failed between cache and disk.	Critical Error	Yes	Yes

Table 4-8 Event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
21	vxcache	VxCACHE was not tested on this version of Windows.	Warning	Yes	No
22	vxcache	Failed to deallocate cache memory.	Error	Yes	No
1005	VxSvc_VxPolicyManager	Successfully enabled cache at server level.	Success	No	No
1010	VxSvc_VxPolicyManager	Enable cache at server level failed.	Error	Yes	No
1015	VxSvc_VxPolicyManager	Successfully disabled cache at server level.	Success	No	No
1020	VxSvc_VxPolicyManager	Disable cache at server level failed.	Error	Yes	No
1025	VxSvc_VxPolicyManager	Successfully enabled cache at volume level.	Success	No	No
1030	VxSvc_VxPolicyManager	Enable cache at volume level failed.	Error	Yes	No
1035	VxSvc_VxPolicyManager	Successfully disabled cache at volume level.	Success	No	No
1040	VxSvc_VxPolicyManager	Disable cache at volume level failed.	Error	Yes	No
1044	VxSvc_VxPolicyManager	Successfully reallocated cache memory at server level.	Success	No	No
1048	VxSvc_VxPolicyManager	Reallocation of cache memory at server level failed.	Error	Yes	No

Volume Replicator (VVR) monitoring rules

Volumes Replicator rules are located in the Veritas Storage Foundation for Windows folder. The following lists the Volumes Replicator rules included in the Management Pack.

Table 4-9 VVR event rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
80	vxio	Connection server started successfully.	Success	No	No
81	vxio	Failed to start connection server.	Critical Error	Yes	Yes
82	vxio	Connection server already started.	Information	No	No
83	vxio	TdiSendDatagramHB failed.	Error	Yes	No
84	vxio	NMCOM_send failed.	Error	Yes	No
85	vxio	Paused replay on RVG.	Information	No	No
86	vxio	Resumed replay on RVG.	Information	No	No
87	vxio	Latency throttling enabled for RLINK.	Information	No	No
88	vxio	Latency throttling disabled for RLINK.	Information	No	No
89	vxio	Latency throttling overridden on inactive RLINK.	Information	No	No
90	vxio	Latency throttling on inactive RLINK is causing I/O failures.	Information	No	No
91	vxio	Log overflow protection for RLINK triggered throttling.	Information	No	No
92	vxio	Log overflow protection throttling disabled for RLINK.	Information	No	No
93	vxio	Log overflow protection overridden on inactive RLINK.	Information	No	No

Table 4-9 VVR event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
94	vxio	Log overflow protection on inactive RLINK is causing I/O failures.	Critical Error	Yes	Yes
95	vxio	Log overflow protection on inactive RLINK triggered DCM protection.	Information	No	Yes
96	vxio	DCM replay complete on RLINK.	Information	No	No
97	vxio	RLINK STALE (detached) due to log overflow.	Critical Error	Yes	Yes
98	vxio	RLINK connected to remote host.	Information	No	No
99	vxio	RLINK disconnected from remote host.	Information	No	No
100	vxio	Log capacity threshold reached for RLINK.	Information	No	No
101	vxio	Recovery started for RVG.	Information	No	No
102	vxio	RVG has been recovered successfully.	Success	No	Yes
103	vxio	Failed to recover RVG.	Critical Error	Yes	Yes
104	vxio	Detected Replicator Log volume failure while recovering RVG.	Critical Error	Yes	Yes
105	vxio	Detected configuration error while recovering RVG.	Critical Error	Yes	Yes
106	vxio	Inconsistent Replicator Log for RVG - detaching all Secondary nodes.	Critical Error	Yes	Yes
107	vxio	Replicator Log header version mismatch for RVG.	Critical Error	Yes	Yes
108	vxio	Failed to log the detach of the DCM volume.	Error	Yes	No

Table 4-9 VVR event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
109	vxio	DCM volume is detached.	Error	Yes	No
110	vxio	Disconnecting Secondary due to ack timeout.	Error	Yes	No
111	vxio	Failed to activate DCM for RVG.	Error	Yes	No
112	vxio	Cannot recover volume.	Error	Yes	No
113	vxio	Received 100 duplicate packets.	Information	No	No
114	vxio	Disconnecting RLINK due to transaction deadlock.	Error	Yes	Yes
115	vxio	Invalid port range specified.	Critical Error	Yes	Yes
116	vxio	Cannot find any free port to bind.	Critical Error	Yes	Yes
117	vxio	Number of ports available is less than the number of RLINKs in the system.	Error	Yes	Yes
118	vxio	VVR data port range.	Information	No	No
119	vxio	Another application is using port. No free port is available within the specified range.	Error	Yes	Yes
120	vxio	Retry count exceeded the limit. Disconnecting RLINK.	Error	Yes	Yes
121	vxio	Packet size changed for RLINK.	Information	No	No
122	vxio	Invalid value ignored.	Information	No	No
123	vxio	Not enough resources to send updates over the network. Disconnecting RLINK.	Information	No	No
124	vxio	DCM logs are inaccessible to the volumes. DCM logging aborted.	Critical Error	Yes	Yes

Table 4-9 VVR event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
125	vxio	I/O error on Replicator Log during recovery. Detaching the primary RLINK.	Critical Error	Yes	Yes
126	vxio	Primary RVG appears to have secondary Replicator Log.	Error	Yes	No
127	vxio	Secondary RVG appears to have primary Replicator Log.	Error	Yes	No
128	vxio	Failing writes on RVG. Remote host is now the primary RVG.	Information	No	No
129	vxio	Disconnecting RLINK to shift to DCM protection.	Information	No	No
130	vxio	Detaching RLINK due to I/O error on remote Replicator Log.	Critical Error	Yes	Yes
131	vxio	Incorrect magic number or unexpected upid (1) RVG.	Critical Error	Yes	Yes
132	vxio	Incorrect magic number or unexpected upid (2) RVG.	Critical Error	Yes	Yes
133	vxio	Invalid RVG update header.	Critical Error	Yes	Yes
134	vxio	Connection retry count exceeded 50. Disconnecting RLINK.	Error	Yes	No
135	vxio	RLINK is stale and not replicating.	Information	No	No
136	vxio	Secondary RLINK is paused.	Information	No	No
137	vxio	Primary RLINK is paused.	Information	No	No
138	vxio	RLINK is in failed state.	Information	No	No
139	vxio	RLINK is inconsistent.	Information	No	No
140	vxio	RLINK has a secondary log error.	Information	No	No

Table 4-9 VVR event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
141	vxio	RLINK has a secondary config error.	Information	No	No
142	vxio	Failing writes on RVG. Remote is now a Primary RVG.	Information	No	No
143	vxio	Detaching RLINK due to I/O error on remote Replicator Log during recovery.	Critical Error	Yes	Yes
144	vxio	Volume has been removed from RVG and will no longer receive replication updates.	Information	No	No
145	vxio	Encountered IBC message while flushing Replicator Log to DCM - IBC dropped.	Information	No	No
146	vxio	Replicator Log for RVG contains earlier version of Replicator Log header.	Critical Error	Yes	Yes
147	vxio	Inconsistent update IDs.	Critical Error	Yes	Yes
148	vxio	Replication frozen for RLINK.	Information	No	No
149	vxio	IBC messages discarded for RLINK due to timeout.	Information	No	No
150	vxio	RLINK paused on secondary due to configuration error.	Information	No	Yes
151	vxio	Cannot connect to remote host due to header format mismatch or checksum error.	Critical Error	Yes	Yes
152	vxio	RVG unable to connect to RLINK.	Information	No	No
153	vxio	RLINK connection error.	Information	No	No
154	vxio	RLINK is in synchronous mode.	Information	No	No

Table 4-9 VVR event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
155	vxio	RLINK is in asynchronous mode.	Information	No	No
156	vxio	Replication unfrozen for RLINK.	Information	No	No
157	vxio	RVG role is transitioning from primary to secondary.	Information	No	No
158	vxio	RVG role is transitioning from secondary to primary.	Information	No	No
159	vxio	RVG role is transitioning from primary to acting secondary.	Information	No	No
256	vxio	RVG role is transitioning from acting secondary to primary.	Information	No	No
257	vxio	RVG waiting for dismount request to complete.	Information	No	No
258	vxio	No volume with the specified tag was found in the RVG.	Critical Error	Yes	Yes
259	vxio	RVG state transition from acting secondary to secondary.	Information	No	No
260	vxio	RLINK switched from FAIL to ACTIVE due to secondary state change.	Information	No	No
261	vxio	Readback pool memory allocation failure for RVG.	Critical Error	Yes	Yes
262	vxio	NMCOM pool memory allocation failure for RVG.	Critical Error	Yes	Yes
263	vxio	Cannot spawn NMCOM_sender thread.	Critical Error	Yes	Yes
264	vxio	The resize operation failed to resize the Replicator Log volume. Replicator Log map is full.	Error	Yes	No

Table 4-9 VVR event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
265	vxio	Replicator log map is coalesced. The Replicator Log can be resized a limited number of times.	Error	Yes	No
266	vxio	Cannot find Replicator Log Volume for RVG	Warning	Yes	No
267	vxio	Replicator Log Volume sizes on Primary and Bunker Secondary do not match	Error	Yes	Yes
267	vxio	VVR objects state monitoring	Critical Error	Yes	No
268	vxio	Cannot find valid start position for RVG	Error	Yes	No
269	vxio	Srl search sio returned error	Error	Yes	No
270	vxio	Flushing the logged srl writes for RVG	Information	No	No
271	vxio	Log flush failed for RVG during takeover	Error	Yes	No
287	vxio	Cannot connect RLINK due to protocol mismatch with remote RLINK	Error	Yes	Yes
303	vxio	RLINK disconnecting due to error	Error	Yes	No
319	vxio	RLINK encountered unknown error	Error	Yes	Yes
335	vxio	I/O error on storage bunker RLINK	Error	Yes	Yes
336	vxio	Disconnecting RLINK to complete DCM replay from SRL using internal checkpoint.	Information	No	No
337	vxio	Readback memory pool request failed for RLINK	Error	Yes	Yes

Table 4-9 VVR event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
338	vxio	Versions of RVGs on local and remote host do not match	Warning	Yes	Yes
339	vxio	RVG replicator log config table is corrupted.	Warning	Yes	Yes
1286	vxio	VVR NPP Memory usage reduction factor has been set	Information	Yes	Yes
750	VxSvc_vvr	Primary RVG created.	Success	No	No
751	VxSvc_vvr	Failed to create RVG.	Error	Yes	No
756	VxSvc_vvr	Volume added to the RDS.	Success	No	No
757	VxSvc_vvr	Replicator Log volume added to the RVG.	Success	No	No
758	VxSvc_vvr	Data volume removed from the RDS.	Success	No	No
759	VxSvc_vvr	Replicator Log removed from RVG.	Success	No	No
760	VxSvc_vvr	RVG recovery completed.	Information	No	No
761	VxSvc_vvr	Failed to recover RVG.	Error	Yes	No
762	VxSvc_vvr	RVG checkstarted.	Success	No	No
763	VxSvc_vvr	Failed to checkstart RVG.	Error	Yes	No
764	VxSvc_vvr	Checkend on RVG successful.	Success	No	No
765	VxSvc_vvr	Failed to checkend RVG.	Error	Yes	No
766	VxSvc_vvr	Primary RVG deleted.	Success	No	No
767	VxSvc_vvr	Failed to delete RVG.	Error	Yes	No
776	VxSvc_vvr	Secondary paused.Replication to the secondary is paused.	Success	No	No
777	VxSvc_vvr	Failed to pause secondary.	Error	Yes	No
778	VxSvc_vvr	Secondary resumed.	Success	No	No
779	VxSvc_vvr	Failed to resume secondary.	Error	Yes	No

Table 4-9 VVR event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
782	VxSvc_vvr	Secondary link recovered successfully.	Information	No	No
783	VxSvc_vvr	Failed to recover secondary link.	Error	Yes	No
784	VxSvc_vvr	Secondary restored successfully.	Success	No	No
785	VxSvc_vvr	Failed to restore secondary.	Error	Yes	No
786	VxSvc_vvr	Replicator Log failed.	Critical Error	Yes	Yes
787	VxSvc_vvr	Secondary disconnected.	Information	No	Yes
788	VxSvc_vvr	Volume under RVG failed.	Critical Error	Yes	Yes
789	VxSvc_vvr	Secondary connected.	Information	No	No
790	VxSvc_vvr	Secondary inconsistent.	Information	No	No
791	VxSvc_vvr	Replicator Log header error.	Critical Error	Yes	Yes
792	VxSvc_vvr	Replicator Log error on secondary.	Critical Error	Yes	Yes
793	VxSvc_vvr	Configuration error on secondary.	Critical Error	Yes	Yes
794	VxSvc_vvr	DCM logs are in use.	Information	No	No
795	VxSvc_vvr	Autosync is in progress.	Information	No	No
797	VxSvc_vvr	Secondary added. (Secondary host added to RDS).	Success	No	No
798	VxSvc_vvr	Change in replication mode.	Success	No	No
799	VxSvc_vvr	Change in latency protection.	Success	No	No
800	VxSvc_vvr	Change in Replicator Log protection.	Success	No	No
801	VxSvc_vvr	Change in latency high mark value.	Success	No	No

Table 4-9 VVR event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
802	VxSvc_vvr	Change in latency low mark value.	Success	No	No
803	VxSvc_vvr	Change in packet size.	Success	No	No
805	VxSvc_vvr	RVG failed.	Critical Error	Yes	Yes
808	VxSvc_vvr	Secondary removed from RDS.	Success	No	No
809	VxSvc_vvr	RDS deleted.	Success	No	No
810	VxSvc_vvr	Failed to add secondary.	Error	Yes	No
811	VxSvc_vvr	Failed to delete the RDS.	Error	Yes	No
812	VxSvc_vvr	Failed to remove secondary.	Error	Yes	No
813	VxSvc_vvr	Failed to add volume.	Error	Yes	No
814	VxSvc_vvr	Failed to remove volume.	Error	Yes	No
815	VxSvc_vvr	Failed to resynchronize.	Error	Yes	No
816	VxSvc_vvr	Failed to add Replicator Log.	Error	Yes	No
817	VxSvc_vvr	Failed to remove Replicator Log.	Error	Yes	No
818	VxSvc_vvr	Resynchronization started.	Information	No	No
819	VxSvc_vvr	Resynchronization paused.	Information	No	Yes
820	VxSvc_vvr	Resynchronization resumed.	Information	No	No
821	VxSvc_vvr	Resynchronization completed.	Information	No	No
822	VxSvc_vvr	Secondary consistent.	Information	No	No
823	VxSvc_vvr	DCM activity completed.	Information	No	No
824	VxSvc_vvr	Autosync completed.	Information	No	No
825	VxSvc_vvr	Volume resize failed.	Error	Yes	No
832	VxSvc_vvr	Failed to convert RVG to primary.	Error	Yes	No

Table 4-9 VVR event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
833	VxSvc_vvr	Failed to convert RVG to secondary.	Error	Yes	No
834	VxSvc_vvr	RVG is acting as secondary.	Information	No	No
835	VxSvc_vvr	RVG is converted to secondary.	Information	No	No
836	VxSvc_vvr	RVG is converted to primary.	Information	No	No
839	VxSvc_vvr	Acting secondary RVG deleted.	Success	No	No
842	VxSvc_vvr	Acting secondary paused.	Success	No	No
843	VxSvc_vvr	Failed to pause acting secondary.	Error	Yes	No
844	VxSvc_vvr	Acting secondary resumed.	Success	No	No
845	VxSvc_vvr	Failed to resume acting secondary.	Error	Yes	No
846	VxSvc_vvr	Acting Secondary link recovered.	Information	No	No
847	VxSvc_vvr	Failed to recover acting secondary link.	Error	Yes	No
848	VxSvc_vvr	Acting secondary connected.	Information	No	No
849	VxSvc_vvr	Acting secondary disconnected.	Information	No	Yes
850	VxSvc_vvr	Acting secondary inconsistent.	Information	No	No
851	VxSvc_vvr	Configuration error on acting secondary.	Critical Error	Yes	Yes
852	VxSvc_vvr	Replicator Log error on acting secondary.	Critical Error	Yes	Yes
853	VxSvc_vvr	Change in replication mode for acting secondary.	Success	No	No
854	VxSvc_vvr	Change in latency protection for acting secondary.	Success	No	No

Table 4-9 VVR event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
855	VxSvc_vvr	Change in Replicator Log protection for acting secondary.	Success	No	No
856	VxSvc_vvr	Change in latency high mark value for acting secondary.	Success	No	No
857	VxSvc_vvr	Change in latency low mark value for acting secondary.	Success	No	No
858	VxSvc_vvr	Change in packet size for acting secondary.	Success	No	No
860	VxSvc_vvr	Acting secondary consistent.	Information	No	No
861	VxSvc_vvr	Failed to snapshot RVG.	Error	Yes	No
862	VxSvc_vvr	Failed to snapback RVG.	Error	Yes	No
864	VxSvc_vvr	Secondary ready to receive data.	Information	No	No
865	VxSvc_vvr	Replicator Log used.	Warning	Yes	Yes
866	VxSvc_vvr	Data access enabled for primary RVG.	Success	No	No
867	VxSvc_vvr	Failed to enable data access for RVG.	Error	Yes	No
868	VxSvc_vvr	Data access disabled for primary RVG.	Success	No	No
869	VxSvc_vvr	Failed to disable data access for RVG.	Error	Yes	No
870	VxSvc_vvr	Primary ready to send data to secondary.	Information	No	No
871	VxSvc_vvr	Failed to start replication on secondary.	Error	Yes	No
872	VxSvc_vvr	Replication stopped on secondary.	Success	No	No
873	VxSvc_vvr	Failed to stop replication on secondary.	Error	Yes	No

Table 4-9 VVR event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
874	VxSvc_vvr	Data access enabled for secondary RVG.	Success	No	No
875	VxSvc_vvr	Data access disabled for secondary RVG.	Success	No	No
876	VxSvc_vvr	Data access enabled for acting secondary.	Success	No	No
877	VxSvc_vvr	Data access disabled for acting secondary.	Success	No	No
878	VxSvc_vvr	Replication stopped on acting secondary.	Success	No	No
879	VxSvc_vvr	Failed to stop replication to acting secondary.	Error	Yes	No
980	VxSvc_vvr	Primary RVG volumes appear as RAW.	Warning	Yes	No
5117	VxSvc_vvr	Change in Network transport protocol	Success	No	No
5120	VxSvc_vvr	Change in network transport protocol for acting secondary	Success	No	No
5123	VxSvc_vvr	Change in bandwidth limit value.	Success	No	No
5126	VxSvc_vvr	Change in bandwidth limit value for acting secondary	Success	No	No
5129	VxSvc_vvr	Bandwidth throttling disabled for secondary.	Success	No	No
5132	VxSvc_vvr	Bandwidth throttling disabled for acting secondary	Success	No	No
5135	VxSvc_vvr	Checkpoint delete successful on RVG.	Success	No	No
5136	VxSvc_vvr	Checkpoint delete failed on RVG.	Error	Yes	No
5139	VxSvc_vvr	Checkpoint delete successful on secondary link.	Success	No	No

Table 4-9 VVR event rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
5140	VxSvc_vvr	Checkpoint delete failed on secondary link.	Error	Yes	No
5147	VxSvc_vvr	Bunker secondary deleted from RDS.	Information	No	No
5150	VxSvc_vvr	Failed to delete the bunker secondary.	Error	Yes	No
5153	VxSvc_vvr	Bunker secondary added.	Information	No	No
5156	VxSvc_vvr	Failed to add bunker secondary.	Error	Yes	No
5173	VxSvc_vvr	Compression is enabled on secondary	Information	Yes	Yes
5176	VxSvc_vvr	Compression is disabled on secondary	Information	Yes	Yes

Performance processing rules

Note: On 64-bit AMD64 and 64-bit Intel Xeon servers running the Microsoft Windows-on-Windows 64-bit (WOW64) subsystem, the SFW performance counters for VVR Memory and VVR Remote Hosts cannot be viewed with the 32-bit MOM 2005 Operator Console.

Table 4-10 Performance processing rules

Rule Group	Rule Name	Provider	Sample Every	Rule Enabled
VVR	Allocated NMCOM Pool (KBytes)	VVR Memory	15 minutes	No
VVR	Allocated READBACK Memory Pool (KBytes)	VVR Memory	15 minutes	No
VVR	Allocated VOLIO Memory Pool (KBytes)	VVR Memory	15 minutes	No
VVR	Data Transmitted (KBytes)	VVR Remote Hosts	15 minutes	No
VVR	DCM Usage(%)	VVR Remote Hosts	15 minutes	No
VVR	Used SRL(%)	VVR Remote Hosts	15 minutes	No

Monitoring and reporting

- [“About monitoring and reporting in SFW Management Pack”](#) on page 78
- [“Monitoring nodes using views”](#) on page 78

About monitoring and reporting in SFW Management Pack

This chapter describes how you can monitor the Veritas Storage Foundation for Windows using the available views. The views supported by the SFW Management packs enable you to monitor the health of the different components within the managed environment. You can then use the reporting functionality to generate the required reports.

Monitoring nodes using views

The views supported by the SFW Management pack are available through the Operator Console. These views enable you to assess the state of the required node within the managed environment. The operator console supports the following views:

- Alert view
- State view
- Event view
- Diagram view

Alert view

The Alert View provides a list of issues requiring action and the current state and severity of each alert. It indicates whether the alerts have been acknowledged, escalated, or resolved, and also whether a Service Level Agreement has been breached.

State view

The State view provides a real-time, consolidated look at the health of the system within the managed environment, highlighting the systems that require attention.

SFW State view

The SFW state view displays the state of each of the predefined groups. The name of each of the state view and the corresponding details are as follows:

- **State View for all SFW 4.3 and 5.x Servers**
Displays the state view for all the servers in the Veritas Storage Foundation Servers Computer Group that have open alerts.

■ **State View for Servers with DMP DSM Option**

Displays the state view for all the servers in the Veritas Storage Foundation 5.x for Windows by Symantec Servers with DMP DSM Option Computer Group that have open alerts.

The state view displays the state of each service group on the current node, along with the state of the IP and VMDg resources. If a service group has multiple IP address or VMDg resources, then only the information about the instance that is in the worst state is displayed in the state view.

The SFW rule groups use some scripts to collect the required performance data or objects data. Following is the script that is used by SFW rule groups:

- `Veritas SFW DMP DSM path performance data`—Collects the Dynamic Multi-pathing performance data for Veritas Storage Foundation and provides this information to the MOM server.

VVR State view

The VVR state view, **State View for all SFW 4.3 and 5.x Servers with VVR option**, displays the data access and replication state for all the servers having open alerts in the Veritas Volume Replicator (VVR) Computer Group.




The Veritas Volume Replicator rule groups use scripts to collect the required VVR performance data or objects data. To enable the scripts to fetch the VVR information from the servers, make sure that the `vxvm` service is running on all the nodes. The following scripts are used by the VVR state view:

- `VVR Objects Discovery Data`—Collects the VVR objects information and provides this information to the MOM server. By default, this script collects data every fifteen minutes.
- `VVR Object State Monitoring Data`—Collects the VVR objects and state monitoring information and provides this information to the MOM server. By default, this script collects data every nine minutes.

State of data access to volumes under replication

The state of data access is monitored with the help of the RVG state information collected by the scripts mentioned earlier and flags information gathered by the

vxprint command. Each state is represented by an icon to indicate the severity of the alert.


State Icon	Alert Severity	RVG State and flags in vxprint	Description
	Success	Active	Data access enabled
	Error	Clean	Data access disabled
	Critical Error	Fail	I/O error





State of replication across VVR servers

The state of data replication is governed by the RLINKs that exist between the primary and secondary sites. This state is monitored with the help of the RLINK state information gathered by the scripts and flag information that is gathered by the vxprint command output. Each RLINK is associated with a unique remote host. Hence, the number of instances displayed in the state view is equal to the number of RLINKs associated with the RVG. If there are no associated RLINKs, then the replication state is not shown, only the data access state is shown for the RVG. The naming scheme used for representing the VVR objects in the state view is as follows:

```
Diskgroup=<DG>, RVG=<rvg>, Role={primary | secondary} | acting_secondary}, RemoteHost=<RlinkRemoteHost>
```

Note: Each state is represented by an icon to indicate the severity of the alert. However, the alert severity for RLINK from one secondary to another is represented by the information icon ⓘ regardless of the RLINK and flags state.

Icon representing state	Alert Severity	RLINK state and flags in vxprint	Description
	Success	Attached, connected	Replication is active

Icon representing state	Alert Severity	RLINK state and flags in vxprint	Description
	Warning	Attached, disconnected	Replication is activating
	Warning	Pause	Replication is paused
	Error	Detached	Replication is inactive
	Critical Error	Fail	I/O error on Secondary

Event view

The Event view provides a list of events that have occurred on managed servers, a description of each event, and the source of the problem.

Performance view

The Performance View displays the tabulated information of SFW and VVR counters in the right-pane details view. You can select the required counters and click **Draw Graph** to view the graphical view. The Performance View displays performance data only for the DMP and VVR.

DMP DSM performance data counters

A new event rule called Get MPIO Performance Data has been added to the Dynamic Multi-pathing\Veritas DMP DSMs (MPIO Device Specific Modules) rule group for the MOM 2005 Pack. Get MPIO Performance Data and its data provider is a timed response which triggers an event every 15 minutes. The event rule is disabled by default.

When enabled, the event rule executes a vbscript on the MOM 2005 server. The vbscript executes `vxdmadm.exe` on the SFW agent-managed computers where the DMP DSM option is installed. It uses a new `vxdmadm` option called `allperf`, which returns a set of comma-separated values:

```
counter name, path, device, array, counter value
```

For each SFW server on which the vbscript is run, the script creates a set of performance objects on the MOM 2005 server with counter names in the format `counter name\path\device`. The counters are automatically added to the

MOM server's performance counter list for the SFW computer from which the data is gathered.

The data collected is a set of counters on a per second basis. There is no need to increase the frequency of collection.

Veritas Cluster Server (VCS) MOM Pack

This section contains the following chapters:

- [Chapter 6, “VCS Management Pack overview”](#) on page 85
- [Chapter 7, “Deploying the VCS Management Pack”](#) on page 91
- [Chapter 8, “Monitoring and reporting”](#) on page 105
- [Chapter 9, “VCS monitoring rules”](#) on page 111

VCS Management Pack overview

- [“About the VCS Management Pack”](#) on page 86
- [“VCS Management Pack processing rule groups”](#) on page 87
- [“About VCS Management Pack Public view”](#) on page 88

About the VCS Management Pack

The Veritas Cluster Server (VCS) Microsoft Operations Manager (MOM) 2005 Management Pack monitors events placed in the Windows event logs. With its set of alerts, the VCS Management Pack can help you monitor the events and performance counters generated by the Veritas Cluster Server (VCS) components such as HAD, GAB, LLT, Agents, and Agent Framework. The event log displays the following message types: errors, warnings, and informational messages.

The VCS Management Pack has processing rules based on the event log messages. These rules generate messages which can be viewed in the public view of the MOM 2005 console. The VCS Management Pack alerts are designed to notify you of critical events requiring attention. A public view of the status of VCS components is also provided. This guide also includes the set of rules that indicate the health of VCS components.

This guide is especially intended for the MOM administrator, and provides information about how the VCS Management Pack is used for event monitoring.

The VCS MOM packs includes a main rule process group under which the rule subgroups, Veritas Storage Foundation for Windows and Veritas Cluster Server for Windows, are present. These rule subgroups are categorized according to the modules that generate the event messages.

The VCS Management Pack can alert you of errors in the following VCS modules:

- HAD
- GAB
- LLT
- Agent Framework
- Agents

VCS Management Pack processing rule groups

This section lists the processing rule groups which are used for monitoring the specific components. Each rule group consists of a set of messages that are used to monitor the specific components.

Processing rule groups

[Table 6-1](#) lists the rule groups supported by the VCS Management Pack supports.

Table 6-1 Processing Rule Groups

Rule Group	Description
HAD	The high-availability daemon, or HAD, is the main VCS daemon running on each system. It is responsible for building the running cluster configuration from the configuration files, distributing the information when new nodes join the cluster, responding to operator input, and taking corrective action when something fails. The VCS Management Pack monitors the status of the HAD and notifies the user in case of errors.
GAB	Group Membership Services/Atomic Broadcast (GAB) is responsible for cluster membership and cluster communications. The VCS Management Pack monitors the status of the cluster memberships and communications.
LLT	VCS uses private network communications between cluster nodes for cluster maintenance. The Low Latency Transport (LLT) functions as a high-performance, low-latency replacement for the IP stack, and is used for all cluster communications. The VCS Management Pack monitors the LLT status.
Agent Framework	The VCS agent framework is a set of common, predefined functions compiled into each agent. These functions include the ability to connect to the VCS engine (HAD) and to understand common configuration attributes. The agent framework frees the developer from developing support functions required by the cluster, and instead focus on controlling a specific resource type. The VCS Management Pack monitors the status of the common agent framework.
Agents	The VCS Management Pack monitors the status of the VCS Bundled agents and Enterprise agents.

About VCS Management Pack Public view

Public views enable you to view the hardware and software configuration and status data related to the application. The top-level public view for VCS is called *Veritas Cluster Server for Windows*. It contains a folder for each of the processing rule groups described in the section “[VCS Management Pack Public views](#)” on page 89.

Each folder contains an alert view and an event view. Depending on the rule and the alert that has been set for an event, an appropriate alert is generated when the event is received on the MOM server.

[Table 6-2](#) indicates the alert categories for the VCS Management Pack.

Table 6-2 Alert Categories

Severity Level	Definition
SUCCESS	Successful completion of an operation.
INFORMATION	The application raises an informational event.
WARNING	Indication of potential future problem, or lower priority issue which does not require any immediate action.
ERROR	The application is experiencing transient errors that requires attention but does not require action immediately and is not an indication of imminent failure.
CRITICAL ERROR	The application is experiencing a serious problem that requires immediate attention. The application requires action to correct an error condition.

[Table 6-3](#) lists the VCS Management Pack default settings for events and alerts.

Table 6-3 Default Settings

Alert	Default Setting
SUCCESS	Event rule disabled.
INFORMATION	Event rule disabled.
WARNING	Event enabled with alert enabled.
ERROR	Event enabled with alert enabled.
CRITICAL ERROR	Event enabled with alert enabled.

Note: There are some exceptions to these settings in which lower severity level events are enabled, and for which alerts might also be enabled.

The VCS Management Pack does not include a notification group for automatic alerts by email. If email alerts are required, you must add the alert processing rules manually.

VCS Management Pack Public views

The Management Pack provides the following public views for the supported rule groups:

- Alerts View
- Events View
- State View

Deploying the VCS Management Pack

- [“About deploying the VCS Management Pack”](#) on page 92
- [“Supported software”](#) on page 92
- [“Prerequisites”](#) on page 92
- [“Importing the VCS Management Pack”](#) on page 92
- [“Technical Reference”](#) on page 104

About deploying the VCS Management Pack

This chapter describes how to deploy and configure the VCS Management Packs into your existing Microsoft Operations Manager (MOM) 2005 environment.

Supported software

The VCS MOM Management Packs are compatible with:

- Microsoft Operations Manager 2005 with Service Pack 1
- Microsoft Windows Server 2003
- Veritas Storage Foundation HA 4.3 for Windows and later versions
- Microsoft Exchange Server 2003
- Microsoft Exchange Server 2007
- Microsoft SQL Server 2000
- Microsoft SQL Server 2005
- Microsoft SQL Server 2008

Prerequisites

Prerequisites are as follows:

- Verify that MOM 2005 infrastructure has been set up. For details, see the appropriate MOM documentation.
- Install the MOMUtil patch for SFW HA 4.3 MP2 if you are upgrading a SFW HA 4.3 MOM pack with the VCS 5.1 MOM pack. Contact Symantec technical support for more information on the patch.
- For monitoring Microsoft SQL Server or Microsoft Exchange Server instances in a 64-bit VCS cluster on the MOM 2005 server, create the following registry key on all the 64-bit cluster nodes:

```
HKLM\SOFTWARE\Wow6432Node\Veritas\VCS\Base
```

Importing the VCS Management Pack

This section provides information about enabling the VCS MOM Management Pack to monitor the events. Depending on whether you have an Exchange or SQL setup, make sure you follow the appropriate procedure mentioned in this section.

Note: Make sure that the application (Exchange or SQL) service group is not online on the node on which you are installing the MOM agent. If the service group is online on the node, switch it to the failover node until the MOM agent installation and security settings have been completed.

Import the following VCS management packs:

- From the MOM 2005 Administrator Console, import the `VCS_MOM2005.akm` to deploy the VCS Management Pack.
- Additionally, import the appropriate VCS Exchange or VCS SQL Management Pack, `<filename>.akm`. These `.akm` files by default disable the original rules and enable the new rules as specified in the `.akm` file.
 - `VCS_Exchange2007_MOM2005.akm`
See “[Modified scripts in VCS Exchange MOM pack](#)” on page 97 for a list of new rules enabled for Exchange 2007.
 - `VCS_Exchange2003_MOM2005.akm`
See “[Modified scripts in VCS Exchange MOM pack](#)” on page 97 for a list of new rules enabled for Exchange 2003.
 - `VCS_SQL2000_MOM2005.akm`
See “[SQL Server 2000 Event Processing Rules](#)” on page 100 for a list of new rules enabled for SQL Server 2000.
 - `VCS_SQL2005_MOM2005.akm`
See “[SQL Server 2005 Event Processing Rules](#)” on page 101 for a list of new rules enabled for SQL Server 2005.
 - `VCS_SQL2008_MOM2005.akm`
See “[SQL Server 2008 Event Processing Rules](#)” on page 103 for a list of new rules enabled for SQL Server 2008.

Upgrading the VCS Management Pack

This section provides information about upgrading the VCS MOM pack when the VCS 4.3 MOM pack is already present in your MOM 2005 monitoring environment.

VCS 4.3 MOM pack is present and has been modified

If you already have the VCS 4.3 MOM Pack deployed in your setup and if you have modified the Management Pack to include Symantec knowledge base information, then do the following:

- 1 Open the Management Pack Import/Export Wizard.

- 2 Navigate the wizard pages and on the Select Management Packs panel, select **Update existing Management Pack** and check the **Back up existing Management Pack** check box.
- 3 After the wizard completes updating the Management Pack, open the MOM Operator Console.
The console displays two public views for VCS.
- 4 Delete the view titled *Veritas Cluster Server*, which is the older view of the VCS 4.3 MOM pack.

VCS 4.3 MOM pack is present and has not been modified

If you already have the VCS 4.3 MOM Pack deployed in your setup and if you have not modified the Management Pack, then do the following:

- 1 Open the Management Pack Import/Export Wizard.
- 2 Navigate the wizard pages and on the Select Management Packs panel, select **Replace existing Management Pack**.
In this case you do not need to select the option to backup the existing Management Pack.

Installing the MOM agents and configuring security settings

Use the procedures mentioned in this section, in the given order to install the MOM agent and configure security settings.

Note: Make sure that the Exchange service group is not online on the node on which you are installing the MOM agent. If the Exchange service group is online on the node, switch it to the failover node until the MOM agent installation and security settings are completed.

Installing MOM agents

Complete these steps to install MOM agents.

To install the MOM agents

- 1 Open the MOM Administrator Console.
- 2 In the console tree, navigate to **Administration** and then right-click **Computers** to select **Install/Uninstall Agent Wizard**.
- 3 Follow the wizard to complete the agent installation on the node. Make sure that you install the MOM agent on each cluster node using the physical (NetBIOS) name of the node, rather than the virtual server name.

Note: After the agent is installed the node is added to the Agent-Managed Computers group.

- 4 Follow the instructions given in the next section to complete security settings.
See “[Configuring security settings](#)” on page 95.

Configuring security settings

To enable the events generated by the virtual server to be reported to the MOM server change the security settings on the MOM server. To do this perform the following steps as recommended by Microsoft.

To enable appropriate security settings on the MOM server

- 1 Open the MOM Administrator Console.
- 2 In the console tree, navigate to **Administration** and then click **Agent-managed Computers**.
- 3 In the right pane, right-click on host *<hostname>* and choose **Properties** from the pop-up menu.
- 4 On the **Security** tab, first clear the **Use Global Settings** check box and then clear the **Prevent Agent from Proxying for other computers or network devices** check box.
- 5 Click **OK** and then restart the MOM Service on all management servers and the agent node.

Repeat the procedures mentioned above for each node in the cluster, one node at a time.

Adding nodes to the Exchange Backend group

To enable the VCS Management Pack to monitor Exchange Server events, you must add the Exchange cluster nodes to the corresponding Microsoft Exchange Server Backend group.

Note: Perform these steps only for the nodes that are configured as a part of the clustered Exchange Virtual Server setup.

To add the cluster nodes to the Exchange Backend group

- 1 Open the MOM Administrator Console.

- 2 In the Console tree, navigate to **Management Packs**, and then click **Computer Groups**.
- 3 In the right pane, right-click the Microsoft Exchange Server 2003 Backend computer group, and then click **Properties**.
- 4 In the **Properties** dialog box, click **Included Computers**.
- 5 On the **Included Computers** tab, add all the Exchange cluster nodes to the group, and then click **OK** to close the dialog boxes.
- 6 Right-click **Management Packs**, and select **Commit Configuration Change**.

Monitoring Exchange Server events in a cluster

In a VCS environment, the MOM pack may not be able to monitor Exchange Server events. In order to enable VCS to monitor the Exchange Server events, you must import the VCS Exchange MOM Management Pack. This may create some new VCS rules to be added and enabled in the same rule group directory as the original, thereby disabling the corresponding original rules.

To enable Exchange MOM pack to monitor Exchange Server events in a cluster

- 1 Import the VCS Exchange MOM pack.
 - For Exchange 2003, use `VCS_Exchange2003_MOM2005.akm`.
 - For Exchange 2007, use `VCS_Exchange2007_MOM2005.akm`.This disables the following original Microsoft Exchange MOM pack rules. For Exchange 2003 the following rules have been modified:
 - Availability and State Monitoring > Database Mounted Check
 - Check for unmounted mailbox store
 - Availability and State Monitoring > Verify Agent Mailbox Configuration
 - Verify Test Mailboxes
 - Availability and State Monitoring > MAPI logon Check and Availability Reporting (enabled)
 - Check mailbox store availability - MAPI logon test.
 - Availability and State Monitoring (enabled) > Verify Exchange Services(enabled)
 - Service Verification. Check services script.
 - Health Monitoring and Performance Thresholds > Server Configuration and Security Monitoring

- Verify Circular Logging setting for each Storage Group
- Verify Message Tracking Log Shares are locked down
- Verify that the Log Files are being truncated by backup (by age modified)
- Verify if SSL is required
- Report Collection Rules > Mailbox Statistics Analysis
 - Report Collection – Mailbox Statistics
- Report Collection Rules > Message Tracking Log Analysis
 - Report Collection – Message Tracking Log Data
- Report Collection Rules > Public Folder Statistics Analysis (enabled)
 - Report Collection - Public Folder Statistics.
- Report Collection Rules > Mailboxes Per Server Analysis (enabled)
 - Report Collection - Number of Mailboxes per server.
- Report Collection Rules > Database Size Analysis (enabled)
 - Report Collection - Database Size per Server.

For Exchange 2007 the following scripts have been modified:

- Get Mailbox Count
- Execute Diagnostic Cmdlet

2 The VCS Exchange MOM packs then starts monitoring the Exchange mailboxes using the rules in the Management Pack.

Table 7-1 Modified scripts in VCS Exchange MOM pack

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
-	-	Check for Unmounted Mailbox Store in VCS	-	Yes	No
-	-	Verify Test Mailboxes in VCS	-	Yes	No
-	-	Service Verification Check services scripts in VCS	-	Yes	No

Table 7-1 Modified scripts in VCS Exchange MOM pack (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
-	-	Verify Circular Logging Setting for Each Storage Group in VCS	-	Yes	No
-	-	Verify Message Tracking Log Shares are Locked Down in VCS	-	Yes	No
-	-	Verify that the Log files are being truncated by backup in VCS (by age modified)	-	Yes	No
-	-	Report Collection-Mailbox Statistics in VCS	-	Yes	No
-	-	Report Collection -Message Tracking Log Data in VCS	-	Yes	No
-	-	Verify if SSL is required in VCS	-	Yes	No
-	-	Check mailbox store availability in VCS - MAPI logon test	-	Yes	No
-	-	Report Collection - Public Folder Statistics in VCS	-	Yes	No
-	-	Report Collection - Number of Mailboxes per server in VCS.	-	Yes	No
-	-	Report Collection - Database Size per Server in VCS.	-	Yes	No
-	-	Service Verification. Check services script in VCS.	-	Yes	No
-	-	Get Mailbox Count in VCS	-	Yes	No
-	-	Execute Diagnostic Cmdlet in VCS	-	Yes	No

Monitoring SQL Server instances in a cluster

Within a MOM 2005 environment, the SQL Server MOM pack can monitor the SQL instances in an MSCS cluster, but within a VCS environment the SQL Server MOM pack is unable to distinguish between the standalone and clustered SQL instances and therefore generates incorrect alerts. To enable VCS to monitor the SQL server instances, you must use the rules specified in the VCS SQL MOM Management Pack.

These rules are timed events that run on the MOM agent nodes at the specified time intervals. The scripts that these rules invoke uses the `MOMUtil.exe` utility to monitor the SQL instances that are under VCS control and check if the corresponding service group for these instances is online on any one of the cluster nodes. If the instance is online on a node in a cluster, then no alerts are generated. However, if the service group is offline for an instance within the cluster, then an alert is generated from the first accessible system within the group.

Note: For monitoring the default instance of SQL Server in a VCS cluster, for the SQL Server resource in VCS service group, set the value of the Instance attribute to `MSSQLSERVER`.

Monitoring SQL Server 2000 instances

Use this procedure to import the VCS SQL 2000 management pack to monitor SQL 2000 instances.

To enable SQL server MOM pack to monitor SQL Server 2000 instances in a VCS cluster

- 1 Import the `VCS_SQL2000_MOM2005.akm` MOM pack.

This disables the original Microsoft SQL 2000 MOM pack rules corresponding to the ones in the VCS SQL MOM Management Pack.

From the MOM Administrator Console navigate to **Management Packs > Rule Groups > SQL Server 2000**.

The rules are located under the following directories:

- SQL Server 2000 Health and Availability Monitoring
 - SQL Server Service Pack Compliance
 - SQL Server 2000 Long Running Agent Jobs
 - SQL Server Block Analysis
- State Monitoring and Service Discovery
 - SQL Server Database Health

- SQL Server Service Availability
 - SQL Server Service Discovery
 - SQL Server 2000 Replication Monitoring
 - SQL Server Space Analysis
- 2 The VCS SQL MOM Management Pack then starts monitoring the SQL Server 2000 instances using the following rules in the Management Pack:

Table 7-2 SQL Server 2000 Event Processing Rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
-	-	SQL Server 2000 Service Pack Compliance in VCS	-	Yes	No
-	-	SQL Server 2000 Long Running Agent Jobs in VCS	-	Yes	No
-	-	SQL Server 2000 Block Analysis in VCS	-	Yes	No
-	-	SQL Server 2000 Database Health in VCS	-	Yes	No
-	-	SQL Server 2000 Service Availability in VCS	-	Yes	No
-	-	SQL Server 2000 Replication Monitoring in VCS	-	Yes	No
-	-	SQL Server 2000 Service Discovery in VCS	-	Yes	No

Monitoring SQL Server 2005 instances

Use this procedure to import the VCS SQL 2005 management pack to monitor SQL 2005 instances.

Note: For monitoring Microsoft SQL Server instances in a 64-bit VCS cluster on the MOM 2005 server, create the following registry key on the 64-bit cluster nodes that host the SQL instance:

HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Microsoft SQL Server\Instance Names\SQL. However, you need not create any registry value under this key. After adding the registry key, the MOM 2005 server detects the SQL instances.

To enable the SQL server MOM pack to monitor the SQL Server 2005 instances

1 Import the `VCS_SQL2005_MOM2005.akm` MOM pack.

This disables the original Microsoft SQL 2005 MOM pack rules corresponding to the ones in the VCS SQL 2005 MOM Management Pack. From the MOM Administrator Console navigate to **Management Packs > Rule Groups > SQL Server 2005**.

The original rules are located under the following directories:

- Management Packs > Rule Groups > Microsoft SQL Server > SQL Server 2005 > State Monitoring and Service Discovery
 - SQL Server Database Health
 - SQL Server Service Availability
 - SQL Server Service Discovery
 - SQL Server Replication Monitoring
 - SQL Server Database Space Analysis
 - SQL Server Agent Long Running Jobs
 - SQL Server Block Analysis

2 The VCS SQL 2005 MOM Management Pack then starts monitoring the SQL Server 2005 instances using the following rules in the Management Pack:

Table 7-3 SQL Server 2005 Event Processing Rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
-	-	SQL Server 2005 Service Availability in VCS	-	Yes	No
-	-	SQL Server 2005 Block Analysis in VCS	-	Yes	No
-	-	SQL Server 2005 Database Health in VCS	-	Yes	No
-	-	SQL Server 2005 Long Running Agent Jobs in VCS	-	Yes	No
-	-	SQL Server 2005 Replication Monitoring in VCS	-	Yes	No
-	-	SQL Server 2005 Service Discovery in VCS	-	Yes	No

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
-	-	SQL Server 2005 Space Analysis in VCS	-	Yes	No

Monitoring SQL Server 2008 instances

Use this procedure to import the VCS SQL 2008 management pack to monitor SQL 2008 instances.

Note: For monitoring Microsoft SQL Server instances in a 64-bit VCS cluster on the MOM 2005 server, create the following registry key on the 64-bit cluster nodes that host the SQL instance:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Uninstall\Microsoft SQL Server 10.
```

However, you need not create any registry value under this key. After adding the registry key, the MOM 2005 server detects the SQL instances.

To enable the SQL server MOM pack to monitor the SQL Server 2008 instances

- 1 Import the `VCS_SQL2008_MOM2005.akm` MOM pack.
- 2 Disable the original Microsoft SQL 2008 MOM pack rules corresponding to the ones in the VCS SQL 2008 MOM Management Pack.
 From the MOM Administrator Console navigate to **Management Packs > Rule Groups > SQL Server 2008**.

The original rules are located under the following directories:

- Management Packs > Rule Groups > Microsoft SQL Server > SQL Server 2008 > State Monitoring and Service Discovery
 - SQL Server Database Health
 - SQL Server Service Availability
 - SQL Server Service Discovery
 - SQL Server Replication Monitoring
 - SQL Server Database Space Analysis
 - SQL Server Agent Long Running Jobs
 - SQL Server Block Analysis
- 3 The VCS SQL 2008 MOM Management Pack then starts monitoring the SQL Server 2008 instances.

[Table](#) lists the rules used in the VCS SQL 2008 Management Pack.

Table 7-4 SQL Server 2008 Event Processing Rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
-	-	SQL Server 2008 Service Availability in VCS	-	Yes	No
-	-	SQL Server 2008 Block Analysis in VCS	-	Yes	No
-	-	SQL Server 2008 Database Health in VCS	-	Yes	No
-	-	SQL Server 2008 Long Running Agent Jobs in VCS	-	Yes	No
-	-	SQL Server 2008 Replication Monitoring in VCS	-	Yes	No
-	-	SQL Server 2008 Service Discovery in VCS	-	Yes	No
-	-	SQL Server 2008 Space Analysis in VCS	-	Yes	No

Technical Reference

Registry

The VCS Management Pack collects the VCS version registry attribute for computers using the registry value at:

Attribute Name	Registry Path
VCS Version Attribute Type: Registry value	SOFTWARE\VERITAS\VCS\Base\Version.

Computer Groups

The Computer Groups folder is visible in the tree view of the MOM 2005 Administrator Console and contains computer groups that either you created, or that automatically downloaded with Microsoft Operations Manager (MOM) 2005. Computer groups help define on which computers MOM 2005 rules are deployed. Through the Administrator console, you can create and manage computer groups and subgroups. It has some in-built Computer Groups that are installed along with the management packs.

VCS Management Pack Computer Groups

The VCS MOM Management Pack includes the following Computer Group:

Veritas Cluster Server for Windows –Includes Windows servers running SFW HA version 4.3 or later.

Formula: `AttributeValue (VCS Version) >= "4.003.0000"`

Notification Groups

The Management Pack does not include a notification group.

Monitoring and reporting

- [“About monitoring and reporting in VCS Management Pack”](#) on page 106
- [“Monitoring nodes using views”](#) on page 106
- [“Generating reports”](#) on page 108

About monitoring and reporting in VCS Management Pack

This chapter describes how you can monitor the VCS components using views. The views supported by the Management packs enables you to monitor the health of the different components within the managed environment. You can then use the reporting functionality to generate the required reports.

Monitoring nodes using views

The views supported by the VCS Management pack are available through the Operator Console. These views enable you to assess the state of the required node within the managed environment. The operator console supports the following views:

- Alert view
- State view
- Event view
- Diagram view

Alert view

The Alert View provides a list of issues requiring action and the current state and severity of each alert. It indicates whether the alerts have been acknowledged, escalated, or resolved, and also whether a Service Level Agreement has been breached.

State view

The State view provides a real-time, consolidated look at the health of the cluster within the managed environment, highlighting the systems that require attention.

VCS state view

The VCS state view displays the state of each service group on the current node, along with the state of the IP, Lanman, and VMDg resources. If a service group has multiple IP address or VMDg resources, only the information about the instance that is in the worst state is displayed in the state view.

The state information for the IP address, Lanman, and the VMDg resources for all the service groups are displayed under the respective columns in the State

Details pane. All other resources such as the GenericService, Process, FileShare, and Enterprise Agents, are displayed under the Service column.

If HAD is not running on a particular node, then an alert is generated to indicate this and no service group or resource information is shown in the state view for that node. To enable the state view display for VCS, the following event rules have been created in Veritas Cluster Server for Windows processing rule group.

- VCS Service Discovery
- VCS State monitoring.

The scripts that these rules invoke use the `MOMUtil.exe`. The `MOMUtil.exe` gathers the state related information for all the service groups and resources. The `MOMUtil` discovers all the service groups and resources on the current node.

Event view

The Event view provides a list of events that have occurred on managed servers, a description of each event, and the source of the problem.

Diagram view

The Diagram view gives you a variety of topological views where the existence of servers and relationships are defined by management packs. The Diagram view allows you to see the status of the servers, access other views, and launch context-sensitive actions. This helps you navigate quickly to the root of the problem.

Performance View

Performance Views are currently not supported for VCS.

Generating reports

You can use the MOM 2005 Reporting console to run and view VCS MOM reports that are based on data in the MOM Reporting database. The MOM 2005 Reporting console runs within SQL Server Reporting Services. Predefined MOM Reports are provided as a part of Management Packs. An additional XML file must be deployed for viewing the alerts and events for VCS and the corresponding rule groups.

You can install VCS MOM Reporting on the same computer as the MOM database or a Management Server. For optimum performance, it is recommended that the MOM Reporting Server be a dedicated computer. You must install the MOM database before installing MOM Reporting.

There are specific rules in the VCS Management Pack that collect the event and performance data that will eventually be used in MOM reports. To collect data that you can use for reporting, you must enable these rules and apply them to computer groups. Do not install reports without their corresponding Management Packs. The VCS Management Pack can be deployed by importing the required XML file. This file consists of a set of SQL queries, one each for the alerts and events for each of the VCS rule groups and one for the computer groups.

For more information, see the *Microsoft Operations Manager Operations Guide*.

Prerequisites

- Verify that SQL Server Reporting Services has been installed.
- Verify that MOM Reporting component has been installed before you import Management Packs, which include MOM reports. Otherwise, you have to import the reports separately after installing the MOM Reporting.

From the MOM 2005 SP1 Administrator Console import the `VCS_MOM2005.xml` to deploy the Reporting with the VCS Management Pack. You can choose to do this either while importing the SFW HA Management Pack or later using the same wizard.

Launching the reporting console

To launch the reporting console, click **Start > All Programs > Microsoft Operation Manager 2005 > Reporting Console**.

Viewing reports

The `VCS_MOM2005.XML` file that you have imported contains report queries for all the sub rule groups in VCS (Agents, Agent Framework, HAD, GAB and LLT). You can generate the reports by giving details about the nodes and their details in the cluster.

Microsoft Operations Manager Reporting Console displays the list of available reports. To generate reports for the VCS components, click **VCS Reports**.

Note: Currently, the reporting console does not support reporting for SFW.

Following reports are supported for the VCS Management Pack:

Table 8-1 VCS Management Pack reports

Report name	Description
Agent Framework Events	Displays the events generated from AgentFramework source.
Agent Framework Alerts	Displays the alerts generated from AgentFramework source.
Engine (HAD) Events	Displays the events generated from HAD source.
Engine (HAD) Alerts	Displays the alerts generated from HAD source.
GAB Events	Displays the events generated from GAB source.
GAB Alerts	Displays the alerts generated from GAB source.
LLT Events	Displays the events generated from LLT source.
LLT Alerts	Displays the alerts generated from LLT source.
Events	Displays all the events generated on computers of Veritas Cluster Server for Windows computer group.
Alerts	Displays all the alerts generated on computers of Veritas Cluster Server for Windows computer group.

For each of these pre-designed Alert reports you can specify the following information through the provided fields:

- BeginDate and EndDate
- ComputerName

For each of these pre-designed event reports you can specify the following information through the provided fields:

- BeginDate
- EndDate
- ComputerName
- EventType
- From EventID
- To EventID
- OrderBy

The reports will be generated according to the information that you have specified in the fields.

VCS monitoring rules

- [“About VCS monitoring rules”](#) on page 112
- [“HAD monitoring rules”](#) on page 112
- [“GAB monitoring rules”](#) on page 141
- [“LLT monitoring rules”](#) on page 143
- [“Bundled agents monitoring rules”](#) on page 144
- [“Enterprise agents monitoring rules”](#) on page 173
- [“Agent Framework monitoring rules”](#) on page 191

About VCS monitoring rules

This chapter lists the monitoring rules for the various VCS modules. The monitoring rules consist of event processing rules and alert processing rules.

Note: The performance processing rules are not supported for this release.

HAD monitoring rules

Table 9-1 HAD monitoring rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
10746	HAD	Incorrect snmp command	Warning	Y	N
10755	HAD	Unexpected return value	Warning	Y	N
10761	HAD	Node id expected	Warning	Y	N
10772	HAD	Too many options	Warning	Y	N
10792	HAD	Must specify the type name	Warning	Y	N
10799	HAD	Too few arguments	Warning	Y	N
10805	HAD	Connection timed out	Warning	Y	N
10806	HAD	Error while registering resource	Warning	Y	N
10809	HAD	Value type not supported	Warning	Y	N
10811	HAD	Invalid group dependency type specified: %1	Warning	Y	N
10813	HAD	Unable to open file '%1'. The file may be corrupted or does not exist.	Warning	Y	N
10814	HAD	Incorrect LDF path specified	Warning	Y	N
10815	HAD	Incorrect message severity specified	Warning	Y	N
10816	HAD	Incorrect object type specified	Warning	Y	N
10817	HAD	Incorrect object name specified	Warning	Y	N
10818	HAD	VCS object tag does not have an object name	Warning	Y	N
10819	HAD	Incorrect message ID specified	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
10821	HAD	No messages match your query	Warning	Y	N
10822	HAD	No log files available	Warning	Y	N
10823	HAD	Incorrect language specified	Warning	Y	N
10824	HAD	Unable to open file '%1'. This file was generated by a newer version of the VCS engine.	Warning	Y	N
10825	HAD	Tail value must be an integer value greater than 0	Warning	Y	N
10826	HAD	Incorrect system specified for checkpartial option	Warning	Y	N
11005	HAD	hacl -status died. Transitioning to STALE_DISCOVER_WAIT	Error	Y	N
11007	HAD	Exiting:Cannot lock %1 error = %2	Error	Y	N
11009	HAD	Exiting: Another copy of VCS may be running	Error	Y	N
11012	HAD	Cannot lock file: %1 error = %2	Warning	Y	N
11014	HAD	Cannot write '%1' to %2	Warning	Y	N
11015	HAD	Environment variable %1 is not defined	Error	Y	N
11016	HAD	Failed to interpret line %1	Error	Y	N
11021	HAD	Failed to notify service ctl manager (SCM)	Warning	Y	N
11024	HAD	System name retrieval failed	Warning	Y	N
11028	HAD	Error querying Registry value %1	Error	Y	N
11030	HAD	HAD not ready to receive this command. Message was: 0x%1	Warning	Y	N
11031	HAD	GABTCP open failed. Exiting.	Error	Y	N
11032	HAD	Registration failed. Exiting	Error	Y	N
11033	HAD	GAB open failed. Exiting	Error	Y	N
11036	HAD	GAB recv failed. Exiting.	Error	Y	N
11037	HAD	Failed to StartServiceCtrlDispatcher %1	Error	Y	N
11038	HAD	Failed to open had service	Error	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
11039	HAD	Failed to make MSG_CLUSTER_STOP_SYS.	Error	Y	N
11041	HAD	Engine Stopping Deleting vlist for %1	Warning	Y	N
11043	HAD	Unknown major/minor msg = %1	Warning	Y	N
11045	HAD	Unable to create temporary file	Warning	Y	N
11046	HAD	Local system not available	Warning	Y	N
11047	HAD	Unable to execute the hastatus print command	Warning	Y	N
11055	HAD	Unknown process-registration msg: %1	Warning	Y	N
11062	HAD	Group '%1' does not exist. Resources added later will not be registered.	Warning	Y	N
11064	HAD	Type '%1' does not exist. Resources added later will not be registered	Warning	Y	N
11084	HAD	%1 is an invalid TAG	Warning	Y	N
11086	HAD	Exiting: Cannot make directory: %1	Error	Y	N
11098	HAD	Another hashadow running .. VCS engine is exiting	Warning	Y	N
11103	HAD	VCS exited. It will restart	Error	Y	N
11104	HAD	VCS has faulted %1 times since %2 hashadow will not restart VCS. Correct the problem and restart VCS.	Error	Y	N
11106	HAD	Cannot get lock on file: %1	Warning	Y	N
11108	HAD	Cannot start had. Error=0x%1	Warning	Y	N
11109	HAD	Cannot start had. Error=%1	Warning	Y	N
11113	HAD	Memory allocation failed.	Warning	Y	N
11130	HAD	No username	Warning	Y	N
11131	HAD	Incorrect username.	Warning	Y	N
11135	HAD	Cannot get password -- error 0x%1	Warning	Y	N
11137	HAD	Cannot encrypt password -- error 0x%1	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
11148	HAD	Cannot ioctl(IOCTL_LL_GETPARAM/LP_MAXLINKS (Windows Error Code = %1)	Warning	Y	N
11149	HAD	Cannot ioctl(IOCTL_LL_GETLINKINFO (Windows Error Code = %1)	Warning	Y	N
11150	HAD	Cannot ioctl(IOCTL_LL_GETPARAM/LP_MAXNODE (Windows Error Code = %1)	Warning	Y	N
11151	HAD	Cannot ioctl(IOCTL_LL_GETNODEALL (Windows Error Code = %1)	Warning	Y	N
11152	HAD	Cannot malloc(%1 for msgbuf)	Warning	Y	N
11154	HAD	Cannot ioctl(IOCTL_LL_GETPARAM/LP_MAXNODE)	Warning	Y	N
11164	HAD	Cannot ioctl(IOCTL_LL_GETNODEALL)	Warning	Y	N
11165	HAD	Error opening /dev/gab_0	Warning	Y	N
11166	HAD	Error opening /dev/llt	Warning	Y	N
11168	HAD	Cannot ioctl(IOCTL_LL_GETLINKINFO)	Warning	Y	N
11169	HAD	Failed to get Link heartbeat status.	Error	Y	N
11170	HAD	Failed to get Disk heartbeat status.	Error	Y	N
11171	HAD	Cannot ioctl(IOCTL_LL_GETPARAM/LP_MAXLINKS)	Warning	Y	N
11274	HAD	System shutting down on %1	Error	Y	N
11277	HAD	Retry Interval is %1 at fault %2	Warning	Y	N
11278	HAD	Error on executing gab_getdisk.	Warning	Y	N
11279	HAD	Failed to read file '%1'	Warning	Y	N
11280	HAD	hadiscover could not find function (%1) in library	Warning	Y	N
11281	HAD	Discovery of %1 attribute failed	Warning	Y	N
11282	HAD	Failed to list discoverable attributes	Warning	Y	N
11283	HAD	Discovery not supported for Type %1	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
11284	HAD	Your evaluation period has expired. VCS will not start the next time you invoke hstart	Warning	Y	N
11285	HAD	[Licensing] You have %1 day(s) left in your VCS evaluation period	Error	Y	N
11286	HAD	Updating license key on %1	Warning	Y	N
11287	HAD	Failed to update engine's copy of license key	Error	Y	N
11288	HAD	License key updated successfully on the local node. The halic utility needs to be run on all nodes in the cluster in order for the VCS license to be updated properly	Warning	Y	N
11289	HAD	License key is not unique within cluster. Failed to update license key.	Error	Y	Y
11290	HAD	WARNING:One or more systems are not online.\nTherefore	Warning	Y	N
11291	HAD	Canceling license key update	Warning	Y	N
11292	HAD	WARNING:halic is unable to determine whether or\nnot this key is unique within the cluster. Duplicate keys\nwill prevent nodes from rejoining the cluster.\n\nDo you wish to continue? [Y/N]:	Warning	Y	N
11300	HAD	User name is a reserved word or contains invalid character(s)	Error	Y	Y
11301	HAD	System can not be restarted: err:%1	Error	Y	Y
11303	HAD	Exiting: HAD has encountered a critical error. Please check VCS_HOME/log/drwatson for logs	Error	Y	Y
11304	HAD	Please enter valid English arguments	Warning	Y	N
11309	HAD	Configuration must be ReadWrite	Warning	Y	N
11316	HAD	User name should be of the format user@domain	Error	Y	Y
11317	HAD	'%1' is an invalid debug log tag.	Warning	Y	N
11318	HAD	Cannot specify both -sev and -dbg	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
11319	HAD	The -parameters option must be the last option specified	Warning	Y	N
11320	HAD	Must also specify -parameters when using the -encoding option	Warning	Y	N
11321	HAD	Invalid message specified	Warning	Y	N
11322	HAD	Invalid system specified	Warning	Y	N
11323	HAD	Invalid severity specified	Warning	Y	N
11325	HAD	Invalid debug level specified	Warning	Y	N
11327	HAD	Message ID must be under 65535	Warning	Y	N
11328	HAD	Invalid message ID specified	Warning	Y	N
11329	HAD	Invalid encoding specified	Warning	Y	N
11330	HAD	Invalid parameters specified	Warning	Y	N
11331	HAD	Exiting:Cannot register with SCM(service ctl manager) .err: %1.	Error	Y	Y
12021	HAD	Error - %1 (%2) in file %3:%4	Warning	Y	N
12022	HAD	Failed to get working directory	Warning	Y	N
12023	HAD	Unsuccessful open of ipm service	Warning	Y	N
12025	HAD	%1 %2 has an Administrators/Operators list without any users defined	Warning	Y	N
12026	HAD	Types file should have a .%1 extension	Warning	Y	N
12027	HAD	Cannot mkdir %1	Warning	Y	N
12028	HAD	Cannot chdir %1	Warning	Y	N
12029	HAD	%1 does not have a list	Warning	Y	N
12030	HAD	Cannot open lock file: errno = %1	Warning	Y	N
12031	HAD	Configuration locked	Warning	Y	N
12032	HAD	Cannot create file: %1	Warning	Y	N
12033	HAD	Cannot open file: %1	Warning	Y	N
12034	HAD	User %1 in %2 %3 %4	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
12035	HAD	Error deleting file: %1	Warning	Y	N
12036	HAD	Source file should have a .%1 extension	Warning	Y	N
12037	HAD	Incorrect syntax for value of attribute SourceFile for type %1 : %2	Warning	Y	N
12038	HAD	Exiting: Cannot chdir %1.	Error	Y	Y
12039	HAD	Cannot open file: %1 error = %2	Warning	Y	N
12040	HAD	Failed to change to working directory	Warning	Y	N
12041	HAD	Keyword i18nstr found : %1\nLocalized input not allowed.	Warning	Y	N
12043	HAD	Failed to dump the configuration from the live engine	Warning	Y	N
12046	HAD	Configuration stale	Warning	Y	N
12047	HAD	Cannot fork %1	Warning	Y	N
12048	HAD	Destination file should have a .%1 extension	Warning	Y	N
12051	HAD	Illegal group dependency clause	Warning	Y	N
12054	HAD	Cannot open input file: %1	Warning	Y	N
12055	HAD	Unexpected EOF: %1	Warning	Y	N
12056	HAD	Parent resource %1 does not exist %2	Warning	Y	N
12057	HAD	Child resource %1 does not exist %2	Warning	Y	N
12058	HAD	Unknown type %1 %2	Warning	Y	N
12059	HAD	Expecting -keys	Warning	Y	N
12060	HAD	Cannot find attribute %1	Warning	Y	N
12061	HAD	Scalar attributes cannot have multiple values	Warning	Y	N
12062	HAD	Cannot find resource %1	Warning	Y	N
12065	HAD	Unknown subcommand %1	Warning	Y	N
12066	HAD	Not enough arguments	Warning	Y	N
12071	HAD	Unexpected attribute %1	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
12076	HAD	Cannot find group %1	Warning	Y	N
12083	HAD	Cannot find system %1	Warning	Y	N
12085	HAD	Expecting haevent -add	Warning	Y	N
12086	HAD	Unknown event %1	Warning	Y	N
12087	HAD	Unknown command %1	Warning	Y	N
12088	HAD	Unknown event subcommand %1	Warning	Y	N
12089	HAD	Unexpected message: %1	Warning	Y	N
12090	HAD	Unknown message: %1	Warning	Y	N
12092	HAD	Ipm send failure	Warning	Y	N
12093	HAD	Recv failure	Warning	Y	N
12095	HAD	Aborting hacf: errors encountered	Warning	Y	N
12097	HAD	Duplicate definition for %1 at %2:%3	Warning	Y	N
12102	HAD	Parent resource %1 and child resource %2 do not belong to the same group	Warning	Y	N
12103	HAD	Cannot find attribute def for %1.%2	Warning	Y	N
12104	HAD	Expecting a list for %1	Warning	Y	N
12105	HAD	Cannot open output %1	Warning	Y	N
12109	HAD	Ipm sendrecv failure	Warning	Y	N
12111	HAD	Configuration may contain only one cluster clause	Warning	Y	N
12113	HAD	System %1 defined more than once	Warning	Y	N
12114	HAD	Group %1 defined more than once	Warning	Y	N
12115	HAD	Group %1 cannot have more than one group dependency clause	Warning	Y	N
12116	HAD	Group %1 has a local attribute without a SystemList	Warning	Y	N
12117	HAD	System %1 not on SystemList of group %2	Warning	Y	N
12120	HAD	Qualified name not found	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
12121	HAD	Value for attribute %1 not found	Warning	Y	N
12122	HAD	Reserved word - %1 - cannot be used to name objects or attributes	Warning	Y	N
12123	HAD	Type %1 defined more than once	Warning	Y	N
12127	HAD	Cannot find group %1 %2	Warning	Y	N
12128	HAD	Resource %1 is %2 and must not have children	Warning	Y	N
12129	HAD	Resource %1 in a cycle	Warning	Y	N
12130	HAD	Group %1 does not exist	Warning	Y	N
12131	HAD	Group %1 contains group dependency cycles	Warning	Y	N
12133	HAD	Group %1 contains too deep group dependency	Warning	Y	N
12134	HAD	SystemList for group %1 contains non-existent system %2	Warning	Y	N
12135	HAD	Group %1 has an AutoStartList without a SystemList	Warning	Y	N
12136	HAD	System %1 in the AutoStartList of group %2	Warning	Y	N
12137	HAD	Invalid Resource Type %1 in group %2	Warning	Y	N
12138	HAD	Cannot find type %1	Warning	Y	N
12139	HAD	Resource Type %1 occurring more than once in dependency attribute for group %2	Warning	Y	N
12140	HAD	Group %1 has SystemZones without a SystemList	Warning	Y	N
12141	HAD	System %1 in the SystemZones of group %2	Warning	Y	N
12142	HAD	Attribute %1 for %2 cannot be specified both local and global	Warning	Y	N
12143	HAD	Attribute %1 for %2 specified local on %3 more than once	Warning	Y	N
12144	HAD	Reserved word - %1 - cannot be used to name objects or attributes: %2	Warning	Y	N
12145	HAD	SystemList does not have a list	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
12146	HAD	Group %1 has a local attribute %2 without SystemList	Warning	Y	N
12148	HAD	Local system not specified for %1 in group %2	Warning	Y	N
12149	HAD	Local system was specified for non local attribute %1 in group %2	Warning	Y	N
12150	HAD	Duplicate event item name %1 %2	Warning	Y	N
12151	HAD	Duplicate event name %1 %2	Warning	Y	N
12155	HAD	Bad include line in file %1:%2	Warning	Y	N
12156	HAD	No group defined	Warning	Y	N
12158	HAD	AutoStartList does not have a list	Warning	Y	N
12159	HAD	Unable to get list of types files from VCS engine	Warning	Y	N
12160	HAD	Single slash not allowed	Warning	Y	N
12161	HAD	Quotes mismatch	Warning	Y	N
12162	HAD	Unexpected group dependency	Warning	Y	N
12163	HAD	No name given for cluster	Warning	Y	N
12164	HAD	No name given for group	Warning	Y	N
12165	HAD	No name given for system	Warning	Y	N
12166	HAD	No name given for type	Warning	Y	N
12167	HAD	Cannot change file permissions of %1	Warning	Y	N
12168	HAD	Cannot find HeartBeat %1	Warning	Y	N
12169	HAD	Attempting to add Remote Cluster %1. It is already the existing local cluster	Warning	Y	N
12170	HAD	Attempting to add Cluster %1. It is already an existing remote cluster	Warning	Y	N
12171	HAD	Heartbeat %1 is defined more than once	Warning	Y	N
12172	HAD	Remote Cluster %1 is defined more than once	Warning	Y	N
12173	HAD	Remote Cluster name %1 is same as the local cluster name	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
12174	HAD	No name given for heartbeat	Warning	Y	N
12175	HAD	No name given for Remote Cluster	Warning	Y	N
12177	HAD	Cluster %1 defined in ClusterList of Heartbeat %2 is not a remote cluster	Warning	Y	N
12178	HAD	Local Cluster name and value of Cluster attribute ClusterName must be the same	Warning	Y	N
12180	HAD	Must specify name and IP address of Remote Cluster to be added	Warning	Y	N
12181	HAD	Remote Cluster Name missing	Warning	Y	N
12182	HAD	%1 is not an existing Remote Cluster	Warning	Y	N
12183	HAD	Cannot override attribute %1	Warning	Y	N
12184	HAD	ClusterList of heartbeat %1 does not have a list	Warning	Y	N
12185	HAD	Heartbeat %1 has a local attribute %2 without ClusterList	Warning	Y	N
12186	HAD	Cluster %1 not on ClusterList of heartbeat %2	Warning	Y	N
12187	HAD	Cluster %1 defined in ClusterList of Group %2 is not a local or remote cluster	Warning	Y	N
12188	HAD	ClusterList for group %1 does not have a list	Warning	Y	N
12189	HAD	Cluster-scope not specified for local attribute %1 in heartbeat %2	Warning	Y	N
12190	HAD	Cluster-scope was specified for global attribute %1 in heartbeat %2	Warning	Y	N
12191	HAD	Line %1 of file %2 is not in UTF-8 format	Warning	Y	N
12193	HAD	Undefined Type : %1 %2	Warning	Y	N
12194	HAD	Mandatory attribute Missing : %1.%2	Warning	Y	N
12196	HAD	Configuration does not contain a Heartbeat object	Warning	Y	N
12197	HAD	Group %1 has a local hard dependency with level more than 1	Warning	Y	N
12198	HAD	Group %1 has multiple local hard parents	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
12199	HAD	%1 and %2 cannot have the same ClusterAddress	Warning	Y	N
12200	HAD	ClusterAddress not defined for %1	Warning	Y	N
12201	HAD	No name given for resource : %1	Warning	Y	N
12202	HAD	Duplicate system name in SystemList of %1	Warning	Y	N
12203	HAD	Group ClusterService cannot have any parent group	Warning	Y	N
12207	HAD	Group ClusterService cannot have any child group	Warning	Y	N
12208	HAD	Group %1 : ClusterFailOverPolicy should be one of Manual	Warning	Y	N
12210	HAD	Group %1 : Authority should be either 0 or 1	Warning	Y	N
12211	HAD	IPM Receive Error	Warning	Y	N
12212	HAD	IPM Protocol Error	Warning	Y	N
12213	HAD	Attribute %1 for %2 specified more than once	Warning	Y	N
12214	HAD	IPM Send Error	Warning	Y	N
12216	HAD	Insufficient space in %1 for temporary files	Warning	Y	N
12217	HAD	Failed to open temporary files	Warning	Y	N
12218	HAD	Could not create temporary files in %1	Warning	Y	N
12219	HAD	Error encountered while writing temporary files : %1	Warning	Y	N
12221	HAD	Cannot open file specified in the include statement: %1	Warning	Y	N
12222	HAD	Invalid IP address assigned to ClusterAddress of remote cluster %1	Warning	Y	N
12223	HAD	Group %1 depends on a non-existing group : %2	Warning	Y	N
13310	HAD	Offlining parent group %1 on system %2	Warning	Y	N
13326	HAD	Cannot find attribute(%1) in the resource type description	Error	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13327	HAD	Cannot find attribute(%1) in the resource attribute list	Error	Y	N
13332	HAD	Unable to update attribute ResourceInfo\n	Warning	Y	N
13338	HAD	Usage error	Warning	Y	N
13340	HAD	System name should be specified with cluster	Warning	Y	N
13341	HAD	Incorrect arguments to action	Warning	Y	N
13342	HAD	No overridden attributes	Warning	Y	N
13344	HAD	No overridden attributes in resources	Warning	Y	N
13345	HAD	No overridden attributes in resources	Warning	Y	N
13346	HAD	No overridden attributes in resources	Warning	Y	N
13347	HAD	No overridden attributes in any resource	Warning	Y	N
13350	HAD	Cannot specify type/group/attribute/system as values for any of the options to the display command	Warning	Y	N
13351	HAD	Invalid option: %1	Warning	Y	N
13352	HAD	Usage error: Value missing for option %1	Warning	Y	N
13357	HAD	Error in converting the input string into UCS-2 encoding. Output may be truncated	Warning	Y	N
13358	HAD	Error in converting the input string into UTF-8 encoding. Output may be truncated	Warning	Y	N
13463	HAD	Resource %1 does not belong to types(%2)\n	Warning	Y	N
13464	HAD	Resource %1 does not belong to groups(%2) \n	Warning	Y	N
13465	HAD	Resource %1 does not belong to types(%2) or groups(%3) \n	Warning	Y	N
13466	HAD	No overridden attributes in resources %1 or no resource in (%2) belongs to type(s) %3\n	Warning	Y	N
13467	HAD	No overridden attributes in resources %1 or no resource in (%2 belongs to group(s) %3\n	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13468	HAD	No overridden attributes in resources %1 or no resource in (%2) belongs to type(s) %3 and group(s) %4	Warning	Y	N
13469	HAD	No overridden attributes in resources %1	Warning	Y	N
14001	HAD	Config file %1 does not exist. Forming a one node cluster	Error	Y	N
14002	HAD	Node config file %1 does not exist. Forming a one node cluster	Error	Y	N
14005	HAD	Nodeid is %1. Forming a onenode cluster and setting nodeid to 0	Warning	Y	N
14007	HAD	Unsuccessful open of service %1	Error	Y	N
14016	HAD	Heartbeat did not contain 6 fields	Warning	Y	N
14017	HAD	Eject myself: Detected mynodeid in membership %1	Warning	Y	N
14020	HAD	Deleting ipmhandle: No heartbeats received from nodeid %1 on link %2 current time = %3 past time = %4	Error	Y	N
14021	HAD	ioctl error while registering IP address %1	Warning	Y	N
16007	HAD	Failed to execute process: %1. Errno is %2	Warning	Y	N
16008	HAD	Failed to create process: %1. Errno is %2	Warning	Y	N
16009	HAD	Error in executing command: %1. Errno is %2	Warning	Y	N
17001	HAD	Notifier:Expected SNMP managers machine name	Warning	Y	N
17002	HAD	Notifier:Severity out of range	Warning	Y	N
17003	HAD	Notifier:Unexpected option	Warning	Y	N
17004	HAD	Notifier:Expected SMTP server name	Warning	Y	N
17005	HAD	Notifier:Expected mail recipients name	Warning	Y	N
17006	HAD	Notifier:Expected SNMP and or SMTP options	Warning	Y	N
17007	HAD	Notifier:exit by NOTIFIER_DISCONNECT msg. Connected to %1	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
17009	HAD	Notifier:cannot connect to ipmsserver	Warning	Y	N
17010	HAD	Notifier:cannot create thread	Warning	Y	N
17011	HAD	Notifier:cannot communicate to VCS	Warning	Y	N
17012	HAD	Notifier:sendMSG_NOTIFIER_CONNECT failure	Warning	Y	N
17013	HAD	Notifier:IPM connection failed	Warning	Y	N
17014	HAD	Notifier:exit by NOTIFIER_DISCONNECT msg. Connected to unknown host	Warning	Y	N
17015	HAD	Notifier:receive messages unknown minor	Warning	Y	N
17016	HAD	Notifier:send MSG_NOTIFIER_ACK failed	Warning	Y	N
17017	HAD	Notifier:receive unknown message from VCS	Warning	Y	N
17018	HAD	Notifier:cannot create PDU for snmp trap	Warning	Y	N
17019	HAD	Notifier:cannot get local IP address	Warning	Y	N
17020	HAD	Notifier:cannot create snmp trap OID	Warning	Y	N
17021	HAD	Notifier:cannot allocate memory for %1	Warning	Y	N
17022	HAD	Notifier:%1 undefined	Warning	Y	N
17023	HAD	Notifier:%1 command failure	Warning	Y	N
17024	HAD	Notifier:wrong service group type	Warning	Y	N
17025	HAD	Notifier:wrong heartbeat type	Warning	Y	N
17026	HAD	Notifier:cannot open snmp session to %1	Warning	Y	N
17027	HAD	Notifier:cannot send snmp trap	Warning	Y	N
17028	HAD	Notifier:cannot close snmp session	Warning	Y	N
17029	HAD	Notifier:unknown error	Warning	Y	N
17030	HAD	Notifier:cannot verify recipient %1	Warning	Y	N
17031	HAD	Notifier:activated signal %1	Warning	Y	N
17032	HAD	Notifier:send MSG_NOTIFIER_DISCONNECT failed	Warning	Y	N
17033	HAD	Notifier:cannot get snmp traps up time	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
17034	HAD	Notifier:SNMP error %1	Warning	Y	N
17035	HAD	Notifier:SNMP unknown error	Warning	Y	N
17036	HAD	Notifier:SMTP error %1	Warning	Y	N
17037	HAD	Notifier:SMTP unknown error	Warning	Y	N
17038	HAD	Notifier:value of option %1 is out of range	Warning	Y	N
17039	HAD	Notifier:unknown trap ID	Warning	Y	N
17040	HAD	Notifier:unknown entities type	Warning	Y	N
17041	HAD	Notifier:unknown entities subtype	Warning	Y	N
17042	HAD	Notifier:options wrong order. Entity type must be define before entity subtypes	Warning	Y	N
17043	HAD	Notifier:send MSG_NOTIFIER_NOTIFY failure	Warning	Y	N
17045	HAD	Notifier:response to MSG_NOTIFIER_ALIVE failure	Warning	Y	N
17046	HAD	Notifier:%1 command failure for %2	Warning	Y	N
17047	HAD	Notifier:Setting message Queue size to default value as value specified is less than default	Warning	Y	N
17049	HAD	Notifier:Message %1 is being deleted since message cannot be delivered for more than a hour	Warning	Y	N
17050	HAD	Notifier:Unhandled exception occurred	Warning	Y	N
17051	HAD	Notifier:Unable to connect to %1	Warning	Y	N
17053	HAD	Notifier:Mail server specified does not support SMTP VRFY command. Email user cannot be verified	Warning	Y	N
40000	HAD	ULF_CLI ULF_AGT	Error	Y	N
40001	HAD	Cannot connect to VCS simulator	Warning	Y	N
40002	HAD	Passwords do not match	Error	Y	N
40004	HAD	Error: Nodeid(%1 should be less than maxnodes(%2 This node cannot join the cluster	Error	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
40006	HAD	Error: Cannot Initialize Socket	Error	Y	N
40007	HAD	Error: Unsuccessful open of service	Error	Y	N
40009	HAD	Unable to specify -status from the command line. %1	Warning	Y	N
40016	HAD	Error: invalid type %c	Error	Y	N
40024	HAD	Passwords do not match enter again	Error	Y	N
40103	HAD	On the FAULTED cluster %1	Warning	Y	N
40113	HAD	%1 %2	Warning	Y	N
40114	HAD	%1 %2 %3	Warning	Y	N
40115	HAD	Cannot specify both -localclus and -clus options	Warning	Y	N
40116	HAD	-localclus should be the last option.	Warning	Y	N
40125	HAD	No records found matching the specified conditions\n	Warning	Y	N
49001	HAD	Could not copy the sample configuration files	Error	Y	N
49002	HAD	Cannot find VCS_SIMULATOR_HOME	Error	Y	N
49003	HAD	Cannot gather Simulator port configurations for cluster %1	Error	Y	N
49004	HAD	Port specified is already configured in this configuration.	Error	Y	N
49007	HAD	Configuration files created but could not update the simconfig file.	Error	Y	N
49008	HAD	Cannot find default simulator configuration.	Error	Y	N
49009	HAD	Directory for the specified cluster already exists. Cannot continue to configure.	Error	Y	N
49015	HAD	Cannot write to file: %1	Error	Y	N
49017	HAD	Simulator is already running on port '%1' for cluster '%2'.	Error	Y	N
49018	HAD	Could not find port information for the cluster %1. Specified cluster may not be configured.	Error	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
49019	HAD	Could not connect to the cluster %1. It may not be Running.	Error	Y	N
49020	HAD	Could not stop SimServer. Error reported: %1	Error	Y	N
49021	HAD	Cannot gather cluster name information for port %1	Error	Y	N
50000	HAD	Group %1's prerequisites have not been fully met on system %2	Warning	Y	N
50007	HAD	Initiating auto-start online of group %1	Warning	Y	N
50016	HAD	Setting SYSSTATE to RSM_EXITED for node : %1.	Error	Y	N
50018	HAD	process_cluster() - received MSG_CLUSTER_DIE_DUPLICATE_NAME from node: %1. Will Exit now.	Warning	Y	N
50036	HAD	There are no enabled resources in the group %1 to online	Warning	Y	N
50039	HAD	Disabled resource: %1 can not be onlined	Error	Y	N
50040	HAD	All the resources in group are not completely offline	Error	Y	N
50043	HAD	For system %1 LLTNodeId:%2 and NodeId:%3 do not match	Warning	Y	N
50044	HAD	For system %1 check if llctab file has correct set-node entry with reference to the llthosts file. VCS engine will exit to prevent any inconsistency	Warning	Y	N
50045	HAD	Initiating online of parent group %s	Warning	Y	N
50046	HAD	Initiating online of parent group %1 on node %2	Warning	Y	N
50047	HAD	Clearing parent group %1's migrateq	Warning	Y	N
50048	HAD	Migrating child %1 from node %2	Warning	Y	N
50049	HAD	Initiating online of child group %1	Warning	Y	N
50050	HAD	Migrating parent %s from node %1	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
50051	HAD	Failed to read GAB message %1 time(s) due to insufficient memory.	Error	Y	N
50052	HAD	Insufficient memory to read GAB message. Panic system.	Error	Y	N
50053	HAD	Insufficient memory to read GAB message. Exiting.	Error	Y	N
50100	HAD	Command (%1) failed. Cluster Administrator or Group Administrator privilege required	Error	Y	N
50101	HAD	Command (%1) failed. Cluster Administrator privilege required	Error	Y	N
50102	HAD	Command (%1) failed. At least Cluster Operator privilege required	Error	Y	N
50103	HAD	Command (%1) failed. At least Group Administrator privilege required	Error	Y	N
50104	HAD	Command (%1) failed. At least Group Operator privilege required	Error	Y	N
50105	HAD	Command (%1) failed. User should be a %2	Warning	Y	N
50112	HAD	hacli is disabled	Warning	Y	N
50114	HAD	Invalid value %1 for key %2	Warning	Y	N
50115	HAD	Invalid value %1 for key %2	Warning	Y	N
50116	HAD	Invalid value %1 for key %2	Warning	Y	N
50117	HAD	Invalid value %1 for key %2 can not modify key for this value	Warning	Y	N
50118	HAD	%1 is not a valid key for CPUUsageMonitoring	Warning	Y	N
50119	HAD	Error in disabling CPUUsage monitoring: %1	Error	Y	N
50120	HAD	Error in enabling CPUUsage monitoring: %1	Error	Y	N
50121	HAD	Error in reading CPUUsage: %1	Error	Y	N
50122	HAD	Invalid CPUUsage obtained: %1	Error	Y	N
50123	HAD	CPUUsage: %1 exceeded ActionThreshold: %2 on system %3	Error	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
50124	HAD	CPUUsage: %1 exceeded NotifyThreshold: %2 on system %3	Warning	Y	N
50126	HAD	Group %1 is not yet fully probed on system %2	Warning	Y	N
50132	HAD	User %1	Warning	Y	N
50134	HAD	User %1	Warning	Y	N
50138	HAD	Some resources are in ADMIN WAIT state on system %1	Warning	Y	N
50141	HAD	Clearing the migrateq for parent group %1	Warning	Y	N
50148	HAD	ADMIN_WAIT flag set for resource %1 on system %2 with the reason %3	Error	Y	N
50300	HAD	Unsuccessful get of PDRs (%1)	Error	Y	N
50301	HAD	Unsuccessful in getting PD attributes (%1)	Warning	Y	N
50302	HAD	Unsuccessful search for non-root domain.	Error	Y	N
50303	HAD	Unsuccessful creation of private domain in Authentication Broker for VCS Engine(%1) %2	Error	Y	N
50304	HAD	Unsuccessful in getting Private Domain attributes (%1)	Error	Y	N
50305	HAD	Unsuccessful creation of Principal in Authentication Broker for VCS Engine(%1)	Error	Y	N
50307	HAD	Failed to initialize secure communication library (%1)	Error	Y	N
50309	HAD	Security ON. Init failed. Clients will be rejected	Error	Y	N
50312	HAD	Unable to get FQDN for host (%1)	Error	Y	N
50505	HAD	Remote cluster %1 cannot be deleted as it is in the %2 state	Error	Y	N
50506	HAD	Remote cluster %1 cannot be deleted as it is a part of the clusterlist for group %2	Error	Y	N
50507	HAD	Remote cluster %1 cannot be deleted as it is a part of the clusterlist for heartbeat %2	Error	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
50523	HAD	Number of clusters in the ClusterList attribute for group %1 is different between clusters %2 and %3	Error	Y	N
50524	HAD	Cluster %1 does not exist in the ClusterList attribute for group %2 in cluster %3	Error	Y	N
50526	HAD	Group %1's ClusterList priority for cluster %2 is different between clusters %3 and %4	Error	Y	N
50528	HAD	ClusterList values for global group %1 differ between the clusters. Not attempting to online group in local cluster	Error	Y	N
50529	HAD	Remote cluster %1 does not exist in the ClusterList attribute for group %2 in local cluster %3	Error	Y	N
50530	HAD	Group %1's ClusterList priority for cluster %2 is different between local cluster %3 and remote cluster %4	Error	Y	N
50531	HAD	Number of clusters in the ClusterList attribute for group %1 is different between local cluster %2 and remote cluster %3	Error	Y	N
50624	HAD	Simulator switched local system to %1	Warning	Y	N
50625	HAD	System (%1) is already up	Warning	Y	N
50626	HAD	Cannot bring system %1 up	Error	Y	N
50627	HAD	Cannot bring system %1 up	Error	Y	N
50628	HAD	System %1 is the last running node in the cluster. Stop the cluster instead of powering off this system	Warning	Y	N
50702	HAD	Remote cluster name needs to be specified.\n	Warning	Y	N
50704	HAD	Incorrect remote cluster specified	Warning	Y	N
50705	HAD	Must specify a system name	Warning	Y	N
50706	HAD	Incorrect cluster specified	Warning	Y	N
50710	HAD	Incorrect option	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
50711	HAD	Insufficient arguments	Warning	Y	N
50712	HAD	Bad parameter	Warning	Y	N
50713	HAD	Specify one remote cluster	Warning	Y	N
50714	HAD	Please specify the heartbeat and attribute name.	Warning	Y	N
50717	HAD	Must specify a system name or use the -all option	Warning	Y	N
50727	HAD	Unexpected message 0x%1 while processing alerts from engine	Warning	Y	N
50728	HAD	Invalid alert ID specified	Warning	Y	N
50729	HAD	Invalid description specified	Warning	Y	N
50731	HAD	Incorrect category ID specified	Warning	Y	N
50739	HAD	Need to specify a description of why alert is being deleted	Warning	Y	N
50743	HAD	ClusterService group is not properly configured on cluster %1	Warning	Y	N
50757	HAD	Remote cluster %1 does not have Authority for global group %2. Not attempting to online in local cluster	Error	Y	N
50758	HAD	Not initiating online of parent group %1 after child online because parent group is in deferred AutoStart	Warning	Y	N
50759	HAD	Not initiating online of parent group %1 after child online since local cluster does not have Authority for parent group	Warning	Y	N
50809	HAD	Group %1 is unable to go online on any system in cluster %2	Warning	Y	N
50824	HAD	Command (%1) failed. At least Group Operator privilege required on remote cluster %2	Error	Y	N
50850	HAD	Unable to display alerts. An error has occurred while requesting alerts from engine	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
50851	HAD	An error has occurred while receiving alerts from engine	Warning	Y	N
50878	HAD	Error opening LDF file for '%1'	Error	Y	N
50879	HAD	Invalid log message	Error	Y	N
50894	HAD	Command (%1) failed. The Group %2 cannot be frozen	Error	Y	N
50895	HAD	Remote cluster %1 was determined to be the next suitable failover target for group %2. Not initiating online of group	Warning	Y	N
50908	HAD	Remote cluster %1 has faulted. Determining if global group %2 should be failed over to local cluster	Error	Y	N
50909	HAD	Unable to find a suitable remote failover target for Group %1.	Error	Y	N
50910	HAD	Local cluster was determined to be the next suitable failover target for Group %1. Initiating online of group	Error	Y	N
50911	HAD	Unable to fail over global group %1 in local cluster. Attempting to fail group over to a remote cluster [ClusterFailoverPolicy = %2]	Warning	Y	N
50921	HAD	CONCURRENCY VIOLATION:Group %1 is online on the following clusters [%2]	Error	Y	N
50922	HAD	Invalid group %1 specified	Warning	Y	N
50926	HAD	Local cluster was not granted Authority for group %1	Warning	Y	N
50927	HAD	Received invalid message 0x%1	Warning	Y	N
50931	HAD	Group %1 could not go online on remote system %2. Not initiating offline of group	Warning	Y	N
50932	HAD	Group %1 could not go online in remote cluster %2. Not initiating offline of group	Warning	Y	N
50934	HAD	Unable to AutoStart	Warning	Y	N
50952	HAD	Invalid remote group message 0x%1	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
50953	HAD	Remote group name is required	Warning	Y	N
50954	HAD	Could not find cluster %1	Warning	Y	N
50955	HAD	Remote group %1 does not exist in cluster %2	Warning	Y	N
50961	HAD	Global group %1 is faulted on system %2 in cluster %3	Error	Y	N
50965	HAD	AutoFailOver value for group %1 is different between local cluster %2 and remote cluster %3	Error	Y	N
50966	HAD	ClusterFailOverPolicy value for group %1 is different between local cluster %2 and remote cluster %3	Error	Y	N
50972	HAD	Invalid remote resource message 0x%1	Warning	Y	N
50973	HAD	Remote resource name is required	Warning	Y	N
50974	HAD	Remote type name is required	Warning	Y	N
50977	HAD	Could not find group %1 on cluster %2	Warning	Y	N
50978	HAD	Remote resource %1 does not exist in cluster %2	Warning	Y	N
50979	HAD	[Licensing] You have %1 day(s) left in your %2 feature evaluation period	Error	Y	N
50980	HAD	[Licensing] Your evaluation period for the %1 feature has expired. This feature will not be enabled the next time VCS starts	Error	Y	N
50981	HAD	Resource %1 is faulted on system %2 in cluster %3	Error	Y	N
50984	HAD	Invalid remote system message 0x%1	Warning	Y	N
50985	HAD	Remote system name is required	Warning	Y	N
50987	HAD	Remote system %1 does not exist in cluster %2	Warning	Y	N
50992	HAD	System %1 has faulted in cluster %2	Error	Y	N
50993	HAD	Local cluster has Authority for group %1 but is unable to communicate with other remote clusters. Postponing AutoStart for %2 seconds	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
50994	HAD	Local cluster does not have Authority for group %1. Not initiating AutoStart of group on system %2 after probe	Warning	Y	N
51000	HAD	offlining (path) group %1 on %2	Warning	Y	N
51001	HAD	Migrating child %1 from node %2 to %3	Warning	Y	N
51004	HAD	Invalid Timeout message 0x%1	Error	Y	N
51005	HAD	Timeout with ID = %1 already exists	Error	Y	N
51006	HAD	Invalid Timeout type 0x%1	Error	Y	N
51007	HAD	Timeout with ID = %1 does not exist	Error	Y	N
51008	HAD	Unknown Axis flag 0x%1	Warning	Y	N
51018	HAD	Cluster %1 does not exist	Warning	Y	N
51027	HAD	Global group %1 is faulted due to a persistent resource fault. Not setting Restart because local cluster does not have Authority for group	Warning	Y	N
51040	HAD	Unable to grant Authority to cluster %1 since local cluster no longer has Authority for group %2	Warning	Y	N
51041	HAD	Unable to grant cluster %1 Authority for group %2 since group is online/partial in local cluster	Warning	Y	N
51043	HAD	Unable to grant cluster %1 Authority for group %2 since group is in the middle of a group operation	Warning	Y	N
51045	HAD	Unable to grant cluster %1 Authority for group %2 since child group %3 is in the middle of a group operation	Warning	Y	N
51050	HAD	Cannot switch global group %1. Cluster %2 is unable to locate Authority for group	Warning	Y	N
51060	HAD	VCS engine rejected connection request from wide area connector because group %1 is not properly configured	Error	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
51061	HAD	VCS engine rejected connection request from wide area connector because group %1 is not running on local system %2	Error	Y	N
51062	HAD	VCS engine rejected connection request from wide area connector because a connection with the wide area connector has already been established	Error	Y	N
52501	HAD	LinkHandle::events select failed errno=%1	Warning	Y	N
52502	HAD	LinkHandle::open Cannot find usable Winsock.dll or correct version of Winsock.dll	Error	Y	N
52503	HAD	LinkHandle::open Cannot find protocol information for TCP	Warning	Y	N
52504	HAD	LinkHandle::open gethostbyname failed for %1	Warning	Y	N
52505	HAD	LinkHandle::open Unrecognizable Address Format %1	Warning	Y	N
52506	HAD	LinkHandle::open Cannot create socket. errno = %1	Error	Y	Y
52508	HAD	LinkHandle::open setting close on exec failed errno = %1	Warning	Y	N
52509	HAD	LinkHandle::open select failed errno = %1	Warning	Y	N
52510	HAD	LinkHandle::open set to nonblocking mode failed errno = %1	Warning	Y	N
52511	HAD	LinkHandle::open Cannot find service information for %1 errno = %2/tcp	Warning	Y	N
52512	HAD	LinkHandle::open getpeername failed errno = %1	Warning	Y	N
52513	HAD	LinkHandle::open fcntl(FD_CLOEXEC) failed errno = %1	Warning	Y	N
52514	HAD	LinkHandle::send peer exited errno = %1	Warning	Y	N
52515	HAD	LinkHandle::send peer closed	Warning	Y	N
52516	HAD	LinkHandle::recvb _read_ errno is %1	Warning	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
52517	HAD	LinkHandle::recv peer exited errno=%1	Warning	Y	N
52518	HAD	LinkHandle::sendrecv send() != IPM_SUCCESS	Warning	Y	N
52519	HAD	LinkHandle::sendrecv recvb() != IPM_SUCCESS	Warning	Y	N
52520	HAD	LinkHandle::sendrecv Unexpected message	Error	Y	N
52521	HAD	Invalid Channel	Warning	Y	N
52522	HAD	LinkServer::open Cannot find service information for %1/tcp	Warning	Y	N
52523	HAD	LinkServer::open Cannot find protocol information for TCP	Warning	Y	N
52524	HAD	LinkServer::open Cannot create socket errno = %1	Error	Y	N
52525	HAD	LinkServer::open SO_REUSEADDR failed errno = %1	Warning	Y	N
52526	HAD	LinkServer::open Bind Failed errno = %1	Warning	Y	N
52527	HAD	LinkServer::open Listen Failed errno = %1	Warning	Y	N
52528	HAD	LinkServer::accept failed errno = %1	Warning	Y	N
52529	HAD	Login Incorrect	Warning	Y	N
52564	HAD	Cluster is not in RUNNING state	Warning	Y	N
52565	HAD	Bad cmd specified	Warning	Y	N
52566	HAD	Bad system specified	Warning	Y	N
52573	HAD	Command (%1) can not be run on a remote system	Error	Y	N
53000	HAD	SSL handshake failed %1	Error	Y	N
53005	HAD	Broker (%1) unable to authenticate logged on user (%2)	Error	Y	N
53006	HAD	Unable to connect to VCS engine securely	Error	Y	N
53007	HAD	Error returned from engine: HAD on this node not accepting clients.	Error	Y	N

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
53009	HAD	Failed to initialize security library (%1)	Error	Y	N
13005	vcsagfw.dll	Agent (%1) is exiting due to internal error.	Error	Y	N
13133	VCSAgTestClient	Cannot open stdin .. exiting	Error	Y	N
13134	VCSAgTestClient	Error receiving from the agent. Exiting	Error	Y	N
13135	VCSAgTestClient	Error sending to the agent. Exiting	Error	Y	N
13136	VCSAgTestClient	Could not connect to port %1 IPM error(%2)	Error	Y	N
13137	VCSAgTestServer	Could not get port number for the service %1. Will try port %2	Warning	Y	N
13138	VCSAgTestServer	Could open IPM server on port %1. Exiting	Error	Y	Y
13353	VCSAgTestServer	Invalid status message received for Resource(%1	Warning	Y	N
13355	VCSAgTestServer	Error: Cannot find usable Winsock.dll or correct version of Winsock.dll	Error	Y	Y
13372	VCSAgTestServer	The following commands are supported:\n (Use 'help <command>' for more information on using <command> \n)	Error	Y	Y
13375	VCSAgTestServer	Cannot understand input -- type help for list of commands	Error	Y	Y
13379	VCSAgTestServer	Agent %1 has either not started or has not connected	Error	Y	Y
13381	VCSAgTestServer	Unknown agent (%1) is trying to connect	Error	Y	Y
13382	VCSAgTestServer	Agentid (%1) already exists -- cannot start two agents with the same id	Error	Y	Y
13383	VCSAgTestServer	Error(%1) opening (%2)	Error	Y	Y
13384	VCSAgTestServer	Cannot execute %1	Error	Y	Y
13386	VCSAgTestServer	Sends a message to an agent to online a resource	Error	Y	Y
13387	VCSAgTestServer	Sends a message to an agent to add a resource	Error	Y	Y
13388	VCSAgTestServer	Sends a message to an agent to determine the status of a resource	Error	Y	Y
13389	VCSAgTestServer	Sends a message to an agent to delete a resource	Error	Y	Y

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13390	VCSAgTestServer	Sends message to an agent to offline a resource	Error	Y	Y
13391	VCSAgTestServer	Starts an agent and assigns it a name	Error	Y	Y
13392	VCSAgTestServer	The default value of <filename> is \$VCS_HOME\\bin\\VCSAgDriver.exe	Error	Y	Y
13393	VCSAgTestServer	The default value of <filename> is \$VCS_HOME/bin/<agentid>/<agentid>Agent	Error	Y	Y
13394	VCSAgTestServer	Subsequent commands to this agent must specify <agentid> as the first arg	Error	Y	Y
13395	VCSAgTestServer	sends a shutdown message to the agent specified by the <agentid>	Error	Y	Y
13396	VCSAgTestServer	Deletes an agent entry from the list of agents started by this process.	Error	Y	Y
13397	VCSAgTestServer	Prints the ids of all the agents started by this process	Error	Y	Y
13398	VCSAgTestServer	Sends a message to the agent <agentid> to\n - either list all the hash tables\n - or display a particular hash table	Error	Y	Y
13399	VCSAgTestServer	Sends a message to an agent to display the memory statistics of the\n internal C++ objects	Error	Y	Y
13400	VCSAgTestServer	Sends a message to an agent to show its CPU usage statistics	Error	Y	Y
13401	VCSAgTestServer	Sends a message to an agent to add a resource type	Error	Y	Y
13402	VCSAgTestServer	Sends a message to an agent to add an attribute to a resource type	Error	Y	Y
13403	VCSAgTestServer	Sends a message to an agent to add an attribute to all the resources\n of a resource type	Error	Y	Y
13404	VCSAgTestServer	Sends a message to an agent to modify an attribute of a resource type	Error	Y	Y
13405	VCSAgTestServer	Sends a message to an agent to modify an attribute of a resource	Error	Y	Y

Table 9-1 HAD monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13406	VCSAgTestServer	Quits this program. All the agents started by this process must be \n stopped before this command can be issued	Error	Y	Y
13408	VCSAgTestServer	Cannot quit: Please stop all Agents before quitting	Error	Y	Y
13409	VCSAgTestServer	Unknown command (%1) . Type help for the list of commands	Error	Y	Y
13410	VCSAgTestServer	Agentid has not been specified	Error	Y	Y
13411	VCSAgTestServer	Received the MSG_CLUSTER_CONN_INFO message with non string key	Error	Y	Y
13412	VCSAgTestServer	No value specified for key (%1)	Error	Y	Y
13413	VCSAgTestServer	Value of key %1 should be a string	Error	Y	Y
13414	VCSAgTestServer	Value of key %1 should be an integer	Error	Y	Y
13420	VCSAgTestServer	Please verify the arguments	Error	Y	Y

GAB monitoring rules

GAB rules are located in the Veritas Cluster Server for Windows folder. The following lists the GAB rules included in the Management Pack.

Table 9-2 GAB monitoring rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1	GAB	Event logging enabled for GAB driver.	Informational	Y	N
2	GAB	Error in creating Device Object in NT Gab Driver.	Error	Y	Y
3	GAB	A device which does not exist was specified.	Error	Y	Y
4	GAB	The I/O request was cancelled.	Error	Y	Y

Table 9-2 GAB monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
5	GAB	Insufficient system resources exist to complete the request.	Error	Y	Y
6	GAB	Not enough memory resources to complete the request.	Error	Y	Y
7	GAB	The access right to the requested object has not been granted.	Error	Y	Y
8	GAB	The device for the request is currently busy.	Error	Y	Y
9	GAB	The Object Name already exists.	Error	Y	Y
10	GAB	An invalid parameter was passed to a function.	Error	Y	Y
11	GAB	A protocol error was detected.	Error	Y	Y
12	GAB	The I/O device reported an I/O error.	Error	Y	Y
13	GAB	The specified resources name can not be found.	Error	Y	Y
14	GAB	Driver report error on %2	Error	Y	Y
15	GAB	Driver report %2	Error	Y	Y
18	GAB	GAB: Driver information displayed in data field below. Use Byte mode display and scroll passed first 20 hex bytes starting at offset 28 hex.	Error	Y	N

LLT monitoring rules

LLT rules are located in the Veritas Cluster Server for Windows folder. The following lists the LTT rules included in the Management Pack.

Table 9-3 LLT monitoring rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
3	LLT	Internal Error: Incorrect header size %2	Error	Y	Y
4	LLT	Internal Error: Failed to create LLT device"	Error	Y	Y
5	LLT	Internal error: Failed to create symbolic link	Error	Y	Y
6	LLT	Memory allocation error %2	Error	Y	Y
7	LLT	Failed to close the LLT link %2	Error	Y	Y
8	LLT	Protocol error: Acknowledgement in window but no messages to zap %2	Error	Y	Y
9	LLT	Duplicate cluster/node detected %2	Error	Y	Y
10	LLT	Link disabled %2	Error	Y	Y
11	LLT	LLT is disabled	Error	Y	Y
12	LLT	Timer was not called for quite sometime %2	Error	Y	Y

Bundled agents monitoring rules

The Agent Framework rules for each agent are located in the Veritas Cluster Server for Windows folder, categorized appropriately under properly named sub-folders. The following lists the GenericService rules included in the Management Pack.

VMDg agent event processing rules

Table 9-4 VMDg agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
9551	VMDg	Failed to query VxOb (Error = %d:%d).	Warning	Y	N
9550	VMDg	Failed to start VxOb Service (Error = %d:%d).	Warning	Y	N
9552	VMDg	Failed to open VxOb (Error = %d:%d).	Warning	Y	N
9558	VMDg	Failed to unmount volume	Warning	Y	N
9510	VMDg	Volume Manager Cluster support components not installed.	Error	Y	N
9507	VMDg	Could not initialize Volume Manager connection. Error = %08X	Error	Y	N
9509	VMDg	Could not get SCM handle [%d:%d]	Error	Y	N
9505	VMDg	Cluster Server license is not enabled in Volume Manager.	Error	Y	N
9506	VMDg	Diskgroup not configured	Error	Y	N
9559	VMDg	Query imported cluster diskgroups : %s	Warning	Y	N
9515	VMDg	Init diskgroup : %s	Error	Y	N
9615	VMDg	Init diskgroup failed : The diskgroup and GUID do not match	Error	Y	N
9715	VMDg	Init diskgroup failed [%d:%d]	Error	Y	N
9553	VMDg	Query imported cluster diskgroup state: %s	Warning	Y	N

Table 9-4 VMDg agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
9561	VMDg	Query SCSI Reservation : %s	Warning	Y	N
9562	VMDg	One or more disks in this diskgroup are unsteady.	Warning	Y	N
9513	VMDg	Online diskgroup : %s	Error	Y	N
9563	VMDg	Force Import of diskgroup enabled.	Warning	Y	N
9566	VMDg	Disk availability check : %s	Warning	Y	N
9511	VMDg	Online diskgroup. Less than half of total disks available in the diskgroup.	Error	Y	N
9613	VMDg	Import diskgroup failed [%d:%d]	Error	Y	N
9514	VMDg	Offline diskgroup : %s	Error	Y	N
9614	VMDg	Deport diskgroup failed [%d:%d]	Error	Y	N

MountV agent event processing rules

Table 9-5 MountV agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
9001	MountV	Volume Manager Cluster support components not installed.	Error	Y	N
9002	MountV	Could not initialize Volume Manager connection. Error=%08X	Error	Y	N
9005	MountV	Cluster Server license is not enabled in Volume Manager.	Error	Y	N
9006	MountV	%s not configured	Error	Y	N
9007	MountV	Mount type unknown (%d:%d:%s)	Warning	Y	N
9008	MountV	Failed to get volume properties [%d:%d]	Warning	Y	N

Table 9-5 MountV agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
9011	MountV	Volume %s is also mounted as NTFS Folder mount(s) at %s	Warning	Y	N
9010	MountV	Cannot access volume %s	Error	Y	N
9012	MountV	Volume %s is Mounted as %s but configured as %s	Warning	Y	N
9013	MountV	Volume %s is already mounted as NTFS Folder %s	Warning	Y	N
9015	MountV	Volume %s has been mounted multiple times (%s)	Warning	Y	N
9016	MountV	Volume %s has also been mounted as (%s)	Warning	Y	N
9009	MountV	Volume %s is also mounted as Driveletter %s	Warning	Y	N
9017	MountV	Diskgroup not present	Warning	Y	N
9018	MountV	Volume not present	Warning	Y	N
9019	MountV	Connection to VM not initialized	Warning	Y	N
9014	MountV	Volume %s is already mounted as Driveletter %s	Warning	Y	N
9020	MountV	%s is not suitable for folder mount [%d:%d]	Warning	Y	N
9021	MountV	%s is not on an NTFS formatted volume	Warning	Y	N
9022	MountV	Failed to unlock volume [%d:%d]	Warning	Y	N
9023	MountV	Failed to lock volume [%d:%d]	Warning	Y	N
9031	MountV	Unable to open volume [%d:%d]	Warning	Y	N
9024	MountV	Failed to mount volume %s at %s [%d:%d]	Error	Y	N
9025	MountV	Failed to unmount the volume from the configured mount path [%d:%d]	Error	Y	N

Table 9-5 MountV agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
9026	MountV	Filesystem at %s is not clean [%d:%d]	Error	Y	N
9027	MountV	Failed to add administrative share	Error	Y	N
9030	MountV	Failed to delete administrative share [%d:%d]	Error	Y	N

ElifNone agent event processing rules

Table 9-6 ElifNone agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
2	Agents	FileName is not valid	Error	Y	N

FileNone agent event processing rules

Table 9-7 FileNone Agent Event Processing Rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
502	Agents	File Name is not specified	Error	Y	N

FileOnOff agent event processing rules

Table 9-8 FileOnOff Agent Event Processing Rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1002	Agents	Unable to create the file	Error	Y	N
1003	Agents	Unable to delete the file	Error	N	N

FileOnOnly agent event processing rules

Table 9-9 FileOnOnly agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1502	Agents	ERROR! FileName is not valid	Error	Y	N
1504	Agents	Unable to create the file	Error	Y	N

FileShare agent event processing rules

Table 9-10 FileShare agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
10501	FileShare	Attribute value(s) invalid for %s	Error	Y	N
10701	FileShare	Share name %s contains invalid characters	Error	Y	N
10502	FileShare	Failed to initialize folder %s [%d:%d]	Error	Y	N
10503	FileShare	Failed to initialize permissions. [%d:%d]	Error	Y	N
10504	FileShare	Failed to attach permissions. [%d:%d]	Error	Y	N
10520	FileShare	Path mismatch for share %s	Error	Y	N
10510	FileShare	MaxUsers for share %s is less than configured	Error	Y	N
10522	FileShare	FileShare Error : The Server service is not available	Error	Y	N
10523	FileShare	The share %s is of type Print	Error	Y	N
10524	FileShare	The share %s is of type Device	Error	Y	N
10525	FileShare	The share %s is of type IPC	Error	Y	N
10526	FileShare	The share %s is of type Special	Error	Y	N
10527	FileShare	The share %s is of type Unknown	Error	Y	N
10506	FileShare	Unknown error for folder %s [%d:%d]	Error	Y	N
10521	FileShare	System error occurred for folder %s Error [%d]	Error	Y	N
10529	FileShare	Permissions error occurred for folder %s Error [%d]	Error	Y	N
10507	FileShare	Failed to get properties for folder %s [%d:%d]	Error	Y	N

Table 9-10 FileShare agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
10505	FileShare	Failed to open folder %s [%d:%d]	Error	Y	N
10528	FileShare	The folder %s may not be shared by VCS	Error	Y	N
10508	FileShare	Folder %s (\\\\%s\\%s) already shared	Error	Y	N
10509	FileShare	Failed to share folder %s as (\\\\%s\\%s) [%d:%d]	Error	Y	N
10519	FileShare	Failed to unshare folder %s as (\\\\%s\\%s) [%d:%d]	Error	Y	N

Internet Information Services (IIS) agent event processing rules

Table 9-11 IIS agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13503	Agents	Failed to parse the argument list.	Warning	Y	N
13505	Agents	Failed to allocate memory for IIS Service resource object.	Error	Y	N
13504	Agents	"Failed to find the service object. Please check the \SiteType\" attribute. (%s)""	Error	Y	N
13506	Agents	"Failed to initialize IIS site object. [%d	Error	Y	N
13507	Agents	"Failed to create a new object for (%s) service [%d	Error	Y	N
13556	Agents	"Arguments are not specified correctly	Error	Y	N
13557	Agents	Failed to convert resource name. Error %d	Error	Y	N
13558	Agents	Failed to convert the argument list. Error %d.	Error	Y	N
13559	Agents	"Configuration error. \Service\" attribute is not configured.""	Error	Y	N
13560	Agents	"Configuration error. \SiteName\" attribute is not configured.""	Error	Y	N
13561	Agents	"Configuration error. \IPResName\" attribute is not configured.""	Error	Y	N
13562	Agents	Internal error IP (%s) Failed to convert IP address to ASCII. Error Code: %d	Error	Y	N

Table 9-11 IIS agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13563	Agents	Incorrect IP address (%s)	Error	Y	N
13547	Agents	"Failed to start the application pool (%s). [%d	Error	Y	N
13548	Agents	"Failed to stop the application pool (%s). [%d	Error	Y	N
13549	Agents	"Failed to get the application pool state (%s). [%d	Error	Y	N
13524	Agents	"Failed to get the container interface %s [%d	Error	Y	N
13525	Agents	"Failed to enumerate the object in container %s [%d	Error	Y	N
13567	Agents	"Failed to enumerate the next object in the container %s [%d	Error	Y	N
13526	Agents	"Failed to query interface %s [%d	Error	Y	N
13550	Agents	"Failed to get the application pool state. Please check the application pool name %s [%d	Error	Y	N
13551	Agents	"Failed to get the IIS web virtual directory object %s [%d	Error	Y	N
13552	Agents	"Failed to start the one or more application pools. [%d	Error	Y	N
13568	Agents	"Failed to start the default application pool (%s). [%d	Error	Y	N
13553	Agents	"Failed to get the application pool interface %s [%d	Error	Y	N
13554	Agents	"Failed to start the application pool %s [%d	Error	Y	N
13555	Agents	"Failed to stop the application pool %s [%d	Error	Y	N
13508	Agents	"Failed to start the service (%s). [%d	Error	Y	N
13509	Agents	"Failed to start the IIS Site / Virtual Server (%s). [%d	Error	Y	N
13510	Agents	"Failed to initialize application pool object (%s). [%d	Error	Y	N
13512	Agents	Failed to get the service state (%s)	Error	Y	N
13514	Agents	"Failed to stop the IIS Site / Virtual Server (%s). [%d	Error	Y	N
13516	Agents	"Failed to determine the state of the site / virtual server (%s). [%d	Error	Y	N
13517	Agents	"Failed to get the application pool state and bind path(%s). [%d	Error	Y	N
25	Agents	CLEAN () Site Is running (%s).	Error	Y	N
13518	Agents	"Failed to get the IIS version [%d	Error	Y	N

Table 9-11 IIS agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13519	Agents	"Failed to get the service operations interface %s [%d	Error	Y	N
13520	Agents	"Failed to get the status of the site %s [%d	Error	Y	N
13522	Agents	"Failed to start the site %s [%d	Error	Y	N
13523	Agents	"Failed to stop the site %s [%d	Error	Y	N
13527	Agents	"Failed to get the object name %s [%d	Error	Y	N
13528	Agents	"Failed to get the ServerComment %s [%d	Error	Y	N
13529	Agents	"Failed to get the ADsPath %s [%d	Error	Y	N
13530	Agents	"Failed to release the site enumerate %s [%d	Error	Y	N
13531	Agents	"Failed to get the registry %s \CurrentMode\\"" attribute value [%d"	Error	Y	N
13533	Agents	Failed to find a usable WinSock DLL return value %d error code [%d]	Error	Y	N
13534	Agents	Unsupported WinSock DLL version HIGHBYTE (%d) LOBYTE (%d)	Error	Y	N
13511	Agents	Socket call failed PortNumber (%ld) error (%ld)	Error	Y	N
13535	Agents	Failed to set the socket option SO_DONTLINGER PortNumber (%ld) error (%ld)	Error	Y	N
13536	Agents	Failed to set the socket option SO_REUSEADDR PortNumber (%ld) error (%ld)	Error	Y	N
13537	Agents	Failed to set the socket option SO_KEEPALIVE PortNumber (%ld) error (%ld)	Error	Y	N
13538	Agents	Failed to set the I/O mode of a socket FIONBIO PortNumber (%ld) error (%ld)	Error	Y	N
13539	Agents	Failed to establish a connection with the specified socket PortNumber (%ld) error (%ld)	Error	Y	N
13540	Agents	Failed to receive data from a connected socket error (%ld)	Error	Y	N
13541	Agents	Failed to receive data from a connected socket timeout (%ld)	Error	Y	N
13542	Agents	Failed to determine the status of the socket error (%ld)	Error	Y	N

Table 9-11 IIS agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13543	Agents	Failed to create a IIS admin base object (%ld) error (%ld)	Error	Y	N
13544	Agents	Failed to open metabase key %s (%ld) error (%ld)	Error	Y	N
13545	Agents	Failed to enumerate the parent key (%s) subkey(%s) status (%ld) error (%ld)	Error	Y	N
13546	Agents	Failed to find a index in the metabase for key(%s) (%ld) error (%ld)	Error	Y	N
12	Agents	"Wait on critical section failed [%d	Error	Y	N
40	Agents	"Failed to start service (%s) [%d	Error	Y	N
13	Agents	Failed to get the state of the service (%s)	Warning	Y	N
41	Agents	"Failed to stop the service (%s) [%d	Error	Y	N
42	Agents	"Failed to terminate the service (%s) [%d	Error	Y	N
43	Agents	"Failed to initialize the service object (Service = %s) [%d	Error	Y	N
44	Agents	Failed to get the service status (Service = %s). Error = %d	Error	Y	N
45	Agents	"Failed to open the service object (Service = %s). [%d	Error	Y	N

GenericService agent event processing rules

Table 9-12 GenericService agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
6001	GenericService	Failed to convert the argument list. Error = %d.	Error	Y	N
6002	GenericService	The ServiceName attribute has not been configured.	Error	Y	N
6026	GenericService	The LanmanResName attribute has not been configured.	Error	Y	N
6003	GenericService	The password attribute has not been configured.	Error	Y	N
6005	GenericService	Failed to lookup the account name '%s'. Error = %d.	Error	Y	N

Table 9-12 GenericService agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
6007	GenericService	The service '%s' is not in stopped state.	Warning	Y	N
6008	GenericService	Failed to decrypt the password.	Error	Y	N
6009	GenericService	Failed to change the user context of the service '%s' to '%s\\%s'. Error = %d.	Error	Y	N
6027	GenericService	Failed to set the virtual computer name in the environment of the service '%s'. Error = %d.	Error	Y	N
6010	GenericService	Failed to start the service '%s'. Error = %d.	Error	Y	N
6011	GenericService	The service '%s' did not start within the specified time limit.	Error	Y	N
6012	GenericService	Failed to wait for the service '%s' to start. Error = %d.	Error	Y	N
6013	GenericService	Failed to get the user context of the running service '%s'. Error = %d.	Error	Y	N
6014	GenericService	Failed to get the SID for user '%s\\%s'.	Error	Y	N
6015	GenericService	The service '%s' is not running under the context of user '%s\\%s'.	Warning	Y	N
6028	GenericService	The '%s' service is in STARTED state but is not running under the context of Virtual Server '%s'	Warning	Y	N
6029	GenericService	Failed to remove the virtual name environment for the service '%s' Error : (%d:%d)	Warning	Y	N
6017	GenericService	The service '%s' shares the same process with other services. Killing it might affect those services.	Warning	Y	N
6018	GenericService	Failed to kill the process of service '%s'. Error = %d.	Error	Y	N
6021	GenericService	Failed to open the service '%s'. Error %d.	Error	Y	N
6022	GenericService	Failed to query the status of the service '%s'. Error = %d.	Error	Y	N
6023	GenericService	The service '%s' is not in running state. Attempt to stop it might be unsuccessful.	Warning	Y	N
6024	GenericService	The service '%s' did not stop. Error = %d.	Error	Y	N

Table 9-12 GenericService agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
6025	GenericService	The service '%s' did not stop within the specified timeout. Error = %d.	Warning	Y	N

Microsoft Virtual Machine (MSVirtualMachine) agent event processing rules

Table 9-13 Microsoft Virtual Machine agent event processing

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
14001	MSVirtualMachine	Failed to get Argument list.	Error	Y	
14002	MSVirtualMachine	Virtual Server COM interface could not be initialized. Reported Error : [%01X]	Error	Y	
14003	MSVirtualMachine	GetVM Query failed for VM %s. Reported Error : [%01X]	Error	Y	
14004	MSVirtualMachine	COM Object pointer is NULL even after GetVM() Query succeeded for VM %s.	Error	Y	
14005	MSVirtualMachine	Failed to retrieve state for VM %s. Reported Error [%01X].	Error	Y	
14006	MSVirtualMachine	Invalid VM state was reported for VM %s. Reported state [%d].	Error	Y	
14007	MSVirtualMachine	MonitorHB failed. Could not create instance for the Guest OS for VM %s. Reported Error [%01X].	Error	Y	
14008	MSVirtualMachine	MonitorHB failed. Could not communicate with Virtual machine Additions for VM %s. Reported Error [%01X].	Error	Y	
14009	MSVirtualMachine	VM %s has stopped heartbeating.	Error	Y	
14012	MSVirtualMachine	Power on for VM %s failed. Reported Error : [%01X]	Error	Y	
14014	MSVirtualMachine	Could not get a handle for the Guest OS running in VM %s.	Warning	Y	

Table 9-13 Microsoft Virtual Machine agent event processing (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
14013	MSVirtual Machine	OS Shutdown failed for VM %s. Reported Error : [%01X].	Warning	Y	
14010	MSVirtual Machine	Failed to poweroff the Virtual machine %s. Reported Error : [%01X].	Warning	Y	
14011	MSVirtual Machine	Virtual machine %s is already stopped.	Warning	Y	

PrintShare agent event processing rules

Table 9-14 PrintShare agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
11001	PrintShare	Attribute value(s) invalid for %s	Error	Y	N
11201	PrintShare	Share name %s contains invalid characters	Error	Y	N
11002	PrintShare	Initializing printer %s on %s failed. [%d:%d]	Error	Y	N
11020	PrintShare	Printer mismatch for share %s	Error	Y	N
11022	PrintShare	PrintShare Error : The Server service is not available	Error	Y	N
11023	PrintShare	The share %s is of type Folder	Error	Y	N
11024	PrintShare	The share %s is of type Device	Error	Y	N
11025	PrintShare	The share %s is of type IPC	Error	Y	N
11026	PrintShare	The share %s is of type Special	Error	Y	N
11027	PrintShare	The share %s is of type Unknown	Error	Y	N
11006	PrintShare	Unknown error for printer (\\\\%s\\%s). [%d:%d]	Error	Y	N
11021	PrintShare	System error occurred for printer %s Error [%d]	Error	Y	N
11007	PrintShare	Failed to get properties for printer (\\\\%s\\%s). [%d:%d]	Error	Y	N
11029	PrintShare	Failed to open printer %s [%d:%d]	Error	Y	N
11008	PrintShare	Printer %s (\\\\%s\\%s) already shared	Error	Y	N

Table 9-14 PrintShare agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
11009	PrintShare	Failed to share printer %s as (\\\\\\%s\\%s) [%d:%d]	Error	Y	N
11028	PrintShare	The printer %s may not be shared by VCS	Error	Y	N
11019	PrintShare	Failed to unshare printer %s as (\\\\\\%s\\%s) [%d:%d]	Error	Y	N

PrintSpool agent event processing rules

Table 9-15 PrintSpool agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
7001	PrintSpool	Failed to convert the argument list. Error = %d.	Error	Y	N
7002	PrintSpool	LanmanResName attribute has not been configured.	Error	Y	N
7003	PrintSpool	IPResName attribute has not been configured.	Error	Y	N
7004	PrintSpool	MountResName attribute has not been configured.	Error	Y	N
7005	PrintSpool	SpoolDirectory attribute has not been configured.	Error	Y	N
7006	PrintSpool	Failed to update the spooler registry keys. Error = %d.	Error	Y	N
7007	PrintSpool	The spooler path '%s' is not valid.	Error	Y	N
7008	PrintSpool	Failed to enumerate the processes in the system. Error = %d.	Error	Y	N
7009	PrintSpool	Spooler is not running.	Error	Y	N
7010	PrintSpool	Failed to initialize the spooler. Error=%d.	Error	Y	N
7011	PrintSpool	Duplicate Lanman name (%s) provided. Another PrintSpool resource exists with this Lanman name.	Error	Y	N
7012	PrintSpool	Duplicate IP address (%s) provided. Another PrintSpool resource exists with this IP.	Error	Y	N
7013	PrintSpool	Failed to allocate memory.	Error	Y	N
7014	PrintSpool	Failed to get internal data for resource '%s'. Probably open entry point for this resource has failed.	Error	Y	N

Table 9-15 PrintSpool agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
7015	PrintSpool	Attribute mismatch for Lanman resource. Attribute change is not supported.	Warning	Y	N
7016	PrintSpool	Attribute mismatch for IP resource. Attribute change is not supported.	Warning	Y	N
7017	PrintSpool	Failed to open a communication channel to the helper process. Error=%d.	Error	Y	N
7018	PrintSpool	Failed to online the virtual spooler. Error=%d.	Error	Y	N
7019	PrintSpool	The helper process for this resource exited automatically.	Error	Y	N
7020	PrintSpool	The communication channel to the helper process is invalid.	Error	Y	N
7021	PrintSpool	Failed to offline the resource. Error=%d. Killing the helper process.	Error	Y	N
7022	PrintSpool	Failed to terminate the helper process. Error=%d.	Error	Y	N
7024	PrintSpool	Failed to create the helper process. Error=%d.	Error	Y	N
7025	PrintSpool	Failed to enumerate the processes in the system. Error=%d.	Warning	Y	N
7026	PrintSpool	Failed to initialize the helper process. Error=%d.	Error	Y	N
7027	PrintSpool	The helper process is not ready to accept command=%d. Administrative intervention may be required.	Error	Y	N
7028	PrintSpool	Failed to send the command=%d to the helper process. Error=%d.	Error	Y	N
7029	PrintSpool	The communication channel with the helper process has timed out.	Error	Y	N
7030	PrintSpool	Failed to receive a reply from the helper process. Error=%d.	Error	Y	N

Process agent event processing rules

Table 9-16 Process agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
7001	PrintSpool	Failed to convert the argument list. Error = %d.	Error	N	N
7002	PrintSpool	LanmanResName attribute has not been configured.	Error	N	N
7003	PrintSpool	IPResName attribute has not been configured.	Error	N	N
7004	PrintSpool	MountResName attribute has not been configured.	Error	N	N
7005	PrintSpool	SpoolDirectory attribute has not been configured.	Error	N	N
7006	PrintSpool	Failed to update the spooler registry keys. Error = %d.	Error	N	N
7007	PrintSpool	The spooler path '%s' is not valid.	Error	N	N
7008	PrintSpool	Failed to enumerate the processes in the system. Error = %d.	Error	N	N
7009	PrintSpool	Spooler is not running.	Error	N	N
7010	PrintSpool	Failed to initialize the spooler. Error=%d.	Error	N	N
7011	PrintSpool	Duplicate Lanman name (%s) provided. Another PrintSpool resource exists with this Lanman name.	Error	N	N
7012	PrintSpool	Duplicate IP address (%s) provided. Another PrintSpool resource exists with this IP.	Error	N	N
7013	PrintSpool	Failed to allocate memory.	Error	N	N
7014	PrintSpool	Failed to get internal data for resource '%s'. Probably open entry point for this resource has failed.	Error	N	N
7015	PrintSpool	Attribute mismatch for Lanman resource. Attribute change is not supported.	Warning	Y	N
7016	PrintSpool	Attribute mismatch for IP resource. Attribute change is not supported.	Warning	Y	N
7017	PrintSpool	Failed to open a communication channel to the helper process. Error=%d.	Error	Y	N
7018	PrintSpool	Failed to online the virtual spooler. Error=%d.	Error	Y	N
7019	PrintSpool	The helper process for this resource exited automatically.	Error	Y	N

Table 9-16 Process agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
7020	PrintSpool	The communication channel to the helper process is invalid.	Error	Y	N
7021	PrintSpool	Failed to offline the resource. Error=%d. Killing the helper process.	Error	Y	N
7022	PrintSpool	Failed to terminate the helper process. Error=%d.	Error	Y	N
7024	PrintSpool	Failed to create the helper process. Error=%d.	Error	Y	N
7025	PrintSpool	Failed to enumerate the processes in the system. Error=%d.	Warning	Y	N
7026	PrintSpool	Failed to initialize the helper process. Error=%d.	Error	Y	N
7027	PrintSpool	The helper process is not ready to accept command=%d. Administrative intervention may be required.	Error	Y	N
7028	PrintSpool	Failed to send the command=%d to the helper process. Error=%d.	Error	Y	N
7029	PrintSpool	The communication channel with the helper process has timed out.	Error	Y	N
7030	PrintSpool	Failed to receive a reply from the helper process. Error=%d.	Error	Y	N

Proxy agent event processing rules

Table 9-17 Proxy agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
2501	Agents	Target Resource Name is not a valid name	Error	Y	N
2502	Agents	Unable to get the computer name	Error	Y	N
2503	Agents	Unable to determine the state using input values	Error	Y	N
2504	Agents	Target resource is not Probed	Error	Y	N
2505	Agents	Unable to convert the resource Name. Error Code %d	Error	Y	N

Table 9-17 Proxy agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
2506	Agents	Unable to find VCS_HOME. Error Code %d	Error	Y	N
2507	Agents	Unable to identify the state of the resource. Error Code %d	Error	Y	N
2508	Agents	Unable to convert the buffer. Error Code %d	Error	Y	N

IP agent event processing rules

Table 9-18 IP agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
4003	Agents	Invalid attributes	Error	Y	N
4004	Agents	Ping failed for IP (IP_Address).	Error	Y	N
4005	Agents	Host (IP_Address) already exists	Error	Y	N
4006	Agents	Failed to add IP (IP_Address).	Error	Y	N
4001	Agents	Initialization failed	Error	Y	N
4007	Agents	Failed to delete IP (IP_Address).	Error	Y	N
4008	Agents	IP (IP_Address) is Admin IP	Warning	Y	N
4009	Agents	Invalid MacAddress format	Error	Y	N
4017	Agents	Invalid MacAddress (MAC_Address) specified	Error	Y	N
4018	Agents	TCP/IP is not enabled for adapter (%s)	Warning	Y	N
4010	Agents	Invalid IP format	Error	Y	N
4011	Agents	Internal error	Error	Y	N
4012	Agents	Incorrect IP (IP_Address)	Error	Y	N
4013	Agents	Incorrect subnet mask (SubNet_Mask)	Error	Y	N
4014	Agents	Adapter (MAC_Adress) not found	Error	Y	N
4015	Agents	DHCP is enabled on Adapter (%s)	Error	Y	N
4016	Agents	Invalid Adapter (MAC_Address)	Error	Y	N

Table 9-18 IP agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
4019	Agents	Failed to update the IP registry keys. Error = %d.	Error	Y	N

IPMultiNicPlus agent event processing rules

Table 9-19 IPMultiNicPlus agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
4501	Agents	AdapterList is Invalid . Please check the configuration.	Error	Y	N
4502	Agents	Internal error.Error : %s	Error	Y	N
4503	Agents	Internal error. Adapter: %s Error: %d	Error	Y	N
4504	Agents	Internal error. Returning Unknown state. Error: %d	Error	Y	N
4505	Agents	Admin IP address not specified. Check the configuration.	Error	Y	N
4506	Agents	IP address %s is not in standard 'a.b.c.d' form	Error	Y	N
4507	Agents	Invalid Admin IP address. Check the configuration. Admin IP: %s	Error	Y	N
4508	Agents	Admin SubNetMask not specified. Check the configuration.	Error	Y	N
4509	Agents	SubNetMask %s is not in standard 'a.b.c.d' form	Error	Y	N
4510	Agents	Invalid Admin SubNetMask. Check the configuration. Admin SubNetMask: %s	Error	Y	N
4511	Agents	AddIPAddress() failed for IP %S !!	Error	Y	N
4513	Agents	WaitForSingleObject() Failed !!	Error	Y	N
4514	Agents	WaitForMultipleObjects() Failed !!	Error	Y	N
4515	Agents	AdminIp configured used by an adapter which is not present in the configuration	Warning	Y	N
4604	Agents	Ip %s already exists on the network	Warning	Y	N
4512	Agents	DeleteIPAddress() Failed for IP %s !!	Error	Y	N
4516	Agents	Invalid MAC address %s specified in adapter List	Error	Y	N

Table 9-19 IPMultiNicPlus agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
4530	Agents	TCP/IP is not enabled for MAC address %s specified in adapter List	Error	Y	N
4532	Agents	DHCP is enabled on Adapter (%s)	Error	Y	N
4533	Agents	Invalid Adapter (%s)	Error	Y	N
4517	Agents	No adapters specified in the AdapterList.	Error	Y	N
4531	Agents	Invalid IP format (%s)	Warning	Y	N
4518	Agents	PingHostList is Empty	Error	Y	N
4519	Agents	IP Address not specified. Check the configuration.	Error	Y	N
4520	Agents	Invalid IP Address : %s . Check the configuration.	Error	Y	N
4521	Agents	SubNetMask not specified. Check the configuration.	Error	Y	N
4522	Agents	Invalid SubNetMask : %s . Check the configuration.	Error	Y	N
4523	Agents	Internal error. Returning Unknown state. Error: %d-%d	Error	Y	N
4524	Agents	Invalid MAC address specified in the AdapterList. MAC Address: %s	Error	Y	N
4525	Agents	“VCS internal error, contact support. Returning Unknown state. Adapter: %s Error: %d-%d”	Error	Y	N
4527	Agents	Internal error. Error: %d-%d	Error	Y	N
4526	Agents	Internal error. Adapter: %s Error: %d-%d	Error	Y	N

NetLsnr agent event processing rules

Table 9-20 NetLsnr agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
19	Agents	Cannot Open Service handle for %s (Windows Error Code = %d)	Error	Y	N
1	Agents	Cannot Start Service (Windows Error Code = %d)	Error	Y	N
23	Agents	Cannot Start Service (Windows Error Code = %d)	Error	Y	N

Table 9-20 NetLsnr agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
2	Agents	Cannot Stop Service	Error	Y	N
11	Agents	Cannot Close Service Handle (Windows Error Code = %d)	Error	Y	N

NIC agent event processing rules

Table 9-21 NIC agent event processing rules

Event number	Event source	Description text	Event type	Generate Alert(Y/N)	Generate Alert(Y/N)
3504	Agents	Invalid MacAddress (MAC_Address) specified	Warning	Y	N
3505	Agents	Internal error	Warning	Y	N
3515	Agents	TCP/IP is not enabled for adapter (Adapter_Name)	Warning	Y	N
3506	Agents	Error percentage exceeded for (Adapter_Name)	Error	Y	N
3507	Agents	Adapter (Adapter_Name) Connection status cannot be found.	Error	Y	N
3513	Agents	Adapter (Adapter_Name) is not connected	Error	Y	N
3508	Agents	PingHostList not specified.	Warning	Y	N
3509	Agents	UDP echo attempt failed.	Error	Y	N
3510	Agents	UDP check failed due to network error.	Error	Y	N
1234	Agents	Failed to create Mutex.	Error	Y	N
3514	Agents	Failed to get IFEntry for adapter %s	Error	Y	N
3512	Agents	Adapter (Adapter_Name) not found	Error	Y	N
3516	Agents	Error percentage exceeded limit	Error	Y	N

NotifierMngr agent event processing rules

Table 9-22 NotifierMngr agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
5011	Agents	Failed to get Notifier command line.	Error	Y	N
5002	Agents	Failed to Start Notifier Process %s. (Windows Error Code = %d)	Error	Y	N
5004	Agents	Failed to Offline Notifier Process. PID = %u (Windows Error Code = %d)	Error	Y	N
5005	Agents	Failed to Clean Notifier Process. PID = %u (Windows Error Code = %d)	Error	Y	N
5003	Agents	Failed to Open Notifier Process. PID = %u (Windows Error Code = %d)	Error	Y	N
5012	Agents	PID mismatch in cache. PID = %u (Cached Object PID = %u)	Error	Y	N
5013	Agents	NotifierMngr:Unable to connect to (SMTP Server)	Error	Y	N
5014	Agents	NotifierMngr:Invalid email address format of SMTP Recipient.	Error	Y	N
5008	Agents	Expected correct SNMP and or SMTP options	Warning	Y	N
5010	Agents	Unable to find VCS_HOME. Error Code %d	Error	Y	N
6533	Agents	Failed to enumerate the processes. Error = %d.	Error	Y	N
6534	Agents	Failed to allocate memory.	Error	Y	N
6535	Agents	Failed to open the process(%d). Error = %d.	Error	Y	N

Registry Replication (RegRep) agent event processing rules

Table 9-23 Registry Replication (RegRep) agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
5508	Agents	"Failed to restore the registry (key= Key_name	Error	Y	N
5534	Agents	Restore operation of Exclude Key is not attempted as failed to locate the backup file (Key=%s)	Error	Y	N
5537	Agents	Configuration Error : Mismatched quotes in option %s	Error	Y	N
5530	Agents	Configuration Error : Key 'Key_name' is configured in Replication Key List as well as in Exclude Key List	Error	Y	N
5531	Agents	Configuration Error : Key 'Key_name' configured in Replication Key List is a Sub Key of key '%s' configured in Exclude Key List	Error	Y	N
5511	Agents	Failed to get computer name (Info=%s)	Error	Y	N
5505	Agents	Could not add privilege (privilege=%s)	Error	Y	N
5506	Agents	The name of the local host is invalid (hostname= host_name)	Error	Y	N
5503	Agents	Directory does not exist (or) could not create (directory=Drive name:path)	Error	Y	N
5538	Agents	"Windows Error Code %d encountered while accessing key \\\%s\ "" ""	Warning	Y	N
5535	Agents	Failed to delete the Exclude Key (Key=%s)	Error	Y	N
5536	Agents	Exclude Key is newly created and could not be deleted (Key=%s)	Error	Y	N
5529	Agents	Failed to bring resource online	Warning	Y	N
5518	Agents	Failed to get replication path	Error	Y	N
5513	Agents	Could not talk to monitor process (Info=%d)	Error	Y	N
5520	Agents	Could not locate the file (file=file_name)	Warning	Y	N
5706	Agents	Initialization failed.(reason)	Warning	Y	N
5524	Agents	Failed to set %S	Warning	Y	N
5521	Agents	Delete and restore not attempted as backup file can't be created (Key=%s)	Error	Y	N

Table 9-23 Registry Replication (RegRep) agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
5514	Agents	Process not responding (Info=%s)	Error	Y	N
5515	Agents	Shared memory still exists even after the process exited (Info=%s)	Warning	Y	N
5517	Agents	Failed to communicate monitor registry keys to RegRepMonitor.exe	Error	Y	N
5516	Agents	"Failed to communicate replication path to RegRepMonitor.exe (Drive=%s	Error	Y	N
5533	Agents	Failed to backup Exclude Key (Key=%s)	Error	Y	N
5532	Agents	Backup of Exclude Key is not attempted as backup file can't be created (Key=%s)	Error	Y	N

Lanman agent event processing rules

Table 9-24 Lanman agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
3001	Agents	"Internal error (Failed to initialize COM	Error	Y	N
3002	Agents	"Internal error (Failed to initialize virtualname object	Error	Y	N
3003	Agents	"Internal error (Failed to validate virtual server name	Warning	Y	N
3004	Agents	Virtual server name specified in the configuration is invalid (%s)	Error	Y	N
3005	Agents	Virtual name already exist in the network	Error	Y	N
3008	Agents	"Failed to register Virtual server name to Netbios (error_type:%d	Error	Y	N
3010	Agents	"Internal error (Failed to detach computer account	Error	Y	N
3011	Agents	"Failed to start the 'Veritas Cluster Server Helper' service. (error_type:%d	Error	Y	N
3012	Agents	"Internal error (Failed to switch the security context	Error	Y	N

Table 9-24 Lanman agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
3017	Agents	IP address specified for MultiNetInfo is invalid (entry=%S)	Error	Y	N
3018	Agents	SubnetMask specified for MultiNetInfo is invalid (entry=%S)	Error	Y	N
3019	Agents	WINS address specified for MultinetInfo is invalid (entry=%S)	Error	Y	N
3020	Agents	Internal error (invalid argument list)	Error	Y	N
3021	Agents	VirtualName attribute is not specified in the configuration	Error	Y	N
3022	Agents	IP address specified in the configuration is invalid	Error	Y	N
3023	Agents	SubnetMask specified in the configuration is invalid	Error	Y	N
3024	Agents	MultinetInfo attribute specified in the configuration is in invalid format	Error	Y	N
3025	Agents	There are no valid IP addresses specified in the configuration	Error	Y	N
3009	Agents	Invalid option specified for the DNSOptions attribute (%s)	Warning	Y	N
3026	Agents	IP address specified in the configuration is not online. (ip=%S)	Error	Y	N
3027	Agents	Mismatch in the subnet mask specified in configuration and the actual subnet mask configured for the adapter	Error	Y	N
3028	Agents	WINS address specified in the configuration is not found in the adapter's WINS address list	Warning	Y	N
3006	Agents	"Failed to update DNS entry (error_type:%d	Error	Y	N
3007	Agents	"Failed to update Computer account in Active directory (error_type:%d	Error	Y	N
3029	Agents	"Internal error (Failed initialize netbios table information	Error	Y	N
3032	Agents	"Attempt to online the Lanman resource has failed. error_type:%d	Error	Y	N
3033	Agents	Invalid attributes exist in the configuration	Error	Y	N

Table 9-24 Lanman agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
3034	Agents	"Attempt to offline the Lanman resource has failed. (error_type:%d	Error	Y	N
3036	Agents	"Attempt to clean the Lanman resource has failed. (error_type:%d	Error	Y	N

VvrRvg agent event processing rules

Table 9-25 VvrRvg agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1	VvrRvg	Failed to allocate resource instance memory	Error	Y	N
2	VvrRvg	Failed to find resource instance	Warning	Y	N
3	VvrRvg	Failed to open RVG. Error code: %S	Error	Y	N
4	VvrRvg	One or more attributes are incorrectly configured	Error	Y	Y
5	VvrRvg	RVG is in a FAIL state. Resource cannot be Onlined	Error	Y	N
6	VvrRvg	Online failed. Error code: %S	Error	Y	Y
7	VvrRvg	RVG is in an invalid state. Resource cannot be Onlined	Error	Y	Y
8	VvrRvg	Monitor failed. Error code: %S	Error	Y	Y
9	VvrRvg	Offline failed. Error code: %S	Error	Y	Y
10	VvrRvg	Clean failed. Error code: %S	Error	Y	Y
11	VvrRvg	Close failed. Error code: %S	Error	Y	N
12	VvrRvg	Failed to detect the configured RVG	Warning	Y	N
13	VvrRvg	Invalid value specified for attribute: %S	Error	Y	Y
14	VvrRvg	Operation timed out	Error	Y	N

Table 9-25 VvrRvg agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
15	VvrRvg	Asynchronous operation failed. Error: %S	Error	Y	N
16	VvrRvg	Failed to get the name of the local computer. Error code: %S	Error	Y	N
17	VvrRvg	Couldn't find the IP Resource	Error	Y	N
18	VvrRvg	Failed to create the monitor process for the IP Resource. Error code: %S	Error	Y	N
19	VvrRvg	"Received an unknown state for the IP Resource	Error	Y	N
20	VvrRvg	The target host is not responding	Error	Y	N

RVGPrimary agent event processing rules

Table 9-26 RVGPrimary agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1	HAD	RVG attribute not assigned for resource %2\$s; please check the assignment of RvgResource name attribute for this resource or RVG attribute for %3\$s	Error	Y	Y
2	HAD	DiskGroupName attribute not assigned for resource %2\$s; please check the assignment of VMDgResource name attribute for %3\$s or DiskGroupName attribute for %4\$s	Error	Y	Y
3	HAD	No RLinks found for RVG %2\$s; please setup RLinks for RVG %3\$s	Error	Y	Y
5	HAD	Lockfile (%2\$s) was not successfully removed	Error	N	N

Table 9-26 RVGPrimary agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
7	HAD	RLink %2\$s is inconsistent; please restore %3\$s from a consistent snapshot or backup and promote it to primary, clear its service group, and online group again	Error	N	Y
10	HAD	RLink %2\$s is up to date but insufficient time to complete takeover; if group does not go online clear fault and online again	Error	N	N
11	HAD	migrate of %2\$s failed with error code %3\$s and message %4\$s	Error	Y	Y
13	HAD	takeover of %2\$s failed with error code %3\$s and message %4\$s	Error	Y	Y
17	HAD	RLink %2\$s is not connected; use 'vxrvrg -g %3\$s -F makeprimary %4\$s' command to takeover	Warning	N	N
18	HAD	RVG %2\$s is acting_secondary. Please resync from primary	Error	Y	Y
20	HAD	VMDgResName attribute not assigned for resource %2\$s; please check the assignment of RvgResource name attribute for this resource or VMDgResName attribute for %3\$s	Error	Y	Y
21	HAD	Failed to add other secondaries in the RDS	Error	N	N
23	HAD	Synchronization of secondary %2\$s failed with error code %3\$s and message %4\$s	Error	Y	Y
24	HAD	Checkend operation on RVG %2\$s failed with error code %3\$s and message %4\$s	Error	N	N

Table 9-26 RVGPrimary agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
25	HAD	Attaching secondary %2\$s failed with error code %3\$s and message %4\$s	Error	N	N
26	HAD	Checkstart of RVG %2\$s with checkpoint %3\$s failed with error code %4\$s and message %5\$s	Error	N	N
27	HAD	Remote execution on secondary %2\$s failed with error code %3\$s and message %4\$s	Error	N	N
30	HAD	Resynchronization can be started only from the primary	Error	N	N
31	HAD	Resynchronization from RVG %2\$s failed with error code %3\$s	Error	N	N
32	HAD	vxprint failed with error code %2\$s and message %3\$s	Error		N
33	HAD	Insufficient time to complete migrate operation for RVG %2\$s. If group does not go online clear fault and online again	Error		Y
35	HAD	Failed to determine the role of RVG %2\$s. The value of role found %3\$s	Error		N
38	HAD	The checkpoint %2\$s taken by RVGPrimary resource does not match with the current checkpoint %3\$s on RVG %4\$s	Error		N
39	HAD	Attaching secondary %2\$s with checkpoint %3\$s failed with error code %4\$s and message %5\$s	Error		N
40	HAD	RVG %2\$s is not checkstarted	Error		N

Table 9-26 RVGPrimary agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
42	HAD	The Activate bunker operation failed for RVG %2\$s on bunker host %3\$s and disk group %4\$s with error code %5\$s and message %6\$s	Error	N	N
43	HAD	The startrep operation failed for RVG %2\$s with error code %3\$s and message %4\$s	Error	N	N
45	HAD	The attach operation failed for rlink %2\$s	Error	N	N
48	HAD	Bunker sync timed out	Error	N	N
49	HAD	During rollback, the %2\$s command failed with error code %3\$s and message %4\$s	Error	N	N
61	HAD	Diskgroup %2\$s could not be imported on primary host. Operation failed with error %3\$s and message %4\$s	Error		N
64	HAD	Diskgroup %2\$s could not be imported on bunker host %3\$s. Operation failed with error %4\$s and message %5\$s	Error		N

Enterprise agents monitoring rules

MSDTC agent event processing rules

Table 9-27 MSDTC agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1	Agents	Failed to convert the argument list. Error = %d.	Error	Y	N
2	Agents	Lanman attribute has not been configured.	Error	Y	N
3	Agents	MountResName attribute has not been configured.	Error	Y	N
4	Agents	LogPath attribute has not been configured.	Error	Y	N
5	Agents	LogPath attribute has invalid characters.	Error	Y	N
36	Agents	“Not the owner of MSDTC service. MSDTC is currently owned by VCS resource, %s”	Error	Y	N
37	Agents	“MSDTC service is not owned by the resource, %s”	Error	Y	N
14	Agents	Failed to open the registry key '%s'. Error = %d.	Error	Y	N
15	Agents	Failed to set the key '%s'. Error = %d.	Error	Y	N
11	Agents	Failed to open the SCM handle. Error = %d.	Error	Y	N
12	Agents	Failed to open the MsDtc service. Error = %d.	Error	Y	N
29	Agents	Failed to enable the network access for MSDTC. Error = %d.	Error	Y	N
13	Agents	Failed to set the environment key of MSDTC service. Error = %d.	Error	Y	N

Table 9-27 MSDTC agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
16	Agents	Could not reset the msdtc log. Error = %d.	Error	Y	N
18	Agents	The log file does not exist. Log file = '%s'.	Warning	Y	N
19	Agents	Failed to start the MSDTC service. Error = %d.	Error	Y	N
20	Agents	Failed to wait for the MSDTC service to start. Error = %d.	Error	Y	N
21	Agents	Failed to get the status of the MSDTC service. Error = %d.	Error	Y	N
23	Agents	Failed to set the logpath key '%s'. Error = %d.	Error	Y	N
24	Agents	The MSDTC log path is '%s'. Configured one is '%s'.	Warning	Y	N
25	Agents	Failed to kill the MSDTC service. Error = %d.	Error	Y	N
26	Agents	Failed to query the MSDTC service status. Error = %d.	Error	Y	N
27	Agents	The MSDTC service is not in running state. Offline might be unsuccessful.	Warning	Y	N
28	Agents	Failed to stop the MSDTC service. Error = %d.	Error	Y	N
30	Agents	Failed to wait for the MSDTC service to stop. Error = %d.	Error	Y	N
40	Agents	Failed to open the MSDTC CID key. Error = %d.	Error	Y	N
41	Agents	Failed to enumerate keys. Error = %d.	Warning	Y	N
42	Agents	Failed to open the subkey '%s'. Error = %d.	Warning	Y	N
43	Agents	Failed to query the value the subkey '%s'. Error = %d.	Warning	Y	N

MSSearch agent event processing rules

Table 9-28 MSSearch agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1	Agents	Failed to get the attributes. Error = %d.	Error	Y	N
2	Agents	The AppName attribute has not been configured.	Error	Y	N
3	Agents	The AppPath attribute has not been configured.	Error	Y	N
23	Agents	Failed to get the Microsoft Search service instance for '%s'. Error = %8X.	Error	Y	N
11	Agents	Failed to instantiate the Microsoft Search COM object. Error = %8X.	Error	Y	N
12	Agents	Failed to open the Microsoft Search service. Error = %d.	Error	Y	N
13	Agents	Failed to determine the state of Microsoft Search service. Error = %d.	Warning	Y	N
24	Agents	The AppName attribute has not been configured correctly.	Error	Y	N
14	Agents	Failed to open the registry key '%s'. Error = %d.	Error	Y	N
15	Agents	Failed to set the registry for application = '%s'. Error = %d.	Error	Y	N
20	Agents	Failed to create the CoMsssBridge object. Error = %8X.	Error	Y	N
16	Agents	Failed to open the Microsoft Search instance for '%s'. Error = %8X.	Error	Y	N
17	Agents	Failed to online the Microsoft Search instance for '%s'. Error = %8X.	Error	Y	N
18	Agents	Failed to offline the Microsoft Search instance for '%s'. Error = %8X.	Error	Y	N
19	Agents	Failed to close the Microsoft Search instance for '%s'. Error = %8X.	Error	Y	N
21	Agents	Failed to terminate the Microsoft Search service. Error = %d.	Error	Y	N
22	Agents	Failed to enable the debug privilege. Error = %d.	Error	Y	N

SQL Server 2005 Agent Service event processing rules

Table 9-29 SQL Server 2005 Agent Service event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1	Agents	Failed to convert the argument list. Error = %d.	Error	Y	N
99	Agents	Invalid Arglist entry at position %d for <attribute name>.	Error	Y	N
8	Agents	The service '%s' is not in stopped state.	Warning	Y	N
11	Agents	Failed to set the virtual computer name in the environment of the service '%s'. Error = %d.	Error	Y	N
9	Agents	Failed to start the service '%s'. Error = %d.	Error	Y	N
12	Agents	The service '%s' did not start within the specified time limit.	Error	Y	N
13	Agents	Failed to wait for the service '%s' to start. Error = %d.	Error	Y	N
14	Agents	The '%s' service is not in stopped or running state. State=%d.	Warning	Y	N
16	Agents	The '%s' service is in STARTED state but is not running under the context of Virtual Server '%s'	Warning	Y	N
38	Agents	Failed to remove the virtual name environment for the service '%s' Error : (%d:%d)	Warning	Y	N
20	Agents	Failed to open the service '%s'. Error %d.	Error	Y	N
21	Agents	Failed to query the status of the service '%s'. Error = %d.	Error	Y	N
22	Agents	The service '%s' is not in running state. Attempt to stop it might be unsuccessful.	Warning	Y	N
23	Agents	The service '%s' did not stop. Error = %d.	Error	Y	N
24	Agents	The service '%s' did not stop within the specified timeout. Error = %d.	Warning	Y	N

SQL Server 2005 OLAP Service event processing rules

Table 9-30 SQL Server 2005 OLAP Service event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1	Agents	Failed to convert the argument list. Error = %d.	Error	Y	N
99	Agents	Invalid Arglist entry at position %d for <attribute name>.	Error	Y	N
8	Agents	The service '%s' is not in stopped state.	Warning	Y	N
11	Agents	Failed to set the virtual computer name in the environment of the service '%s'. Error = %d.	Error	Y	N
9	Agents	Failed to start the service '%s'. Error = %d.	Error	Y	N
12	Agents	The service '%s' did not start within the specified time limit.	Error	Y	N
13	Agents	Failed to wait for the service '%s' to start. Error = %d.	Error	Y	N
14	Agents	The '%s' service is not in stopped or running state. State=%d.	Warning	Y	N
16	Agents	The '%s' service is in STARTED state but is not running under the context of Virtual Server '%s'	Warning	Y	N
38	Agents	Failed to remove the virtual name environment for the service '%s' Error : (%d:%d)	Warning	Y	N
20	Agents	Failed to open the service '%s'. Error %d.	Error	Y	N
21	Agents	Failed to query the status of the service '%s'. Error = %d.	Error	Y	N
22	Agents	The service '%s' is not in running state. Attempt to stop it might be unsuccessful.	Warning	Y	N
23	Agents	The service '%s' did not stop. Error = %d.	Error	Y	N
24	Agents	The service '%s' did not stop within the specified timeout. Error = %d.	Warning	Y	N

SQL Server 2005 event processing rules

Table 9-31 SQL Server 2005 event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
8	Agents	The service '%s' is not in stopped state.	Warning	Y	N
11	Agents	Failed to set the virtual computer name in the environment of the service '%s'. Error = %d.	Error	Y	N
9	Agents	Failed to start the service '%s'. Error = %d.	Error	Y	N
12	Agents	The service '%s' did not start within the specified time limit.	Error	Y	N
13	Agents	Failed to wait for the service '%s' to start. Error = %d.	Error	Y	N
14	Agents	The '%s' service is not in stopped or running state. State=%d.	Warning	Y	N
16	Agents	The '%s' service is in STARTED state but is not running under the context of Virtual Server '%s'	Warning	Y	N
38	Agents	Failed to remove the virtual name environment for the service '%s' Error : (%d:%d)	Warning	Y	N
20	Agents	Failed to open the service '%s'. Error %d.	Error	Y	N
21	Agents	Failed to query the status of the service '%s'. Error = %d.	Error	Y	N
22	Agents	The service '%s' is not in running state. Attempt to stop it might be unsuccessful.	Warning	Y	N
23	Agents	The service '%s' did not stop. Error = %d.	Error	Y	N
24	Agents	The service '%s' did not stop within the specified timeout. Error = %d.	Warning	Y	N
34	Agents	Failed to get the temporary file path. Error : %d	Error	Y	N
31	Agents	"Failed to start the Sql script. (User = %s, Domain = %s) Error : %d"	Error	Y	N
35	Agents	Failed to create the temporary file. error %d	Error	Y	N
32	Agents	Unable to convert the buffer to UNICODE. Error Code %d	Error	Y	N
25	Agents	Sql script has failed with error %d	Error	Y	N

Table 9-31 SQL Server 2005 event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
33	Agents	Sql script failed. Script output :	Error	Y	N
36	Agents	%s	Error	Y	N
37	Agents	Failed read the temporary file. Error : %d	Error	Y	N
26	Agents	Error occurred while getting the process exit code. error : %d	Error	Y	N
27	Agents	WaitForSingleObject failed with error %d	Error	Y	N
1	Agents	Failed to convert the argument list. Error = %d.	Error	Y	N
30	Agents	The password attribute has not been configured.	Error	Y	N
17	Agents	Failed to convert the password attribute. Error = %d.	Error	Y	N

SQL Sever 2000 event processing rules

Table 9-32 SQL Server 2000 event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1	Agents	Failed to convert the argument list. Error = %d.	Error	Y	N
2	Agents	Invalid value specified for attribute %s.	Warning	Y	N
28	Agents	Could not find the database path for instance '%s'.Please correct the instance name specified.	Warning	Y	N
29	Agents	Mount specified does not contain the database for instance '%s'. Please correct the mount path.	Warning	Y	N
30	Agents	The password attribute has not been configured.	Error	Y	N
16	Agents	Failed to get the password attribute. Error = %d.	Error	Y	N
17	Agents	Failed to convert the password attribute. Error = %d.	Error	Y	N
3	Agents	Failed to lookup the account name '%s'. Error = %d.	Error	Y	N
8	Agents	The service '%s' is not in stopped state.	Warning	Y	N
11	Agents	Failed to set the virtual computer name in the environment of the service '%s'. Error = %d.	Error	Y	N

Table 9-32 SQL Server 2000 event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
9	Agents	Failed to start the service '%s'. Error = %d.	Error	Y	N
12	Agents	The service '%s' did not start within the specified time limit.	Error	Y	N
13	Agents	Failed to wait for the service '%s' to start. Error = %d.	Error	Y	N
14	Agents	The '%s' service is not in stopped or running state. State=%d.	Warning	Y	N
15	Agents	"The '%s' service is in %s state, while the '%s' service is in %s state."	Warning	Y	N
38	Agents	Failed to remove the virtual name environment for the service '%s' Error : (%d:%d)	Warning	Y	N
20	Agents	Failed to open the service '%s'. Error %d.	Error	Y	N
21	Agents	Failed to query the status of the service '%s'. Error = %d.	Error	Y	N
22	Agents	The service '%s' is not in running state. Attempt to stop it might be unsuccessful.	Warning	Y	N
23	Agents	The service '%s' did not stop. Error = %d.	Error	Y	N
24	Agents	The service '%s' did not stop within the specified timeout. Error = %d.	Warning	Y	N
34	Agents	Failed to get the temporary file path. Error : %d	Error	Y	N
31	Agents	"Failed to start the Sql script. (User = %s, Domain = %s) Error : %d"	Error	Y	N
35	Agents	Failed to create the temporary file. error %d	Error	Y	N
32	Agents	Unable to convert the buffer to UNICODE. Error Code %d	Error	Y	N
25	Agents	Sql script has failed with error %d	Error	Y	N
33	Agents	Sql script failed. Script output :	Error	Y	N
36	Agents	Script output : %s	Error	Y	N
37	Agents	Failed read the temporary file. Error : %d	Error	Y	N
26	Agents	Error occurred while getting the process exit code. error : %d	Error	Y	N
27	Agents	WaitForSingleObject failed with error %d	Error	Y	N

Service Monitor event processing rules

Table 9-33 Service Monitor event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
7501	ServiceMonitor	Failed to convert the argument list. Error = %d.	Error	Y	N
7502	ServiceMonitor	The ServiceOrScriptName attribute has not been configured.	Error	Y	N
7503	ServiceMonitor	Failed to lookup the account name '%s'. Error = %d.	Error	Y	N
7504	ServiceMonitor	The password attribute has not been configured.	Error	Y	N
7506	ServiceMonitor	Failed to open the service '%s'. Error = %d.	Error	Y	N
7507	ServiceMonitor	Failed to query the status of the service '%s'. Error = %d.	Error	Y	N
7508	ServiceMonitor	The service '%s' is not in running state.	Warning	Y	N
7509	ServiceMonitor	Failed to get the user context of the running service '%s'. Error = %d.	Error	Y	N
7510	ServiceMonitor	Failed to get the SID for user '%s\%s'.	Error	Y	N
7511	ServiceMonitor	The service '%s' is not running under the context of user '%s\%s'.	Warning	Y	N
7513	ServiceMonitor	Failed to get the password.	Error	Y	N
7514	ServiceMonitor	Failed to launch the monitor script '%s'. Error = %d.	Error	Y	N
7515	ServiceMonitor	Monitor script has not responded within the specified timeout of %d seconds. Error = %d.	Warning	Y	N
7516	ServiceMonitor	Failed to terminate the monitor program. Error = %d.	Warning	Y	N
7517	ServiceMonitor	Failed to get exit code of the monitor program. Error = %d.	Warning	Y	N

Oracle agent event processing rules

Table 9-34 Oracle agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
19	Agents	Cannot Open Service handle for %s (Windows Error Code = %d)	Error	Y	N
26	Agents	Cannot Stop Parent Service %s	Error	Y	N
2	Agents	“Failed to decrypt password , error code:%d”	Error	Y	N
20	Agents	Wait for mutex failed. (Windows Error Code = %d)	Error	Y	N
21	Agents	Wait for mutex abandoned (Windows Error Code = %d)	Error	Y	N
22	Agents	Cannot wait for mutex object (Windows Error Code = %d)	Error	Y	N
6	Agents	An Oracle error occurred. Error :\n %s	Error	Y	N
7	Agents	SQL*Plus process exited with error %d	Error	Y	N
8	Agents	Invalid filename in argument list :%s (Windows Error Code = %d)	Error	Y	N
23	Agents	Cannot Start Service (Windows Error Code = %d)	Error	Y	N
11	Agents	Cannot Stop Service	Error	Y	N
34	Agents	Cannot wait for Stop Service	Error	Y	N
33	Agents	“Failed to stop the parent service(s) with error code, %s”	Error	Y	N
32	Agents	Failed to Get VCS_HOME	Error	Y	N

Exchange Service agent event processing rules

Table 9-35 Exchange Service agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
9	Agents	”Failed to get the Lanman resource state [%d	Error	Y	N
12	Agents	The Lanman resource (Virtual name = %s) is offline.	Error	Y	N
10	Agents	Failed to get the state of the service (%s)	Warning	Y	N

Table 9-35 Exchange Service agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
17	Agents	"Failed to stop the service (%%s) [%d	Warning	Y	N
18	Agents	"Failed to initialize the service object (Service = %%s) [%d	Warning	Y	N
20	Agents	"Failed to start the service. (%%s) [%d	Error	Y	N
21	Agents	"Wait for Service start operation failed. (Service = %%s) [%d	Warning	Y	N
11	Agents	"Failed to initialize the service object. (Service = %%s) [%d	Error	Y	N
22	Agents	"Failed to stop the service. (%%s) [%d	Error	Y	N
23	Agents	Wait for service stop operation failed. (Service = %%s) [%d 0x%.08X]	Warning	Y	N
24	Agents	Failed to kill the service. (%%s) [%d 0x%.08X]	Error	Y	N
25	Agents	Failed to open the service object.(Service = %%s) [%d 0x%.08X]	Error	Y	N
26	Agents	Failed to query the service status. (Service = %%s). Error = %d	Error	Y	N
55	Agents	The Information Store service is not yet started. It might be running recovery on the database.	Error	Y	N
1	Agents	"Failed initialize netbios table information. [%d	Error	Y	N
3	Agents	Failed to parse the argument list.	Warning	Y	N
4	Agents	"Failed to find the service object. Please check the \Service\" attribute.""	Error	Y	N
63	Agents	Action arguments are not specified.	Error	Y	N
56	Agents	Failed to convert action token from UTF8 to UNICODE. Error %d.	Error	Y	N
57	Agents	Failed to convert the action token argument list from UTF8 to UNICODE. Error %d.	Error	Y	N
58	Agents	Error. No arguments specified for action '%s'	Error	Y	N
59	Agents	Error. Invalid argument (%%s) specified for action (%%s)	Error	Y	N
60	Agents	No implementation provided for token %%s	Error	Y	N
61	Agents	"Failed to create the process (%%s) [%d	Error	Y	N

Table 9-35 Exchange Service agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
62	Agents	"Wait on process (%s) failed. [%d	Error	Y	N
52	Agents	"Failed to wait on mutex : [%d	Error	Y	N
5	Agents	Failed to convert resource name. Error %d.	Error	Y	N
6	Agents	Failed to convert the argument list. Error %d.	Error	Y	N
7	Agents	"Configuration error. \Service\" attribute is not configured.""	Error	Y	N
8	Agents	"Configuration error. \LanmanResName\" attribute is not configured.""	Error	Y	N
50	Agents	"Failed to create detail monitor process (%s) [%d	Error	Y	N
51	Agents	"Wait on detail monitoring process failed. [%d	Error	Y	N
53	Agents	Store (%s) is enabled but dismounted.	Warning	Y	Y
65	Agents	Failed to change startup parameters for 'inetinfo' (service=SA) [%d 0x%.08X]	Error	Y	N
27	Agents	Failed to change the active computer name in registry. [%d 0x%.08X]	Error	Y	N
64	Agents	"Failed to add computer account to 'Exchange Domain Servers' group [%d	Warning	Y	N
30	Agents	"Failed to initialize CryptoFile object [%d	Warning	Y	N
28	Agents	Failed to import the cryptographic information [%d 0x%.08X]	Warning	Y	N
29	Agents	Failed to export the cryptographic information [%d 0x%.08X]	Warning	Y	N
66	Agents	"Failed to reset the active computer name in registry. [%d	Warning	Y	N

Exchange Protocol agent event processing rules

Table 9-36 Exchange Protocol agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1	Agents	“Failed initialize netbios table information. [%d, 0x%.08X]”	Error	Y	N
3	Agents	Failed to parse the argument list.	Warning	Y	N
4	Agents	“Failed to find the service object. Please check the \Protocol\” attribute.”””	Error	Y	N
5	Agents	Failed to allocate memory for protocol resource object.	Error	Y	N
6	Agents	“Failed to initialize active directory protocol object. [%d, 0x%.08X]”	Error	Y	N
12	Agents	“Wait on critical section failed [%d, 0x%.08X]”	Error	Y	N
7	Agents	“Failed to access the active directory. [%d, 0x%.08X]”	Warning	Y	N
14	Agents	Resource name or the argument list received from the engine is empty.	Error	Y	N
15	Agents	Failed to convert resource name. Error %d.	Error	Y	N
16	Agents	Failed to convert the argument list. Error %d.	Error	Y	N
17	Agents	“Configuration error. \Protocol\” attribute is not configured.”””	Error	Y	N
18	Agents	“Configuration error. \VirtualServer\” attribute is not configured.”””	Error	Y	N
19	Agents	“Configuration error. \LanmanResName\” attribute is not configured.”””	Error	Y	N
8	Agents	“Failed to get the Lanman resource state [%d, 0x%.08X]. Please check the \LanmanResName\” attribute.”””	Error	Y	N
20	Agents	The Lanman resource (Virtual name = %s) is offline.	Error	Y	N
48	Agents	Failed to set exchange cluster parameters (service=%s) [%d 0x%.08X].	Error	Y	N
51	Agents	Failed to change startup parameters for ‘inetinfo’ (service=%s) [%d 0x%.08X]	Error	Y	N
22	Agents	“Failed to start the protocol virtual server (%s). [%d, 0x%.08X]”	Error	Y	N

Table 9-36 Exchange Protocol agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
9	Agents	Failed to get the service state (%s)	Error	Y	N
10	Agents	Failed to terminate the service (%s).	Error	Y	N
24	Agents	“Failed to stop the protocol virtual server (%s). [%d, 0x%.08X]”	Error	Y	N
50	Agents	“Failed to set exchange cluster parameters (service=%s) [%d, 0x%.08X]”	Error	Y	N
25	Agents	“Failed to determine the state of the protocol virtual server (%s). [%d, 0x%.08X]”	Error	Y	N
26	Agents	“Failed to stop the service (%s). [%d, 0x%.08X]”	Warning	Y	N
29	Agents	“Failed to find the specified exchange server (%s) in the active directory. [%d, 0x%.08X]”	Error	Y	N
30	Agents	“Failed to get protocol virtual servers (Type = %s).[%d, 0x%.08X]”	Error	Y	N
31	Agents	“Failed to compare the site names. [%d, 0x%.08X]”	Warning	Y	N
32	Agents	“Failed to find the specified protocol virtual server (%s) [%d, 0x%.08X].Please check the \VirtualServer\”” attribute.”””	Error	Y	N
33	Agents	Failed to allocate memory	Error	Y	N
34	Agents	“Failed to get the value of the property \””adminDisplayName\””.[%d, 0x%.08X]”	Error	Y	N
35	Agents	ADsOpenObject() for %s returned [0x%.08X]	Error	Y	N
11	Agents	get_Status() call for %s returned [0x%.08X]	Error	Y	N
37	Agents	Start() call for %s returned [0x%.08X]	Error	Y	N
39	Agents	Stop() call for %s returned [0x%.08X]	Error	Y	N
40	Agents	“Failed to start service (%s) [%d, 0x%.08X]”	Error	Y	N
41	Agents	“Failed to stop the service (%s) [%d, 0x%.08X]”	Error	Y	N
42	Agents	“Failed to terminate the service (%s) [%d, 0x%.08X]”	Error	Y	N
43	Agents	“Failed to initialize the service object (Service = %s) [%d, 0x%.08X]”	Error	Y	N
44	Agents	Failed to get the service status (Service = %s). Error = %d	Error	Y	N

Table 9-36 Exchange Protocol agent event processing rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
45	Agents	"Failed to open the service object (Service = %s). [%d, 0x%.08X]"	Error	Y	N

Exchange Service agent event processing rules

Table 9-37 Exchange Service Agent Event Processing Rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
9	Agents	"Failed to get the Lanman resource state [%d	Error	Y	N
12	Agents	The Lanman resource (Virtual name = %s) is offline.	Error	Y	N
10	Agents	Failed to get the state of the service (%s)	Warning	Y	N
17	Agents	"Failed to stop the service (%s) [%d	Warning	Y	N
18	Agents	"Failed to initialize the service object (Service = %s) [%d	Warning	Y	N
20	Agents	"Failed to start the service. (%s) [%d	Error	Y	N
21	Agents	"Wait for Service start operation failed. (Service = %s) [%d	Warning	Y	N
11	Agents	"Failed to initialize the service object. (Service = %s) [%d	Error	Y	N
22	Agents	"Failed to stop the service. (%s) [%d	Error	Y	N
23	Agents	Wait for service stop operation failed. (Service = %s) [%d 0x%.08X]	Warning	Y	N
24	Agents	Failed to kill the service. (%s) [%d 0x%.08X]	Error	Y	N
25	Agents	Failed to open the service object.(Service = %s) [%d 0x%.08X]	Error	Y	N
26	Agents	Failed to query the service status. (Service = %s). Error = %d	Error	Y	N
55	Agents	The Information Store service is not yet started. It might be running recovery on the database.	Error	Y	N

Table 9-37 Exchange Service Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
1	Agents	"Failed initialize netbios table information. [%d	Error	Y	N
3	Agents	Failed to parse the argument list.	Warning	Y	N
4	Agents	"Failed to find the service object. Please check the \Service\" attribute.""	Error	Y	N
63	Agents	Action arguments are not specified.	Error	Y	N
56	Agents	Failed to convert action token from UTF8 to UNICODE. Error %d.	Error	Y	N
57	Agents	Failed to convert the action token argument list from UTF8 to UNICODE. Error %d.	Error	Y	N
58	Agents	Error. No arguments specified for action '%s'	Error	Y	N
59	Agents	Error. Invalid argument (%s) specified for action (%s)	Error	Y	N
60	Agents	No implementation provided for token %s	Error	Y	N
61	Agents	"Failed to create the process (%s) [%d	Error	Y	N
62	Agents	"Wait on process (%s) failed. [%d	Error	Y	N
52	Agents	"Failed to wait on mutex : [%d	Error	Y	N
5	Agents	Failed to convert resource name. Error %d.	Error	Y	N
6	Agents	Failed to convert the argument list. Error %d.	Error	Y	N
7	Agents	"Configuration error. \Service\" attribute is not configured.""	Error	Y	N
8	Agents	"Configuration error. \LanmanResName\" attribute is not configured.""	Error	Y	N
50	Agents	"Failed to create detail monitor process (%s) [%d	Error	Y	N
51	Agents	"Wait on detail monitoring process failed. [%d	Error	Y	N
53	Agents	Store (%s) is enabled but dismounted.	Warning	Y	Y
65	Agents	Failed to change startup parameters for 'inetinfo' (service=SA) [%d 0x%.08X]	Error	Y	N
27	Agents	Failed to change the active computer name in registry. [%d 0x%.08X]	Error	Y	N

Table 9-37 Exchange Service Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
64	Agents	"Failed to add computer account to 'Exchange Domain Servers' group [%d	Warning	Y	N
30	Agents	"Failed to initialize CryptoFile object [%d	Warning	Y	N
28	Agents	Failed to import the cryptographic information [%d 0x%.08X]	Warning	Y	N
29	Agents	Failed to export the cryptographic information [%d 0x%.08X]	Warning	Y	N
66	Agents	"Failed to reset the active computer name in registry. [%d	Warning	Y	N

NetAppFiler agent event processing rules

Table 9-38 NetAppFiler agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
40	Agents	Unable to get the arguments	Error	Y	N
73	Agents	FilerName attribute is not specified	Error	Y	N
43	Agents	StorageIP attribute is not specified	Error	Y	N
101	Agents	"Failed to start the 'Veritas Cluster Server Helper' service. (error_type:%d	Error	Y	N
102	Agents	"Internal error (Failed to switch the security context	Error	Y	N
59	Agents	Failed to open connection to filer %s	Error	Y	N
97	Agents	Failed to convert string %s to IP address	Error	Y	N
98	Agents	"Internal error (Ping failed	Error	Y	N

NetAppSnapDrive agent event processing rules

Table 9-39 NetAppSnapDrive agent event processing rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
105	Agents	Invalid attributes exist in the configuration	Error	Y	N
101	Agents	"Failed to start the 'Veritas Cluster Server Helper' service. (error_type:%d	Error	Y	N
102	Agents	"Internal error (Failed to switch the security context	Error	Y	N

NetAppSnapMirror agent event processing rules

Table 9-40 NetAppSnapMirror Agent Event Processing Rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
105	Agents	Invalid attributes exist in the configuration	Error	N	
101	Agents	"Failed to start the 'Veritas Cluster Server Helper' service. (error_type:%d	Error	N	N
102	Agents	"Internal error (Failed to switch the security context	Error	N	

Agent Framework monitoring rules

Table 9-41 Agent Framework monitoring rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13001	Agent Framework	Resource(%s): Output of the completed operation (%s) \n%s	Error	N	N
13002	Agent Framework	Output of the completed operation (%s) \n%s	Error	N	N
13003	Agent Framework	Resource(%s): Output of the timed out operation (%s) \n%s	Error	N	N
13004	Agent Framework	Output of the timed out operation (%s) \n%s	Error	N	N
13005	Agent Framework	Agent(%s) is exiting due to internal error.	Error	N	N
13006	Agent Framework	Resource(%s): clean procedure did not complete within the expected time.	Error	N	N
13007	Agent Framework	Resource(%s): close procedure did not complete within the expected time.	Error	N	N
13008	Agent Framework	Agent rejected the offline command for resource(%s) because the resource is not Enabled.	Error	N	N
13009	Agent Framework	Agent rejected the online command for resource(%s) because the resource is not Enabled.	Error	N	N
13010	Agent Framework	Agent rejected the probe command for resource(%s) because the resource is not Enabled.	Error	N	N
13011	Agent Framework	Resource(%s): offline procedure did not complete within the expected time.	Error	N	N
13012	Agent Framework	Resource(%s): online procedure did not complete within the expected time.	Error	N	N
13014	Agent Framework	Resource(%s): open procedure did not complete within the expected time.	Error	N	N
13015	Agent Framework	Resource(%s) faulted and the attempt to automatically restart it was not effective. Administrative intervention may be required.	Error	N	N

Table 9-41 Agent Framework monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13019	Agent Framework	Agent(%) is exiting because the required arguments were not specified.	Error	N	N
13020	Agent Framework	Agent(%) is exiting because it was given too many arguments	Error	N	N
13021	Agent Framework	Agent(%) is exiting because it was given unexpected option(%)	Error	N	N
13022	Agent Framework	Agent(%) is exiting because of invalid usage.	Error	N	N
13026	Agent Framework	Resource(%) - monitor procedure finished successfully after failing to complete within the expected time for (%) consecutive times.	Error	N	N
13027	Agent Framework	Resource(%) - monitor procedure did not complete within the expected time.	Error	N	N
13028	Agent Framework	Resource(%) - the last (%) invocations of the monitor procedure did not complete within the expected time.	Error	N	N
13030	Agent Framework	Attr_changed entry point of resource(%) requested that the timeout be extended by (%) seconds	Error	N	N
13031	Agent Framework	Clean entry point of resource(%) requested that the timeout be extended by (%) seconds	Error	N	N
13032	Agent Framework	Close entry point of resource(%) requested that the timeout be extended by (%) seconds	Error	N	N
13033	Agent Framework	Monitor entry point of resource(%) requested that the timeout be extended by (%) seconds	Error	N	N
13034	Agent Framework	Offline entry point of resource(%) requested that the timeout be extended by (%) seconds	Error	N	N
13035	Agent Framework	Online entry point of resource(%) requested that the timeout be extended by (%) seconds	Error	N	N
13036	Agent Framework	Open entry point of resource(%) requested that the timeout be extended by (%) seconds	Error	N	N
13037	Agent Framework	Agent(%): Monitor script file (%) not found.	Error	N	N
13038	Agent Framework	Resource(%): Error executing the program(%).	Error	N	N

Table 9-41 Agent Framework monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13039	Agent Framework	Resource(%s): Program(%s) was abnormally terminated with the exit code(%s).	Error	N	N
13042	Agent Framework	Agent(%s) is exiting because it encountered error(%s) when opening the lock file(%s)	Error	N	N
13043	Agent Framework	Agent(%s) is exiting because it encountered error(%s) when locking file(%s)	Error	N	N
13044	Agent Framework	Agent(%s) is exiting because it encountered error(%s) when seeking to the beginning of the lock file(%s)	Error	N	N
13045	Agent Framework	Agent(%s) is exiting because it encountered error(%s) when writing to the lock file(%s).	Error	N	N
13046	Agent Framework	Agent(%s) is exiting because of incomplete write (%s) of (%s) to the lock file(%s).	Error	N	N
13047	Agent Framework	Agent(%s) is exiting because it encountered error(%s) when releasing lock on file(%s).	Error	N	N
13050	Agent Framework	Agent(%s) is exiting because it could not lock the file(%s)	Error	N	N
13051	Agent Framework	Agent(%s) is exiting because another agent with process-id(%s) is already running for this type	Error	N	N
13061	Agent Framework	Agent(%s) is exiting because it could not load the agent library(%s).	Error	N	N
13062	Agent Framework	Agent(%s) is exiting because it could not find VCSAgStartup() in the agent library (%s).	Error	N	N
13063	Agent Framework	Agent is calling clean for resource(%s) because offline did not complete within the expected time.	Error	N	N
13064	Agent Framework	Agent is calling clean for resource(%s) because the resource is up even after offline completed.	Error	N	N
13065	Agent Framework	Agent is calling clean for resource(%s) because online did not complete within the expected time.	Error	N	N
13066	Agent Framework	Agent is calling clean for resource(%s) because the resource is not up even after online completed.	Error	N	N
13067	Agent Framework	"Agent is calling clean for resource(%s) because the resource became OFFLINE unexpectedly	Error	N	N

Table 9-41 Agent Framework monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13068	Agent Framework	Resource(%)s - clean completed successfully.	Error	N	N
13069	Agent Framework	Resource(%)s - clean failed.	Error	N	N
13070	Agent Framework	Resource(%)s - clean not implemented.	Error	N	N
13071	Agent Framework	Resource(%)s: reached OnlineRetryLimit(%)s.	Error	N	N
13072	Agent Framework	Resource(%)s: Agent is retrying online (attempt number %s of %s).	Error	N	N
13073	Agent Framework	Resource(%)s became OFFLINE unexpectedly on its own. Agent is restarting (attempt number %s of %s) the resource.	Error	N	N
13074	Agent Framework	The monitoring program for resource(%)s has consistently failed to determine the resource status within the expected time. Agent is restarting (attempt number %s of %s) the resource.	Error	N	N
13075	Agent Framework	"Resource(%)s has reported unexpected OFFLINE %s times	Error	N	N
13076	Agent Framework	Agent has successfully restarted resource(%)s.	Error	N	N
13077	Agent Framework	Agent is unable to offline resource(%)s. Administrative intervention may be required.	Error	N	N
13078	Agent Framework	Resource(%)s - clean completed successfully after %s failed attempts.	Error	N	N
13079	Agent Framework	Resource(%)s: The last %d invocations of the clean procedure have failed.	Error	N	N
13080	Agent Framework	Agent is calling clean for resource(%)s because monitor did not complete within the expected time.	Error	N	N
13081	Agent Framework	Agent(%)s is exiting because it encountered error(%)s when truncating the lock file(%)s).	Error	N	N
13082	Agent Framework	"Resource(%)s recovered from fault	Error	N	N

Table 9-41 Agent Framework monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13085	Agent Framework	Terminating the old agent for the type(%)s with process-id(%)s)	Error	N	N
13086	Agent Framework	Agent(%)s detected that a previously started agent with process-id(%)s) for this type is shutting down. Will terminate the old agent in (%)s seconds.	Error	N	N
13087	Agent Framework	Agent(%)s is exiting because it encountered error(%)s) when reading from the lock file(%)s).	Error	N	N
13088	Agent Framework	"Agent could not redirect the stdin of (%)s) to /dev/null	Error	N	N
13089	Agent Framework	"Agent could not redirect the stdout of (%)s) to log file	Error	N	N
13090	Agent Framework	"Agent could not redirect the stderr of (%)s) to log file	Error	N	N
13091	Agent Framework	"Agent(%)s) could not open file(%)s) for locking	Error	N	N
13092	Agent Framework	"Agent(%)s) could not obtain read lock on file (%)s)	Error	N	N
13093	Agent Framework	"Agent(%)s) could not obtain write lock on file (%)s)	Error	N	N
13094	Agent Framework	Agent(%)s) attempted to unlock file(%)s) that is not locked	Error	N	N
13095	Agent Framework	Resource(%)s) - Event(monitor) unexpected in Detached state	Error	N	N
13096	Agent Framework	Resource(%)s) received an attr_changed command with bad args	Error	N	N
13097	Agent Framework	Entry point attr_changed timed out for resource(%)s)	Error	N	N
13098	Agent Framework	Resource(%)s): Op(%)s) timeout unexpected in (%)s) state	Error	N	N
13099	Agent Framework	Resource(%)s): Op(%)s) done_waiting unexpected in (%)s) state.	Error	N	N
13100	Agent Framework	Resource(%)s): Attribute(%)s) depends on this resource itself.	Error	N	N

Table 9-41 Agent Framework monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13101	Agent Framework	Resource(%)s received a modify command with bad arguments	Error	N	N
13102	Agent Framework	Resource (%%s) received unexpected event %%s in state %%s	Error	N	N
13103	Agent Framework	Unknown/Invalid minor code (%%s)	Error	N	N
13104	Agent Framework	Agent(%%s) received attribute command (%%s) without type name	Error	N	N
13105	Agent Framework	Agent(%%s) received attribute command(%%s) for type(%%s) without attr name	Error	N	N
13106	Agent Framework	Cannot add static attribute (%%s) to unknown type name (%%s)	Error	N	N
13107	Agent Framework	Cannot delete static attr(%%s) from unknown type name (%%s)	Error	N	N
13108	Agent Framework	Engine reported error(%%s)	Error	N	N
13109	Agent Framework	Engine reported error; error info is (%%s)	Error	N	N
13110	Agent Framework	Resource name missing for command with minor code %%s	Error	N	N
13111	Agent Framework	Type name missing in Add resource (%%s) command	Error	N	N
13112	Agent Framework	Unknown resource name %%s	Error	N	N
13113	Agent Framework	Unknown/Invalid major code %%s	Error	N	N
13114	Agent Framework	Type name missing for command with minor code %%s	Error	N	N
13115	Agent Framework	Cannot modify attribute (%%s) for unknown type name (%%s)	Error	N	N
13116	Agent Framework	Attribute name missing in command to modify type (%%s)	Error	N	N

Table 9-41 Agent Framework monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13117	Agent Framework	VCSAgMain() is already active. Agent developer should not call VCSAgMain().	Error	N	N
13118	Agent Framework	Agent(%)s could not open IPM connection to %s on host %s	Error	N	N
13119	Agent Framework	Agent(%)s could not open IPM connection to %s on %s	Error	N	N
13120	Agent Framework	Error receiving from the engine. Agent(%)s is exiting.	Error	N	N
13121	Agent Framework	Agent(%)s exiting - could not open log file %s	Error	N	N
13123	Agent Framework	Error sending to the engine. Agent(%)s is exiting.	Error	N	N
13124	Agent Framework	Unknown/Invalid entry point	Error	N	N
13125	Agent Framework	"When computing the endpoint arguments for resource (%)s	Error	N	N
13126	Agent Framework	Resource(%)s: Attribute (%)s does not belong to this resource	Error	N	N
13127	Agent Framework	Unexpected data type (%)s encountered when copying a data list	Error	N	N
13128	Agent Framework	Resource(%)s - unknown attribute (%)s	Error	N	N
13129	Agent Framework	Resource(%)s: Unexpected data type (%)s for State	Error	N	N
13130	Agent Framework	Resource(%)s: Could not find State attribute	Error	N	N
13131	Agent Framework	Resource(%)s: Unexpected data type (%)s for attribute (%)s	Error	N	N
13132	Agent Framework	Resource %s not found	Error	N	N
13139	Agent Framework	Canceling thread (%)s	Error	N	N

Table 9-41 Agent Framework monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13140	Agent Framework	Could not find timer entry with id %s	Error	N	N
13141	Agent Framework	Resource name is NULL	Error	N	N
13142	Agent Framework	Bad format(%s) in the endpoint timeout extension file(%s)	Error	N	N
13143	Agent Framework	Error(%s) when reading endpoint timeout extension file (%s)	Error	N	N
13144	Agent Framework	Unexpected data type (%s) for ArgList	Error	N	N
13145	Agent Framework	Could not find the ArgList attribute	Error	N	N
13146	Agent Framework	Unexpected data type (%s) for RegList	Error	N	N
13147	Agent Framework	Attribute name is NULL	Error	N	N
13148	Agent Framework	Type/Resource update: NULL request	Error	N	N
13149	Agent Framework	Type/Resource update: Message header is NULL	Error	N	N
13150	Agent Framework	Type/Resource update: empty type/resource name	Error	N	N
13151	Agent Framework	Type/Resource update: type/resource name is not string	Error	N	N
13152	Agent Framework	Type/Resource update: attribute name is NULL	Error	N	N
13153	Agent Framework	Type/Resource update: attribute name is not STR	Error	N	N
13154	Agent Framework	Type/Resource update: System name was specified	Error	N	N
13155	Agent Framework	Unexpected minor code(%s) for attribute(%s) of type/resource(%s)	Error	N	N

Table 9-41 Agent Framework monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13156	Agent Framework	Update operation failed for attribute(%)s of type/resource(%)s	Error	N	N
13157	Agent Framework	Assertion failed in %s line %s	Error	N	N
13158	Agent Framework	kill of process (%)s reported error(%)s	Error	N	N
13159	Agent Framework	waitpid for process(%)s reported error(%)s	Error	N	N
13160	Agent Framework	Could not find thread(%)s for canceling	Error	N	N
13161	Agent Framework	Attempt to cancel thread(%)s failed. Error code(%)s	Error	N	N
13162	Agent Framework	Could not create thread	Error	N	N
13170	Agent Framework	Invalid thread cancel type requested	Error	N	N
13171	Agent Framework	Could not set thread-specific data	Error	N	N
13172	Agent Framework	CreatePipe() failed when executing (%)s. Error %s	Error	N	N
13173	Agent Framework	DuplicateHandle() failed on first duplication. Error %s	Error	N	N
13174	Agent Framework	DuplicateHandle() failed on second duplication. Error %s	Error	N	N
13175	Agent Framework	ReadFile() failed with error(%)s	Error	N	N
13176	Agent Framework	"WaitForSingleObject() returned (%)s for (%)s	Error	N	N
13177	Agent Framework	"TerminateProcess() failed for (%)s	Error	N	N
13178	Agent Framework	"GetExitCodeProcess() failed for (%)s	Error	N	N

Table 9-41 Agent Framework monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13179	Agent Framework	"CreateProcess() failed for (%s)	Error	N	N
13180	Agent Framework	"Agent(%s): WaitForMultipleObjects() failed with %s	Error	N	N
13181	Agent Framework	_beginthreadex() failed	Error	N	N
13182	Agent Framework	CloseHandle() failed	Error	N	N
13183	Agent Framework	Agent(%s): WaitForMultipleObjects() failed with error code %s	Error	N	N
13184	Agent Framework	Agent(%s): WaitForSingleObject() failed with error code %s	Error	N	N
13189	Agent Framework	Agent(%s) got error(%s) when deleting file(%s)	Error	N	N
13190	Agent Framework	Agent(%s): file(%s) fd(%s) has bad refcount(%s)	Error	N	N
13191	Agent Framework	"Agent(%s) could not unlock file(%s)	Error	N	N
13193	Agent Framework	Waitpid failed for script (%s) pid (%s) & errno (%s)	Error	N	N
13194	Agent Framework	File (%s) does not exist OR is not executable	Error	N	N
13195	Agent Framework	script (%s) stopped due to signal (%s)	Error	N	N
13196	Agent Framework	script (%s) terminated due to signal (%s)	Error	N	N
13197	Agent Framework	waitpid() returned unexpected status(%s) for script (%s)	Error	N	N
13198	Agent Framework	Agent is clearing ADMIN_WAIT flag for resource(%s)	Error	N	N
13199	Agent Framework	Agent has set ADMIN_WAIT flag for resource(%s). Administrative intervention is required.	Error	N	N

Table 9-41 Agent Framework monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13200	Agent Framework	Resource(%)s - unknown arg(%)s for ManageFaults	Error	N	N
13201	Agent Framework	Resource(%)s - unknown option (%)s for clearadminwait	Error	N	N
13210	Agent Framework	Agent is calling clean for resource(%)s because %s successive invocations of the monitor procedure did not complete within the expected time.	Error	N	N
13300	Agent Framework	UCS-2 conversions are not supported	Error	N	N
13301	Agent Framework	Unknown encoding type(%)s	Error	N	N
13303	Agent Framework	Agent(%)s encountered error(%)s when opening the file(%)s	Error	N	N
13304	Agent Framework	Agent unable to create fire drill online indicator file (%)s for resource(%)s).	Error	N	N
13305	Agent Framework	Error: %sAgent is stopping. Cannot run the Info EP for the resource(%)s	Error	N	N
13306	Agent Framework	Resource(%)s: Failed to convert the new value(%)s in UTF8 for attribute(%)s) to OS encoding	Error	N	N
13307	Agent Framework	Attribute(%)s not found in the type definition	Error	N	N
13308	Agent Framework	Unknown attr(%)s vtype	Error	N	N
13309	Agent Framework	Failed to undo_override for attr(%)s) for res(%)s)	Error	N	N
13310	Agent Framework	Attribute(%)s is not a static overridden attribute for res(%)s). Cannot undo_override for this attribute	Error	N	N
13311	Agent Framework	Attribute(%)s doesn't exist for res(%)s)	Error	N	N
13312	Agent Framework	Attribute(%)s not found for resource(%)s)	Error	N	N
13313	Agent Framework	Attribute(%)s value cannot be NULL	Error	N	N

Table 9-41 Agent Framework monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13314	Agent Framework	Missing key(%)s in attribute %s in the resource(%)s. Reverting to the value of this key in the resource type(%)s.	Error	N	N
13315	Agent Framework	Agent(%)s could not send connection information to the engine on %s	Error	N	N
13316	Agent Framework	Error receiving connection information confirmation for Agent(%)s from the engine on %s	Error	N	N
13317	Agent Framework	Agent(%)s failed to send connection information. Server refused connection	Error	N	N
13318	Agent Framework	Agent(%)s received an unexpected message %s	Error	N	N
13319	Agent Framework	Resource(%)s - info entry point failed with exit code(%)s\n	Error	N	N
13320	Agent Framework	Agent(%)s - No implementation provided for info entry point	Error	N	N
13321	Agent Framework	Error executing info entry point for resource(%)s	Error	N	N
13322	Agent Framework	Agent(%)s - info entry point not supported for this version of the agent	Error	N	N
13336	Agent Framework	Unexpected data type (%)s for MonitorStatsParam	Error	N	N
13337	Agent Framework	Missing key(%)s in attribute %s. Cannot compute monitor time statistics for resources of this type(%)s.	Error	N	N
13338	Agent Framework	Entry point info timed out for resource(%)s	Error	N	N
13339	Agent Framework	Info entry point failed for resource(%)s	Error	N	N
13340	Agent Framework	Unknown log severity(%)s specified	Error	N	N
13343	Agent Framework	Action endpoint action timed out for resource(%)s	Error	N	N
13344	Agent Framework	Resource(%)s received an override command with bad arguments	Error	N	N

Table 9-41 Agent Framework monitoring rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13345	Agent Framework	Resource(%)s received an undo_override command with bad arguments	Error	N	N
13346	Agent Framework	Resource(%)s: Failed to convert arglist attribute(%)s from UTF8 to OS encoding	Error	N	N
13347	Agent Framework	Action entry point of resource(%)s requested that the timeout be extended by (%)s seconds	Error	N	N
13348	Agent Framework	Info entry point of resource(%)s requested that the timeout be extended by (%)s seconds	Error	N	N
13415	Agent Framework	Error in converting the input string into UCS-2 encoding. Output may be truncated	Error	N	N
13416	Agent Framework	Error in converting the input string into UTF-8 encoding. Output may be truncated	Error	N	N
13422	Agent Framework	Update of ResourceInfo attribute failed for resource(%)s. Key(%)s being updated does not exist	Error	N	N
13423	Agent Framework	Update of ResourceInfo attribute failed for resource(%)s. No value specified for key(%)s to be added	Error	N	N
13455	Agent Framework	Update of ResourceInfo attribute failed for resource(%)s. Key(%)s to be added already exists	Error	N	N
13468	Agent Framework	This encoding type(%)s is not supported for the ArgList attribute	Error	N	N
13469	Agent Framework	Agent (%)s exiting - failed to create process due to low system resources (errno %s)	Error	N	N

Troubleshooting

- [“About Troubleshooting VCS Management Pack issues”](#) on page 206
- [“VCS Management Pack errors”](#) on page 206

About Troubleshooting VCS Management Pack issues

This chapter describes the process of recovering from various error conditions that may occur when monitoring applications using the MOM Management Pack.

VCS Management Pack errors

Error when MOM agent has been installed under the virtual server

The following error may occur when the MOM agent has not been installed correctly.

```
The MOM Server rejected configuration or data package from
computer <hostname>. Package failed to pass server security
verification.
```

If the MOM agent is installed on a node on which the Exchange service group is online, then the MOM agent gets installed under the virtual server rather than the physical server. As a result, the MOM server is unable to see events from this agent and therefore does not display events from this MOM agent.

Action

To fix the problems, do the following:

- Uninstall the MOM agent.
- Take the Exchange service group offline.
- Install the MOM agent again.

Recommendation

Make sure that the application (Exchange or SQL) service group is not online on the node on which you are installing the MOM agent. If the service group is online on the node, switch it to the failover node until the MOM agent installation and security settings have been completed.

VCS state monitoring script fails with a permission denied error

The VCS state monitoring script, VeritasCluster State Monitoring, may fail to execute on cluster nodes. This typically happens in cases when a service group is taken offline and the node is shut down. After the node is restarted, the following error is reported in the MOM console:

```
An error occurred on line 90 while executing script
'VeritasCluster State Monitoring'.
Permission denied . Please refer to the events associated with
this alert to view the computers on which this problem occurred.
```

Action:

Delete the files `StateMntr.txt` and `StateMntr.txt.old` from the `C:\Windows\temp` directory, on the node from which this error is reported.

