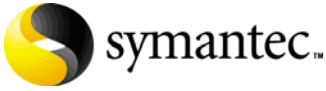
Veritas™ Cluster Server Management Pack Guide for Microsoft System Center Operations Manager 2007

Windows Server 2003,
Windows Server 2008

5.1

SQL Server 2008 support



Veritas Cluster Server Management Pack Guide for Microsoft System Center Operations Manager 2007

Veritas Cluster Server 5.1

Document Version: 5.1.1

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Chapter 1

VCS management pack overview

This chapter contains the following topics:

About VCS management packs

The Veritas Cluster Server (VCS) management packs for Operations Manager 2007 helps you monitor events generated by VCS components, as well as Microsoft SQL Server and Microsoft Exchange instances that are configured in a VCS cluster environment.

This guide provides information on the VCS management packs and instructions on how to import them in a Operations Manager 2007 monitoring environment.

The VCS management packs contain a set of rules that are based on the events placed in the Windows event log. These rules contain predefined alerts that are designed to notify you of critical events that require attention.

Table 1-1 lists the VCS management packs for Operations Manager 2007.

Table 1-1 VCS management packs

File Name	Description
Symantec.SFW.HA.mp	Base VCS management pack that contains rules for monitoring VCS components.
Symantec.SQLServer.2000.mp	The VCS management pack for monitoring SQL Server 2000 instances.
Symantec.SQLServer.2005.mp	The VCS management pack for monitoring SQL Server 2005 instances.
Symantec.SQLServer.2008.mp	The VCS management pack for monitoring SQL Server 2008 instances.
Symantec.Exchange.Server.2003.mp	The VCS management pack for monitoring Exchange 2003 server.
Symantec.Exchange.Server.2007.mp	The VCS management pack for monitoring Exchange 2007 server.

You can find the VCS management packs in the following directory on the software DVD:

`MOMPacks\cluster_server\storage_foundation_ha_for_windows\OPSMGR2007`

The base VCS management pack, *Symantec.SFW.HA.mp*, is a sealed management pack that contains rules to monitor the following VCS components:

Table 1-2 Base VCS management pack: VCS components monitored

Component name	Description
Engine (HAD)	The high availability engine, 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.
Agents (Agent Framework)	The VCS Management Pack monitors the status of the VCS Bundled agents and Enterprise agents. 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.

The base VCS management pack contains the following monitors:

- *VCS for Windows Installation by Symantec*
- *VeritasCluster*

These monitors are the targets for the rules defined in the base VCS management pack.

Rules

The base VCS management pack rules collect data, such as events, from the logs generated by the VCS components. Some of the rules have an associated alert that notifies the administrator about the event that triggered the alert.

You can view the VCS rules after you import the VCS management pack in Operations Manager 2007.

See Chapter 3, "Monitoring rules" on page 35 for a detailed list of VCS rules.

Alerts and Events

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 Operations Manager 2007 server. An alert notifies the administrator about the event that triggered the alert.

Each rule that generates the alert assigns an alert level that indicates the severity of that event. You can use the severity level to determine the importance of the alert and the necessary steps required to address the alert.

Note: The base VCS management pack does not include a notification group for automatic alerts by e-mail. If e-mail alerts are required, you must add the alert processing rules manually.

Views

Views are groups of managed objects that have a commonality, which is defined in the view properties. The views supported by the base VCS management pack enable you to monitor the health of the VCS components within the managed environment. These views enable you to assess the state of the required cluster node within the managed environment.

When you import the base VCS management pack, an item named *VCS for Windows by Symantec* is created under the Monitoring node in the Monitoring pane of the Operations Manager 2007 console. Expand **VCS for Windows by Symantec** to see the views supported by the base VCS management pack.

The following views are supported:

- Active Alerts

  This view provides a list of alerts that are open and require action for computers in the *All Computers in Management Pack - Symantec.SFW.HA* group. It indicates the current state and severity of those alerts.

- State View

  This view provides a real-time, consolidated look at the health of the cluster within the managed environment, highlighting the systems that require attention. It displays the state of the service groups and the resources configured in the service group.

  In the Monitoring pane, expand **VCS for Windows by Symantec** and click **State View**. In the State View pane, click an item in the **VeritasCluster** column. The Detail View section displays the status of the service group and the resources. Depending on the state the status is displayed as follows:

  - *Healthy*: Indicates that the service group and its resources are online on the node.
  - *Warning*: Indicates that the service group is partially online on the node.
  - *Critical*: Indicates that either the service group or the resources in the service group have faulted on the node.

    Whenever a service group or a resource in a service group faults on a node, an appropriate alert is generated.

  VCS management pack has a separate monitor for monitoring the health of the Veritas High Availability Daemon (HAD). If HAD is not running on a node, then an appropriate alert is generated. This alert stays active until the time HAD starts on that node. As soon as HAD starts on the node, this alert gets resolved automatically.

To enable the state view display for VCS, the following rules have been created in VCS for Windows Installation by Symantec:

- VeritasCluster Service Discovery
- VeritasCluster State Monitoring

The scripts that these rules invoke, internally use the `MOMUtil.exe` utility. The MOMUtil utility discovers all the service groups and resources in the cluster and then gathers the state related information for all the service groups and resources.

- Alerts
  Displays alerts for the VCS components: Agents, Engine, GAB, and LLT. This view provides a list of issues 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.
- Events
  Displays events for the VCS components: Agents, Engine, GAB, and LLT. 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.

Groups

Groups in Operations Manager 2007 are logical collections of objects such as computers, hard-disks, or instances of SQL or Exchange. Groups help define on which computers the rules are deployed. When you import the base VCS management pack, the following groups are created:

- VCS for Windows by Symantec Computer Group—Includes Windows servers running Veritas Cluster Server 5.1 or later.
- All Computers in ManagementPack: Symantec.SFW.HA—Contains all the computers that are discovered as a part of other computer groups defined in ManagementPack Symantec.SFW.HA

These groups are located under the Groups node in the Authoring pane of the Operations Manager 2007 Console.

Chapter 2

Deploying the VCS management packs

This chapter contains the following topics:

About deploying the VCS management packs

This chapter describes how to deploy the VCS management packs in a Microsoft Systems Center Operations Manager 2007 monitoring environment. Complete the procedures in the given order.

Supported software

The VCS management packs are compatible with:

- Microsoft System Center Operations Manager 2007 SP1
- Veritas Cluster Server 5.1 for Windows
- Microsoft SQL Server 2000
- Microsoft SQL Server 2005
- Microsoft SQL Server 2008
- Microsoft Exchange Server 2003
- Microsoft Exchange Server 2007

Installing the Helper Process utility

This procedure is required only if you plan to import the VCS SQL or Exchange management pack for Operations Manager 2007.

In Operations Manager 2007, managed items are collectively referred to as objects. Computers can be either be agent managed or agentless managed objects. Each agentless managed computer must be associated with an agent-managed computer (physical system) that acts as a proxy and provides remote agent functionality for the virtual server. Operations Manager 2007 server retrieves agentless managed object related events from its associated agent-managed proxy.

SQL or Exchange instances (virtual servers) configured with VCS are marked as agentless managed and the cluster nodes are marked as agent managed. When a virtual server comes online on a node, the Lanman agent logs an alert that contains the name of the node on which the service group is online. The Helper Process utility detects this and switches the proxy to the node on which the Lanman resource is online. The Operations Manager 2007 server then starts querying the new proxy (node on which the virtual server is online) for events related to the virtual server.

Consider a 2-node VCS cluster, where Node1 and Node2 are the system names and INST1 is the clustered SQL instance (virtual server). Node1 and Node2 are configured as agent managed and INST1 is configured as agentless managed object. When INST1 is online on Node1, Operations Manager 2007 server retrieves INST1 related events from Node1. If INST1 fails over to Node2, all INST1 related events are logged in the Node2 event log. The Helper Process utility detects this information from the Lanman agent alert, and switches the proxy to Node2. The Operations Manager 2007 server now retrieves INST1 related events from the Node2 event log.

Thus, the Helper Process utility enables Operations Manager 2007 server to retrieve and monitor events related to the clustered SQL or Exchange instances, from the nodes (physical systems) on which they are online.

To install the Helper Process utility

1. From the Operations Manager 2007 server, navigate to the following directory on the product disc:
   `MOMPacks\cluster_server\storage_foundation_ha_for_windows\OPSMGR2007`
2. Double-click **install.bat**. The Helper Process utility, *MOMHelper.exe*, is installed to the following directory on the Operations Manager server:
   `C:\Program Files\Symantec\MOMUtils\OpsMgr2007`

Do not change the installation directory of the Helper Process utility.

Importing the VCS management packs

Use these procedures to import the VCS management packs in the Operations Manager 2007 server.

Before you proceed, ensure that:

- Verify that Operations Manager 2007 infrastructure is set up and configured correctly.
  See the Microsoft System Center Operations Manager 2007 documentation for more information.
- If you have SQL configured, ensure that the SQL Server Browser service is running on all the nodes.
- Install SQL-DMO on all the nodes where SQL service group is configured. Using SQL-DMO you can monitor the SQL Server 2008 instances.
  See the Microsoft System Center Operations Manager 2007 documentation for more information.

Importing the base VCS management pack

Use the following procedure to import the base VCS management pack to monitor the VCS components.

To import the base VCS management pack

1. Log on to the computer with an account that is a member of the Operations Manager Administrators role for the Operations Manager 2007 Management Group.
2. In the Operations Console, click **Administration**.
3. Right-click the **Management Packs** node and then click **Import Management Packs...**.
4. In the Select Management Packs to import dialog box, navigate to the directory that holds the base VCS Management Pack file, click **Symantec.SFW.HA.mp** and then click **Open**.
5. In the Import Management Packs dialog box, select the base VCS management pack file (**Symantec.SFW.HA.mp**) from the list and click **Import**.
6. After the import process is complete, and the dialog box displays an icon next to the management pack indicating success or failure, click **Close**.
7. On successful import, the base VCS management pack is listed as *VCS for Windows by Symantec* in the Management Packs displayed in the Results pane.

Importing the VCS SQL or Exchange management pack

Use the following procedure to import the VCS SQL or Exchange management pack. The steps are the same for both SQL and Exchange.

Before you proceed, ensure that:

- You have imported the base VCS Management Pack.
  See "Importing the base VCS management pack" on page 18 for more information.
- If you have SQL configured, ensure that the SQL Server Browser service is running on all the nodes.

To import the VCS SQL or Exchange management pack

1. Log on to the computer with an account that is a member of the Operations Manager Administrators role for the Operations Manager 2007 Management Group.
2. In the Operations Console, click **Administration**.
3. Import the Microsoft Exchange or SQL management packs. If you have already imported the Microsoft management packs, proceed to the next step.
   - In the Administration pane, right-click **Management Packs** and then click **Import Management Packs...**.
   - In the Select Management Packs to import dialog box, navigate to the directory that holds the Microsoft management pack files, select the appropriate files and then click **Open**.
     For SQL 2000, select the following:
     - **Microsoft.SQLServer.2000.Discovery.mp**
     - **Microsoft.SQLServer.2000.Monitoring.mp**
     - **Microsoft.SQLServer.Library.mp**

     For SQL 2005, select the following:
     - **Microsoft.SQLServer.2005.Discovery.mp**
     - **Microsoft.SQLServer.2005.Monitoring.mp**
     - **Microsoft.SQLServer.Library.mp**

     For SQL 2008, select the following:
     - **Microsoft.SQLServer.2008.Discovery.mp**
     - **Microsoft.SQLServer.2008.Monitoring.mp**
     - **Microsoft.SQLServer.Library.mp**

     For Exchange 2003, select the following:
     - **Microsoft.Exchange.Server.2003.Discovery.mp**

- **Microsoft.Exchange.Server.2003.Monitoring.mp**
- **Microsoft.Exchange.Server.Library.mp**

For Exchange 2007, select the following:

- **Microsoft.Exchange.2007.mp**
- **Microsoft.Exchange.2007.Reporting.mp**

- In the Import Management Packs dialog box, select the appropriate Microsoft management packs from the list and click **Import**. You must select the files specified in the earlier step.
- After the import process is complete, and the dialog box displays an icon next to each management pack indicating success or failure, click **Close**.

On successful import, the Microsoft management packs are listed in the management packs displayed in the Results pane.

4 Import the VCS Exchange or SQL management packs.

- In the Administration pane, right-click **Management Packs** and then click **Import Management Packs...**.
- In the Select Management Packs to import dialog box, navigate to the directory that holds the Microsoft management pack files, select the appropriate files and then click **Open**.

  For SQL 2000, select the following:

  - **Symantec.SQLServer.2000.mp**

  For SQL 2005, select the following:

  - **Symantec.SQLServer.2005.mp**

  For SQL 2008, select the following:

  - **Symantec.SQLServer.2008.mp**

  For Exchange 2003, select the following:

  - **Symantec.Exchange.Server.2003.mp**

  For Exchange 2007, select the following:

  - **Symantec.Exchange.Server.2007.mp**

- In the Import Management Packs dialog box, select the appropriate VCS management pack from the list and click **Import**. You must select the file specified in the earlier step.
- After the import process is complete, and the dialog box displays an icon next to each management pack indicating success or failure, click **Close**.

On successful import, the VCS management pack is listed in the management packs displayed in the Results pane.

Note that the above VCS Exchange or SQL management packs customizes and overwrites the following discoveries from the Microsoft Exchange or SQL management packs.

Table 2-1 Customized discoveries from Microsoft Exchange and SQL MOM packs

Application	Microsoft management pack discovery ID	VCS management pack discovery ID
SQL Server 2000	Microsoft.SQLServer.2000.DBEngineDiscoveryRule.Server	Symantec.SQLServer.2000.DBEngineDiscoveryRule.Server
SQL Server 2005	Microsoft.SQLServer.2005.DBEngineDiscoveryRule.Server	Symantec.SQLServer.2005.DBEngineDiscoveryRule.Server
SQL Server 2005	Microsoft.SQLServer.2005.ReportingServicesDiscoveryRule.Server	Symantec.SQLServer.2005.ReportingServicesDiscoveryRule.Server
SQL Server 2005	Microsoft.SQLServer.2005.AnalysisServicesDiscoveryRule.Server	Symantec.SQLServer.2005.AnalysisServicesDiscoveryRule.Server
SQL Server 2005	Microsoft.SQLServer.2005.IntegrationServicesDiscoveryRule.Server	Symantec.SQLServer.2005.IntegrationServicesDiscoveryRule.Server
SQL Server 2008	Microsoft.SQLServer.2008.DBEngineDiscoveryRule.Server	Symantec.SQLServer.2008.DBEngineDiscoveryRule.Server
SQL Server 2008	Microsoft.SQLServer.2008.ReportingServicesDiscoveryRule.Server	Symantec.SQLServer.2008.ReportingServicesDiscoveryRule.Server
SQL Server 2008	Microsoft.SQLServer.2008.AnalysisServicesDiscoveryRule.Server	Symantec.SQLServer.2008.AnalysisServicesDiscoveryRule.Server
SQL Server 2008	Microsoft.SQLServer.2008.IntegrationServicesDiscoveryRule.Server	Symantec.SQLServer.2008.IntegrationServicesDiscoveryRule.Server
Exchange 2003	Microsoft.Windows.Exchange.2003.InitalRegistryDiscovery	Symantec.Windows.Exchange.2003.InitalRegistryDiscovery

Table 2-1 Customized discoveries from Microsoft Exchange and SQL MOM packs

Application	Microsoft management pack discovery ID	VCS management pack discovery ID
Exchange 2007	Microsoft.Exchange.2007.Microsoft_Exchange_2007_Mailbox_Servers_Installation.Discovery	Symantec.Exchange.2007.Microsoft_Exchange_2007_Mailbox_Servers_Installation.Discovery
Exchange 2007	Microsoft.Exchange.2007.Microsoft_Exchange_2007_Mailbox_Servers__Physical_Computers_Insallation.Discovery	Symantec.Exchange.2007.Microsoft_Exchange_2007_Mailbox_Servers__Physical_Computers_Insallation.Discovery
Exchange 2007	Microsoft.Exchange.2007.Microsoft_Exchange_2007_Mailbox_Servers__CMS_and_Physical_Computer_Installation.Discovery	Symantec.Exchange.2007.Microsoft_Exchange_2007_Mailbox_Servers__CMS_and_Physical_Computer_Installation.Discovery

For Exchange 2007, in addition to the above mentioned discoveries, the VCS management pack also customizes and overwrites the following Microsoft management pack rules.

Table 2-2 Customized rules for Exchange 2007

Microsoft management pack discovery ID	VCS management pack discovery ID
Execute: Test-ExchangeSearch cmdlet	Execute: Test-ExchangeSearch cmdlet
Test-Mailflow (Local) diagnostic cmdlet (Report Collection)	Execute: Test-Mailflow (Local) diagnostic cmdlet (Report Collection) in VCS
Test-Mailflow (Remote) diagnostic cmdlet (Report Collection)	Execute: Test-Mailflow (Remote) diagnostic cmdlet (Report Collection) in VCS
Execute: Test-MAPIConnectivity diagnostic cmdlet (Report Collection)	Execute: Test-MAPIConnectivity diagnostic cmdlet (Report Collection). in VCS
Test-ServiceHealth diagnostic cmdlet	Execute: Test-ServiceHealth diagnostic cmdlet in VCS

Table 2-2 Customized rules for Exchange 2007

Microsoft management pack discovery ID	VCS management pack discovery ID
Test-SystemHealth diagnostic cmdlet	Execute: Test-SystemHealth diagnostic cmdlet in VCS

Note: For Microsoft Exchange 2007, the VCS management pack creates a new WriteActionModuleType "Microsoft_Exchange_2007__Execute_Diagnostic_Cmdlet_in_VCS". This is a modified version of Microsoft_Exchange_2007__Execute_Diagnostic_Cmdlet module.

Enabling VCS management pack monitoring

Complete this procedure to enable VCS management pack monitoring on physical systems that are part of the cluster.

To configure the VCS management packs

1. Log on to the computer with an account that is a member of the Operations Manager Administrators role for the Operations Manager 2007 Management Group.
2. Create a Run as Account for the user to provide access to update MOM Server using MOM SDK.

   You can also use the logged-on user account as Run As Account. In case you wish to use the logged-on user account as the Run as Account, skip this step and proceed to step 3.

   To create the Run as Account, perform the following:

   - In the Administration pane, under the Security options, right-click **Run as Accounts** and click **Create Run as Account**.
   - On the Introduction panel of the Create Run as Account wizard, click **Next**.
   - On the General panel, select the **account type**, enter the **display name** and **description** in the respective fields and then click **Next**.
   - On the Account panel, type the **user name** and **password** and select the **domain** from the respective fields. Click **Create**.

     Note that the user account must have access to update MOM server using MOM sdk.
3. Specify the Run as Account for the management servers, that manage the VCS Cluster nodes.

   To specify the Run as Account for the management servers, perform the following:

   - In the Administration pane, under the Security option, click **Run as Profiles**. The results pane displays all profiles that exists on the management server.
   - In the results pane, right-click **MOMHelper profile** and click **Properties**.
   - On the Run as Profile Properties panel, click **Run as Accounts** tab and click **New** to specify the Run as Account for the Management servers.
   - On the Add Alternate Run as Account panel, select the desired account from the **Run as Account** drop-down list.
   - Select the desired Management Server from the list of servers displayed in the Matching Computers grid. Click **Ok**.

- On the Run as Profiles Properties panel, click **Ok**.

4 Create a management pack.
In the Administration pane, right-click **Management Packs**, click **Create Management Pack** and complete the steps as per the Create a Management Pack wizard.
For sake of convenience, this management pack is referred as *OverridesMgmtPack* in this procedure.

5 Create a physical server group, as follows:
- In the Authoring pane, expand **Authoring**, right-click **Groups**, click **Create a new Group** to launch the Create Group Wizard.
- In the General Properties pane, type a name for the Group and from the Select destination management pack drop-down list select the management pack, *OverridesMgmtPack*, that you created. Click **Next**.
- In the Explicit Members pane, click **Next**.
- In the Dynamic Members pane, click **Next**.
- In the Subgroups pane, click **Next**.
- In the Exclude Members pane, click **Create**.

6 For the physical server group you created in the previous step, override the *Lanman Resource is Online* rule as follows:
- In the Authoring pane, expand **Management Pack Objects**, and click **Rules**.
- To see the VCS specific rules, click the **Change Scope** link and type VCS in the **Look for** text box, on the Scope Management Pack Objects by target(s) dialog box.
  - In the Scope Management Pack Objects by target(s) dialog box, click **Clear ALL**.
  - Select **VCS for Windows installation by Symantec** and then click **OK**.
  - In the Rules pane, type `Lanman` in the **Look for** text box, and then click **Find Now**. The Lanman resource is online rule appears in the Rules pane.
- In the Rules pane, right-click the Lanman resource is online rule, and click **Overrides > Override the Rule > For a group**, and from the Select Object dialog box, select the physical server group that you created and then click **OK**.
- In the Override Properties dialog box, select the **Override** check box, and select **True** from the Override Setting drop-down list.
- Click **Apply** and then click **OK**.

7 For the Operations Manager 2007 server, override the VCS rule, *Call MOM Helper Utility*, as follows:

- In the Authoring pane, expand **Management Pack Objects**, and click **Rules**. The results pane displays all the rules that are included in the management packs on the server.
- To see VCS specific rules, at the top of the results pane, click **Change Scope...**.
- In the Scope Management Pack Objects by target(s) dialog box, click **Clear ALL**, select **Management Server** from the list of targets and then click **OK**.
- Type **Call MOMHelper Utility** in the Look for: field and then click **Find Now**. The Call MOMHelper Utility rule is displayed in the Rules pane.
- In the Rules pane, right-click the VCS rule *Call MOMHelper Utility*, click **Overrides > Override the Rule > For a specific object of type: Management Server**, and from the **Select a Target Type** dialog box, select the desired Management Server and then click **OK**.
- In the Override Properties dialog box, select the **Override** check box, and select **True** from the Override Setting drop-down list.
- In the Select destination management pack drop-down list, select the management pack, *OverridesMgmtPack* that you created in step 4.
- Click **Apply** and then click **OK**.

Disabling additional monitoring for clustered instances

A management pack contains rules, monitors and other object discoveries that are set by the vendor of the management pack. A management pack begins monitoring a specific application as soon as it is imported. You may want to customize the default settings in these management packs to disable monitoring for clustered instances.

Let us consider an example where you are monitoring an application, *ApplicationX*, on a system, *System1*, using a third-party management pack. Install and configure Exchange with VCS on *System1*. Exchange in a VCS cluster environment works in the virtual server context. On importing the VCS management packs, computer objects *System1* and Exchange virtual server, *EVS1*, are displayed in the Operations Manager 2007 server. The third-party management pack monitors *ApplicationX* on *System1* and also on *EVS1* computer object. Similarly, the VCS management pack monitors Exchange on *EVS1* and also on *System1*.

In this case, you do not want the third-party management pack to monitor on *EVS1*, and the VCS management pack to monitor on *System1*. To accomplish

this, you can use overrides to disable additional monitoring for those management packs.

The following procedure describes how to override a VCS object discovery, *Symantec.SFW.HA.VCS_Windows_Installation.Discovery*, as an example. You must repeat this procedure to disable monitoring for the management packs from other vendors, as required.

To override management pack default settings

1. Create a virtual server group, as follows:
   - In the Operations Console, click **Authoring**, and in the Authoring pane, expand **Authoring**, right-click **Groups**, click **Create a new Group** to launch the Create Group Wizard.
   - In the General Properties pane, type a name for the group and from the Select destination management pack drop-down list select the management pack, *OverridesMgmtPack*. Click **Next**.
   - In the Explicit Members pane, click **Next**.
   - In the Dynamic Members pane, click **Next**.
   - In the SubGroups pane, click **Next**.
   - In the Excluded Members pane, click **Create**.
2. For the virtual server group that you created in step 1, override the object discovery *Symantec.SFW.HA.VCS_Windows_Installation.Discovery* for the base VCS management pack, as follows:
   - In the Authoring pane, expand **Management Pack Objects**, and then click the **Object Discoveries**.
   - To find the object discovery that you wish to override, click **Change Scope...** at the top of the results pane.
   - In the Scope Management Pack Objects by target(s) dialog box, click **Clear ALL**, select **VCS for Windows Installation by Symantec** and then click **OK**.
   - In the Object Discoveries pane, right-click the object discovery, *Symantec.SFW.HA.VCS_Windows_Installation.Discovery*, click **Overrides > Override the Rule > For a group...**, and from the Select Object dialog box, select the virtual server group and then click **OK**.
   - In the Override Properties dialog box, check the **Override** check box for the enabled attribute, and select **False** from the Override Setting drop-down list.
   - Click **Apply** and then click **OK**.

This disables the discovery, *Symantec.SFW.HA.VCS_Windows_Installation.Discovery*, for the empty Group.

3 If required, repeat step 2 to override rules, monitors, and other object discoveries of the other management packs for the virtual server group you created.

Configuring cluster nodes

Complete the following procedures.

Installing the Operations Manager 2007 agent

Complete this procedure to discover cluster nodes and deploy the Operations Manager 2007 agent to them from the Operations Manager 2007 console.

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

To install the Operations Manager 2007 agent

1. Log on to the computer with an account that is a member of the Operations Manager Administrators role for the Operations Manager 2007 Management Group.
2. In the Operations Console, click **Administration**.
3. At the bottom of the navigation pane, click **Discovery Wizard...**.
4. On the Introduction panel, click **Next**.
5. On the Auto or Advanced? panel, select either **Automatic computer discovery** or **Advanced discovery**. If you select Automatic computer discovery, click **Next**, and then go to step 7. If you select Advanced discovery, continue with the following steps:
   - In the Computer & Device Types list, select **Servers & Clients**.
   - In the Management Server list, click the computer that you want to use to discover the computers.
   - Select the **Verify discovered computers can be contacted** check box. This is likely to increase the success rate of agent installation, but discovery can take longer.
   - Click **Next**.
6. On the Discovery Method panel, you can locate the computers that you want to manage by either scanning or browsing Active Directory Domain Services or typing the computer names.
   If you want to scan, do the following:
   - If it is not already selected, select **Scan Active Directory** and then click **Configure**.

- In the Find Computers dialog box, type the desired criteria for discovering computers and then click **OK**.
- In the Domain list, click the domain of the computers that you want to discover.
- Click **Next**.

If you want to browse Active Directory or type the computer names, do the following:

- Select **Browse for, or type-in computer names**, click **Browse**, specify the names of the computers you want to manage, and then click **OK**.
- In the Browse for, or type-in computer names box, type the computer names, separated by semi-colon, comma, or a new line.
- Click **Next**.

7 On the Administrator Account panel, do one of the following:

- Select **Use selected Management Server Action Account** if it is not already selected.
- Select **Other user account**, type the User name and Password, and then select the Domain from the list. If the User name is not a domain account, select **This is a local computer account, not a domain account**.
  The account must have administrative privileges on the targeted computers. If you select **This is a local computer account, not a domain account**, the Management Server Action Account is used to perform discovery.

8 Click **Discover** to display the Discovery Progress panel.

9 On the Select Objects to Manage panel, do the following and then click **Next**:

- Select the cluster nodes on which you want to install the agent. You must select the cluster nodes using the physical name of the node, and not the virtual server name.
- From the Management Mode drop-down list, select **Agent**.

10 On the Summary page, do the following and then click **Finish**:

- Leave the Agent installation directory set to the default of `%ProgramFiles%\System Center Operations Manager 2007` or type an installation path.
  If a different Agent installation directory is specified, the root of the path must exist on the targeted computer or agent installation fails.
- Leave Agent Action Account set to the default, Local System, or select **Other** and type the User name, Password, and Domain. The Agent Action Account is the default account the agent uses to perform actions.

In the Agent Management Task Status box, the Status for each selected node changes to Success. This indicates that the agent is installed successfully.

11 Click **Close**. After the agent is installed, the node is added to the *Agent-Managed* group.

Configuring agent-managed computers as proxy

This procedure is required only if you plan to import the VCS SQL or Exchange management pack on the Operations Manager 2007 server.

After the Operations Manager 2007 agent installation, the cluster nodes are added to the *Agent Managed* group. Use the following procedure to configure these cluster nodes (agent-managed computers) as a proxy for virtual servers (agentless managed computers) that are running on these nodes. This enables the events generated by the clustered SQL or Exchange instances (virtual servers) to be reported to the Operations Manager 2007 server.

To configure agent-managed computers as proxy

1 Log on to the computer with an account that is a member of the Operations Manager Administrators role for the Operations Manager 2007 Management Group.

2 In the Operations Console, click **Administration**.

3 In the Administration pane, expand **Administration**, expand **Device Management**, and then click **Agent Managed**.

4 In the results pane, right-click a cluster node and then click **Properties**.

5 In the Agent Properties dialog box, click the **Security** tab, select **Allow this agent to act as a proxy and discover managed objects and on other computers**, and then click **OK**.

6 Repeat steps 4 and 5 for the remaining nodes in the cluster.

Adding physical servers to the group created

Add clustered nodes to the group that you created in the procedure “Enabling VCS management pack monitoring” on page 24.

To add clustered nodes to the group created

1 Log on to the computer with an account that is a member of the Operations Manager Administrators role for the Operations Manager 2007 Management Group.

2 In the Operations Console, click **Authoring**.

3 In the Authoring pane, expand **Authoring**, and then click **Groups**.

4 From the Groups pane, right-click the **Group** that you created earlier in "Enabling VCS management pack monitoring," and then click **Properties**.

5 In the Explicit Members pane, click **Add/Remove Objects...**, in the Object Selection dialog box, select **Windows Computer** from the Search for: drop-down list, and then click **Search** to search the SQL or Exchange physical systems.

6 Click **Apply** and then click **OK**.

Configuring clustered instances

Adding clustered instances as agentless-managed objects

SQL and Exchange in a VCS cluster environment work in the virtual server context. Events generated by SQL and Exchange instances are in the name of the virtual server. Similarly, service groups that include a Lanman resource (for example, File Share, Print Share) operate in the virtual server context. To be able to monitor these virtual servers, you must configure them as agentless managed.

Before you proceed, ensure that the Lanman resource is online on the cluster node. Also, ensure that the Lanman agent attributes, ADUpdateRequired and DNSUpdateRequired are set to True. If they are not, set them to True, take the Lanman resource offline and then bring it online.

To configure clustered instances as agentless managed computers

1. Log on to the computer with an account that is a member of the Operations Manager Administrators role for the Operations Manager 2007 Management Group.
2. In the Operations Console, click **Administration**.
3. At the bottom of the navigation pane, click **Discovery Wizard...**.
4. On the Introduction panel, click **Next**.
5. On the Auto or Advanced? panel, select **Advanced discovery**, complete the following and then click **Next**:
   - In the Computer & Device Types list, select **Servers & Clients**.
   - In the Management Server list, click to select the computer that you want to use to discover the computers.
   - Uncheck the **Verify discovered computers can be contacted** check box.
6. On the Discovery Method panel, do the following and then click **Next**:
   - In the Browse for, or type-in computer names box, type the SQL or Exchange virtual server names, separated by semi-colon, comma, or a new line.
7. On the Administrator Account panel, specify a user account with Administrative rights on the virtual computer and then click **Discover** to begin the discovery.
8. On the Select Objects to Manage panel, do the following and then click **Next**:
   - Select the virtual server names.
   - From the Management Mode drop-down list, select **Agentless**.

- In the Proxy Agent field select the cluster node on which the Lanman resource is online.

9 On the Summary panel, click **Finish**.
The virtual computers you specified are now added to the *Agentless Managed* group.

Adding clustered instances to the empty Group

In the procedure "Disabling additional monitoring for clustered instances" on page 26, you created an empty Group and then disabled the VCS object discovery, *Symantec.SFW.HA.VCS_Windows_Installation.Discovery*, and the override rules, monitors, and object discoveries of the other management packs, for this empty Group. We now add all the clustered instances to that empty Group. This ensures that the override rules, monitors, and object discoveries are disabled for these virtual server instances.

To add clustered instances to the empty Group

1 Log on to the computer with an account that is a member of the Operations Manager Administrators role for the Operations Manager 2007 Management Group.

2 In the Operations Console, click **Authoring**.

3 In the Authoring pane, expand **Authoring**, and then click **Groups**.

4 From the Groups pane, right-click the empty Group that you created earlier and then click **Properties**.

5 On the Explicit Members tab, click **Add/Remove Objects...**, and in the Object Selection dialog box, select **Windows Computer** from the Search for: drop-down list, and then click **Search**. The virtual computers are displayed in the Available items list.

6 From the Available items, select the desired virtual computer, click **Add**, and then click **OK**.

7 Click **Apply** and then click **OK**.

Chapter 3

Monitoring rules

This chapter contains the following topics:

About monitoring rules

This chapter lists the monitoring rules for VCS components, SQL Server, and Exchange server. The monitoring rules consist of event processing rules and alert processing rules.

HAD monitoring rules

Table 3-1 lists the rules for the VCS High Availability Engine (HAD).

Table 3-1 HAD Monitoring Rules

Event ID	Module name	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
10821	HAD	No messages match your query	Warning	Y	N

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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	hacf -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
11039	HAD	Failed to make MSG_CLUSTER_STOP_SYS.	Error	Y	N
11041	HAD	Engine Stopping Deleting vlist for %1	Warning	Y	N

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
11148	HAD	Cannot ioctl(IOCTL_LLT_GETPARAM/LP_MAXLINKS (Windows Error Code = %1)	Warning	Y	N
11149	HAD	Cannot ioctl(IOCTL_LLT_GETLINKINFO (Windows Error Code = %1)	Warning	Y	N

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
11150	HAD	Cannot ioctl(IOCTL_LLT_GETPARAM/LP_MAXNODE (Windows Error Code = %1)	Warning	Y	N
11151	HAD	Cannot ioctl(IOCTL_LLT_GETNODEALL (Windows Error Code = %1)	Warning	Y	N
11152	HAD	Cannot malloc(%1 for msgbuf)	Warning	Y	N
11154	HAD	Cannot ioctl(IOCTL_LLT_GETPARAM/LP_MAXNODE)	Warning	Y	N
11164	HAD	Cannot ioctl(IOCTL_LLT_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_LLT_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_LLT_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
11284	HAD	Your evaluation period has expired. VCS will not start the next time you invoke hastart	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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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.	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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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	Recvb 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 sendrecvb 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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
17009	HAD	Notifier:cannot connect to ipmserver	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:send MSG_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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
50044	HAD	For system %1 check if llttab 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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
50850	HAD	Unable to display alerts. An error has occurred while requesting alerts from engine	Warning	Y	N
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
50952	HAD	Invalid remote group message 0x%1	Warning	Y	N
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 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	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
51061	HAD	VCS engine rejected connection request from wide area connector because group %1 is not running on local system %2	Error	Y	N

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
52517	HAD	LinkHandle::recv peer exited errno=%1	Warning	Y	N
52518	HAD	LinkHandle::sendrecvb send() != IPM_SUCCESS	Warning	Y	N
52519	HAD	LinkHandle::sendrecvb recvb() != IPM_SUCCESS	Warning	Y	N
52520	HAD	LinkHandle::sendrecvb Unexpected message	Error	Y	N
52521	HAD	Invalid Channel	Warning	Y	N

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	Rule Name	Severity	Event Enabled	Alert Enabled
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 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	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 3-1 HAD Monitoring Rules (Continued)

Event ID	Module name	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

Table 3-2 lists the GAB rules included in the VCS Management Pack.

Table 3-2 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
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

Table 3-2 GAB Monitoring Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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

Table 3-3 lists the LTT rules included in the VCS Management Pack.

Table 3-3 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

Agents monitoring rules

The Agent Framework rules for each agent categorized appropriately under properly named sub-folders.

VMDg event processing rules

Table 3-4 lists the VMDg agent rules included in the VCS Management Pack.

Table 3-4 VMDg 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
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

Table 3-4 VMDg Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 3-5 lists the MountV agent rules included in the VCS Management Pack.

Table 3-5 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
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

Table 3-5 MountV Agent Event Processing Rules (Continued)

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

Table 3-5 MountV Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
9030	MountV	Failed to delete administrative share [%d:%d]	Error	Y	N

ElifNone agent event processing rules

Table 3-6 lists the ElifNone agent rules included in the VCS Management Pack.

Table 3-6 ElifNone Agent Event Processing Rules

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

FileNone agent event processing rules

Table 3-7 lists the FileNone agent rules included in the VCS Management Pack.

Table 3-7 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 3-8 lists the FileOnOff agent rules included in the VCS Management Pack.

Table 3-8 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 3-9 lists the FileOnOnly agent rules included in the VCS Management Pack.

Table 3-9 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 3-10 lists the FileShare agent rules included in the VCS Management Pack.

Table 3-10 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

Table 3-10 FileShare Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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 3-11 lists the IIS agent rules included in the VCS Management Pack.

Table 3-11 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

Table 3-11 IIS Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-11 IIS Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-11 IIS Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-11 IIS Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 event processing rules

Table 3-12 lists the GenericService agent rules included in the VCS Management Pack.

Table 3-12 GenericService Event Processing Rules

Event number	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
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

Table 3-12 GenericService Event Processing Rules (Continued)

Event number	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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 3-13 lists the MSVirtualMachine agent rules included in the VCS Management Pack.

Table 3-13 Microsoft Virtual Machine Agent Event Processing

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
14001		Failed to get Argument list.	Error	Y	
14002		Virtual Server COM interface could not be initialized. Reported Error : [%01X]	Error	Y	
14003		GetVM Query failed for VM %s. Reported Error : [%01X]	Error	Y	
14004		COM Object pointer is NULL even after GetVM() Query succeeded for VM %s.	Error	Y	
14005		Failed to retrieve state for VM %s. Reported Error [%01X].	Error	Y	
14006		Invalid VM state was reported for VM %s. Reported state [%d].	Error	Y	
14007		MonitorHB failed. Could not create instance for the Guest OS for VM %s. Reported Error [%01X].	Error	Y	
14008		MonitorHB failed. Could not communicate with Virtual machine Additions for VM %s. Reported Error [%01X].	Error	Y	
14009		VM %s has stopped heartbeating.	Error	Y	
14012		Power on for VM %s failed. Reported Error : [%01X]	Error	Y	
14014		Could not get a handle for the Guest OS running in VM %s.	Warning	Y	
14013		OS Shutdown failed for VM %s. Reported Error : [%01X].	Warning	Y	
14010		Failed to poweroff the Virtual machine %s. Reported Error : [%01X].	Warning	Y	
14011		Virtual machine %s is already stopped.	Warning	Y	

PrintShare agent event processing rules

Table 3-14 lists the PrintShare agent rules included in the VCS Management Pack.

Table 3-14 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
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 3-15 lists the PrintSpool agent rules included in the VCS Management Pack.

Table 3-15 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
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

Table 3-15 PrintSpool Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 3-16 lists the Process agent rules included in the VCS Management Pack.

Table 3-16 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

Table 3-16 Process Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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

Proxy agent event processing rules

Table 3-17 lists the Proxy agent rules included in the VCS Management Pack.

Table 3-17 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
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 3-18 lists the IP agent rules included in the VCS Management Pack.

Table 3-18 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

Table 3-18 IP Agent Event Processing Rules (Continued)

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

IPMultiNicPlus agent event processing rules

Table 3-19 lists the IPMultiNicPlus agent rules included in the VCS Management Pack.

Table 3-19 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

Table 3-19 IPMultiNicPlus Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
4530	Agents	TCP/IP is not enabled for MAC address %s specified in adapter List	Error	Y	N

Table 3-19 IPMultiNicPlus Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 3-20 lists the NetLsnr agent rules included in the VCS Management Pack.

Table 3-20 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
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 3-21 lists the NIC agent rules included in the VCS Management Pack.

Table 3-21 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

Table 3-21 NIC Agent Event Processing Rules (Continued)

Event number	Event source	Description text	Event type	Generate Alert(Y/N)	Generate Alert(Y/N)
3509	Agents	UDP echo attempt failed.	Error	Y	N
3510	Agents	UDP check failed due to nework 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 3-22 lists the NotifierMngr agent rules included in the VCS Management Pack.

Table 3-22 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

Table 3-22 NotifierMngr Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 3-23 lists the RegRep agent rules included in the VCS Management Pack.

Table 3-23 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

Table 3-23 Registry Replication (RegRep) Agent Event Processing Rules

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 3-23 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 3-24 lists the Lanman agent rules included in the VCS Management Pack.

Table 3-24 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

Table 3-24 Lanman Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-24 Lanman Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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 3-25 lists the VvrRvg agent rules included in the VCS Management Pack.

Table 3-25 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
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

Table 3-25 VvrRvg Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 3-26 lists the RVGPrimary agent rules included in the VCS Management Pack.

Table 3-26 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 3-26 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 'vxrvg -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$	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

Table 3-26 RVGPrimary Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
24	HAD	Checkend operation on RVG %2$s failed with error code %3$s and message %4$s	Error	N	N
25	HAD	Attaching secondary %2$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

Table 3-26 RVGPrimary Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
40	HAD	RVG %2$s is not checkstarted	Error		N
42	HAD	The Activate bunker operation failed for RVG %2$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 application agents

MSDTC event processing rules

Table 3-27 lists the MSDTC agent rules included in the VCS Management Pack.

Table 3-27 MSDTC 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

Table 3-27 MSDTC Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13	Agents	Failed to set the environment key of MSDTC service. Error = %d.	Error	Y	N
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

Table 3-27 MSDTC Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 event processing rules

Table 3-28 lists the MSSearch agent rules included in the VCS Management Pack.

Table 3-28 MSSearch 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

Table 3-28 MSSearch Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 3-29 lists the SQL Server Agent Service agent rules included in the VCS Management Pack.

Table 3-29 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

Table 3-29 SQL Server 2005 Agent Service Event Processing Rules (Continued)

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

SQL Server 2005 OLAP Service event processing rules

Table 3-30 lists the SQL Server OLAP Service agent rules included in the VCS Management Pack.

Table 3-30 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

Table 3-30 SQL Server 2005 OLAP Service Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 3-31 lists the SQL Server 2005 agent rules included in the VCS Management Pack.

Table 3-31 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

Table 3-31 SQL Server 2005 Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
33	Agents	Sql script failed. Script output :	Error	Y	N
36	Agents	%s	Error	Y	N

Table 3-31 SQL Server 2005 Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 3-32 lists the SQL Server 2000 agent rules included in the VCS Management Pack.

Table 3-32 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

Table 3-32 SQL Server 2000 Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-32 SQL Server 2000 Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
-	-	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

Table 3-32 SQL Server 2000 Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
-	-	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

Service Monitor event processing rules

Table 3-33 lists the Service Monitor agent rules included in the VCS Management Pack.

Table 3-33 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

Table 3-33 Service Monitor Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 3-34 lists the Oracle Agent agent rules included in the VCS Management Pack.

Table 3-34 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

Table 3-34 Oracle Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 3-35 lists the Exchange Service agent rules included in the VCS Management Pack.

Table 3-35 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

Table 3-35 Exchange Service Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
1	Agents	”Failed initialize netbios table information. [%d	Error	Y	N

Table 3-35 Exchange Service Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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

Table 3-35 Exchange Service Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 3-36 lists the Exchange Protocol agent rules included in the VCS Management Pack.

Table 3-36 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

Table 3-36 Exchange Protocol Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-36 Exchange Protocol Agent Event Processing Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 3-36 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

NetAppFiler agent event processing rules

Table 3-37 lists the NetAppFiler agent rules included in the VCS Management Pack. This is in case of VCS for NetApp SnapMirror only.

Table 3-37 NetAppFlier 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 3-38 lists the NetAppSnapDrive agent rules included in the VCS Management Pack. This is in case of VCS for NetApp SnapMirror only.

Table 3-38 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 3-39 lists the NetAppSnapMirror agent rules included in the VCS Management Pack. This is in case of VCS for NetApp SnapMirror only.

Table 3-39 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 3-40 lists the Agent Framework rules included in the VCS Management Pack.

Table 3-40 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

Table 3-40 Agent Framework Monitoring Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13015	Agent Framework	Resource(%s) faulted and the attempt to automatically restart it was not effective. Administrative intervention may be required.	Error	N	N
13019	Agent Framework	Agent(%s) is exiting because the required arguments were not specified.	Error	N	N
13020	Agent Framework	Agent(%s) is exiting because it was given too many arguments	Error	N	N
13021	Agent Framework	Agent(%s) is exiting because it was given unexpected option(%s)	Error	N	N
13022	Agent Framework	Agent(%s) is exiting because of invalid usage.	Error	N	N
13026	Agent Framework	Resource(%s) - monitor procedure finished successfully after failing to complete within the expected time for (%s) consecutive times.	Error	N	N
13027	Agent Framework	Resource(%s) - monitor procedure did not complete within the expected time.	Error	N	N
13028	Agent Framework	Resource(%s) - the last (%s) invocations of the monitor procedure did not complete within the expected time.	Error	N	N
13030	Agent Framework	Attr_changed entry point of resource(%s) requested that the timeout be extended by (%s) seconds	Error	N	N
13031	Agent Framework	Clean entry point of resource(%s) requested that the timeout be extended by (%s) seconds	Error	N	N
13032	Agent Framework	Close entry point of resource(%s) requested that the timeout be extended by (%s) seconds	Error	N	N
13033	Agent Framework	Monitor entry point of resource(%s) requested that the timeout be extended by (%s) seconds	Error	N	N
13034	Agent Framework	Offline entry point of resource(%s) requested that the timeout be extended by (%s) seconds	Error	N	N
13035	Agent Framework	Online entry point of resource(%s) requested that the timeout be extended by (%s) seconds	Error	N	N

Table 3-40 Agent Framework Monitoring Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
13036	Agent Framework	Open entry point of resource(%s) requested that the timeout be extended by (%s) seconds	Error	N	N
13037	Agent Framework	Agent(%s): Monitor script file (%s) not found.	Error	N	N
13038	Agent Framework	Resource(%s): Error executing the program(%s).	Error	N	N
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

Table 3-40 Agent Framework Monitoring Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-40 Agent Framework Monitoring Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-40 Agent Framework Monitoring Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-40 Agent Framework Monitoring Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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 entrypoint arguments for resource (%s)	Error	N	N

Table 3-40 Agent Framework Monitoring Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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 entrypoint timeout extension file(%s)	Error	N	N
13143	Agent Framework	Error(%s) when reading entrypoint 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

Table 3-40 Agent Framework Monitoring Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-40 Agent Framework Monitoring Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-40 Agent Framework Monitoring Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-40 Agent Framework Monitoring Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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
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

Table 3-40 Agent Framework Monitoring Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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 entrypoint action timed out for resource(%s)	Error	N	N
13344	Agent Framework	Resource(%s) received an override command with bad arguments	Error	N	N
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

Table 3-40 Agent Framework Monitoring Rules (Continued)

Event ID	Module	Rule Name	Severity	Event Enabled	Alert Enabled
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

Appendix A

Troubleshooting

This appendix contains the following topics:

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 VCS management packs.

Incorrect agent installation

This error occurs when the Operations Manager 2007 agent is installed under the virtual server. The following error message is displayed:

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

If the Operations Manager 2007 agent is installed on a node on which the SQL or Exchange service group is online, then the agent gets installed under the virtual server rather than the physical server. As a result, the Operations Manager 2007 server is unable to see events from this agent and therefore does not display events from this agent.

To fix the problem, do the following:

- Uninstall the Operations Manager 2007 agent
- Take the SQL or Exchange service group offline
- Install the Operations Manager 2007 agent again.

Make sure that the application (SQL or Exchange) service group is not online on the node on which you are installing the Operations Manager 2007 agent. If the service group is online on the node, switch it to the failover node until the Operations Manager 2007 agent installation and security settings have been completed.

Conflict while trying to monitor clusterized standalone instances

This error may occur in the following scenario. Consider a setup where standalone non-clustered application instances are being monitored by Operations Manager 2007 server. Now, if the standalone application instances are made highly available with VCS, and you wish to monitor these clusterized instances with the same Operations Manager 2007 server.

The Operations Manager 2007 server discovery already has the entry of the standalone instance. When you try to re-discover the clusterized virtual instances, it may lead to a conflict.

To fix the problem, do the following:

1. Delete the standalone application instance name from the Operations Manager 2007 server.
2. Configure the application instance under VCS.
3. Configure Operations Manager 2007 to monitor the clusterized instance.

Error while re-importing the VCS management packs

This issue may occur if you have already deployed the VCS management packs in your Operations Manager 2007 monitoring environment and you try to re-import the management packs. The following error message is displayed in the Import Management Packs dialog box:

```
The requested management pack was invalid. See inner
exception for details. This version of the management pack
is already imported in the database.
```

To re-import the VCS management packs, perform the following steps:

1. Check the VCS management pack dependencies.
   - From the Operations Console, click **Administration** and in the Administration pane, click **Management Packs**.
   - In the Management Packs pane, right-click the VCS management pack and then click Properties.
   - Click the **Dependencies** tab to view the list of management packs that depend on the selected management pack. Make a note of these management packs.
2. Export the dependent management packs that you noted down in the step 1 on page 139 earlier.
   - From the Operations Console, click **Administration** and in the Administration pane, click **Management Packs**.
   - In the Management Packs pane, right-click the VCS management pack that you want to export, and then click **Export Management Pack**.
   - In the Save As dialog box, type the path and file name for the Management Pack file, or click **Browse** to save the file to a different directory, and then click **Save**.

- Repeat this for all the dependent management packs that you noted in step 1 on page 139 earlier.

3 Delete the dependent management packs that you noted in step 1 on page 139 earlier.
   - From the Operations Console, click **Administration** and in the Administration pane, click **Management Packs**.
   - In the Management Packs pane, right-click the VCS management pack that you want to delete, and then click **Delete**.
   - On the message stating that deleting the Management Pack might affect the scoping of some user roles, click **Yes**.

4 Import the management packs that you exported in step 2 on page 139 earlier.
   - From the Operations Console, click **Administration**, right-click the Management Packs node and then click **Import Management Packs**.
   - In the Select Management Packs to import dialog box select the management pack that you want to import and then click **Open**.
   - In the Import Management Packs dialog box select the management pack that you selected earlier, and then click **Import**.

5 Import the VCS management packs. Refer to step 4 on page 140 earlier for instructions.

Virtual computer discovery fails

Sometimes, Operations Manager 2007 server may fail to discover virtual computers. Check the following items:

- Ensure that the service group is online in the cluster.
- Make sure that the Lanman agent attributes, ADUpdateRequired and DNSUpdateRequired, are set to True. If they are not, set them to True, and take the Lanman resouce offline and bring it online.

Virtual computer fails to generate events or proxy computer is not set properly

Check the following items:

- Ensure that you have properly configured the agent-managed computers as proxy. See “Click **Apply** and then click **OK**.” on page 34.
- To enable proxy switching, ensure that you have enabled the following rules:
  Lanman Resource is online
  This is targeted to VCS for Windows installation by Symantec
  Call MOMHelper Utility
  This is targeted to Management Server
  See “Importing the VCS SQL or Exchange management pack” on page 19.

Additional discovery and monitoring of virtual computer for VCS

Complete the following steps:

- Override *Symantec.SFW.HA.VCS_Windows_Installation.Discovery* to disable it for the virtual computer.
- Disable the monitoring rule *VeritasCluster State Monitoring* for the virtual computer.
- If you have deployed Operations Manager 2007 Service Pack 1, use `Remove-DisabledMonitoringObject` command-let to remove objects for which monitoring is disabled.

  Note: `Remove-DisabledMonitoringObject` command-let removes all objects for which monitoring is disabled and this includes objects discovered for other management packs as well. Before using the cmdlet, refer to the Operations Manger 2007 documentation for detailed information about its usage.

SQL Instances are not discovered on cluster nodes, where "Veritas High Availability engine" is not running

MOM Pack discovery script uses VCS Utility "MOMUtil.exe" on cluster nodes to retrieve information from VCS configuration. This utility fails if HAD is not running and eventually discovery scripts also fail.

Workaround: Start the "Veritas High Availability engine" service using `hastart` command.

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