

VMware vCenter Operations Manager for Horizon Supplement

vCenter Operations Manager for Horizon 1.7

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EN-001558-01

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VMware vCenter Operations Manager for Horizon Supplement

The *VMware vCenter Operations Manager for Horizon Supplement* provides information about installing and configuring the VMware vCenter™ Operations Manager for Horizon™ 1.7 release.

Intended Audience

This information is intended for anyone who wants to install, upgrade, or use vCenter Operations Manager for Horizon 1.7.

System Requirements

vCenter Operations Manager for Horizon has specific system requirements. Verify that your environment meets these system requirements before you install vCenter Operations Manager for Horizon.

This chapter includes the following topics:

- [“Product Compatibility,”](#) on page 7
- [“V4H Adapter Software Requirements,”](#) on page 7
- [“Broker Agent Software Requirements,”](#) on page 8
- [“Desktop Agent Software Requirements,”](#) on page 8
- [“Support for Oracle Databases that Provide View Events,”](#) on page 8
- [“vCenter Operations Manager for Horizon Hardware Requirements,”](#) on page 8

Product Compatibility

vCenter Operations Manager for Horizon 1.7 is compatible with these Horizon View, Horizon, and vCenter Operations Manager versions.

- View 5.0.x or 5.1.x
- Horizon View 5.2.x or 5.3.x
- Horizon 6.0.x with View
- vCenter Operations Manager 5.8.3 (vApp deployment)

NOTE You cannot use vCenter Operations Manager for Horizon with a standalone installation of vCenter Operations Manager.

V4H Adapter Software Requirements

You install the V4H adapter in a vCenter Operations Manager vApp deployment.

The V4H adapter has the following software requirements:

- vCenter Operations Manager 5.8.3 (vApp deployment)
- A license that enables vCenter Operations Manager for Horizon 1.7 and vCenter Operations Manager 5.8.3.

The V4H 1.7 adapter is compatible with the following vCenter Operations Manager for Horizon broker agent and desktop agent versions.

Table 1-1. Compatible Desktop Agent and Broker Agent Versions

Agent	Compatible Versions
Broker	1.7
Desktop	1.5.x and 6.0

NOTE In-guest process data collection and certain metrics are not supported with the 1.5.x desktop agent.

Broker Agent Software Requirements

You install the broker agent on a View Connection Server host in your View environment. You install the broker agent on only one View Connection Server host in each View pod or cluster.

The broker agent has the following software requirements:

- View Connection Server 5.0 or later
- Microsoft .NET Framework version 3.5

You cannot install the broker agent on a 32-bit View Connection Server 5.0 host.

Desktop Agent Software Requirements

In Horizon View 5.2 and later and Horizon 6.0.x with View environments, the desktop agent is installed as part of View Agent.

If you have a View 5.0 or 5.1 environment, you must manually install the desktop agent on your desktops. For more information, see “[Configuring vCenter Operations Manager for Horizon to Monitor View 5.0 or 5.1](#),” on page 14.

Support for Oracle Databases that Provide View Events

You can store View events in an SQL or Oracle database. For the Oracle and SQL database versions that View supports, see the installation document for your View version.

For View environments that use an Oracle events database, you might need to update the ODAC client libraries on the server where the broker agent is installed.

To update a 64-bit system, go to

<http://www.oracle.com/technetwork/database/windows/downloads/index-090165.html> and download the ZIP file from the 64-bit ODAC 11.2 Release 4 (11.2.0.3.0) Xcopy for Windows x64 link and follow the instructions in the `readme.html` file included in the ZIP file.

NOTE The 1.7 broker agent does not support 32-bit systems.

vCenter Operations Manager for Horizon Hardware Requirements

The hardware requirements for vCenter Operations Manager for Horizon 1.7 are the same as the hardware requirements for vCenter Operations Manager for Horizon View 1.5.1.

For information, see “Hardware Requirements for vCenter Operations Manager for Horizon View” in the *vCenter Operations Manager for Horizon View Installation* document for the 1.5.1 release.

Installing and Configuring vCenter Operations Manager for Horizon

2

Installing and configuring vCenter Operations Manager for Horizon involves downloading the installation files from the VMware product download page and installing and configuring software components on machines in your vCenter Operations Manager and View environments. Additional installation and configuration steps are required to monitor View 5.0 and 5.1 environments.

This chapter includes the following topics:

- [“Downloading the vCenter Operations Manager for Horizon Installation Files,”](#) on page 9
- [“Install and Configure vCenter Operations Manager for Horizon,”](#) on page 10
- [“Configuring vCenter Operations Manager for Horizon to Monitor View 5.0 or 5.1,”](#) on page 14
- [“Upgrade to vCenter Operations Manager for Horizon 1.7,”](#) on page 17
- [“Configuring Security Features,”](#) on page 17
- [“Modifying vCenter Operations Manager for Horizon Alerts,”](#) on page 18
- [“Troubleshooting a vCenter Operations Manager for Horizon Installation,”](#) on page 20
- [“Setting Up the Data Collection Results Widget,”](#) on page 20

Downloading the vCenter Operations Manager for Horizon Installation Files

Registered VMware users can download the vCenter Operations Manager for Horizon installation files from the product download page.

Table 2-1. vCenter Operations Manager for Horizon Installation Files

File Name	Component	Where to Install
<code>VMware-vcops-viewadapter-1.7.0-buildnumber.pak</code>	Adapter	vCenter Operations Manager vApp. You install the PAK file through the vCenter Operations Manager Administration Portal.
<code>VMware-v4vbrokeragent-x86_64-1.7.0-buildnumber.exe</code>	Broker agent	View Connection Server host.
<code>VMware-v4vdesktopagent-6.0.0-buildnumber.exe</code> <code>VMware-v4vdesktopagent-x86_64-6.0.0-buildnumber.exe</code>	Desktop agent	View 5.0 and 5.1 desktops. NOTE For Horizon View 5.2 and later and Horizon 6.0.x with View, the desktop agent is included in the View Agent installer.

Install and Configure vCenter Operations Manager for Horizon

You install and configure vCenter Operations Manager for Horizon software components on machines in your View and vCenter Operations Manager environments.

Prerequisites

- Verify that your environment meets the hardware and software requirements for vCenter Operations Manager for Horizon. See [Chapter 1, “System Requirements,”](#) on page 7.
- Verify that View is installed and running. See the installation document for your View version.
- Verify that the vCenter Operations Manager vApp is deployed and running. See the *vCenter Operations Manager vApp Deployment and Configuration* document.
- Download the vCenter Operations Manager for Horizon installation files from the product download page.

Install the V4H Adapter

You install the V4H adapter from a PAK file on the vCenter Operations Manager vApp.

NOTE The adapter installation process restarts the vCenter Operations Manager vApp. Data is not collected while the vApp is restarting.

Prerequisites

- Verify that you downloaded the adapter installation file.
- Note the build number in the adapter installation file.

Procedure

- 1 Copy the `VMware-vcops-viewadapter-1.7.0-buildnumber.pak` file to a temporary folder.
- 2 Log in to the vCenter Operations Manager Administration Portal.
The URL of the Administration Portal is `https://ipaddress/admin/`, where *ipaddress* is the IP address of the UI VM in the vCenter Operations Manager vApp.
- 3 On the **Update** tab, click **Browse** to locate the temporary folder, select the PAK file, and click **Open**.
- 4 Click **Update** and click **OK** to confirm the update.
The Administration Portal uploads the PAK file. The upload might take several minutes.
- 5 Read and accept the EULA and click **OK**.
- 6 Click **OK** to confirm and start the adapter installation process.
The installation process might take several minutes. Status information appears on the **Update** tab when the installation is finished.
- 7 Log in to the vCenter Operations Manager Custom user interface as an administrator.
The URL for the Custom user interface is `http://ipaddress/vcops-custom`, where *ipaddress* is the IP address of the UI VM in the vCenter Operations Manager vApp.
- 8 Select **Admin > Support**.
- 9 On the **Info** tab, find the Adapters Info pane and verify that the build number in the Adapter Version column for the V4H Adapter matches the build number in the PAK file.

What to do next

Create an adapter instance in vCenter Operations Manager. See [“Create a V4H Adapter Instance,”](#) on page 11.

Create a V4H Adapter Instance

After you install the V4H adapter, you must create an instance of the V4H adapter in vCenter Operations Manager.

Prerequisites

- Install the V4H adapter. See [“Install the V4H Adapter,”](#) on page 10.
- In the vCenter Operations Manager Custom user interface, select **Admin > Support** and verify that the V4H Adapter appears in the Adapters Info pane on the **Status** tab.

Procedure

- 1 Log in to the vCenter Operations Manager Custom user interface as an administrator.

The URL of the Custom user interface is `https://ipaddress/vcops-custom`, where *ipaddress* is the IP address of the UI VM in the vCenter Operations Manager vApp.

- 2 Select **Environment > Configuration > Adapter Instances**.

- 3 Select the collector to use from the **Collector** drop-down menu.

Unless an administrator added additional collectors, the only available collector is **vCenter Operations Standard Server**.

- 4 From the **Adapter Kind** drop-down menu, select **V4H Adapter**.

- 5 Click the **Add New Adapter Instance** icon.

- 6 Type a name for the adapter instance in the **Adapter Instance Name** text box.

- 7 From the **Metric Set** drop-down menu, select a set of metrics to be collected.

Option	Description
Full Set	Collects all metrics that are available for the monitored environment.
Reduced Set	Collects a limited set of metrics and saves disk space on the Analytics VM.

- 8 From the **Credential** drop-down menu, select the name of a credential to use when the broker agent pairs with the adapter instance, or click **Add** to create a new credential.

When you create an adapter instance for the first time, the **Credential** drop-down menu is empty.

- 9 (Optional) If you need to add a credential for the adapter instance, perform these steps.

- a Click **Add** next to the **Credential** drop-down menu.
- b Select **Pairing Credential** from the **Credential Kind** drop-down menu.
- c Type a name for the credential in the **Instance Name** text box.
- d Type a server key for the adapter instance in the **Server Key** text box.

The server key is required to enable pairing between the broker agent and the adapter. You must provide the server key when you configure the broker agent.

- e Click **OK** to save the credential.
- f In the **Add Adapter Instance** dialog box, select the new credential from the **Credential** drop-down menu.

- 10 Click **OK** to save the adapter instance.

What to do next

Install the broker agent. See [“Install the Broker Agent,”](#) on page 12.

Install the Broker Agent

You install the broker agent on a View Connection Server host in your View environment. If your View environment contains multiple pods, you install the broker agent on only one View Connection Server host in each pod.

Only one V4H adapter is required, regardless of the number of broker agents in your View environment. Multiple broker agents can communicate with a single adapter instance.

IMPORTANT You cannot install the broker agent on a View security server.

Prerequisites

Verify that you downloaded the broker agent installation file.

Procedure

- 1 Log in to the View Connection Server host where you plan to install the broker agent using a domain account that is part of the local administrators group.
- 2 Copy the `VMware-v4vbrokeragent-x86_64-1.7.0-buildnumber.exe` file to a temporary folder on the View Connection Server host.
- 3 In the temporary folder, run the EXE file to start the broker agent setup wizard.
- 4 Accept the End-User License Agreement and click **Next**.
- 5 Select the **Launch the VMware vCenter Operations Manager View Broker Agent configuration utility** check box and click **Install**.

This setting causes the Broker Agent Configuration wizard to open immediately after the broker agent is installed. The check box is selected by default.

- 6 When the installation finishes, click **Finish** to exit the broker agent setup wizard.

The broker agent is installed in the same folder as View Connection Server.

What to do next

Use the Broker Agent Configuration wizard to configure the broker agent to connect to the V4H adapter. See [“Configure the Broker Agent,”](#) on page 12.

Configure the Broker Agent

You use the Broker Agent Configuration wizard to configure the broker agent. You run the Broker Agent Configuration wizard on the View Connection Server host where you installed the broker agent.

A check box in the Broker Agent Setup wizard controls whether the Broker Agent Configuration wizard opens immediately after you install the broker agent. The check box is selected by default.

During broker agent configuration, you pair the broker agent with the V4H adapter. Pairing the broker agent with the V4H adapter is a necessary authentication step that enables the broker agent and desktop agents to communicate with the adapter. The broker agent and desktop agents cannot communicate with the adapter until the pairing process is finished.

If your View environment includes an events database, you can configure the broker agent to connect to the events database. You can optionally configure the broker agent to monitor specific desktop pools.

Prerequisites

- Install the broker agent. See [“Install the Broker Agent,”](#) on page 12.
- Verify that you have the server key for the vCenter Operations Manager for Horizon adapter. You specified the server key when you created a credential for the adapter instance.
- Verify that you have the IP address of the vCenter Operations Manager Analytics VM where the V4H adapter is running. You can find the IP address of the Analytics VM on the **Status** tab of the vCenter Operations Manager Administration Portal.
- If your View environment includes an events database, verify that the database format is supported. See [“Support for Oracle Databases that Provide View Events,”](#) on page 8.
- To monitor specific desktop pools in View, obtain the IDs for the pools. You can find pool IDs in View Administrator. For more information, see the administration document for your View version.
- Verify that you are logged in to the View Connection Server host with a domain user account. Local accounts do not have the necessary privileges to configure all settings.

Procedure

- 1 If the Broker Agent Configuration wizard is not already open, start it by selecting **All Programs > VMware > vCenter Operations Manager View Broker Agent Settings** from the **Start** menu.
- 2 In the **Address** text box, type the IP address of the Analytics VM where the V4H adapter is running.
- 3 In the **Port** text box, type the port to use to connect to the V4H adapter.
By default, the broker agent uses port 3091 to communicate with the V4H adapter. You can modify the default port number, depending on your network configuration.
- 4 Click **Pair** to pair the broker agent with the V4H adapter.
- 5 When the wizard prompts you for the adapter server key, type and confirm the server key for the V4H adapter and click **OK** to start the pairing process.
The status of the pairing process appears in the Pair View Adapter window.
- 6 After the pairing process succeeds, click **Close** to close the Pair View Adapter window.
- 7 In the View Pool Filter dialog box, perform these steps to monitor specific desktop pools in vCenter Operations Manager, or click **Next** to proceed to the next dialog box.
If you do not specify desktop pool IDs, vCenter Operations Manager monitors all desktop pools.
 - a Select the **Specify desktop pools** check box and type the IDs of the desktop pools to monitor in the text box.
Use a comma to separate each desktop ID.
 - b Select whether to include or exclude the listed desktop pools.
 - c Click **Validate** to verify the list of desktop pools.
 - d To monitor application pools, select the **Monitor application pools and hosted applications** check box.
You cannot select specific application pools to monitor.
 After you click **Next**, the IP address and port number that you configured appear in the Summary window.
- 8 Click **Finish** in the Summary window to start the Broker Agent service.
The broker agent settings that you configured appear in the Broker Agent Settings dialog box.

- 9 In the Horizon View Pod section of the Broker Agent Settings dialog box, configure the View administrator and events database settings.
 - a Type and validate the user name, domain, and password of a View administrator account for the pod.
A View Administrator account is typically part of the local administrators group on the Windows server computer on which View Connection Server is installed.
 - b If your View environment includes an events database, type and validate the credentials for the database.

IMPORTANT If you do not configure the broker agent to connect to the events database, vCenter Operations Manager for Horizon is severely limited. View events and some metrics, including logon and reconnect times, do not appear on dashboards in vCenter Operations Manager.

- 10 Click **Apply** to save your configuration.
The status of your configuration appears in the Applying Configuration Settings window.
- 11 After your configuration settings are successfully applied, click **Close** to close the Applying Configuration Settings window.

What to do next

If you use Horizon View 5.2 or later or Horizon 6.0.x with View, you can begin monitoring the performance of your View environment on the vCenter Operations Manager for Horizon dashboards in the vCenter Operations Manager Custom user interface. See [Chapter 3, "Monitoring Your View Environment in vCenter Operations Manager,"](#) on page 23.

If you use View 5.0 or 5.1, you must perform additional configuration steps. See ["Configuring vCenter Operations Manager for Horizon to Monitor View 5.0 or 5.1,"](#) on page 14.

If your environment changes after the initial configuration of the broker agent, you can modify the settings on the View Connection Server host where the broker agent is installed. For more information, see "Modify the Settings of the vCenter Operations Manager for Horizon View Broker Agent" in the *vCenter Operations Manager for Horizon View Administration* document for the 1.5.1 release.

Configuring vCenter Operations Manager for Horizon to Monitor View 5.0 or 5.1

If you have a View 5.0 or 5.1 environment, you must perform several additional tasks to install and configure vCenter Operations Manager for Horizon.

These tasks include disabling RMI authentication for the vCenter Operations Manager for Horizon adapter, installing the vCenter Operations Manager for Horizon broker agent on remote desktops, and configuring a group policy object (GPO) that applies to all remote desktops that you want vCenter Operations Manager for Horizon to monitor.

Disable RMI Authentication for the Adapter

To use vCenter Operations Manager for Horizon to monitor a View 5.0 or 5.1 environment, you must disable RMI authentication in the vCenter Operations Manager for Horizon adapter.

For instructions, see "Disable the RMI Authentication on the vCenter Operations Manager for Horizon View Adapter" in the *vCenter Operations Manager for Horizon View Installation* document for the 1.5.1 release.

What to do next

Install the vCenter Operations Manager for Horizon 6.0 desktop agent on the desktops in your View environment. See [“Install the Desktop Agent,”](#) on page 15.

Install the Desktop Agent

To use vCenter Operations Manager for Horizon to monitor a View 5.0 or 5.1 environment, you must manually install the desktop agent on your remote desktops.

For linked-clone desktops, you install the desktop agent on the parent virtual machine that View Composer uses to generate the linked-clone virtual machines. For desktops in automated and manual desktop pools, you install the desktop agent on each virtual machine desktop source in the desktop pool. For Terminal Services pools, you install the desktop agent on the terminal server.

Prerequisites

- Install and configure the vCenter Operations Manager for Horizon 1.7 adapter and broker agent. See [“Install and Configure vCenter Operations Manager for Horizon,”](#) on page 10.
- If you are installing the desktop agent in linked-clone desktops, become familiar with the recompose operation. For information about recomposing linked-clone desktops, see the View administration document for your View version.
- Verify that you downloaded the desktop agent installation files.

Procedure

- To install the desktop agent for linked-clone desktops, perform these steps on the parent virtual machine in the linked-clone desktop pool.
 - a In vSphere Client, open the console for the parent virtual machine and log in to the guest operating system as an administrator.
 - b Copy the desktop agent installation file that corresponds to the guest operating system in the parent virtual machine.

Option	Description
64-bit guest operating system	VMware-v4vdesktopagent-x86_64-6.0.0-buildnumber.exe
32-bit guest operating system	VMware-v4vdesktopagent-6.0.0-buildnumber.exe

- c Run the EXE file, accept the EULA, and click **Install**.
- d When the installation finishes, click **Finish**.
The desktop agent is installed in the same folder as View Agent.
- e Shut down the parent virtual machine.
- f In vSphere Client, take a snapshot of the parent virtual machine in its powered-down state.
- g In View Administrator, recompose the linked-clone desktops.
The recompose operation updates all of the linked-clone desktops anchored to the parent virtual machine, causing the desktop agent to be installed on each linked-clone desktop.

- To install the desktop agent for desktops in an automated or manual desktop pool, perform these steps on each virtual machine in the pool.

IMPORTANT For an automated desktop pool, you must also modify the virtual machine template so that the desktop agent is installed in newly created desktops in the pool.

- a Copy the desktop agent installation file that corresponds to the guest operating system to the virtual machine.

Option	Description
64-bit guest operating system	VMware-v4vdesktopagent-x86_64-6.0.0-buildnumber.exe
32-bit guest operating system	VMware-v4vdesktopagent-6.0.0-buildnumber.exe

- b Run the EXE file, accept the EULA, and click **Install**.
- c When the installation finishes, click **Finish**.

The desktop agent is installed in the same folder as View Agent.

- To install the desktop agent on a terminal server or physical machine desktop source, perform these steps.

- a Copy the desktop agent installation file that corresponds to the operating system of the terminal server or physical machine.

Option	Description
64-bit guest operating system	VMware-v4vdesktopagent-x86_64-6.0.0-buildnumber.exe
32-bit guest operating system	VMware-v4vdesktopagent-6.0.0-buildnumber.exe

- b Run the EXE file, accept the EULA, and click **Install**.
- c When the installation finishes, click **Finish**.

The desktop agent is installed in the same folder as View Agent.

What to do next

Configure a GPO that applies to all remote desktops that you want vCenter Operations Manager for Horizon to monitor. See [“Configure a GPO for Remote Desktops,”](#) on page 16.

Configure a GPO for Remote Desktops

To use vCenter Operations Manager for Horizon to monitor a View 5.0 or 5.1 environment, you must configure a group policy object (GPO) that applies to all desktops that you want vCenter Operations Manager for Horizon to monitor.

For instructions, see "Configure a Group Policy Object for all Desktops" in the *vCenter Operations Manager for Horizon View Installation* document for the 1.5.1 release.

Upgrade to vCenter Operations Manager for Horizon 1.7

If you have vCenter Operations Manager for Horizon View 1.5.1 or vCenter Operations Manager for Horizon 1.6 installed in your environment, you can import the data to vCenter Operations Manager for Horizon 1.7 and continue to monitor the health and performance of your View pods.

Prerequisites

- Upgrade your View environment to use Horizon View 5.2 or later or Horizon 6.0.x with View, or install the desktop agent on all desktops. See [“Install the Desktop Agent,”](#) on page 15.
- If you do not upgrade your View environment, verify that the desktop agent GPO policy is applied to all desktops. The GPO policy must be configured to use the Analytics VM as the location of the adapter. For instructions, see "Configure a Group Policy Object for all Desktops" in the *vCenter Operations Manager for Horizon View Installation* document for the 1.5.1 release.
- Become familiar with the V4H adapter installation instructions. See [“Install the V4H Adapter,”](#) on page 10.
- Become familiar with the broker agent installation instructions. See [“Install the Broker Agent,”](#) on page 12.
- Become familiar with the broker agent configuration instructions. See [“Configure the Broker Agent,”](#) on page 12.

Procedure

- 1 On the View Connection Server host where the broker agent is installed, use the Windows Services tool (`services.msc`) to stop the vCenter Operations for View Broker Agent service.

Stopping the broker agent service prevents errors or unhandled messages from occurring while the adapter is being upgraded.

- 2 Install the V4H 1.7 adapter.

During the adapter installation process, the previous vCenter Operations Manager for Horizon View or vCenter Operations Manager for Horizon configuration, including resource kinds and metric names, is converted to comply with vCenter Operations Manager for Horizon 1.7. The V4H 1.7 adapter is deployed over the previous V4V or V4H adapter. You do not need to uninstall the previous adapter or create a new adapter instance for the V4H 1.7 adapter.

- 3 Uninstall the previous broker agent.
- 4 Install and configure the 1.7 broker agent on a View Connection Server host in the pod that your existing implementation was monitoring.

After the upgrade process finishes, all of your existing vCenter Operations Manager for Horizon View or vCenter Operations Manager for Horizon resources are migrated to the 1.7 database.

Configuring Security Features

The vCenter Operations Manager for Horizon components use RMI to communicate. The adapter and the broker agent components use certificates for authentication and data encryption.

You can change the default port that the RMI services use and modify the default SSL configuration for the broker agent, desktop agents, and certain RMI services. For increased security, you can replace the default self-signed certificate for the adapter and broker agent.

For detailed information about configuring security features, see the *Security Guide: vCenter Operations Manager for Horizon View 1.5* technical white paper. The information in this white paper also applies to vCenter Operations Manager for Horizon 1.7.

Modifying vCenter Operations Manager for Horizon Alerts

vCenter Operations Manager for Horizon includes a number of preconfigured View-related alerts that have preset thresholds. You might need to adjust some of these thresholds for your specific View environment to prevent the generation of too many or too few alerts. You might also want to delete alerts that are not applicable to your environment.

You modify alert thresholds by editing the `describe.xml` file for the vCenter Operations Manager for Horizon adapter.

Alert Definition Format

vCenter Operations Manager for Horizon alerts are defined in the `describe.xml` file for the vCenter Operations Manager for Horizon adapter. The `describe.xml` file is located in the `/usr/lib/vmware-vcops/user/plugins/inbound/V4V_adapter3/conf` directory on the Analytics VM.

Alert definitions appear at the end of the `describe.xml` file. The following `describe.xml` file excerpt shows a sample alert definition.

```
<Alert
  adapterkind="V4V"
  resourcekind="ViewClient"
  type="ht"
  metric="pcoip|avg_pcoip_latency"
  criticality="critical">
  <Threshold
    severity="warning"
    operator="&gt;"
    value="300"
    waitcycle="2"
    cancelcycle="3"/>
  <Threshold
    severity="critical"
    operator="&gt;"
    value="500"
    waitcycle="2"
    cancelcycle="3"/>
</Alert>
```

Attributes in the <Alert> Element

The attributes in the `<Alert>` element define the adapter kind, resource kind, type, metric, and criticality level of the alert.

The sample alert definition defines an alert that has the vCenter Operations Manager for Horizon adapter kind, the Horizon Client resource kind, the hard threshold alert type, the PCoIP average latency metric, and the critical criticality level.

Attributes in the <Threshold> Element

The attributes in the `<Threshold>` element define the severity, operator, value, wait cycle, and cancel cycle of a hard threshold.

In the sample alert definition, the alert issues a warning alert when the PCoIP average latency metric for a Horizon client exceeds 300 milliseconds and a critical alert when the PCoIP average latency metric for a Horizon client exceeds 500 milliseconds.

Modify a Hard Threshold for a vCenter Operations Manager for Horizon Alert

If a preset hard threshold for a vCenter Operations Manager for Horizon alert is not appropriate for your environment, you can modify it by editing the `describe.xml` file for the vCenter Operations Manager for Horizon adapter.

Prerequisites

- Become familiar with the alert definition format in the `describe.xml` file. See [“Alert Definition Format,”](#) on page 18.
- Verify that you have administrator privileges to access the Analytics VM.

Procedure

- 1 In the vSphere Client inventory, locate the Analytics VM and log in as admin.
- 2 In the Analytics VM, open the `describe.xml` file in a text editor.

The `describe.xml` file is located in the `/usr/lib/vmware-vcops/user/plugins/inbound/V4V_adapter3/conf` directory.
- 3 Locate the alert definitions in the `describe.xml` file.

The alert definitions are at the bottom of the `describe.xml` file in the `<Alerts>` element.
- 4 To change the hard threshold for an alert, modify the value specified by the `value` attribute in the `<Threshold>` element for that alert.
- 5 Save your changes to the `describe.xml` file.
- 6 In the vCenter Operations Manager Administration Portal, restart vCenter Operations Manager.

What to do next

When you change a hard threshold for an alert, an additional alert definition is generated in vCenter Operations Manager. To delete the original alert from vCenter Operations Manager, see [“Delete an Alert in vCenter Operations Manager,”](#) on page 19.

Delete an Alert in vCenter Operations Manager

When you change a hard threshold for an alert, an additional alert definition is generated in vCenter Operations Manager. You can delete the original alert from vCenter Operations Manager.

Procedure

- 1 Log in to the vCenter Operations Manager Custom user interface as an administrator.
- 2 Select **Environment > Configuration > Attribute Packages**.
- 3 From the **Adapter Kind** drop-down menu, select **V4H Adapter**.
- 4 From the **Resource Kind** drop-down menu, select the resource kind associated with the alert that you changed.
- 5 Select the **All Attributes** package and click the **Edit Selected Attribute Package** icon.
- 6 Locate the metric associated with the alert that you changed.
- 7 In the Advanced Configuration section, select the row that contains the alert that you want to delete and click the **Remove Selected Row** icon.

- 8 Click **OK** to save your changes.

Troubleshooting a vCenter Operations Manager for Horizon Installation

If problems occur during the installation of vCenter Operations Manager for Horizon components, you can collect the log files and send them to VMware for support. You can also change the logging level for the adapter and check the health status of the adapter in the vCenter Operations Manager Custom user interface.

For more information, see "Troubleshooting the Installation of vCenter Operations Manager for Horizon View" in the *vCenter Operations Manager for Horizon View Installation* document and "Performing Basic Administration Tasks in vCenter Operations Manager for Horizon View" in the *vCenter Operations Manager for Horizon View Administration* document for the 1.5.1 release.

Setting Up the Data Collection Results Widget

The Data Collection Results widget collects and displays in-guest process data for remote desktops. In-guest process data is separate from and in addition to the desktop metrics that the vCenter Operations Manager for Horizon adapter typically collects.

You can configure other widgets to provide a resource to the Data Collection Results widget, or you can select a resource when you configure the Data Collection Results widget. The Data Collection Results widget does not display data until you configure it.

The Data Collection Results widget saves the results of past actions in the database. You can configure how often vCenter Operations Manager removes old data from the database.

Configure the Data Collection Results Widget

You must configure another widget to provide a resource to the Data Collection Results widget, or you must select a resource when you configure the Data Collection Results widget. You can optionally change the widget title and refresh interval and specify the default data collection action for specific resource kinds.

Prerequisites

- Verify that you have the necessary access rights to create dashboards and edit widgets.
- Add the Data Collection Results widget to a dashboard. See "Add a Widget to a Dashboard" in the *VMware vCenter Operations Manager Getting Started Guide (Custom User Interface)*.
- If you want another widget, such as the Resources widget, to provide a resource to the Data Collection Results widget, configure the widget interaction. See "Configure Widget Interactions" in the *VMware vCenter Operations Manager Getting Started Guide (Custom User Interface)*.

Procedure

- 1 Log in to the vCenter Operations Manager Custom user interface as an administrator.
The URL of the Custom user interface is `https://ipaddress/vcops-custom`, where *ipaddress* is the IP address of the UI VM in the vCenter Operations Manager vApp.
- 2 Click the tab for the dashboard that contains the Data Collection Results widget.
- 3 Click the **Edit Widget** icon on the widget's toolbar.
- 4 (Optional) To change the widget name, type another name in the **Widget title** text box.
- 5 (Optional) To configure the Data Collection Results widget to refresh data after a specific period of time, set the **Refresh Widget Content** option to **On** and type a refresh interval, in seconds, in the **Widget Refresh Interval** text box.

- 6 If you configured another widget to provide a resource to the Data Collection Results widget, perform these steps.
 - a Verify that the **Self Provider** option is set to **Off**.
This setting enables the widget to receive a resource from another widget. The default setting is **Off**.
 - b On the **Config** tab, select a **Start new data collection on interaction change** option.
If you select **On**, a new data collection action is invoked whenever the resource selection changes in the providing widget. The default setting is **Off**.
- 7 If you did not configure another widget to provide a resource to the Data Collection Results widget, select the resource to display.
 - a Set the **Self Provider** option to **On**.
This setting specifies that the resource the widget displays is defined in the widget configuration. The default setting is **Off**.
 - b On the **Config** tab, select a resource in the Resources pane.
You can select only one resource.
The resource that you select appears in the **Selected Resource** text box.
- 8 (Optional) For each resource kind that can appear in the widget, select a default data collection action. This action appears by default in the Data Collection Results widget in the **Choose Action** drop-down menu when a resource of that kind is selected.
 - a On the **Defaults** tab, select the resource kind in the Resource Kinds pane.
You can use the **Search** text box to search for a particular resource kind.
The available actions for the resource kind that you selected appear in the Default Data Collection Action pane.
 - b Select a default data collection action in the Default Data Collection Action pane.
You can select only one default action for each resource kind. You can use the **Search** text box to search for a particular action.
- 9 Click **OK** to save the widget configuration.

Modify the Data Retention Policy for Action Results

The Data Collection Results widget saves the results of past actions in the database. You can configure how often vCenter Operations Manager removes old data from the database by modifying the `advanced.properties` file.

Prerequisites

Make a backup copy of the `advanced.properties` file. Changes that you make to this file might cause errors that can adversely affect vCenter Operations Manager operations.

Procedure

- 1 Open the `advanced.properties` file in a text editor.
The `advanced.properties` file is in the `vcenter-ops\user\conf\analytics` directory, where `vcenter-ops` is your vCenter Operations Manager installation directory.

- 2 Change the `oldActionResultsCleanerRange` property to how old, in days, data must be before it is erased from the database.

For example, to erase data that is 30 or more days old, set `oldActionResultsCleanerRange` to 30. The default setting is 90.

- 3 Save your changes and close the `advanced.properties` file.

Monitoring Your View Environment in vCenter Operations Manager

3

After you install the vCenter Operations Manager for Horizon adapter, several View-specific dashboards appear in the vCenter Operations Manager Custom user interface. You can use these dashboards to monitor the performance of your View environment.

This chapter includes the following topics:

- [“Using the View Dashboards,”](#) on page 23
- [“Using the Data Collection Results Widget,”](#) on page 33

Using the View Dashboards

The View dashboards are located in the **View** group in the **Dashboards** menu in the vCenter Operations Manager user interface.

Each View dashboard contains at least one master (or providing) widget and several receiving widgets. Master widgets provide data to receiving widgets, and receiving widgets update the data they display depending on the information they receive from master widgets.

The widgets on the View dashboards are created from standard vCenter Operations Manager widgets. If your user account has the necessary access rights, you can edit the View widgets and dashboards to customize them for your environment or create your own View dashboards.

For information about modifying dashboards and widgets, see the vCenter Operations Manager documentation.

View Overview Dashboard

The View Overview dashboard shows the overall status of your View environment. Use the View Overview dashboard to visualize the end-to-end View environment, its underlying environment, and alerts.

The View Pods widget is the master widget for the View Overview dashboard. When you select a pod in the View Pods widget, the Pod Indicator Metrics, Pod Session Metrics, and Pod Capacity Metrics widgets show data for the pod that you selected.

Tips for Using the View Overview Dashboard

- Because the data in the Pod Indicator Metrics widget is rolled up for the entire pod, this widget provides valuable information about client performance and the user experience.
- To view the overall status of a pod, view the values of the Pod Health, Pod Workload, Pod Connected Sessions, and Pod Disconnected Sessions metrics in the Pod Indicator Metrics widget.

- To assess the connection quality between Horizon clients and remote desktops, view the values of the Pod Average PCoIP Latency, Pod Average PCoIP Packet Loss, Pod PCoIP TX Bandwidth, and Pod PCoIP RX Bandwidth metrics in the Pod Indicator Metrics widget.
- Use the View Pods widget to determine the total number sessions, including the number of connected and disconnected sessions, for a selected pod. Use the Pod Session Metrics widget to view desktop, application, PCoIP, RDP, and Blast HTML session metrics.
- To view capacity-related metrics for a selected pod, including the percentage of capacity used, the usable session capacity, and the maximum session capacity, see the metrics in the Pod Capacity Metrics widget.
- Use the View Alerts widget to view a list of all active View-related alerts. You can double-click an alert in the list to view information about the possible cause of the alert and its effect on your environment.

View Infrastructure Dashboard

Use the View Infrastructure dashboard to quickly assess the underlying vSphere and View infrastructure that supports your View environment.

View Infrastructure Hosts, View VDI Desktop VMs, View Datastores, View RDS Hosts, and View TS Hosts are Heat Map widgets. These widgets show information about the health, workload, and connectivity of infrastructure hosts, remote desktops, datastores, RDS (Microsoft Remote Desktop Services) hosts, and Terminal Services hosts in your View environment.

NOTE RDS hosts are specific to Horizon 6.0.x with View environments. Terminal Services hosts are specific to Horizon View 5.3.x and earlier environments.

Tips for Using the View Infrastructure Dashboard

- The colored rectangles in each widget represent particular resources. For example, in the View VDI Desktop VMs widget, each rectangle represents a particular virtual machine. You can point to a rectangle to view basic information about its associated resource.
- The size of the rectangle indicates the value of one metric, the color of the rectangle indicates the value of another metric, and the widget configuration determines which metric values the widget shows. For example, if you select **Sized by Workload - Colored by Health** from the **Configuration** drop-down menu, rectangles are sized according to the value of the workload attribute and are colored according to the value of the health attribute. Red indicates a low value and green indicates the high end of the value range.

View Users Dashboard

Use the View Users dashboard to visualize and troubleshoot user-specific problems. This dashboard is especially useful for View administrators and help desk specialists who need to troubleshoot problems for users.

The View Sessions widget shows all logged in user sessions across all monitored View pods in your environment. The Identifier 3 column contains the user name in domain\username format. The Identifier 5 column contains the name of the associated desktop pool or, for RDS desktop sessions and remote application sessions, the name of the RDS host that hosts the session.

Tips for Using the View Users Dashboard

- When a user calls in, use the **Search** text box on the View Sessions widget toolbar to find the user's session. When you select a user session, status information for the resources associated with that session appear in the Session Related Objects widget. Each icon in the Session Related Objects widget represents a specific resource. If a resource or any of its related resources has an active alert, a red triangle appears next to the icon.

- When you click a resource icon in the Session Related Objects widget, the metrics collected for that resource appear in the Object Metrics widget. This information can help you identify metrics that are outside of their normal ranges. For example, datastore demand might be high, or the provisioned disk space for that user might be higher than normal.
- For most resources, the Object Metrics widget displays a preconfigured list of metrics that are specific to the resource type. For resources that do not have preconfigured lists of metrics, the Object Metrics widget shows metrics that might be important to the selected resource or that are outside of their expected range, above or below a certain threshold, or marked as KPIs.
- When you click a resource icon in the Session Related Objects widget, graphs that contain the values of metrics over time for that resource appear in the Object Metric Charts widget. These graphs provide a quick view of the trends in KPIs. A gray bar next to a metric name indicates the expected range for that metric. You might notice an anomaly or see that some metrics are above the dynamic thresholds for a particular desktop.
- To add additional metrics to the Object Metric Charts widget for future analysis, select the metrics in the Object Metrics widget and click the **Move to Graph** Icon.
- When you click a resource icon in the Session Related Objects widget, the probable causes of health degradation for that resource appear in the Ordered Metric Abnormalities widget. The Ordered Metric Abnormalities widget provides information about metrics on related resources that contributed to alerts on the resource that you selected, including the percentage likelihood that the metric contributed to the cause of the problem.
- Use the Object Alerts widget to view open alerts associated with the resource you selected in the Session Related Objects widget. You can double-click an alert to view information about its possible cause and its effect on your environment.

NOTE vCenter Operations Manager collects and evaluates data and determines normal or abnormal behavior based on historical trends. Determining abnormal behavior, analyzing a problem, and resolving an issue for a particular user, desktop, virtual machine, or other infrastructure resource requires investigation by a help desk specialist or virtual infrastructure administrator.

View Remote Sessions Dashboard

The View Remote Sessions dashboard provides a quick view of all types of sessions running in your View environment. The widgets on the dashboard are organized into three columns: the left column contains widgets for VDI desktop sessions, the middle column contains widgets for RDS desktop sessions, and the right column contains widgets for application sessions. Each column contains a Heat Map widget and four Top-N Analysis widgets.

NOTE RDS desktop sessions and application sessions are specific to Horizon 6.0.x with View environments.

Tips for Using the View Remote Sessions Dashboard

- The colored rectangles in the VDI Desktop Sessions, RDS Desktop Sessions, and Application Sessions widgets represent particular resources. For example, in the VDI Desktop Sessions widget, each rectangle represents a particular VDI desktop. You can point to a rectangle to view basic information about its associated resource.
- The size of the rectangle indicates the value of one metric, the color of the rectangle indicates the value of another metric, and the widget configuration determines which metric values the widget shows. For example, if you select **Sized by Workload - Colored by Health** from the **Configuration** drop-down menu, rectangles are sized according to the value of the workload metric and are colored according to the value of the health metric. Red indicates a low value and green indicates the high end of the value range.

- Use the Top-N Analysis widgets to view the sessions of each type that have the highest latency, transmission bandwidth, transmission packet loss, and logon times. Viewing the extreme performers in any category can help you to assess the overall performance of your environment.

View VDI Pools Dashboard

Use the View VDI Pools dashboard to view the performance of VDI desktop pools and sessions in your View environment. A VDI desktop pool can be a linked-clone desktop pool, automated desktop pool, or manual desktop pool.

The widgets below the VDI Desktop Pools and VDI Desktop Pool Indicator Metrics widgets are organized into two columns: the left column contains widgets for VDI desktop pool virtual machines and the right column contains widgets for VDI desktop pool sessions. Each column contains a Heat Map widget and four Top-N Analysis widgets.

The VDI Desktop Pools widget is the master widget for the Heat Map widgets on the dashboard. For example, when you select a desktop pool in the VDI Desktop Pools widget, the VDI Desktop Pool VMs widget shows the desktop virtual machines in that desktop pool and the VDI Desktop Pool Sessions widget shows the desktop sessions that are currently logged on for that desktop pool.

Tips for Using the View VDI Pools Dashboard

- Use the graphs in the VDI Desktop Pool Indicator Metrics widget to see the values of selected metrics over time and obtain a quick view of the trends in KPIs.
- The colored rectangles in the VDI Desktop Pool VMs and VDI Desktop Pool Sessions widgets represent particular resources. For example, in the VDI Desktop Pool VMs widget, each rectangle represents a particular virtual machine. You can point to a rectangle to view basic information about its associated resource.
- The size of the rectangle indicates the value of one metric, the color of the rectangle indicates the value of another metric, and the widget configuration determines which metric values that the widget shows. For example, if you select **Sized by Workload - Colored by Health** from the **Configuration** drop-down menu, rectangles are sized according to the value of the workload metric and are colored according to the value of the health metric. Red indicates a low value and green indicates the high end of the value range.
- Use the Top-N Analysis widgets for desktop virtual machines to view the virtual machines that have the highest CPU, memory, disk, and network workload. Use the Top-N Analysis widgets for desktop sessions to view the sessions that have the highest latency, transmission bandwidth, transmission packet loss, and logon times. Viewing the extreme performers in any category can help you to assess the overall performance of your environment.

View RDS Pools Dashboard

Use the View RDS Pools dashboard to view the performance of the farms, RDS hosts, RDS desktop pools, and application pools in your View environment.

NOTE The View RDS Pools dashboard is specific to Horizon 6.0.x with View environments. You can hide dashboards that are not relevant to your View environment. For information about configuring dashboards, see the vCenter Operations Manager documentation.

The widgets on the View RDS Pools dashboard are organized into three columns: the left column contains widgets for farms, the middle column contains widgets for RDS desktop pools, and the right column contains widgets for application pools.

Each column on the View RDS Pools dashboard contains a Resources widget, a Heat Map widget, and four Top-N Analysis widgets. Each Resources widget is the master widget for the Heat Map widget in its column. For example, when you select a farm in the Farms widget in the first column, the Heat Map widget in that column shows data for the farm that you selected.

Tips for Using the View RDS Pools Dashboard

- The colored rectangles in the RDS Hosts, RDS Desktop Sessions, and Application Sessions widgets represent particular resources. For example, in the RDS Hosts widget, each rectangle represents a particular RDS host. You can point to a rectangle to view basic information about its associated resource.
- The size of the rectangle indicates the value of one metric, the color of the rectangle indicates the value of another metric, and the widget configuration determines which metric values the widget shows. For example, if you select **Sized by Workload - Colored by Health** from the **Configuration** drop-down menu, rectangles are sized according to the value of the workload metric and are colored according to the value of the health metric. Red indicates a low value and green indicates the high end of the value range.
- Use the Top-N Analysis widgets for RDS hosts to view the RDS hosts that use the most CPU processor time and have the highest number of committed bytes in use, disk transfers per second, and bytes sent per second. Use the Top-N Analysis widgets for RDS desktop and application sessions to view the sessions that have the highest latency, transmission bandwidth, transmission packet loss, and session logon times. Viewing the extreme performers in any category can help you to assess the overall performance of your environment.

View TS Pools Dashboard

Use the View TS Pools dashboard to view the performance of Terminal Services desktop pools, Terminal Services hosts, and Terminal Services desktop sessions in your View environment.

NOTE The View TS Pools dashboard is specific to View 5.3.x and earlier environments. You can hide dashboards that are not relevant to your View environment by clicking the close (X) icon on the dashboard tab. For information about configuring dashboards, see the vCenter Operations Manager documentation.

The widgets below the Terminal Services Desktop Pools and TS Desktop Pool Indicator Metrics widgets are organized into two columns: the left column contains widgets for Terminal Services hosts and the right column contains widgets for Terminal Services desktop pool sessions. Each column contains a Heat Map widget and four Top-N Analysis widgets.

The Terminal Services Desktop Pools widget is the master widget for the Heat Map widgets. For example, when you select a desktop pool in the Terminal Services Desktop Pools widget, the TS Hosts widget shows the Terminal Services host for that desktop pool and the TS Desktop Sessions widget shows the Terminal Services desktop sessions for that desktop pool.

Tips for Using the View TS Pools Dashboard

- Use the graphs in the TS Desktop Pool Indicator Metrics widget to see the values of selected metrics over time and obtain a quick view of the trends in KPIs.
- The colored rectangles in the TS Hosts and TS Desktop Sessions widgets represent particular resources. For example, in the TS Hosts widget, each rectangle represents a particular Terminal Services host. You can point to a rectangle to view basic information about its associated resource.

- The size of the rectangle indicates the value of one metric, the color of the rectangle indicates the value of another metric, and the widget configuration determines which metric values that the widget shows. For example, if you select **Sized by Workload - Colored by Health** from the **Configuration** drop-down menu, rectangles are sized according to the value of the workload metric and are colored according to the value of the health metric. Red indicates a low value and green indicates the high end of the value range.
- Use the Top-N Analysis widgets for Terminal Services hosts to view the hosts that have the highest CPU processor time, disk transfers per second, bytes sent per second, and committed bytes in use. Use the Top-N Analysis widgets for Terminal Services desktop sessions to view the sessions that have the highest CPU processor time, session disk reads per second, session bytes sent per second, and session logon times. Viewing the extreme performers in any category can help you to assess the overall performance of your environment.

View VDI Topology Dashboard

Use the View VDI Topology dashboard to view the status and performance of the View pods, security servers, View Connection Server instances, VDI desktop pools, virtual machines, VDI desktop sessions, and Horizon clients in your View environment.

The View VDI Infrastructure widget shows the relationships between the resources in each infrastructure tier and is the master widget for the View VDI Topology dashboard. Each resource is represented by a badge.

When you click a resource badge in the View VDI Infrastructure widget, associated resources are highlighted in the other infrastructure levels and the other widgets on the dashboard show data for the resource that you selected.

NOTE Associated resources are highlighted in the other infrastructure levels only if a direct resource relationship exists.

Tips for Using the View VDI Topology Dashboard

- In the View VDI Infrastructure widget, you can view resources according to health, workload, number of anomalies, and number of critical alerts. To change the view, click a badge in the upper left corner of the widget. For example, to show the current workload for the resources in your View environment, click the Workload badge. You can point to a badge to see detailed information about the associated resource.
- When you click a resource badge in the View VDI Infrastructure widget, the widget highlights related resources and status information for those resources in the Related Objects widget. Each icon in the Related Objects widget represents a specific resource. If an object or any of its related resources has an active alert, a red triangle appears next to the icon.
- Use the Object Metrics widget to view the metrics collected for a resource that you select. This information can help you identify metrics that are outside their normal ranges.
- For most resources, the Object Metrics widget displays a preconfigured list of metrics that are specific to the resource type. For resources that do not have preconfigured lists of metrics, the Object Metrics widget shows metrics that might be important to the selected resource or that are outside of their expected range, above or below a certain threshold, or marked as KPIs.
- Use the Ordered Metric Abnormalities widget to determine the probable causes of health degradation for a resource that you select. The Ordered Metric Abnormalities widget provides information about metrics on related resources that contributed to alerts on the resource, including the percentage likelihood that the metric contributed to the cause of the problem.

View RDS Topology Dashboard

Use the View RDS Topology widget to view the status and performance of RDS desktop pools and their associated farms, RDS hosts, RDS desktop sessions, and Horizon clients.

NOTE The View RDS Topology dashboard is specific to Horizon 6.0.x with View environments. You can hide dashboards that are not relevant to your View environment. For information about configuring dashboards, see the *VMware vCenter Operations Manager Getting Started Guide (Custom User Interface)* document.

The RDS Desktop Infrastructure widget shows the relationships between the resources in each infrastructure tier and is the master widget for the View RDS Topology dashboard. Each resource is represented by a badge. When you select a resource badge in the View RDS Topology dashboard, associated resources are highlighted in the other infrastructure levels and the other widgets on the dashboard show data for the resource that you selected.

NOTE Associated resources are highlighted in the other infrastructure levels only if a direct resource relationship exists.

Tips for Using the View RDS Topology Dashboard

- In the RDS Desktop Infrastructure widget, you can view resources according to health, workload, and number of anomalies or faults. To change the view, click a badge in the upper left corner of the widget. For example, to show the current workload for the resources in your RDS desktop infrastructure, click the Workload badge. You can point to a badge to see detailed information about the associated resource.
- When you click a resource badge in the RDS Desktop Infrastructure widget, the widget highlights related resources and status information for those resources appears in the Related Objects widget. Each icon in the Related Objects widget represents a specific resource. If a resources or any of its related resources has an active alert, a red triangle appears next to the icon.
- Use the Object Metrics widget to view the metrics collected for a resource that you select. This information can help you identify metrics that are outside their normal ranges.
- For most resources, the Object Metrics widget displays a preconfigured list of metrics that are specific to the resource type. For resources that do not have preconfigured lists of metrics, the Object Metrics widget shows metrics that might be important to the selected resource or that are outside of their expected range, above or below a certain threshold, or marked as KPIs.
- Use the Ordered Metric Abnormalities widget to determine the probable causes of health degradation for a resource that you select. The Ordered Metric Abnormalities widget provides information about metrics on related resources that contributed to alerts on the resource, including the percentage likelihood that the metric contributed to the cause of the problem.

View Application Topology Dashboard

Use the View Application Topology dashboard to view the status and performance of application pools and their associated farms, RDS hosts, application sessions, applications, and Horizon clients.

NOTE The View Application Topology dashboard is specific to Horizon 6.0.x with View environments. You can hide dashboards that are not relevant to your View environment. For information about configuring dashboards, see the *VMware vCenter Operations Manager Getting Started Guide (Custom User Interface)* document.

The Application Infrastructure widget shows the relationships between the resources in each infrastructure tier and is the master widget for the View Application Topology dashboard. Each resource is represented by a badge. When you select a resource badge in the Application Infrastructure widget, associated resources are highlighted in the other infrastructure levels and the other widgets on the dashboard show data for the resource that you selected.

NOTE Associated resources are highlighted in the other infrastructure levels only if a direct resource relationship exists.

Tips for Using the View Application Topology Dashboard

- In the Application Infrastructure widget, you can view resources according to health, workload and number of anomalies or faults. To change the view, click a badge in the upper left corner of the widget. For example, to show the current workload for the resources in your application infrastructure, click the Workload badge. Point to a badge to see detailed information about the associated resource.
- When you click a resource badge in the Application Infrastructure widget, the widget highlights related resources and status information for those resources appears in the Related Objects widget. Each icon in the Related Objects widget represents a specific resource. If a resource or any of its related objects has an active alert, a red triangle appears next to the icon.
- Use the Object Metrics widget to view the metrics collected for a resource that you select. This information can help you identify metrics that are outside their normal ranges.
- For most resources, the Object Metrics widget displays a preconfigured list of metrics that are specific to the resource type. For resources that do not have preconfigured lists of metrics, the Object Metrics widget shows metrics that might be important to the selected resource or that are outside of their expected range, above or below a certain threshold, or marked as KPIs.
- Use the Ordered Metric Abnormalities widget to determine the probable causes of health degradation for a resource that you select. The Ordered Metric Abnormalities widget provides information about metrics on related resources that contributed to alerts on the resource, including the percentage likelihood that the metric contributed to the cause of the problem.

vSphere Topology Dashboard

Use the vSphere Topology dashboard to view the status and performance of components of your vSphere topology, including custom groups, vCenter Server systems, datacenters, clusters, hosts, virtual machines, and datastores.

The vSphere Infrastructure widget is the master widget for the vSphere Topology dashboard. When you select a resource in the vSphere Infrastructure widget, associated resources are highlighted in the other infrastructure levels and the other widgets on the dashboard show data for the resource that you selected.

NOTE Associated resources are highlighted in the other infrastructure levels only if a direct resource relationship exists.

Tips for Using the vSphere Topology Dashboard

- In the vSphere Infrastructure widget, you can view resources according to health, workload, and number of anomalies or faults. To change the view, click a badge in the upper left corner of the widget. For example, to show the current workload for the resources in your vSphere infrastructure, click the Workload badge. Point to a badge to see detailed information about the associated resource.
- When you click a badge in the vSphere Infrastructure widget, status information for associated resources appears in the Related Objects widget. Each icon in the Related Objects widget represents a specific resource. If a resource or any of its related resources has an active alert, a red triangle appears next to the icon.

- Use the Ordered Metric Abnormalities widget to determine the probable causes of health degradation for a resource that you select. The Ordered Metric Abnormalities widget provides information about metrics on related resources that contributed to alerts on the resource, including the percentage likelihood that the metric contributed to the cause of the problem.

View Remote Session Details Dashboard

Use the Remote Session Details dashboard to view detailed information about all types of sessions running in your View environment.

NOTE RDS desktop sessions and application sessions are specific to Horizon 6.0.x with View environments.

The View Remote Sessions widget lists all of the VDI desktop sessions, RDS desktop sessions, and application sessions in your environment and is the master widget for the Session Indicator and Session Events & Health widgets on the dashboard.

Tips for Using the Remote Session Details Dashboard

- Use the Session Indicator widget to view the values of important session metrics, including session health, session workload, session logon time and PCoIP session latency, bandwidth, and packet loss.
- Run actions in the Session In-Guest Data Collection Results widget to obtain information about in-guest desktop processes and their resource usage, including CPU, memory, and IO use. The Get Desktop Processes and Get Desktop Services actions can help you determine which desktop processes and applications are using the most resources. The Get Desktop/Client Traceroute action provides information about network distance and quality between the desktop and client. For more information, see [“Using the Data Collection Results Widget,”](#) on page 33.
- Use the Session Events & Health widget to see a timeline of health and anomalies for the selected session. The timeline is annotated with session-related events and alerts.

View RDS Host Details Dashboard

Use the View RDS Host Details dashboard to view detailed information about the RDS hosts in your View environment.

NOTE The View RDS Host Details dashboard is specific to Horizon 6.0.x with View environments. You can hide dashboards that are not relevant to your View environment. For information about configuring dashboards, see the *VMware vCenter Operations Manager Getting Started Guide (Custom User Interface)* document.

The RDS Hosts widget shows all of the RDS hosts in your environment and is the master widget for the Host Indicator Metrics, Host Sessions, and Host Events & Health widgets on the dashboard.

Tips for Using the View RDS Host Details Dashboard

- Use the Host Indicator Metrics widget to view the values of important host metrics, including health, workload, total sessions, desktop sessions, application sessions and PCoIP latency, bandwidth, and packet loss.
- The Host Sessions widget shows the application sessions and RDS desktop sessions currently running on the selected RDS host. Information about the collection state and status, health score, workload, session state, protocol, and latency for each session appears in sortable columns.
- Run actions in the Host In-Guest Data Collection Results widget to obtain information about in-guest host processes and their resource usage, including CPU, memory, and IO use. The Get Host Processes, Get Host Services, and Get Host Users actions can help you determine which host processes, applications, and users are using the most resources. For more information, see [“Using the Data Collection Results Widget,”](#) on page 33.

- Use the Host Events & Health widget to see a timeline of health and anomalies for the selected host. The timeline is annotated with host-related events and alerts.

View Adapter Status Dashboard

Use the View Adapter Status dashboard to view health information for vCenter Operations Manager for Horizon adapters and for the vCenter Operations Manager for Horizon broker agents that are connected to those adapters. You can also use the View Adapter Status dashboard to verify license compliance.

The Select View Adapter widget is the master widget for the adapter-related widgets on the dashboard. When you select an adapter in the Select View Adapter widget, the View Adapter Statistics and View Adapter Status widgets show data for the adapter that you selected.

The Select View Broker Agent widget is the master widget for the broker agent-related widgets on the dashboard. When you select a broker agent in the Select View Broker Agent widget, the View Broker Agent DB Collection Statistics, View Broker Agent Metric Collection Statistics, View Broker Agent Topology Collection Statistics, and View Broker Agent Status widgets show data for the broker agent that you selected.

Tips for Using the View Adapter Status Dashboard

- Use the View Adapter Status widget to view important metrics for the selected adapter, including the length of the last collection period, the number of desktops that sent data samples during the last collection period, and the total number of resources that the adapter received during the last collection period.
- Use the View Broker Agent Status widget to view important metrics for the selected broker agent, including the topology, metric, and database event collection times and the user session, desktop virtual machine, and database event record counts.
- Use the View Concurrent Session Count widget to verify that the number of concurrent desktop sessions is below the limit specified in your license. vCenter Operations Manager for Horizon is licensed by the number of concurrent desktop sessions.
- Use the View Licensed Session Count widget to check the compliance of your vCenter Operations Manager license. vCenter Operations Manager is licensed by the number of virtual machines, regardless of their running state.
- View collection statistics for the selected broker agent in the View Broker Agent Topology Collection Statistics, View Broker Agent Metric Collection Statistics, and View Broker Agent DB Event Collection Statistics widgets. These widgets show simple graphs that contain the values of their associated collection metrics over time.

Understanding Broker Agent Metrics

Although the broker agent metrics on the View Adapter Status dashboard are accurate, their values might be misleading. Because these metrics correspond to different activities within the broker agent, they are updated at different intervals. For this reason, some metrics might appear to be stale or not up-to-date.

For example, the Topology Collection Time, User Session Count, and Desktop VM Count metrics in the View Broker Agent Status widget are updated only once per hour. Because the User Session Count metric value can be up to an hour old, it might not agree with the session count value that appears on other dashboards.

In another example, the DB Event Collection Time and DB Event Record Count metrics might show a question mark (?) to indicate that there is no data, even though data has been collected. This situation occurs when no relevant vCenter Operations Manager for Horizon database events are collected during the last six hours because these metrics are updated only when the broker agent sends events (for example, session connection and View error events) to the adapter.

In general, metric collection metrics are sent every five minutes and topology collection metrics are sent every hour. Database event collection metrics might be sent as often as once per minute or as seldom as there are relevant vCenter Operations Manager for Horizon events.

Using the Data Collection Results Widget

The Data Collection Results widget collects and displays in-guest process data for remote desktops. In-guest process data is separate from and in addition to the desktop metrics that the vCenter Operations Manager for Horizon adapter typically collects.

Data Collection Results Widget Actions

You display in-guest process data for a session or host resource in the Data Collection Results widget by running actions. The available actions vary depending on the resource type.

Table 3-1. Available Actions by Resource Type

Resource Type	Available Actions	When To Use
Session resources: ■ VDI Desktop Session ■ RDS Desktop Session ■ Application Session ■ Terminal Services Session	■ Get Desktop Processes ■ Get Desktop Services ■ Get Desktop/Client Traceroute ■ Get RDSS/Client Traceroute ■ Get APPS/Client Traceroute ■ Get TSS/Client Traceroute	Use these actions to obtain information about in-guest desktop processes and their resource usage, including CPU, memory, and IO use. The Get Desktop Processes and Get Desktop Services actions can help you determine which desktop processes and applications are using the most resources. A Traceroute action is provided for each session resource type. This action provides information about network distance and quality between the desktop and client.
Host resources: ■ RDS Host ■ TS Host	■ Get Host Processes ■ Get Host Services ■ Get Host Users	Use these actions to obtain information about host resource usage, including CPU, memory, and IO use. The Get Host Processes, Get Host Services, and Get Host Users actions can help you determine which host processes, applications, and users are using the most resources.

View In-Guest Process Data for Session and Host Resources

You can use the Data Collection Results widget to display in-guest process data for a session or host resource. In-guest process data is separate from and in addition to the desktop metrics that the vCenter Operations Manager for Horizon adapter typically collects.

Prerequisites

- Configure the Data Collection Results widget. See [“Configure the Data Collection Results Widget,”](#) on page 20.
- Become familiar with the actions that you can run in the Data Collection Results widget. See [“Data Collection Results Widget Actions,”](#) on page 33.
- Verify that you have the Execute Action access right. The Execute Action access right is required to run actions in the Data Collection Results widget. The Administrators and Operators user groups both include the Execute Action access right.

Procedure

- 1 Log in to the vCenter Operations Manager Custom user interface.

The URL of the Custom user interface is `https://ipaddress/vcops-custom`, where *ipaddress* is the IP address of the UI VM in the vCenter Operations Manager vApp.

- 2 Click the tab for the dashboard that contains the Data Collection Results widget.
- 3 If you configured another widget to provide a resource to the Data Collection Results widget, select a resource in the providing widget.

When you select a resource, the available actions for that resource appear in the **Choose Action** drop-down menu in the Data Collection Results widget.

- 4 In the Data Collection Results widget, select an action from the **Choose Action** drop-down menu.
- 5 Click the **Run Action** icon (>) to start the action.

The status of the action appears in the **Results** drop-down menu. When the action is finished, the result of the action appears in the Data Collection Results widget window. You can click the column headers in the widget results grid to sort the column data and quickly determine which processes are using the most CPU, memory, or other resources.

- 6 (Optional) To view a past result, select it from the **Results** drop-down menu.

The result appears in the Data Collection Results widget window.

- 7 (Optional) To delete a past result from the **Results** drop-down menu, select it and click the **Delete selected result** (X) icon.

What to do next

You can view detailed information about recent action tasks on the Support page in the vCenter Operations Manager user interface. See [“View Information About Recent Tasks,”](#) on page 34.

View Information About Recent Tasks

You can view a list of recent tasks, display detailed and associated object information for selected tasks, and filter tasks and detailed information based on selected criteria on the Support page in the vCenter Operations Manager Custom user interface.

Prerequisites

- Run an action in the Data Collection Results widget. See [“View In-Guest Process Data for Session and Host Resources,”](#) on page 33.
- Verify that you have the Execute Action access right. The Execute Action access right is required to see information on the **Recent Tasks** tab. The Administrators and Operators user groups both include the Execute Action access right.

Procedure

- 1 Log in to the vCenter Operations Manager Custom user interface.

The URL of the Custom user interface is `https://ipaddress/vcops-custom`, where *ipaddress* is the IP address of the UI VM in the vCenter Operations Manager vApp.

- 2 Select **Admin > Support** and click the **Recent Tasks** tab.

The top pane displays a list of all recent tasks, including status, starting and ending times, and associated object information. When you select a task in the top pane, the bottom left pane lists the objects associated with the selected task and the bottom right pane lists messages associated with the selected task.

- 3 (Optional) Filter the information on the **Recent Tasks** tab.

Option	Action
Filter actions by status	Select a status value from the Status drop-down menu in the top pane. For example, select Completed to view only completed tasks.
Filter messages by severity	Select the severity level from the Messages drop-down menu in the bottom right pane. For example, select Error to view only error messages.

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