VMware vRealize Operations for Horizon Installation Guide

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Contents

VMware vRealize Operations for Horizon Installation Guide

The *VMware vRealize Operations for Horizon Installation Guide* provides information about installing and configuring VMware vRealize® Operations for Horizon® and about upgrading existing installations to the current version.

Intended Audience

This information is intended for anyone who wants to install or upgrade vRealize Operations for Horizon.

Terminology

For definitions of terms as they are used in this document, see the VMware Glossary at https://www.vmware.com/topics/glossary.

Introducing vRealize Operations for Horizon

1

vRealize Operations for Horizon collects performance data from monitored software and hardware objects in your VMware Horizon® environment and visualizes this data through alerts, configurable dashboards, and reports in VMware vRealize® Operations Manager™.

With the predictive analysis and real-time information that vRealize Operations for Horizon provides, IT administrators can obtain an overview of the Horizon environment and assess key metrics. Help desk specialists can view objects related to end-user sessions and perform basic troubleshooting.

This chapter includes the following topics:

- vRealize Operations for Horizon Architecture
- Horizon Adapter
- Broker Agent
- Desktop Agent

vRealize Operations for Horizon Architecture

vRealize Operations for Horizon consists of the Horizon Adapter, broker agent, and desktop agent.

Figure 1-1. vRealize Operations for Horizon Architecture
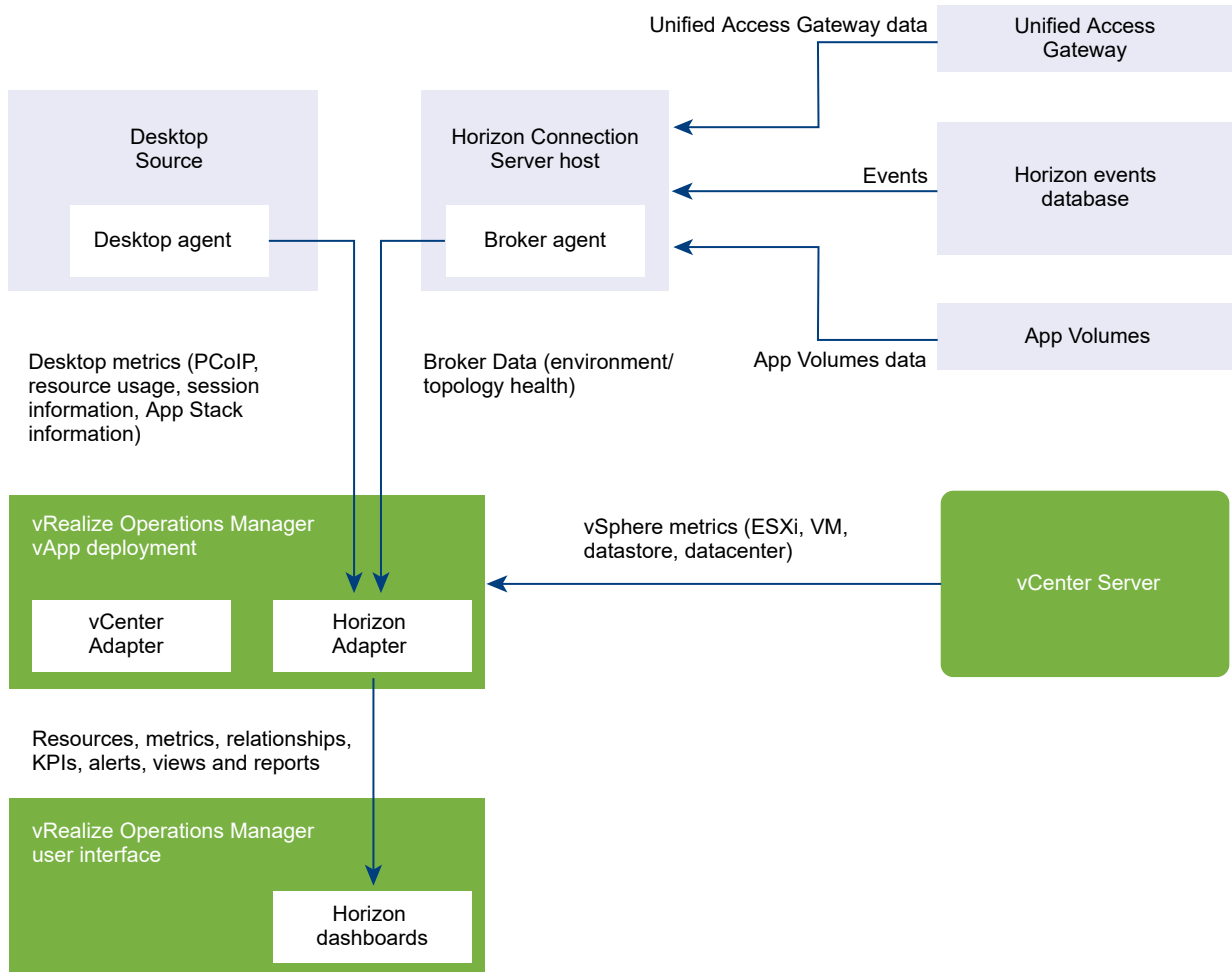
Horizon Adapter

The Horizon Adapter runs on the master node or a remote collector node in vRealize Operations Manager. Adapter instances are paired with one or more broker agents to receive communications from them.

You can pair the broker agents installed in multiple pods with a single Horizon Adapter instance as long as the total number of desktops in those pods does not exceed 10,000. If you need to create multiple adapter instances, you must create each instance on a different node.

Important   Creating more than one Horizon Adapter instance on a single master or remote collector node is not supported.

The Horizon Adapter obtains Horizon inventory information from broker agents and collects metrics and performance data from desktop agents. The adapter passes this data to vRealize Operations Manager, which analyzes the data and visualizes it on preconfigured dashboards.

In the following scenarios, create the Horizon Adapter instance on a remote collector node.

Large-scale installation (over 5,000 desktops)	To improve scalability and offload processing from cluster data nodes, create the adapter instance on a remote collector node.
Remote data centers	To minimize network traffic across WAN or other slow connections, deploy a remote collector node in each remote data center. Create an adapter instance on each remote collector node and pair each instance with the broker agent that is located in the same data center.
High availability (HA)	vRealize Operations for Horizon does not support HA. If a failover occurs, broker agents that are paired with the adapter instance on a master node cannot automatically connect to the instance on the replica node. To prevent communication interruptions, create the adapter instance on a remote collector node.

Broker Agent

The vRealize Operations for Horizon broker agent is a Windows service that runs on a Horizon Connection Server host. It collects Horizon inventory information and sends that information to the Horizon Adapter.

The broker agent runs on one Horizon Connection Server host in each Horizon pod in your environment. Each pod can contain only one broker agent.

You must configure the broker agent to collect events from the event database and send them to the Horizon Adapter. You can optionally configure the broker agent to monitor the desktop pools, application pools, App Volumes AppStacks, and Unified Access Gateway appliances in your Horizon environment.

Desktop Agent

The vRealize Operations for Horizon desktop agent runs on each desktop source in your Horizon environment. It collects metrics and performance data and sends them to the Horizon Adapter.

The desktop agent is installed as part of Horizon Agent. The following table lists the version of the desktop agent included in each version of Horizon Agent.

Note vRealize Operations for Horizon 6.7 does not include updates to the desktop agent. The latest desktop agent is version 6.6.

Table 1-1. Bundled Desktop Agent Version

Horizon Agent Version	Desktop Agent Version
7.0	6.2.1
7.0.1 to 7.2	6.4
7.3.2	6.5

Table 1-1. Bundled Desktop Agent Version (continued)

Horizon Agent Version	Desktop Agent Version
7.4 and 7.5	6.5.1
7.6 to 7.10	6.6

Note   vRealize Operations for Horizon 6.7 no longer includes a standalone installer for the desktop agent. You must install the desktop agent when you install Horizon Agent. To do so, select **vRealize Operations Desktop Agent** on the **Custom Setup** page of the Horizon Agent installation wizard. For more information, see "Install Horizon Agent on a Virtual Machine" in the *Setting Up Virtual Desktops in Horizon 7* document.

Preparing for Installation

<div style="text-align: right; font-size: large;">2</div>

You prepare to install vRealize Operations for Horizon by ensuring that your environment meets the specified requirements, opening the required network ports, and obtaining the installation files.

This chapter includes the following topics:

- System Requirements for vRealize Operations for Horizon
- Required Network Ports
- Supported Guest Operating Systems
- Supported Event Databases
- vRealize Operations for Horizon Installation Files

System Requirements for vRealize Operations for Horizon

Before deploying vRealize Operations for Horizon, ensure that your environment meets the specified requirements.

vRealize Operations for Horizon 6.7 requires the following VMware products.

- VMware Horizon 7.7 or later
- VMware vRealize Operations Manager 8.0 or later

Note   When you install Horizon Agent on virtual machines in your environment, you must select **vRealize Operations Desktop Agent** on the **Custom Setup** page of the Horizon Agent installation wizard. This process installs the vRealize Operations for Horizon desktop agent. For more information, see "Install Horizon Agent on a Virtual Machine" in the *Setting Up Virtual Desktops in Horizon 7* document.

vRealize Operations for Horizon 6.7 is also compatible with the following VMware products.

- VMware App Volumes 2.16 and later

  Note   Computer-based AppStacks are not supported. Metrics can be displayed for user-assigned AppStacks only.

- VMware Unified Access Gateway 3.6 and later

The vRealize Operations for Horizon broker agent requires Microsoft .NET Framework 4.6.2 or later.

For the most current information about supported versions, see the VMware Product Interoperability Matrices at https://www.vmware.com/resources/compatibility/sim/interop_matrix.php.

VMware Horizon, vRealize Operations Manager, and vRealize Operations for Horizon are licensed separately. Licenses for all three products are required to use vRealize Operations for Horizon.

Required Network Ports

You open required ports on your firewall to ensure that vRealize Operations for Horizon can operate properly.

Note   The ports used by vRealize Operations for Horizon can be changed after deployment. See "Change the Default RMI Service Ports" in the *VMware vRealize Operations for Horizon Administration Guide*.

All ports listed are TCP.

Source	Destination	Port Number	Description
Horizon Adapter	App Volumes Manager	443	App Volumes monitoring
Horizon Adapter	vRealize Operations for Horizon broker agent	3091	RMI registry lookup
vRealize Operations for Horizon broker agent	Horizon Adapter	3091	RMI registry lookup
Horizon Adapter	vRealize Operations for Horizon desktop agent	3091	RMI registry lookup
vRealize Operations for Horizon desktop agent	Horizon Adapter	3091	RMI registry lookup
Horizon Adapter	vRealize Operations for Horizon desktop agent	3099	Desktop data transmission
vRealize Operations for Horizon desktop agent	Horizon Adapter	3099	Desktop data transmission
Horizon Adapter	vRealize Operations for Horizon broker agent	3100	Certificate pairing
vRealize Operations for Horizon broker agent	Horizon Adapter	3100	Certificate pairing
Horizon Adapter	vRealize Operations for Horizon broker agent	3101	Topology data transmission
vRealize Operations for Horizon broker agent	Horizon Adapter	3101	Topology data transmission
Horizon Adapter	Unified Access Gateway appliance	9443	Unified Access Gateway monitoring

Supported Guest Operating Systems

vRealize Operations for Horizon is compatible with all guest operating systems supported by Horizon Agent.

To find the guest operating systems supported by your version of Horizon Agent, see "Supported Operating Systems for Horizon Agent" in the *Horizon 7 Installation* document.

Supported Event Databases

vRealize Operations for Horizon requires that you have an event database to store information about Horizon events. You can store events in a SQL database or an Oracle database.

For supported database versions, see "Database Requirements for View Composer and the Events Database" in the *Horizon 7 Installation* document.

If you use an Oracle event database, a recent version of Oracle Data Access Components (ODAC) and Oracle Instant Client (Basic or Basic Light package) must be installed on your system.

For more information, see "Oracle Event Databases" in *vRealize Operations for Horizon Administration*.

vRealize Operations for Horizon Installation Files

You can download the vRealize Operations for Horizon installation files from the VMware website.

To access the installation files, go to the vRealize Operations for Horizon download page at https:// my.vmware.com/en/web/vmware/info/slug/desktop_end_user_computing/ vmware_vrealize_operations_for_horizon_and_published_applications/6_0. You can download individual files or an archive containing all vRealize Operations for Horizon installation files.

Table 2-1. vRealize Operations for Horizon Installation Files

Filename	Component	Where to Install
VMware-vrops-viewadapter-6.7.0-14841767.pak	Adapter	vRealize Operations Manager master or remote collector node
VMware-v4vbrokeragent-x86_64-6.7.0-14841767.exe	Broker agent	Horizon Connection Server host
		Note The broker agent supports only 64-bit systems.
Dashboards_V4VAdapter-6.7.0-14841767.zip	Dashboards (optional)	vRealize Operations Manager user interface
Reports_V4VAdapter-6.7.0-14841767.zip	Report templates (optional)	

Note vRealize Operations for Horizon 6.7 no longer includes a standalone installer for the desktop agent. You must install the desktop agent when you install Horizon Agent. To do so, select **vRealize Operations Desktop Agent** on the **Custom Setup** page of the Horizon Agent installation wizard. For more information, see "Install Horizon Agent on a Virtual Machine" in the *Setting Up Virtual Desktops in Horizon 7* document.

Installing and Configuring vRealize Operations for Horizon

<div style="text-align: right; font-size: large;">3</div>

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

Note vRealize Operations for Horizon 6.7 no longer includes a standalone installer for the desktop agent. You must install the desktop agent when you install Horizon Agent. To do so, select **vRealize Operations Desktop Agent** on the **Custom Setup** page of the Horizon Agent installation wizard. For more information, see "Install Horizon Agent on a Virtual Machine" in the *Setting Up Virtual Desktops in Horizon 7* document.

The amount of time required to install and configure vRealize Operations for Horizon depends on the number of desktop pools in your Horizon environment. The installation and configuration process typically takes about an hour, excluding download time.

Prerequisites

- Verify that your environment meets product compatibility, hardware, and software requirements. See Chapter 2 Preparing for Installation.

- Verify that VMware Horizon and vRealize Operations Manager are installed, running, and upgraded to the desired version.

- Verify that a vCenter Adapter instance is configured for each vCenter Server instance in your Horizon infrastructure. The vCenter Adapter is provided with vRealize Operations Manager.

- Ensure that the vCenter Server configuration in Horizon Administrator is consistent with the configuration on the vCenter Adapter. The vCenter Server must be specified by FQDN in both configurations or by IP address in both configurations.

- Synchronize the time on all hosts to an NTP server.

- Obtain a license key for the vRealize Operations for Horizon solution.

■ Download the vRealize Operations for Horizon installation files. See vRealize Operations for Horizon Installation Files.

Procedure

1 Install the vRealize Operations for Horizon Solution

You install the vRealize Operations for Horizon solution in vRealize Operations Manager by loading a PAK file.

2 Create a Horizon Adapter Instance

You create an instance of the Horizon Adapter on a vRealize Operations Manager node to receive communications from agents.

3 Add a vRealize Operations for Horizon License Key

You add a license key for vRealize Operations for Horizon in the vRealize Operations Manager user interface. vRealize Operations for Horizon is not functional until it is licensed.

4 Associate Objects with Your License Key

You associate Horizon objects with your vRealize Operations for Horizon license key by editing license groups in vRealize Operations Manager.

5 Import vGPU Dashboards

If you want to monitor NVIDIA GRID vGPU data from your Horizon environment, you can import specialized dashboards into vRealize Operations Manager.

6 Install the vRealize Operations for Horizon Broker Agent

You install the vRealize Operations for Horizon broker agent on one Horizon Connection Server host in each Horizon pod in your environment.

7 Configure the vRealize Operations for Horizon Broker Agent

You use the **Broker Agent Config Utility for Horizon** to configure the broker agent to communicate with the vRealize Operations for Horizon solution.

8 Verify Your vRealize Operations for Horizon Installation

You can verify your vRealize Operations for Horizon installation by using the **Horizon Adapter Self Health** dashboard. This dashboard shows health information for the Horizon Adapter instances and broker agents in your installation.

Install the vRealize Operations for Horizon Solution

You install the vRealize Operations for Horizon solution in vRealize Operations Manager by loading a PAK file.

Note   The installation process restarts vRealize Operations Manager. Data is not collected while vRealize Operations Manager is restarting.

Procedure

1   Download the adapter PAK file from the product download page and save it to a temporary folder.

2   Log in to the vRealize Operations Manager user interface as an administrator.

3   In the menu, click **Administration** and in the left pane click **Solutions > Repository**.

4   Click **Add/Upgrade** and install the solution.

    a   Select the adapter PAK file and click **Upload**.

       The upload might take several minutes.

    b   Click **Next**.

    c   Read and accept the EULA and click **Next**.

    d   Click **Finish**.

After the installation is finished, **VMware Horizon** is listed in the repository under **Other Management Packs**.

What to do next

Create an instance of the Horizon Adapter.

Create a Horizon Adapter Instance

You create an instance of the Horizon Adapter on a vRealize Operations Manager node to receive communications from agents.

You can monitor multiple Horizon pods with a single Horizon Adapter instance. If you need to create multiple adapter instances, you must assign each adapter instance to a different node.

Prerequisites

Install the vRealize Operations for Horizon solution.

Procedure

1   Log in to the vRealize Operations Manager user interface as an administrator.

2   In the menu, click **Administration** and in the left pane click **Solutions > Other Accounts**.

3   Click **Add Account** and select **Horizon Adapter**.

4   In the **Cloud Account Information** section, enter a name and description for the account.

5   In the **Connect Information** section, configure an ID, credential, and collector for the adapter instance.

    a   Enter an identifier for the adapter instance in the **Adapter ID** text box.

       The identifier must be unique across all Horizon Adapter instances in the cluster.

    b   Select a credential from the drop-down menu or click the **Add** icon to create a new credential.

       The credential includes a user-defined server key that is required for pairing broker agents to the adapter. You must provide the server key when you configure the broker agent.

    c   Select a collector from the drop-down menu.

> **Important**
>
> - Creating the Horizon Adapter instance on a collector group is not supported. If a failover occurs and the Horizon Adapter instance is moved to a different collector in the group, it cannot continue to collect data.
>
> - Creating more than one Horizon Adapter instance per collector is not supported.

    d   Click **Test Connection** to test the connection with the credential that you selected.

6   Click **Add**.

The adapter instance is displayed under **Other Accounts**.

What to do next

Provide licensing information for the vRealize Operations for Horizon solution.

Add a vRealize Operations for Horizon License Key

You add a license key for vRealize Operations for Horizon in the vRealize Operations Manager user interface. vRealize Operations for Horizon is not functional until it is licensed.

Product license keys for vRealize Operations for Horizon are encoded with an expiration date and license count. To retrieve your vRealize Operations for Horizon license key, go to the License Portal at https://my.vmware.com/group/vmware/my-licenses.

If you do not have a product license key, you can use the evaluation license key `eval` to obtain 60 days of unlimited product use.

Prerequisites

Install the vRealize Operations for Horizon solution.

Procedure

1   Log in to the vRealize Operations Manager user interface as an administrator.

2   In the menu, click **Administration** and in the left pane select **Management > Licensing**.

3   In the **License Keys** tab, click the **Add** icon.

4   Select **VMware Horizon** from the drop-down menu and enter your license key (including hyphens).

5   Click **Validate**.

6   Click **Save**.

Your license key and relevant details are displayed in the **License Keys** tab.

What to do next

Associate Horizon objects with your license key.

Associate Objects with Your License Key

You associate Horizon objects with your vRealize Operations for Horizon license key by editing license groups in vRealize Operations Manager.

A license group is a way to gather certain objects, called license group members, under a particular license key. vRealize Operations for Horizon involves the following two license groups:

▪   The **VMware Horizon Solution Licensing** group includes Horizon pods, desktop virtual machines, hosts, clusters, datastores, and data centers.

▪   The **Product Licensing** group includes vSphere virtual machines, hosts, clusters, datastores, and data centers.

By editing the membership criteria for these groups, you can indicate that certain objects are covered only under your vRealize Operations for Horizon license key.

Prerequisites

▪   Install the vRealize Operations for Horizon solution and add your license key.

▪   Create an instance of the Horizon Adapter.

Procedure

1   Log in to the vRealize Operations Manager user interface.

2   In the menu, click **Administration** and in the left pane select **Management > Licensing**.

3   Click the **License Groups** tab.

License groups appear in the top pane.

4   Edit the membership criteria for the **VMware Horizon Solution Licensing** group to include the objects used by Horizon.

    a   Select **VMware Horizon Solution Licensing** and click the **Edit** icon.

    b   Select the license key under vRealize Operations for Horizon and click **Next**.

    c   In the first **Select the Object Type that matches all of the following criteria** drop-down menu, select **View Pod**. Define the criteria **Relationship**, **Descendant of**, and **is not**, and type `All Hosts` in the **Object name** text box.

    d   In the second **Select the Object Type that matches all of the following criteria** drop-down menu, select **Host System**. Define the criteria **Relationship**, **Descendant of**, and **is**, and type `All Hosts` in the **Object name** text box.

    e   In the third **Select the Object Type that matches all of the following criteria** drop-down menu, select **Virtual Machine**. Define the criteria **Relationship**, **Descendant of**, and **is**, and type `All Desktop VMs` in the **Object name** text box.

    f   In the fourth **Select the Object Type that matches all of the following criteria** drop-down menu, select **Datastore**. Define the criteria **Relationship**, **Descendant of**, and **is**, and type `All Storage` in the **Object name** text box.

    g   Click **Next** and then click **Finish** to save your configuration.

5   Edit the membership criteria for the **Product Licensing** group to exclude the objects that you included in the **VMware Horizon Solution Licensing** group.

    a   Select **Product Licensing** and click the **Edit** icon.

    b   Select the license key under vRealize Operations Manager and click **Next**.

    c   In the first **Select the Object Type that matches all of the following criteria** drop-down menu, select **Host System**. Define the criteria **Relationship**, **Descendant of**, and **is not**, and type `All Hosts` in the **Object name** text box.

    d   In the second **Select the Object Type that matches all of the following criteria** drop-down menu, select **Virtual Machine**. Define the criteria **Relationship**, **Descendant of**, and **is not**, and type `All Desktop VMs` in the **Object name** text box.

    e   In the third **Select the Object Type that matches all of the following criteria** drop-down menu, select **Datastore**. Define the criteria **Relationship**, **Descendant of**, and **is not**, and type `All Storage` in the **Object name** text box.

    f   Click **Next** and then click **Finish** to save your configuration.

When you select each license group, the corresponding license usage is displayed in the lower table. You can select **Members** to see the objects included in each license group.

Note   If your Horizon installation uses the named user license model, license usage for the **VMware Horizon Solution Licensing** group is always displayed as 0.

What to do next

▪   If you want to monitor vGPU metrics, import optional vGPU dashboards.

▪   Install the broker agent on your Horizon Connection Server hosts.

Import vGPU Dashboards

If you want to monitor NVIDIA GRID vGPU data from your Horizon environment, you can import specialized dashboards into vRealize Operations Manager.

After importing these dashboards, you can view a variety of vGPU metrics, including usage and health.

Prerequisites

Install the vRealize Operations for Horizon solution and add your license key.

Procedure

1 Download the optional dashboard package from the product download page and decompress it to a temporary folder.

2 Log in to the vRealize Operations Manager user interface as an administrator.

3 In the menu, click **Dashboards** and select **Actions > Manage Dashboards**.

4 Select **Actions > Import Dashboards**.

5 Select **Overwrite**.

Dashboards are imported immediately after you select them.

6 Import `Horizon End User Experience With vGPU.json`.

7 Import `Horizon Help Desk With vGPU.json` and click **Done**.

The **Horizon End User Experience** and **Horizon Help Desk** dashboards now include widgets related to vGPU metrics.

What to do next

Install the broker agent on your Horizon Connection Server hosts.

Install the vRealize Operations for Horizon Broker Agent

You install the vRealize Operations for Horizon broker agent on one Horizon Connection Server host in each Horizon pod in your environment.

Important Installing the broker agent on a security server installation is not supported.

Prerequisites

▪ Install the vRealize Operations for Horizon solution and add your license key.

▪ Create an instance of the Horizon Adapter.

▪ Verify that Microsoft .NET Framework version 4.6.2 or later is installed on the Horizon Connection Server where you plan to install the broker agent.

Procedure

1 Log in to the Horizon Connection Server host as a Horizon administrator.

2 Download the broker agent installation file from the product download page and run the file.

3 Read and accept the EULA and click **Next**.

4 Click **Install** to begin the installation.

5 Click **Finish** to exit the broker agent setup wizard.

What to do next

Use the **Broker Agent Config Utility for Horizon** to set up the broker agent.

Configure the vRealize Operations for Horizon Broker Agent

You use the **Broker Agent Config Utility for Horizon** to configure the broker agent to communicate with the vRealize Operations for Horizon solution.

You pair each broker agent with a Horizon Adapter instance. Pairing the broker agent with an adapter instance enables the broker agent and its desktop agents to communicate with the Horizon Adapter.

You can pair the broker agents in different pods with a single Horizon Adapter instance as long as the total number of desktops that the adapter instance handles does not exceed 10,000.

You must configure the broker agent to connect to your event database. You can also optionally configure the broker agent to monitor application pools and specific desktop pools.

Prerequisites

- Install the vRealize Operations for Horizon broker agent. See Install the vRealize Operations for Horizon Broker Agent.

- Obtain the server key for the Horizon Adapter instance. You specified the server key when you created the credential for the adapter instance.

- Obtain the IP address of the host where you installed the Horizon Adapter instance.

- Obtain the credentials for your event database and verify that the database format is supported. See Supported Event Databases.

- If you want to monitor specific desktop pools in Horizon, obtain the IDs for the pools from Horizon Administrator.

- Log in to the Horizon Connection Server host as a Horizon administrator.

Procedure

1   If the **Broker Agent Config Utility for Horizon** wizard is not already open, select **Start > VMware > vRealize Operations for Horizon Broker Agent Settings**.

2   Enter the FQDN or IP address and the port of the vRealize Operations Manager node where the Horizon Adapter instance is running.

    By default, the broker agent uses port 3091 to communicate with the Horizon Adapter.

3   Enter the server key and click **Pair**.

    The status of the pairing process appears in the lower pane.

4   On the **Connection Server** page, enter the user name, password, and domain of a Horizon administrator account and the port used to connect to Horizon Connection Server.

5   On the **Event DB and Desktop Pools** page, configure your event database and desktop pool settings.

     a   In the **Event Database Information** section, enter your event database credentials and click **Test**.

     b   (Optional) In the **Desktop Pools** section, select the **Specify Desktop Pools** check box, select whether to include or exclude the specified pools, and enter desktop pool IDs (separated by commas) in the text box.

     c   (Optional) Select the **Monitor Application Pools and hosted applications** check box.

        Monitoring only specified application pools is not supported.

6   Click **Next** through the following four pages and make any changes necessary. You can perform the following configurations:

- On the **Configure App Volumes** page, specify App Volumes Manager installations for the broker agent to monitor.

  Note   Computer-based AppStacks are not supported. Metrics can be displayed for user-assigned AppStacks only.

- On the **Configure Unified Access Gateway** page, specify Unified Access Gateway appliances for the broker agent to monitor.

  Note   Ensure that each Unified Access Gateway is configured on one broker agent only. Do not configure the same Unified Access Gateway appliance on more than one broker agent.

- On the **Intervals and Timeouts** page, modify how often the topology is refreshed and sessions are updated.

- On the **Logging** page, set the level of logs to create and the policy for log rotation.

7   On the **Broker Agent Service** page, view the status of the service and start, stop, or restart it if necessary.

8   On the final page, review your settings and click **Finish**.

     If you want to make any changes, click **Back** until you reach the appropriate page.

     The **Broker Agent Config Utility for Horizon** wizard closes, and the broker agent service is restarted.

What to do next

Verify that your installation is working properly.

Verify Your vRealize Operations for Horizon Installation

You can verify your vRealize Operations for Horizon installation by using the **Horizon Adapter Self Health** dashboard. This dashboard shows health information for the Horizon Adapter instances and broker agents in your installation.

Prerequisites

Install and configure all vRealize Operations for Horizon components.

Procedure

1 Log in to the vRealize Operations Manager user interface.

2 Click the **Dashboards** tab and in the left pane click **Horizon Adapter Self Health**.

3 Select an adapter instance in the **Horizon Adapter** widget to view the status of the instance.

4 Review metrics for the selected adapter in the **Horizon Adapter Status** widget.

5 Select a broker agent in the **Horizon Broker Agent** widget to view the status of the agent.

6 Review metrics for the selected broker agent in the **Horizon Broker Agent Status** widget.

7 Verify that all widgets on the dashboard are populated with correct data from your Horizon environment.

What to do next

If a Horizon Adapter instance or broker agent is not operating as expected, see "Troubleshooting vRealize Operations for Horizon" in *VMware vRealize Operations for Horizon Administration*.

Upgrading vRealize Operations for Horizon

4

You download the latest installation files and upgrade each component of vRealize Operations for Horizon.

Note   vRealize Operations for Horizon 6.7 no longer includes a standalone installer for the desktop agent. You must install the desktop agent when you install Horizon Agent. To do so, select **vRealize Operations Desktop Agent** on the **Custom Setup** page of the Horizon Agent installation wizard. For more information, see "Install Horizon Agent on a Virtual Machine" in the *Setting Up Virtual Desktops in Horizon 7* document.

Prerequisites

- If you are running vRealize Operations for Horizon 6.0 or earlier, upgrade to version 6.1 before proceeding. Upgrading from vRealize Operations for Horizon 6.0 or earlier is not supported.

- Verify that your environment meets product compatibility, hardware, and software requirements. See Chapter 2 Preparing for Installation.

  vRealize Operations for Horizon 6.7 requires vRealize Operations Manager 8.0 or later. You must upgrade vRealize Operations Manager to version 8.0 before upgrading vRealize Operations for Horizon to version 6.7.

- Verify that VMware Horizon and vRealize Operations Manager are installed, running, and upgraded to the desired version.

- Synchronize the time on all hosts to an NTP server.

- Download the vRealize Operations for Horizon installation files. See vRealize Operations for Horizon Installation Files.

Procedure

1   Upgrade the vRealize Operations for Horizon Solution

   You upgrade the vRealize Operations for Horizon solution in vRealize Operations Manager by uploading a new PAK file.

2   Upgrade the vRealize Operations for Horizon Broker Agent

   You upgrade the vRealize Operations for Horizon broker agent on each Horizon Connection Server where it is installed.

Upgrade the vRealize Operations for Horizon Solution

You upgrade the vRealize Operations for Horizon solution in vRealize Operations Manager by uploading a new PAK file.

Procedure

1   On each Horizon Connection Server host running a broker agent, select **Start > VMware > vRealize Operations for Horizon Broker Agent Settings**, and stop the broker agent service.

   Stopping the broker agent service prevents errors or unhandled messages from occurring while the vRealize Operations for Horizon solution is being upgraded.

2   Download the adapter PAK file from the product download page and save it to a temporary folder.

3   Log in to the vRealize Operations Manager user interface as an administrator.

4   In the menu, click **Administration** and in the left pane click **Solutions > Repository**.

5   Click **Add/Upgrade** and upgrade the solution.

   a   Browse to the temporary folder and select the new PAK file.

   b   Select **Install the PAK file even if it is already installed** and **Reset Default Content** and click **Upload**.

      The upload might take several minutes.

   c   Click **Next**.

   d   Read and accept the EULA and click **Next**.

      Information about the upgrade is displayed in the window.

   e   Click **Finish**.

6   Log in to the vRealize Operations Manager master node and restart the cluster.

```
service vmware-vcops --full-restart
```

What to do next

Upgrade and configure vRealize Operations for Horizon broker agents.

Upgrade the vRealize Operations for Horizon Broker Agent

You upgrade the vRealize Operations for Horizon broker agent on each Horizon Connection Server where it is installed.

Note The following items are performed during the upgrade:

1   The broker agent service is stopped.

2   The broker agent configuration is preserved.

3   The existing broker agent is uninstalled.

4   The new version of the broker agent is installed.

Prerequisites

▪   Upgrade the vRealize Operations for Horizon solution.

▪   Obtain the server key for the Horizon Adapter instance. You specified the server key when you created the credential for the adapter instance.

▪   Obtain the IP address of the host where you installed the Horizon Adapter instance.

Procedure

1   Log in to the Horizon Connection Server host as a Horizon administrator.

2   Download the broker agent installation file from the product download page and run the file to upgrade the broker agent.

  a   Read and accept the EULA and click **Next**.

  b   Click **Install** to begin the upgrade.

  c   Click **Finish** to exit the broker agent setup wizard.

3   Open the **Broker Agent Config Utility for Horizon** and pair the broker agent with the adapter instance again.

  a   Enter the FQDN or IP address and the port of the vRealize Operations Manager node where the Horizon Adapter instance is running.

  By default, the broker agent uses port 3091 to communicate with the Horizon Adapter.

  b   Enter the server key and click **Pair**.

  The subsequent pages of the wizard are populated with configuration data from the previous installation.

4   On the **Broker Agent Service** page, start the broker agent service.

5   Click **Next** and click **Finish** on the last page of the wizard.