



# VMware vRealize Operations Manager for HPE SimpliVity

Version 1.0.0

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## Abstract

This guide provides the information you need to install and use HPE OneView for VMware vRealize® Operations™ to monitor performance for servers and is intended for administrators who monitor and direct system performance, capacity, and configuration information for OneView managed servers and infrastructure.

## Introduction

VMware vRealize Operations for HPE SimpliVity provides integrated and highly automated performance, capacity, configuration compliance, and cost management tools to the vRealize Operations custom GUI. The software uses the VMware®'s analytics engine that analyzes what is normal and then applies that baseline to a dynamic server environment.

For information on vRealize Operations, see VMware vRealize Operations Enterprise documentation at [docs.vmware.com/en/vRealize-Operations-Manager/index.html](https://docs.vmware.com/en/vRealize-Operations-Manager/index.html). When the VMware vRealize Operations for HPE SimpliVity is installed, the Custom HPE SimpliVity Dashboards is added to the vRealize Operations custom GUI. The HPE SimpliVity Dashboard allows you to monitor resources which are HPE SimpliVity specific and not part of the stock vROps suite. The attributes that can be monitored include the performance and capacity related data like compression ratios etc. which are specific to HPE SimpliVity. The analytics engine allows for proactive monitoring of the HPE SimpliVity resource environment and indicates the state of the resources. The analytics engine also provides for proactive prediction which can determine the point in the future when a resource will reach a predefined critical level.

VMware vRealize Operations for HPE SimpliVity can be installed with the standard edition. However, you would need an advanced or an enterprise license to run the management pack as of now. See licensing on page 8 for more details.

## Installation

Installing VMware vRealize Operations for HPE SimpliVity.

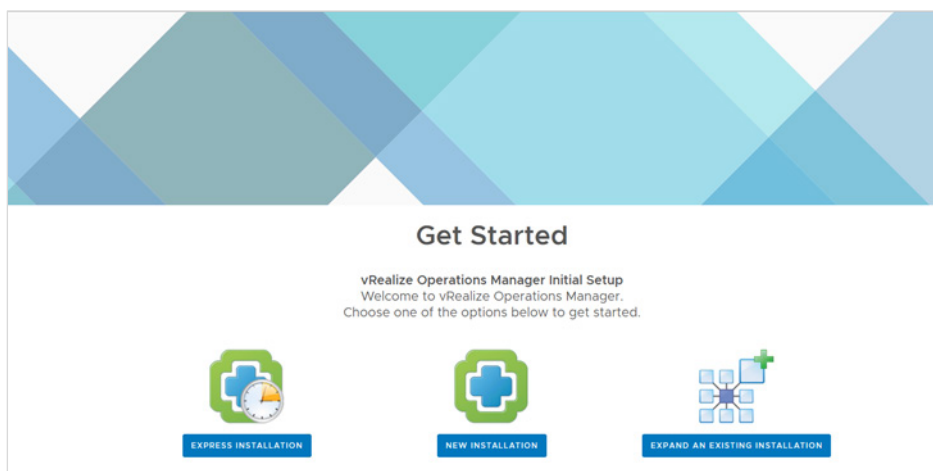
### Prerequisites

For prerequisites, see the vRealize Operations Manager vApp Deployment and Configuration Guide located at: [docs.vmware.com/en/vRealize-Operations-Manager/7.5/vrealize-operations-manager-75-vapp-deploy-guide.pdf](https://docs.vmware.com/en/vRealize-Operations-Manager/7.5/vrealize-operations-manager-75-vapp-deploy-guide.pdf).

VMware vRealize Operations for HPE SimpliVity is compatible with VMware vRealize Operations versions 7.5.x and with HPE OmniStack software versions 3.7.5 and above.

### Procedure

1. Download the vROps application as an OVA file from the link: [my.vmware.com/web/vmware/details?downloadGroup=VROPS-750&productId=742&rPid=33981](https://my.vmware.com/web/vmware/details?downloadGroup=VROPS-750&productId=742&rPid=33981).
2. Follow the installation procedure mentioned in the deployment and installation guide for vROps 7.5, available in the official VMware site.
3. After the deployment is finished, log in to the IP through your browser **https://<IP>** and select the appropriate option below based on your need.



4. The below steps are for a "New installation."
5. Follow the steps to set up your admin password and choose the certificates.



6. Choose a name for your master node and add the NTP server address.

vRealize Operations  
Manager Initial Setup

1 Getting Started

2 Set Administrator Password

3 Choose Certificate

4 Deployment Settings

5 Add Nodes

6 Ready To Complete

Deployment Settings

×

Enter general settings for this cluster deployment.

Cluster Master Node Name: MY\_MASTER\_NODE

Enter Network Time Protocol servers that will be used to synchronize time across nodes in the cluster.

NTP Server Address: 

ADD

NTP Servers	Status	
10.20.4.12	✓	Remove

CANCEL

BACK

NEXT

7. After the configuration is complete, start the VMware vRealize® Operations Manager™.

Installing the VMware vRealize Operations for HPE SimpliVity

8. Download the ZIP file from [github.com/HewlettPackard/simplivity-vrops-plugin](https://github.com/HewlettPackard/simplivity-vrops-plugin)
9. Unzip the downloaded file.
10. Open a browser window and log in to the vRealize Operations GUI as the admin user.
11. From the vRealize Operations home page, click the Administration icon, located on the vRealize Operations toolbar.
12. The Solutions tab is displayed.

Solutions

+

🔍

⌵

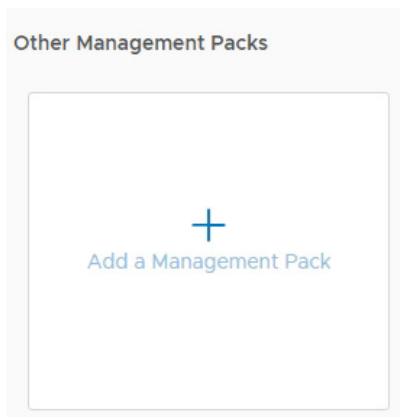
Show: All Solutions

⌵

Name	Description	Version	Provided by	Licensing
VMware vSphere	Manages vSphere objects such as Clust...	6.0.8183622	VMware Inc.	Not applicable
VMware vSAN	Manages and Discovers vSAN Devices	2.0.0.8183627	VMware Inc.	Not applicable
VMware vRealize Log Insight	Management Pack for VMware vRealize ...	6.0.8183621	VMware Inc.	Not applicable
VMware vRealize Business for Cloud	Management Pack for VMware vRealize ...	6.0.7962514	VMware Inc.	Not applicable
VMware vRealize Automation	Manages vRealize Automation objects s...	4.0.8183624	VMware Inc.	Not applicable



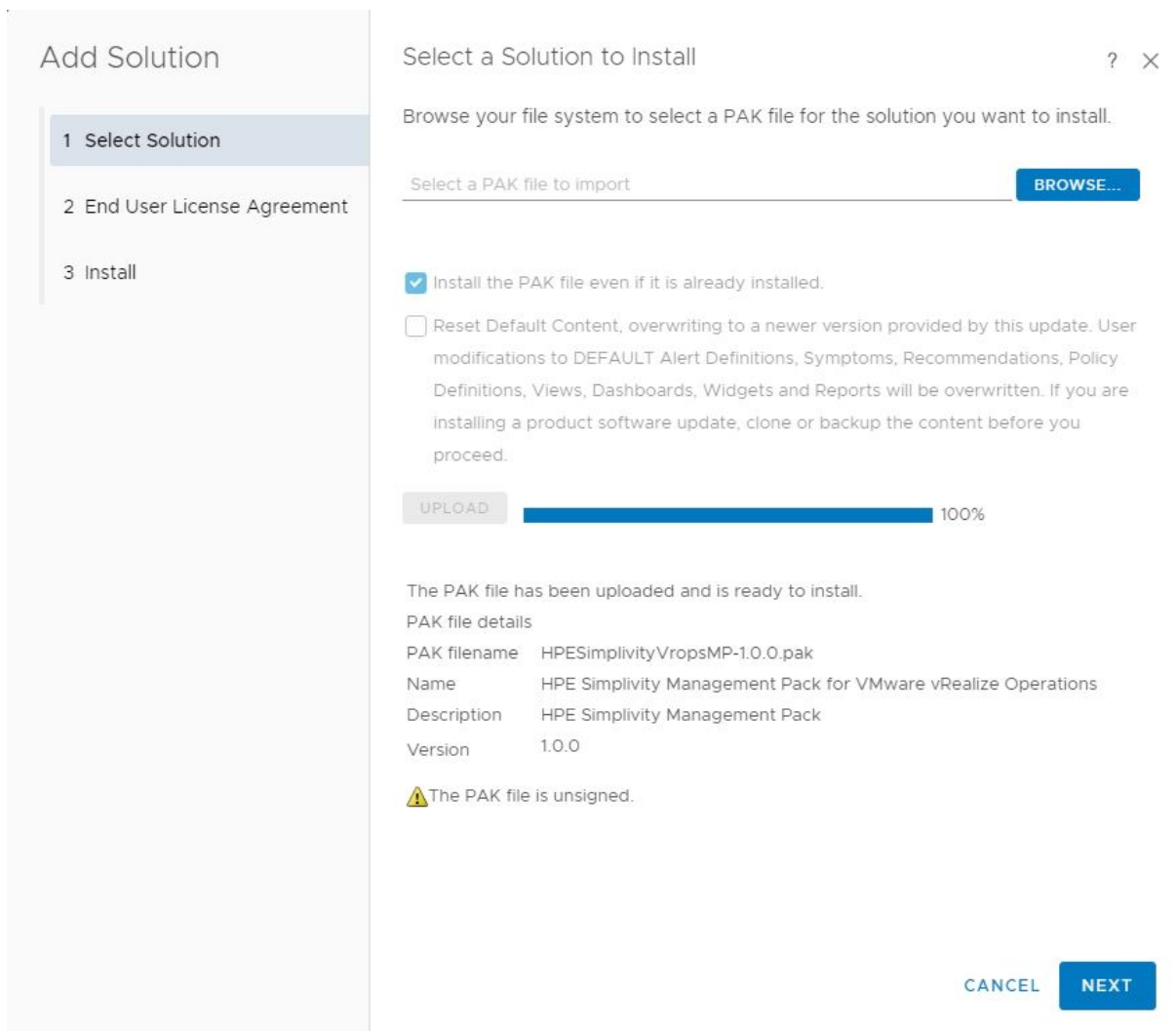
13. Click **Repository** tab under Solutions on the left and choose the **Add a Management Pack** option below.



14. The Add Solution install dialog box is displayed.

15. Click **Browse a solution** and select HPESimplivityVropsMP-x.x.x.pak file from the unzipped files above.

16. Click **Upload**.

A screenshot of the "Add Solution" dialog box. On the left is a sidebar with three steps: "1 Select Solution" (highlighted), "2 End User License Agreement", and "3 Install". The main area is titled "Select a Solution to Install" and contains a text input field with the placeholder "Select a PAK file to import" and a "BROWSE..." button. Below this is a checkbox labeled "Install the PAK file even if it is already installed." which is checked. Another unchecked checkbox is labeled "Reset Default Content, overwriting to a newer version provided by this update. User modifications to DEFAULT Alert Definitions, Symptoms, Recommendations, Policy Definitions, Views, Dashboards, Widgets and Reports will be overwritten. If you are installing a product software update, clone or backup the content before you proceed." Below the checkboxes is an "UPLOAD" button and a progress bar showing 100%. A message states "The PAK file has been uploaded and is ready to install." followed by "PAK file details" and a table:

PAK filename	HPESimplivityVropsMP-1.0.0.pak
Name	HPE Simplivity Management Pack for VMware vRealize Operations
Description	HPE Simplivity Management Pack
Version	1.0.0

A warning icon and text state "The PAK file is unsigned." At the bottom right are "CANCEL" and "NEXT" buttons.

17. Click **Next** to advance to EULA.



## Add Solution

- 1 Select Solution
- 2 End User License Agreement
- 3 Install

### End User License Agreement

? X

Read and agree to the End User License Agreement to continue.

This is a place holder for END USER LICENSE AGREEMENT.

☒ I accept the terms of this agreement

CANCEL BACK NEXT

18. Install the solution in the next screen after you have read and accepted the EULA.



## Add Solution

- 1 Select Solution
- 2 End User License Agreement
- 3 Install

## Install Solution

The selected solution is being installed.

Installation Details

Node Address: 10.170.18.27  
State: Preapply Validated (Candidate)

Node Address: 10.170.18.27  
State: Applied System Update (Candidate)

Node Address: 10.170.18.27  
State: Applied Adapter Pre Script (Candidate)

Node Address: 10.170.18.27  
State: Applied Adapter (Candidate)


Node Address: 10.170.18.27  
State: Applied Adapter Post Script (Candidate)

Node Address: 10.170.18.27  
State: Applied and Cleaned (Completed)

**FINISH**

19. Go to **Configuration** and click on the HPE SimpliVity solution we installed on the previous step.

Solutions				
Show: All Solutions				
Name	Description	Version	Provided by	Licensing
VMware vSphere	Manages vSphere objects such as Clusters, Hosts...	7.5.13165964	VMware Inc.	Not applicable
VMware vRealize Assessments	Management Pack for VMware vRealize Assessments	7.5.13165955	VMware Inc.	Not applicable
HPE SimpliVity Management Pack for VMware vRe	HPE SimpliVity Management Pack	1.0.0	HPE SimpliVity	Not applicable

20. Select the  icon at the top of the adapters section to configure vROps to point to HPE SimpliVity OVC.



21. Enter the VMware vCenter® details in the pop up and save settings.

Manage Solution - HPE Simplify Management Pack for VMware vRealize Opera... ? x

Adapter Type	Description	Instances	Version	Provided by	Reset Default Content
HPE Simplify Vrops Adapter	HPE Simplify Vrops Adapter	0	1.0.0	HPE Simplify	

+ x

Instance Name ↑

HPE Simplify Adapter

Instance Settings

Display NameHPE Simplify Adapter

DescriptionAdapter to monitor Simplivity Specific Info

Basic Settings

HPE Simplivity Host name or IP<simplivity Host IP>

Credential<Example> x v + ✎

TEST CONNECTION

> Advanced Settings

SAVE SETTINGS

CLOSE

Enter the following information:

- a. **Display Name**—A name for the HPE SimpliVity Adapter Instance that is being configured.
- b. **Description**—The Description of the HPE SimpliVity Adapter Instance.
- c. **HPE SimpliVity Host IP**—Provide OVC IP of the Host.

Note

A single OVC IP is sufficient to monitor the entire Federation the host belongs to.

- d. Credential—Click +
  - I. Credential Name: Provide Name
  - II. HPE SimpliVity User Name: Enter HPE SimpliVity user name
  - III. HPE SimpliVity Password: Enter HPE SimpliVity password

22. Click **Test Connection** to make sure vROps can access your OVC.

Note

You need to get a “Test was successful” message to proceed further.

23. Click **Save Settings**.

24. The HPE SimpliVity adapter instance appears in the **Configured Adapter instances** list.




25. The adapter starts to collect data (Usually takes a few minutes).

### Note

1. To monitor multiple federations, configure multiple adapter instances (Follow procedure above), and add OVC IPs from each fed.
2. Please make sure all the Federations to be monitored are reachable from the network the vROps appliance is configured on.

## Delete the adapter instance

- Select the adapter instance and click  to uninstall the solution.

## Licensing

VMware vRealize Operations for HPE SimpliVity has a permissive Open Source license (MIT). You need an HPE SimpliVity license for each host you will be monitoring with this integration and VMware vRealize Operations.

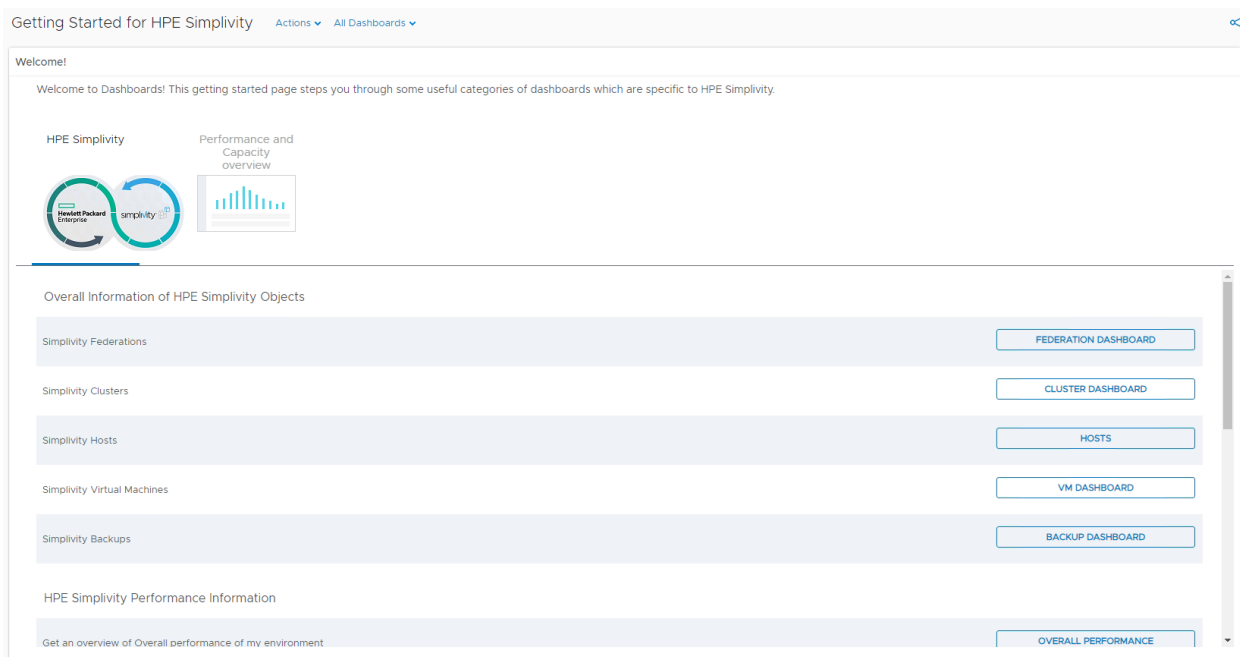
VMware vRealize Operations license (Advanced) must also be acquired for each of the hosts as per VMware licensing guidelines.

## Dashboards

### Getting Started Dashboard

The Getting Started Dashboard provides a comprehensive view of all the dashboards which are shipped as part of the Management pack. The links provided as part of the dashboard navigate to the respective dashboards.

A Sample screenshot of the dashboard is shown below. Please make use of this dashboard to get started with the Management pack.





## Host Dashboard

The HPE SimpliVity Host Dashboard provides information pertaining to capacity, Performance and compliance information related to the monitored hosts.

A cumulative information of all the hosts along with information pertaining to the selected host can be viewed with the widgets provided as part of the dashboard.

The Metrics provided as part of the Host Dashboard are:

Host	<b>Capacity</b> <ul style="list-style-type: none"><li>• Allocated Capacity</li><li>• Capacity Savings</li><li>• Compression Ratio</li><li>• Deduplication Ratio</li><li>• Efficiency Ratio</li><li>• Free Space</li><li>• Local Backup Capacity</li><li>• Remote Backup Capacity</li><li>• Used Capacity</li><li>• Used Logical Capacity</li><li>• Stored Compressed Data</li><li>• Stored Uncompressed Data</li><li>• Stored Virtual Machine Data</li></ul> <b>Performance</b> <ul style="list-style-type: none"><li>• Throughput Write</li><li>• Throughput Read</li><li>• Latency Read</li><li>• Latency Write</li><li>• IOPS Read</li><li>• IOPS Write</li></ul>
------	--

## Cluster Dashboard

The HPE SimpliVity Cluster Dashboard provides information pertaining to capacity, Performance and compliance information related to the monitored Cluster.

A cumulative information of all the clusters along with information pertaining to the selected cluster can be viewed with the widgets provided as part of the dashboard.

The metrics provided as part of the Cluster Dashboard are:

Cluster	<b>Capacity</b> <ul style="list-style-type: none"><li>• Allocated Capacity</li><li>• Capacity Savings</li><li>• Compression Ratio</li><li>• Deduplication Ratio</li><li>• Efficiency Ratio</li><li>• Free Space</li><li>• Local Backup Capacity</li><li>• Remote Backup Capacity</li><li>• Used Capacity</li><li>• Used Logical Capacity</li></ul> <b>Performance</b> <ul style="list-style-type: none"><li>• Throughput Write</li><li>• Throughput Read</li><li>• Latency Read</li><li>• Latency Write</li><li>• IOPS Read</li><li>• IOPS Write</li></ul>
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## VM (Virtual Machine) Dashboard

The HPE SimpliVity VM (Virtual Machine) Dashboard provides information pertaining to capacity, Performance and compliance information related to the monitored Virtual Machines.

A cumulative information of all the Virtual Machines along with information pertaining to the selected Virtual Machine can be viewed with the widgets provided as part of the dashboard.

The Metrics provided as part of the VM dashboard are:

VM	Capacity
	<ul style="list-style-type: none"><li>Allocated Capacity</li><li>Capacity Savings</li><li>Compression Ratio</li><li>Deduplication Ratio</li><li>Efficiency Ratio</li><li>Free Space</li><li>Local Backup Capacity</li><li>Remote Backup Capacity</li><li>Used Capacity</li><li>Used Logical Capacity</li><li>Stored Compressed Data</li><li>Stored Uncompressed Data</li><li>Stored Virtual Machine Data</li></ul>
	Performance
	<ul style="list-style-type: none"><li>Throughput Write</li><li>Throughput Read</li><li>Latency Read</li><li>Latency Write</li><li>IOPS Read</li><li>IOPS Write</li></ul>

## Backup Dashboard

The HPE SimpliVity Backup Dashboard has a list of all the HPE SimpliVity objects (Hosts, Clusters, VMs etc.) as its first widget. When a particular Object is selected, the list of backups and associated information for all the backups is displayed in the subsequent widgets.

The Metrics provided as part of the Backup Dashboard are:

Backup	
	<ul style="list-style-type: none"><li>Size</li><li>Unique Size Bytes</li><li>Virtual Machine Name</li><li>Created At</li><li>Datastore Name</li><li>Virtual Machine State</li><li>Policy</li><li>Sent Completion Time</li></ul>

## Performance Dashboard

The HPE SimpliVity Performance Dashboard has a consolidated information of performance of all the HPE SimpliVity objects which are monitored as part of the Management Pack.

The performance metrics displayed as part of this dashboard are from the performance metrics collected for individual objects. (See tables above)

## Capacity Dashboard

The HPE SimpliVity Capacity Dashboard has a consolidated information of Capacity of all the HPE SimpliVity objects which are monitored as part of the Management Pack.

The Capacity metrics displayed as part of this dashboard are from the capacity metrics collected for individual objects. (See tables above)



## Additional Dashboards

There are few more Additional Dashboards which come with the MP. These dashboards display performance and capacity information specific to the HPE SimpliVity objects which are monitored. You can find these dashboards as part of the getting started dashboard.

## Troubleshooting

### Debug logging

Debug logs are a valuable tool to the administrator. These help you to troubleshoot the problems, you may encounter.

This section describes how to enable or disable the debug logging in the OneView for VMware vRealize Operations adapter.


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#### Note

Debug logging is disabled by default.

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#### To enable debug logging:

1. Log in to the VMware vRealize Operations Manager user interface with administrator privileges.
2. Click the **Administration** tab, click **Support > Logs**.
3. Select **Log Type** from the **Group** drop-down menu.
4. Expand the **Collector** folder.
5. Select the node on which the Hewlett Packard Enterprise adapter instance is running, and then click **Edit Properties**.
6. Click .
7. Add the text **com.hpe** in the dialog input box. Click **OK**.
8. Click the logging level for the **com.hpe** in the Logging Level column. A drop-down menu appears.
9. Select the **DEBUG** logging level from the drop-down.

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#### Note

To prevent huge log files, set the Debug logging time only for short periods.

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10. Click **OK** to save the changes.

#### To disable debug logging:

1. Log in to the VMware vRealize Operations Manager user interface with administrator privileges.
2. Click the **Administration** tab, click **Support > Logs**.
3. Select Log Type from the **Group** drop-down menu.
4. Expand the **Collector** folder.
5. Select the node on which the Hewlett Packard Enterprise adapter instance is running, and then click **Edit Properties**.
6. Click the logging level for the **com.hpe** in the Logging Level column. A drop-down menu appears.
7. Select the **WARNING** logging level from the drop down menu.
8. Click **OK** to save your changes.

## Support and other resources

### Updates

Subsequent updates to the MP for newer versions of VMware vROps would be released in the public GitHub site itself and the release information can be found in the release notes under this link: [github.com/HewlettPackard/simplivity-vrops-plugin/blob/master/README.md](https://github.com/HewlettPackard/simplivity-vrops-plugin/blob/master/README.md)

### Issues and feedback

Issues pertaining to the management pack can be raised in the issues tab in the public GitHub repo.

Any feedback/enhancements to be proposed can be done in the same tab with relevant tags.

The issues tab can be found here: [github.com/HewlettPackard/simplivity-vrops-plugin/issues](https://github.com/HewlettPackard/simplivity-vrops-plugin/issues).



### Documentation feedback

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