

Lenovo

Lenovo XClarity Integrator for VMware vRealize Operations Manager Installation and User Guide



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About this publication

The document provides a brief walkthrough of the installation and configuration of the Lenovo XClarity Management Pack (MP) (Lenovo XClarity Adapter or plugin) developed for VMware vRealize Operations Manager (vROps). In a nutshell, this document describes how to install, configure, and use the plugin.

Conventions and terminology

Table 1. Conventions

Convention	Description
Bold	Indicates text on a window, besides the window title, it includes menus, menu options, buttons, fields, and labels. Example: Click OK .
<i>Italic</i>	Indicates a variable, which is a placeholder for the actual text provided by the user or system. Example: copy <source-file> <target-file> Note: Angled brackets (< >) are also used to indicate variables.
DIALOG BOX / CODE	Indicates text displayed in the dialog box or if you have entered. For example: # PAIRDISPLAY -G ORADB
Note	These notices provide important tips, guidance, and advice.

Table 2. Terminology

Term/acronym	Full Name
LXCA	Lenovo XClarity Administrator
MP	Management Pack
PFA	Predicted failure alerts
vROps	VMware vRealize Operations Manager
vSAN	Virtual storage area network
vRLI	VMware vRealize Log Insight
XCC	Lenovo XClarity Controller

Web resources

You can find additional information about Lenovo XClarity Integrator for VMware vRealize Operations Manager in the product documentation and on the Web.

Lenovo XClarity Integrator for VMware vRealize Operations Manager website

Locate the latest downloads for the Lenovo XClarity Integrator for VMware vRealize Operations Manager:

- [Lenovo XClarity Integrator for VMware vRealize Operations Manager](#)

System Management with Lenovo XClarity Solutions

This Web site provides an overview of the Lenovo XClarity solutions that integrate System x and Flex System hardware to provide system management capability:

- [System Management with Lenovo XClarity Solution website](#)

Lenovo technical support portal

This Web site can assist you in locating support for hardware and software:

- [Lenovo Support Portal website](#)

ServerProven Web sites

The following Web sites provide an overview of hardware compatibility for BladeCenter, Flex System, System x, and x Series hardware:

- [Lenovo ServerProven: Compatibility for BladeCenter products](#)
- [Lenovo ServerProven: Compatibility for Flex System Chassis](#)
- [Lenovo ServerProven: Compatibility for System x hardware, applications, and middleware](#)

vRealize Operations Manager website

Locate documentation in several formats to assist you with installing, using, and developing with VMware vRealize Operations Manager

- [VMware vRealize Operations Manager Documentation website](#)

Chapter 1. Lenovo XClarity Adapter introduction

The Lenovo XClarity Management Pack (MP) developed for VMware vRealize Operations Manager (vROps) monitor the health, capacity, and performance of Lenovo XClarity Administrator (LXCA) resources. It provides visibility to the Lenovo XClarity resources in the Lenovo XClarity Administrator (LXCA).

The MP collects data from the LXCA resources, identifies any issues, facilitates the monitoring of workload issues, and suggests corrective actions.

It also helps you drill down to assess the health of a single resource so that you can use the resource as optimal.

Lenovo XClarity Adapter overview

The management pack for Lenovo vRealize & Analytics Integration for Lenovo vSAN Ready Nodes utilizes the vROps analytics and UI engine to collect data from Lenovo VX series vSAN Ready Nodes and monitor it. The MP for Lenovo XClarity Adapter includes the following features with the vROps UI:

- A predefined dashboard lists the LXCA resources. It provides a global view of the relationship between resources, such as connected chassis, servers, power supplies, and ESXi connectivity.
- LXCA resources monitoring
- Inventory tree
- Alert notifications and badges enable the administrator to optimize the monitoring and management of the LXCA resources.
- Logs

Chapter 2. Installing the management pack

Administrators install the Lenovo XClarity Administrator's vROps Management Pack to monitor the health, capacity, and performance of the Lenovo XClarity Administrator resources. After installing the management pack, configure the cloud account and then configure an adapter instance. This topic details the following:

- “Prerequisites” on page 3
- “Configuring the cloud account” on page 3
- “Installing the Lenovo XClarity Adapter” on page 6
- “Adding an adapter instance” on page 12
- “Removing the Lenovo XClarity adapter” on page 16

Prerequisites

Before installing Lenovo XClarity vROps Management Pack, verify that you have configured your environment according to the requirements in this section.

Component	Supported version
VMware vCenter Server	6.7 and 7.0
VMware vRealize Operations Manager	8.0, 8.1, 8.2, and 8.3
Lenovo Servers	ThinkSystem servers and ThinkAgile VX servers
Lenovo XClarity Administrator	3.1.0 and 3.2.0
Supported web browsers	Chrome (89.0 and above), Firefox (83.0 and above)

Configuring the cloud account

Configure the cloud account as mentioned in this topic to display the vSAN Hardware Topology.

Before you begin

- Ensure that you have installed the Lenovo XClarity adapter using the PAK file.
- Ensure that the prerequisites are met. For more details, see “Prerequisites” on page 3.

Procedure

To configure the cloud account, complete the following steps:

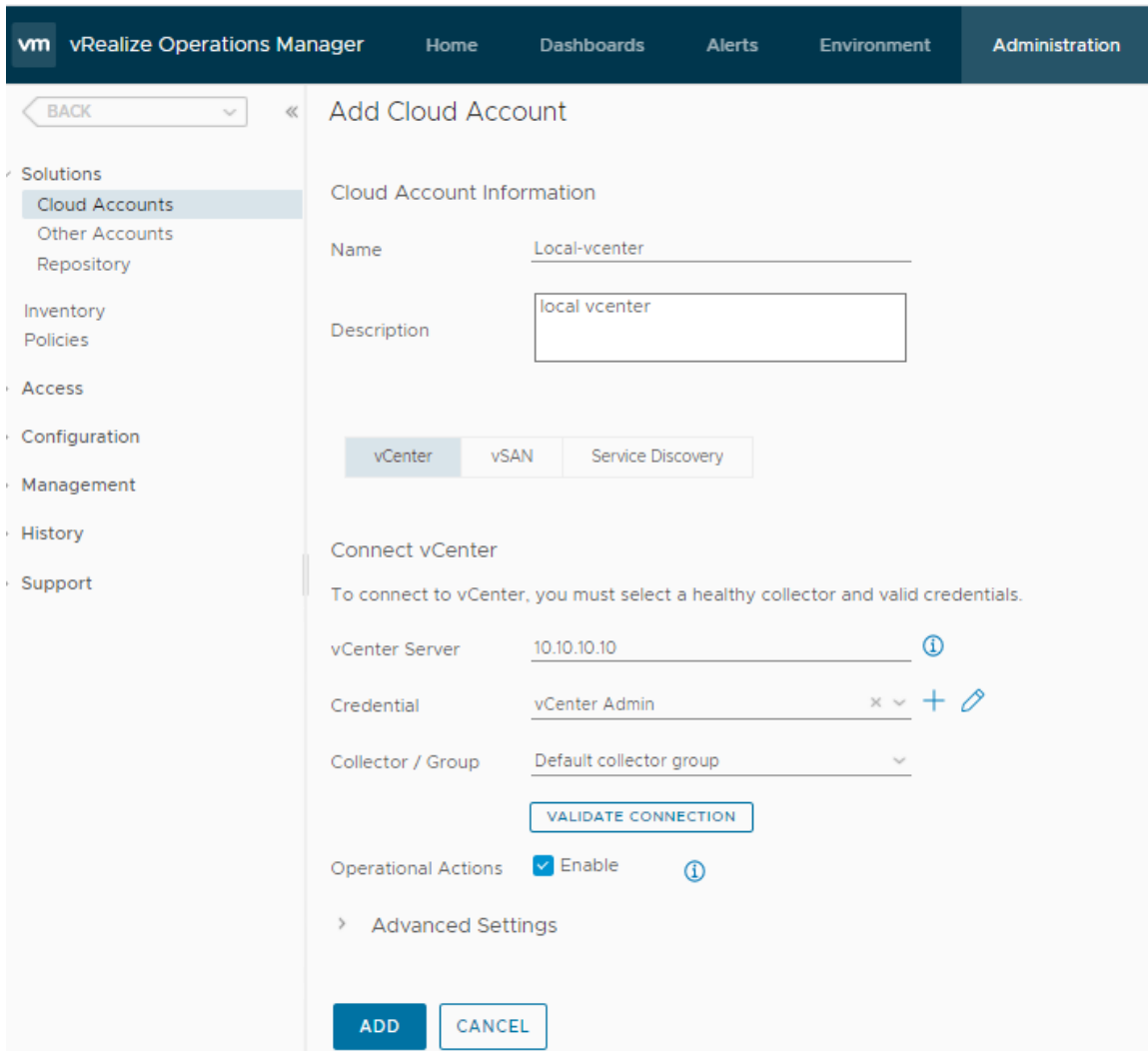
1. Start the vRealize Operations Manager administrative user interface in your web browser and log in as an administrator.

For example, use the URL https://<vROps_IP_address> where the vROps IP address is the IP of the vROps node.

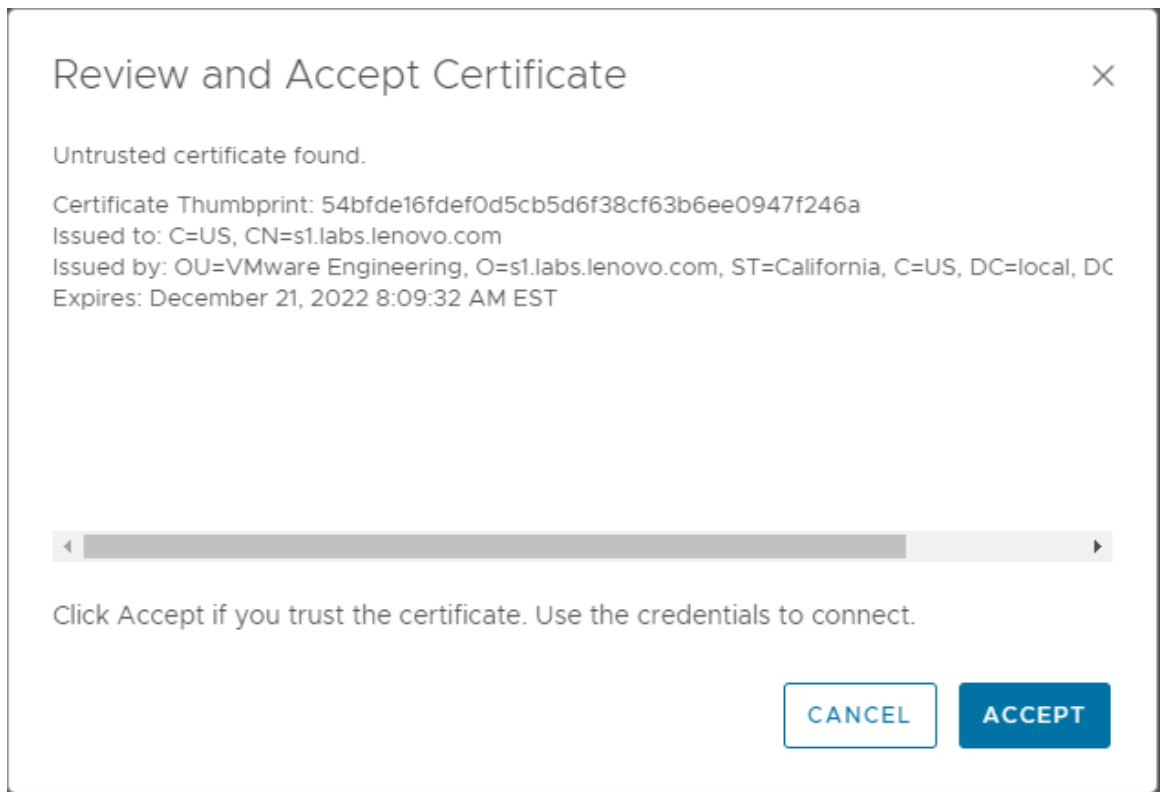
2. Browse the **Administration** tab.

The **Solutions** page is displayed.

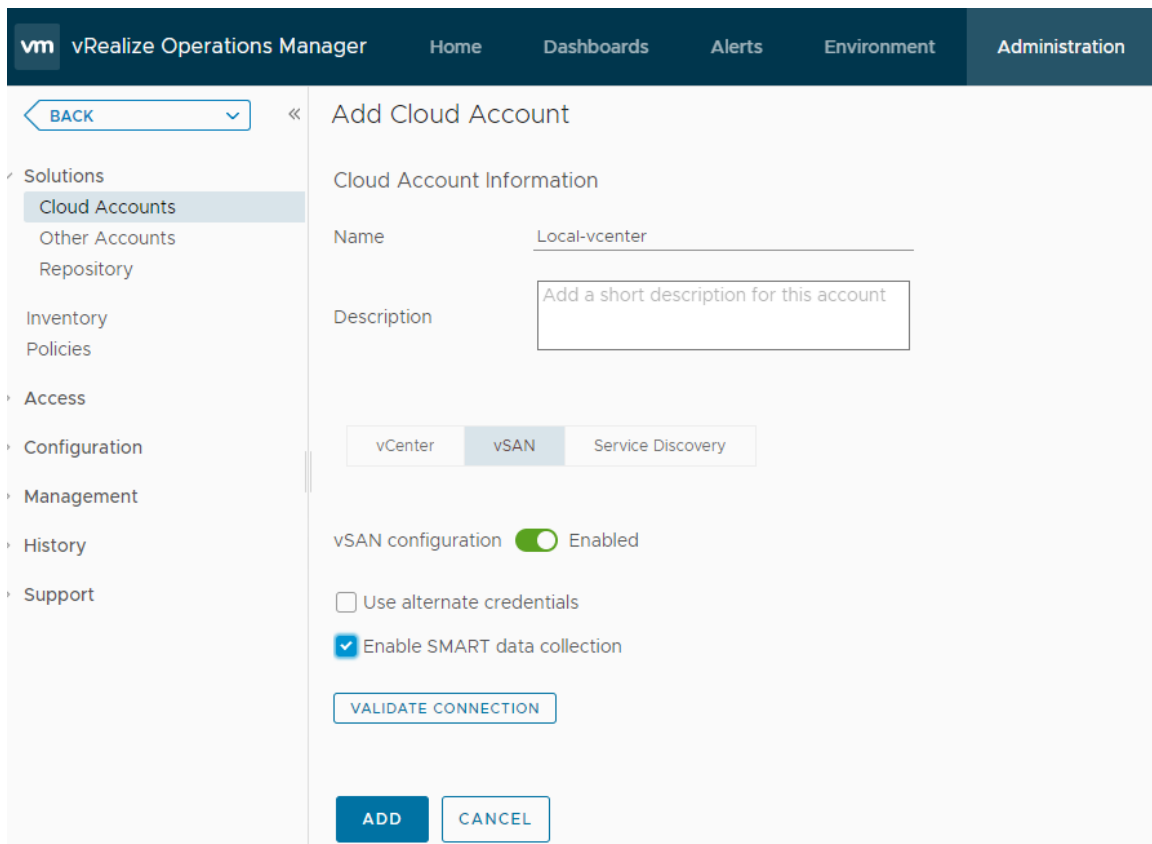
3. Select **Solutions > Cloud Accounts > vCenter > ADD ACCOUNT**.



4. In the **Cloud Account Information** section: Enter an appropriate name (like FQDN) which represents the cloud account you want to connect to in the **Name** field. Optionally, enter the description in the **Description** field.
5. In the **vCenter** tab, enter the following details:
 - **Connect vCenter:** Enter the vCenter Server IP and vCenter credentials.
Credentials: Click the add credentials icon (+), enter the password of the vCenter that you are adding, and click **OK**.



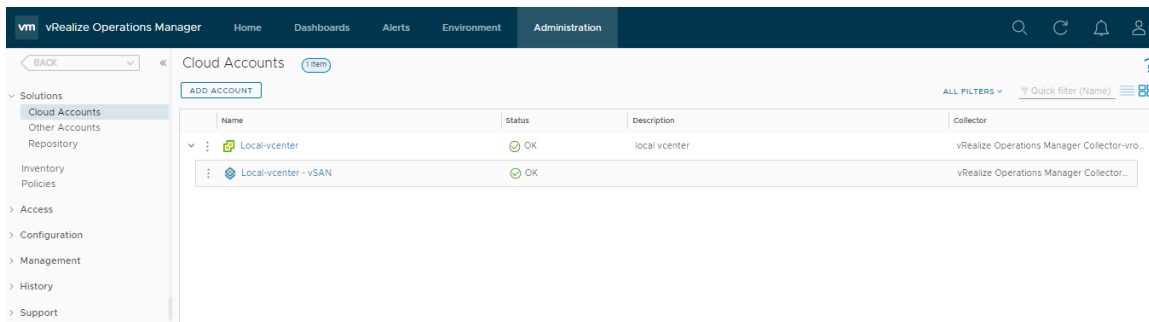
- Validate the connection by reviewing and accepting the certificate by clicking **ACCEPT**.
6. Click the **vSAN** tab and perform the following details:
- Enable the vSAN configuration.
 - Select the **Enable SMART data collection** checkbox.



- Validate the connection by reviewing and accepting the certificate by clicking **ACCEPT**.

7. Click **SAVE**.

The cloud account is configured and listed as follows.



Installing the Lenovo XClarity Adapter

Download the PAK file for VMware vRealize Operations Manager Management Pack for Lenovo XClarity from the VMWare marketplace. Save the PAK file to a folder on your local system.

Before you begin

- Ensure that the vROps 8.0/ 8.1/8.2/8.3 is installed and configured. For more details, see [VMware 8.0 documentation](#), [VMware 8.1 documentation](#), [VMware 8.2 documentation](#), and [VMware 8.3 documentation](#).
- Ensure that you have the PAK file.
- Ensure that the prerequisites are met. For details, see “Prerequisites” on page 3.

Procedure

To install the Lenovo XClarity Adapter, complete the following steps.

1. Start the vRealize Operations Manager user interface in your web browser and log in as an administrator.

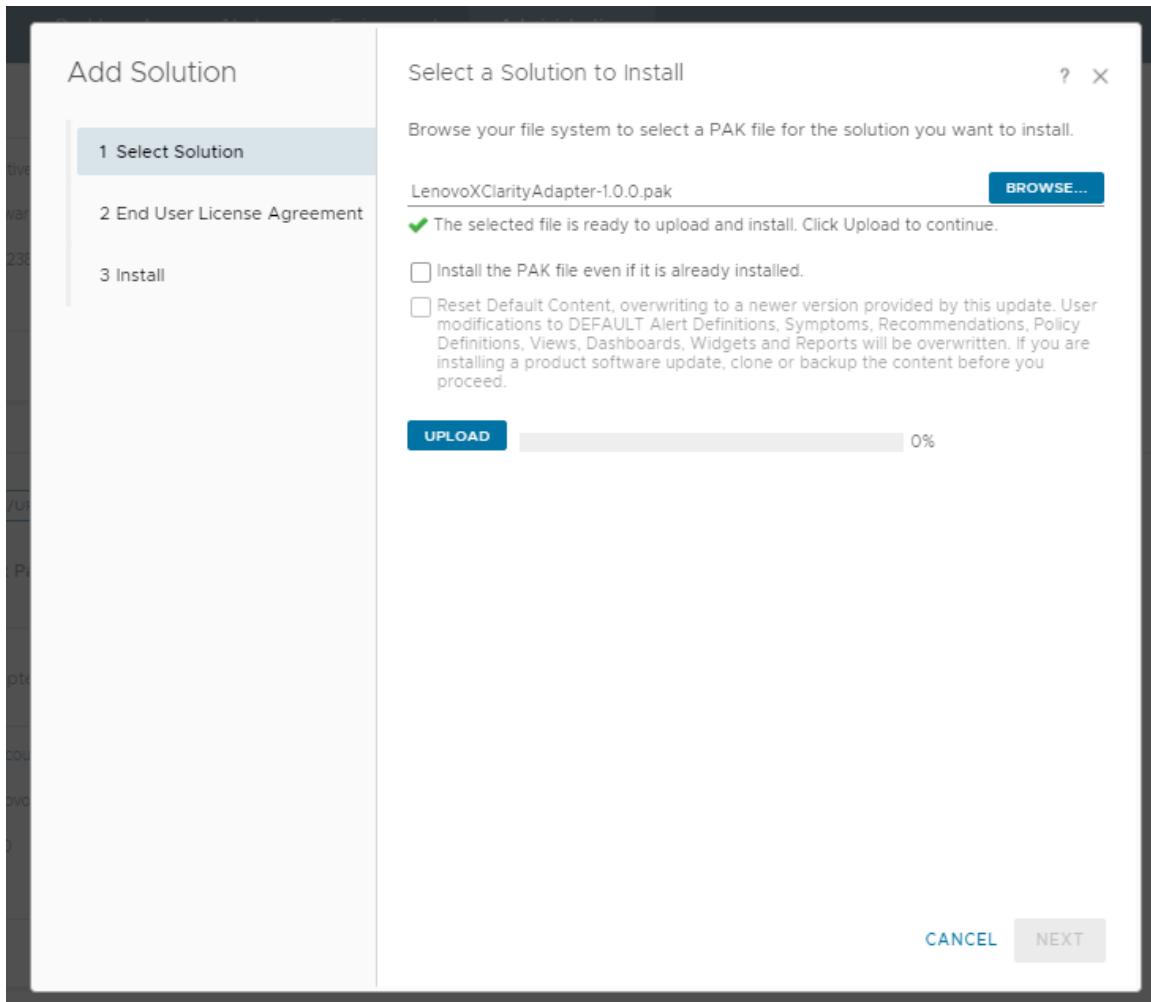
For example, use the URL https://<vROps_IP_address> where the vROps IP address is the IP of the vROps node.

2. Browse the **Administration** tab.

The **Solutions** page is displayed.

3. Navigate to **Solutions > Repository** and then click **ADD/UPGRADE** to upload the PAK file.

The **Add Solution** page is displayed.



4. Click **BROWSE** to go to the location of the management pack files that you are installing. Select the `LenovoXClarityAdapter-1.0.0.pak` file.
5. Select **Install the PAK file...** to override earlier PAK installation if it was previously installed.
6. Select **Reset Default...** to override the existing settings. On selecting this option, the alert definitions, symptoms, recommendations, policy definitions, views, dashboards, and reports are overwritten.

The **Reset Default Content** dialog box is displayed.

Reset Default Content



Performing this action will reset all of the content provided by the selected solution.

WARNING: User modifications to DEFAULT Alert Definitions, Symptoms, Recommendations, Policy Definitions, Views, Dashboards, Widgets and Reports supplied by the selected solution will be overwritten. To save your modifications to default content, clone or backup the content before you proceed.

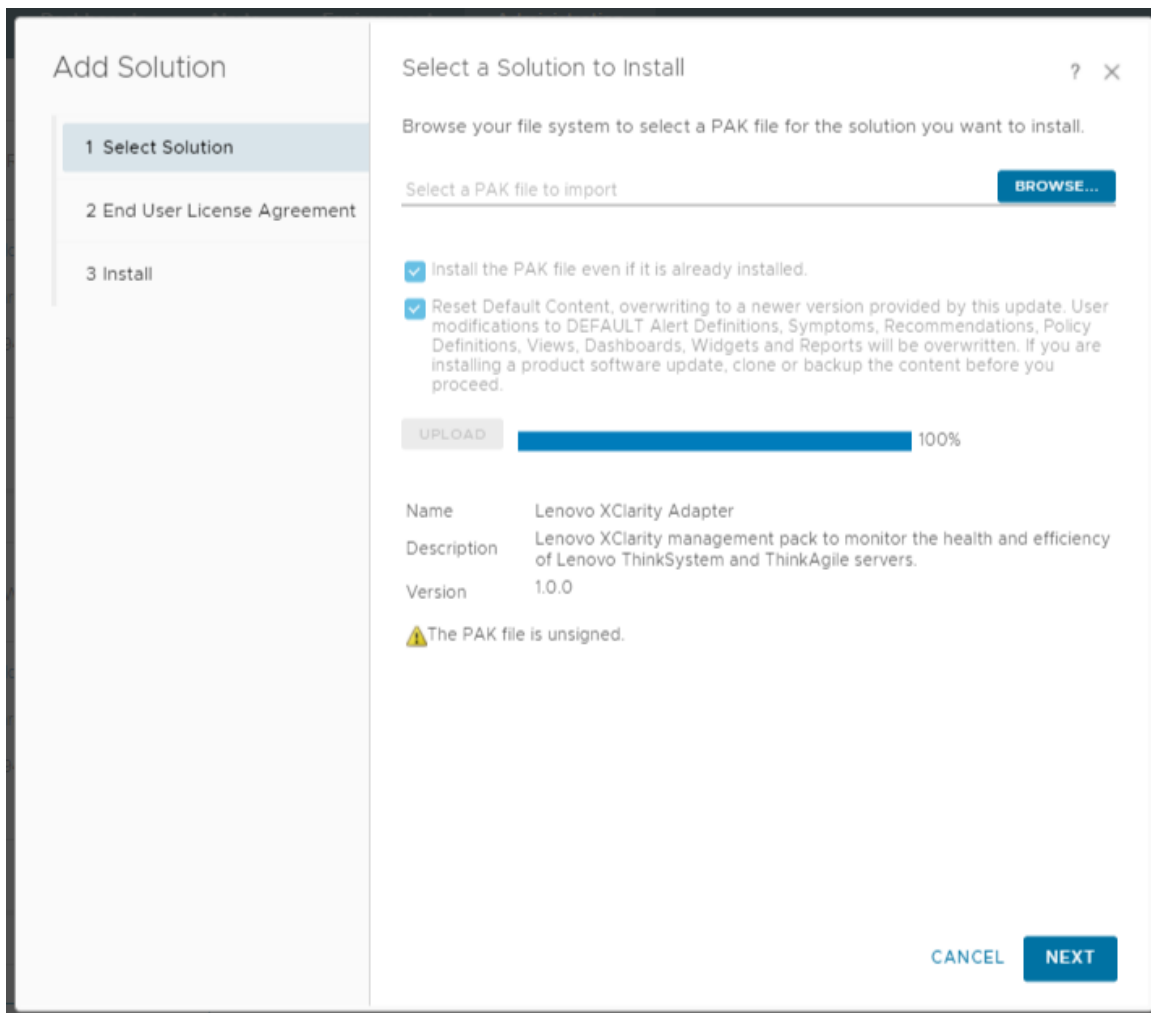
During the reset operation the solution will not be collecting data and the operation could take up to 30 minutes to complete depending on the number of nodes in the vRealize Operations Cluster.

I understand that performing this action will reset the default content for selected solution. I have backed up or cloned default content that has been modified.

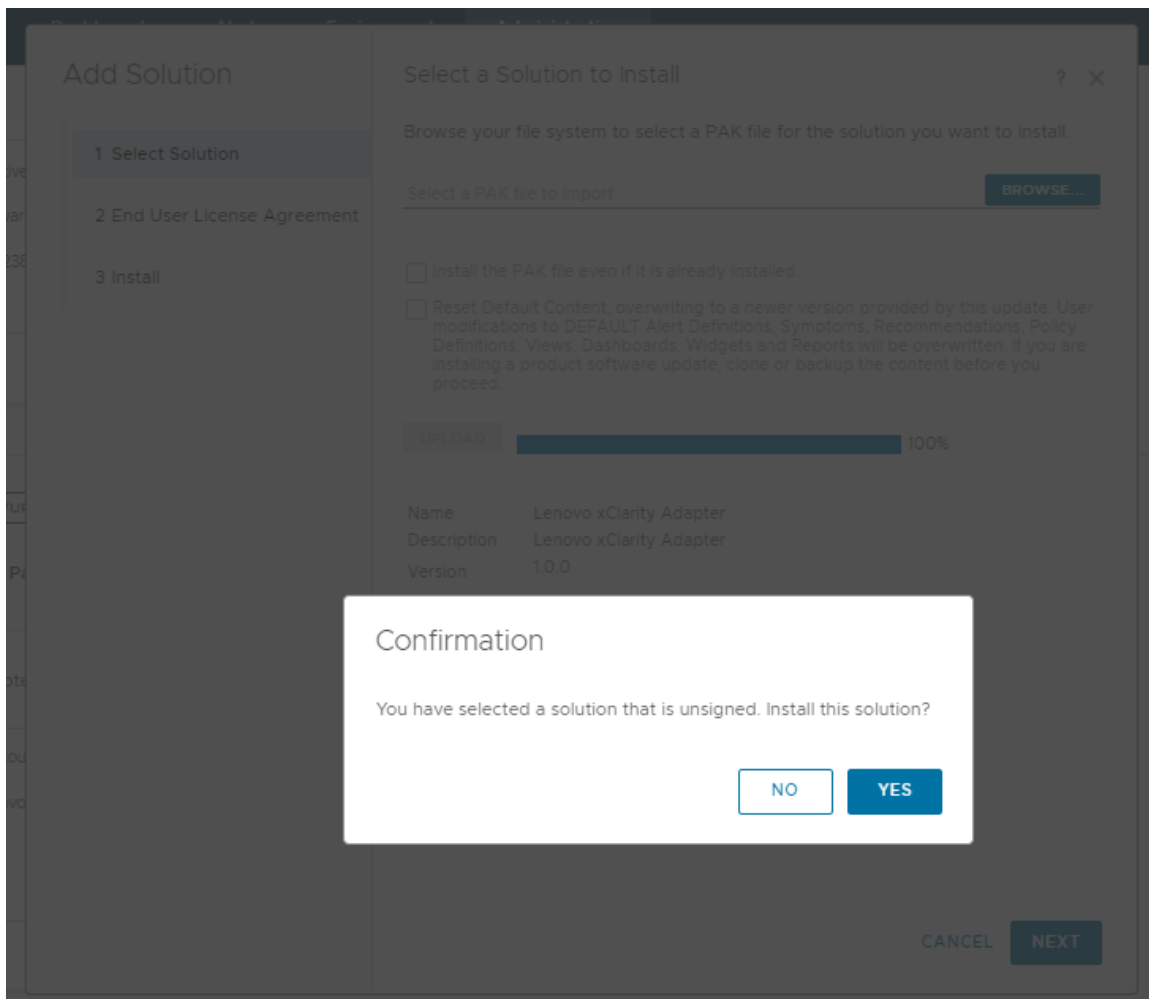
CANCEL

OK

7. Read the warning message and select the **I understand that ..** checkbox and click **OK** to reset default content.
8. Click **UPLOAD** and wait until the .pak file is uploaded.
After the file is uploaded, the summary of the MP is displayed.



9. Click **NEXT** to continue the installation. (If you want to quit the installation, click **CANCEL**.)
A confirmation message is displayed.

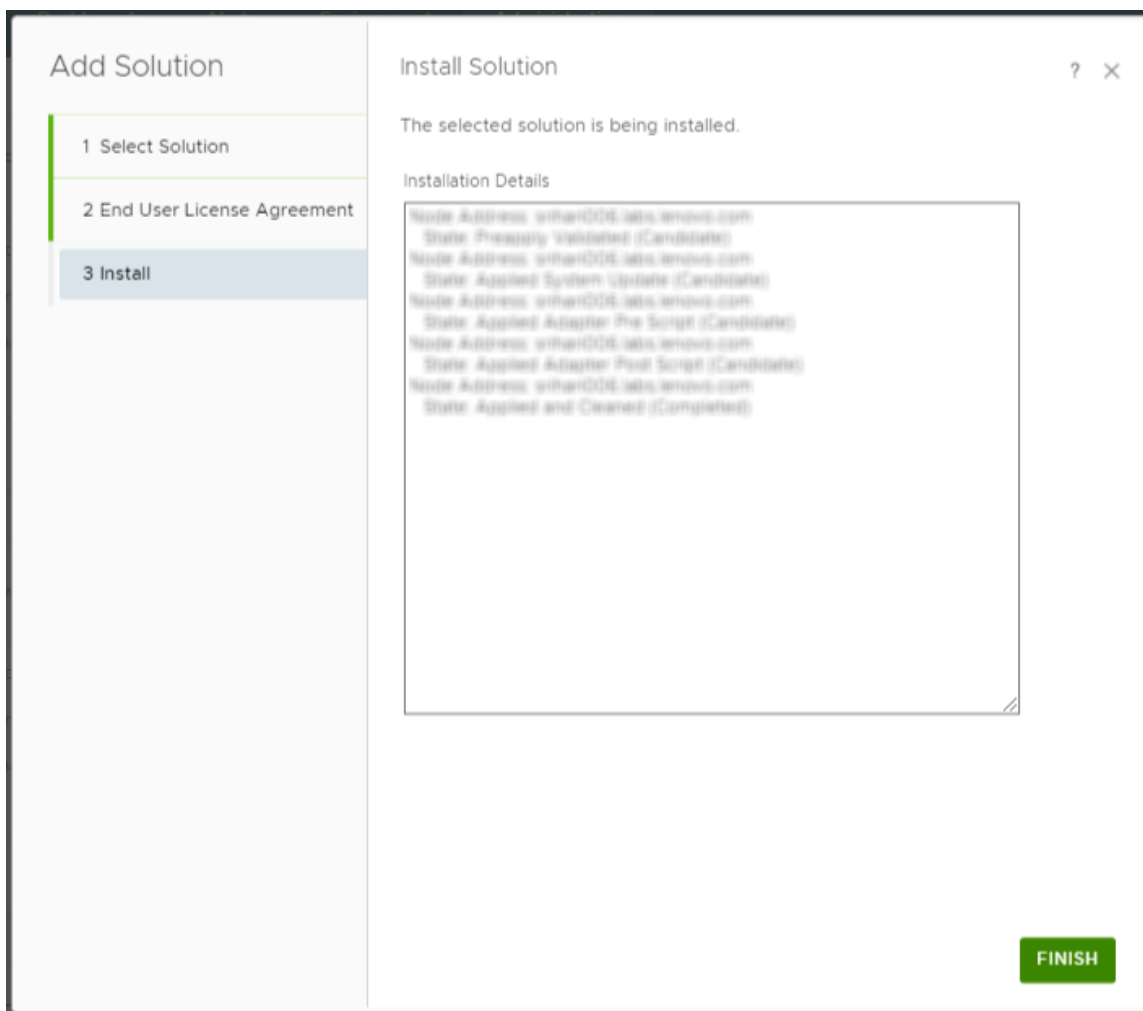


10. Click **YES** to continue the installation with a signed PAK file.

The **End User License Agreement** page is displayed.

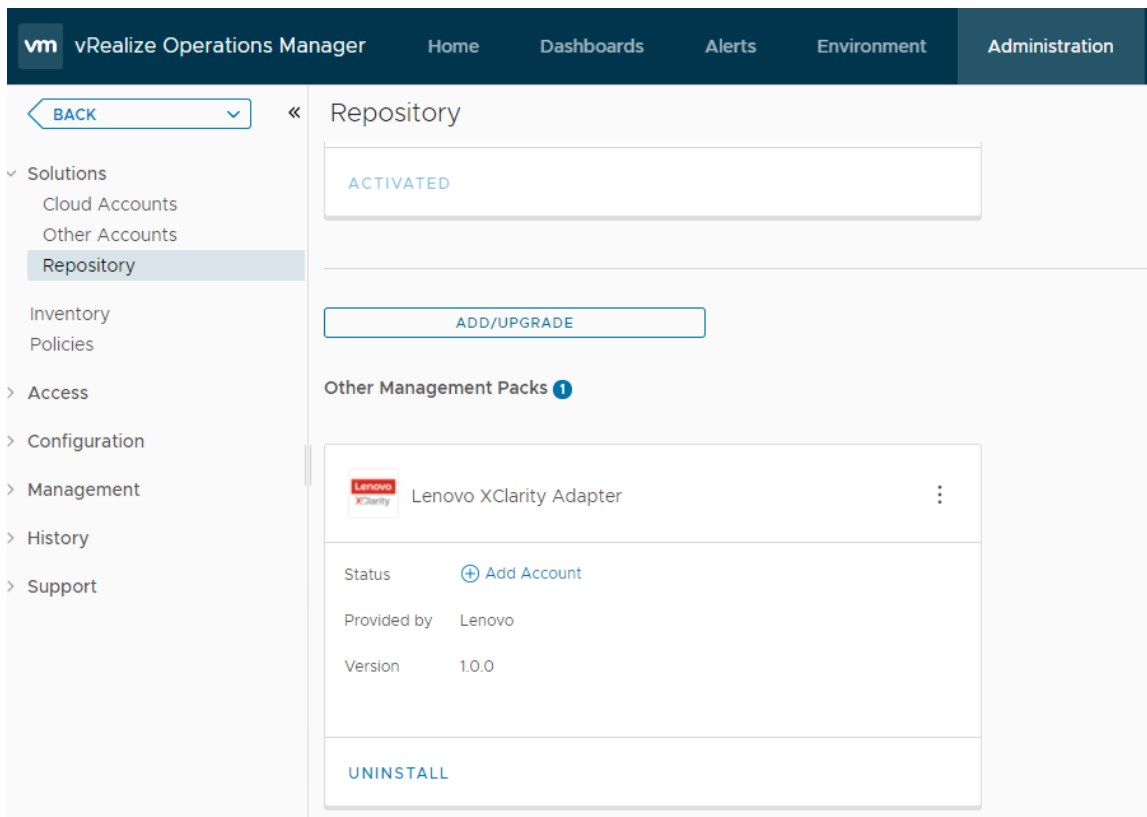
11. Read the End User License Agreement, select the **<I accept the ...>** checkbox. Click **NEXT**.

The management pack installation will be displayed on the **Install Solution** page. The process may take up a few minutes.



12. Click **FINISH**.

On completing the installation, the Lenovo XClarity Adapter is displayed in the list of installed solutions as follows:



Adding an adapter instance

Adapter instances specify the adapter type and the information needed for the vRealize Operations Manager to identify and access resources. The Lenovo XClarity Adapter instances provide access to the resources of the Lenovo XClarity Administrator. Add one adapter instance per LXCA.

Before you begin

- Ensure that you have installed the Lenovo XClarity adapter using the PAK file.
- Ensure that the prerequisites are met. For more details, see “Prerequisites” on page 3.

Procedure

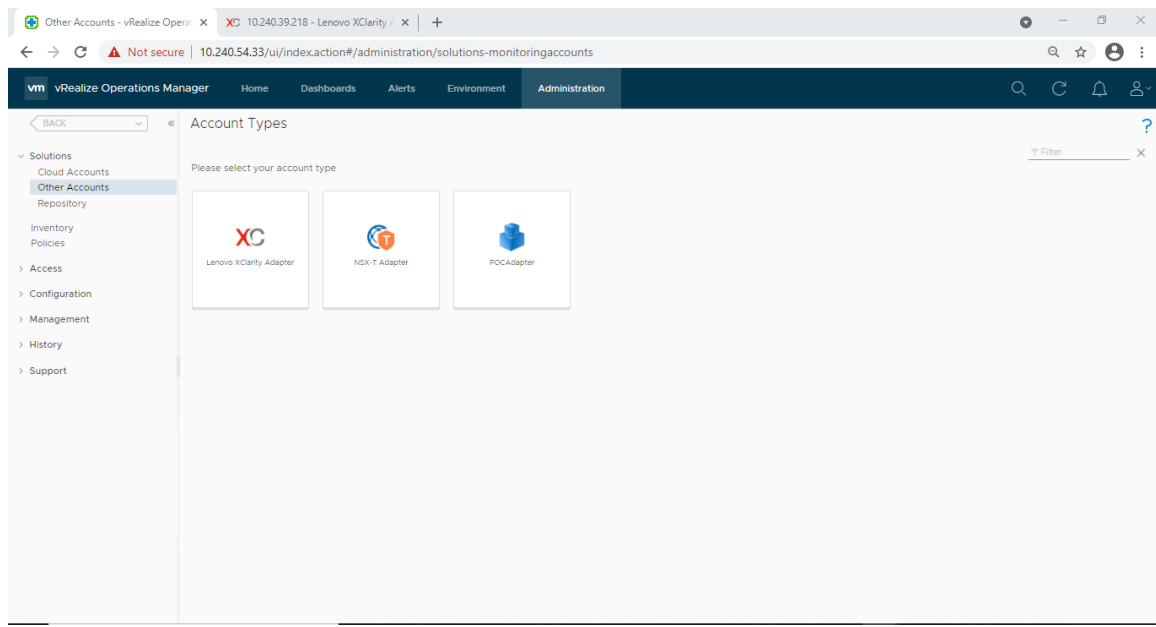
To add an adapter instance, complete the following steps.

1. Start the vRealize Operations Manager administrative user interface in your web browser and log in as an administrator.

For example, use the URL https://<vROps_IP_address> where the vROps IP address is the IP of the vROps node.

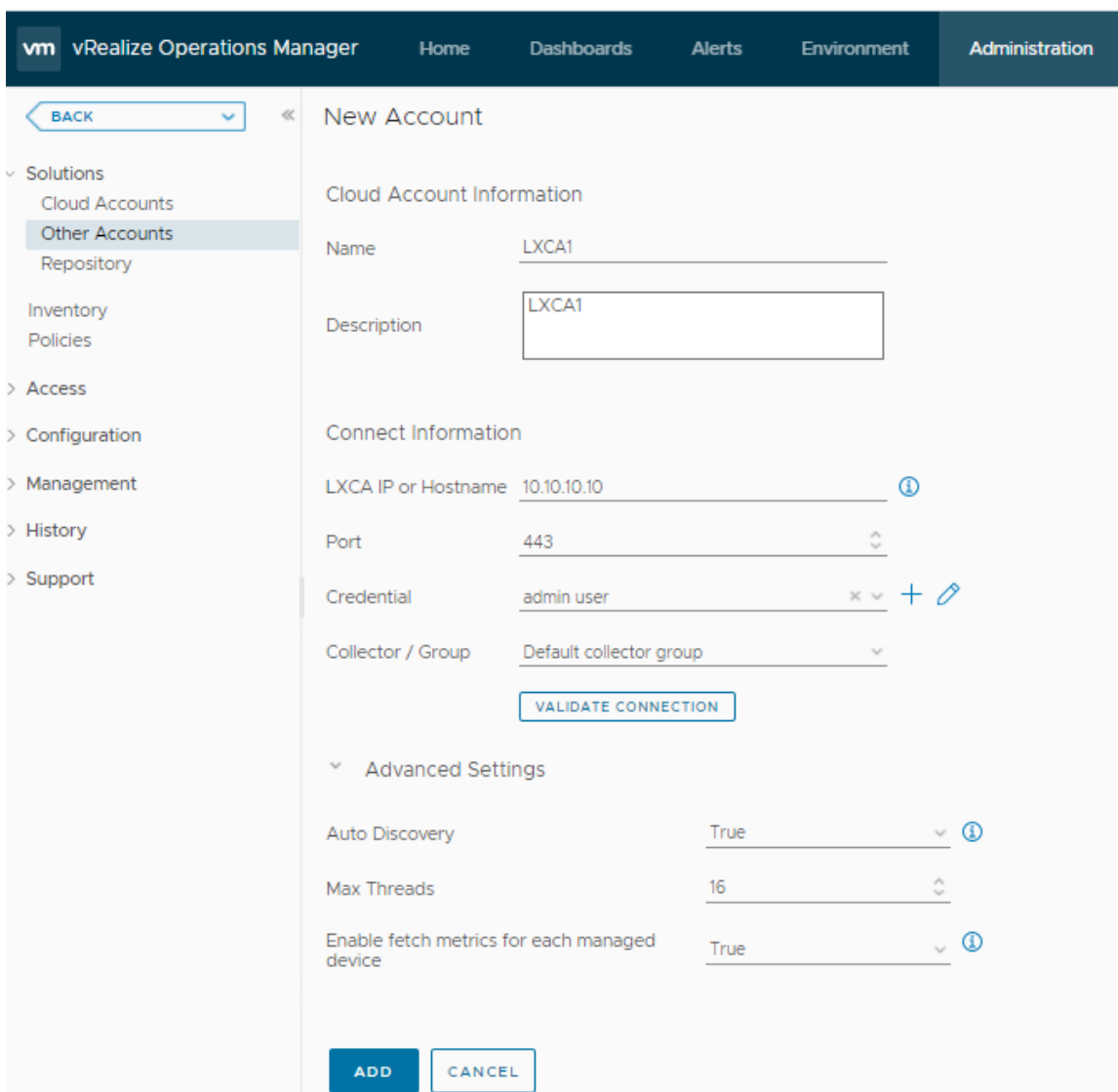
2. Browse the **Administration** tab.

The **Solutions** page is displayed.



3. Select **Solutions** > **Other Accounts** > **ADD ACCOUNT**.
4. Select the LXCA adaptor from the existing list for adding the account **Lenovo XClarity Adapter** > **New Account**.

The **New Account** information page is displayed.



5. Configure the following **Cloud Account Information** and **Connection Information**:
 - a. Name: Enter a descriptive name of the instance.
 - b. Description: Enter a description with more details.
6. Configure these settings based on the adapter instance type:
 - a. LXCA IP or Hostname: Enter the LXCA IP or a descriptive hostname of the instance.
 - b. Port: Enter the port number if you want to change it, the default value is 443 as shown in the preceding screenshot.
 - c. Credentials: Click the add credentials (+) icon, enter an appropriate credential name that includes username and password of the adapter instance you are adding, and click **OK**.

Manage Credential

Credential name: admin user

Username: admin

Password: *****

CANCEL OK

- d. Collector/Group: Select the required collector group from the drop-down list.
7. Click **VALIDATE CONNECTION** to validate the values you entered. If the adapter instance configures correctly, an informative message is displayed. Click **ACCEPT** to continue.

Review and Accept Certificate

Untrusted certificate found.

Certificate Thumbprint: 54bfde16fdef0d5cb5d6f38cf63b6ee0947f246a

Issued to: C=US, CN=s1.labs.lenovo.com

Issued by: OU=VMware Engineering, O=s1.labs.lenovo.com, ST=California, C=US, DC=local, DC

Expires: December 21, 2022 8:09:32 AM EST

Click Accept if you trust the certificate. Use the credentials to connect.

CANCEL ACCEPT

8. In the **Advanced Settings**, select the **Auto Discovery** as **True**.

Important: After the adapter instances are created, the vRealize Operations Manager Collector requires several minutes to collect statistics, depending on the size of the system. The default collection cycle is 15 minutes. Once the initial data is collected, subsequent statistical collections run quickly.

Large system configurations require a longer duration to collect metrics, resources, and update dashboards. To configure the duration, select the required time in seconds in the **Advanced Settings > Collection Interval** field.

9. To finish adding the adapter instance, click **ADD**. If you do not want to continue adding the adapter instance operation, click **CANCEL**.

Removing the Lenovo XClarity adapter

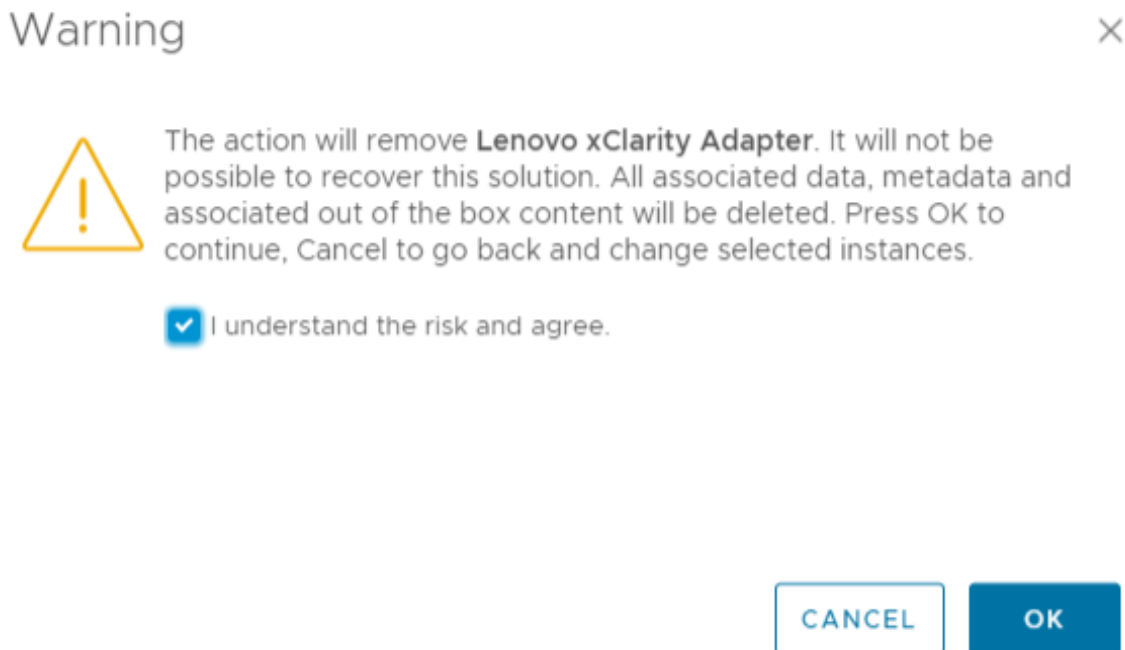
Follow the task if you need to uninstall the management pack using the vROps user interface.

Procedure

1. Log in to vROps as an admin user.
2. Navigate to the **Administration** tab.
3. In the left pane, click **Solutions > Repository**. The **Lenovo XClarity Adapter** displays in the right pane.
4. Click **Uninstall** to remove the selected management pack.

A warning dialog box is displayed.

Note: After removing the adapter instance, you cannot revert the operation. The associated data, metadata, and related files are deleted permanently.



5. Select **I understand the risk and agree** and click **OK** to complete the uninstallation.

Chapter 3. Monitoring Lenovo XClarity Adapter

After installing and configuring the MP, you must add an adapter instance to use the Lenovo XClarity Adapter to view the following:

- “Viewing data collection status for an instance” on page 17
- “Dashboards” on page 17
- “Viewing the inventory tree” on page 24
- “Monitoring the discovered resources” on page 26
- “Using the badges to monitor resources” on page 28
- “Viewing alerts” on page 29

Viewing data collection status for an instance

After you set up an adapter instance, verify whether the instance is collecting data.

Before you begin

Ensure that you have added an adapter instance. After adding the instance, the vRealize Operations Manager Collector requires some time to collect the initial data.

Procedure

To view collected data, complete the following steps.

1. Log in to vROps as an admin user.
2. Navigate to the **Administration > Solutions > Other Accounts > <Instance>** tab for instance status. The instance status must be **OK**.

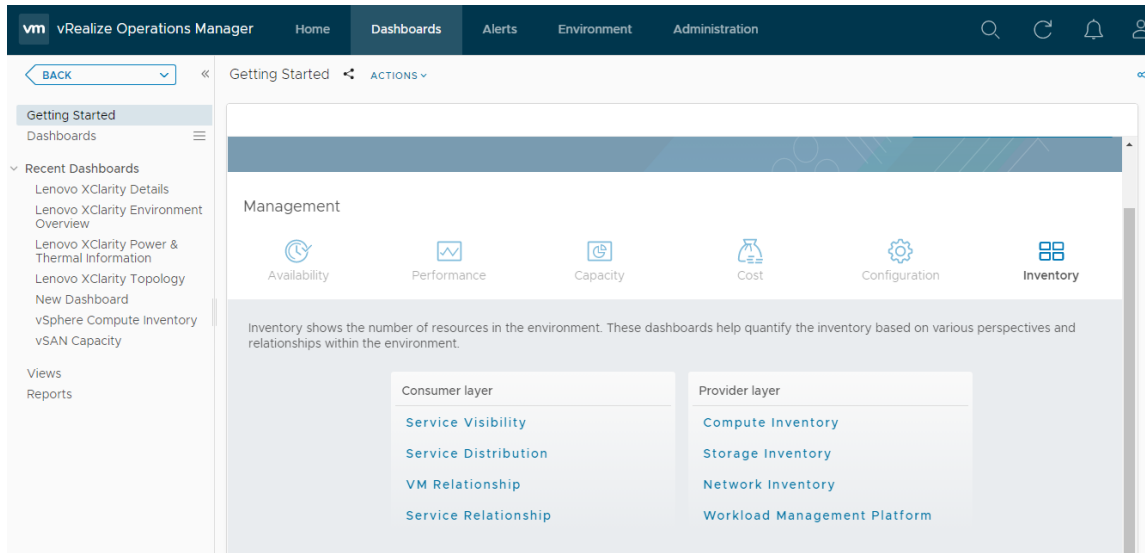
Dashboards

The Lenovo XClarity Adapter management pack dashboards provide an overview of the performance and health of XClarity Administrator resources. The dashboards enable you to view, monitor, and troubleshoot resources

Dashboards provide a graphic representation of the status and relationships of selected objects. The standard dashboards are delivered as templates.

Before you begin

- Log in to the vRealize Operations Manager UI using admin credentials.
- From the vRealize Operations Manager main menu, select **Dashboards > All Dashboards**. The available dashboards are listed in the Lenovo XClarity folder.
- Once the required dashboards are selected, it is listed in the navigation panel on the left as follows.



Procedure

1. To view the dashboards, click **Dashboards**.
2. From the **Recent Dashboards** list, select the required dashboard.

The following dashboards are listed:

- **Lenovo XClarity Environment Overview**

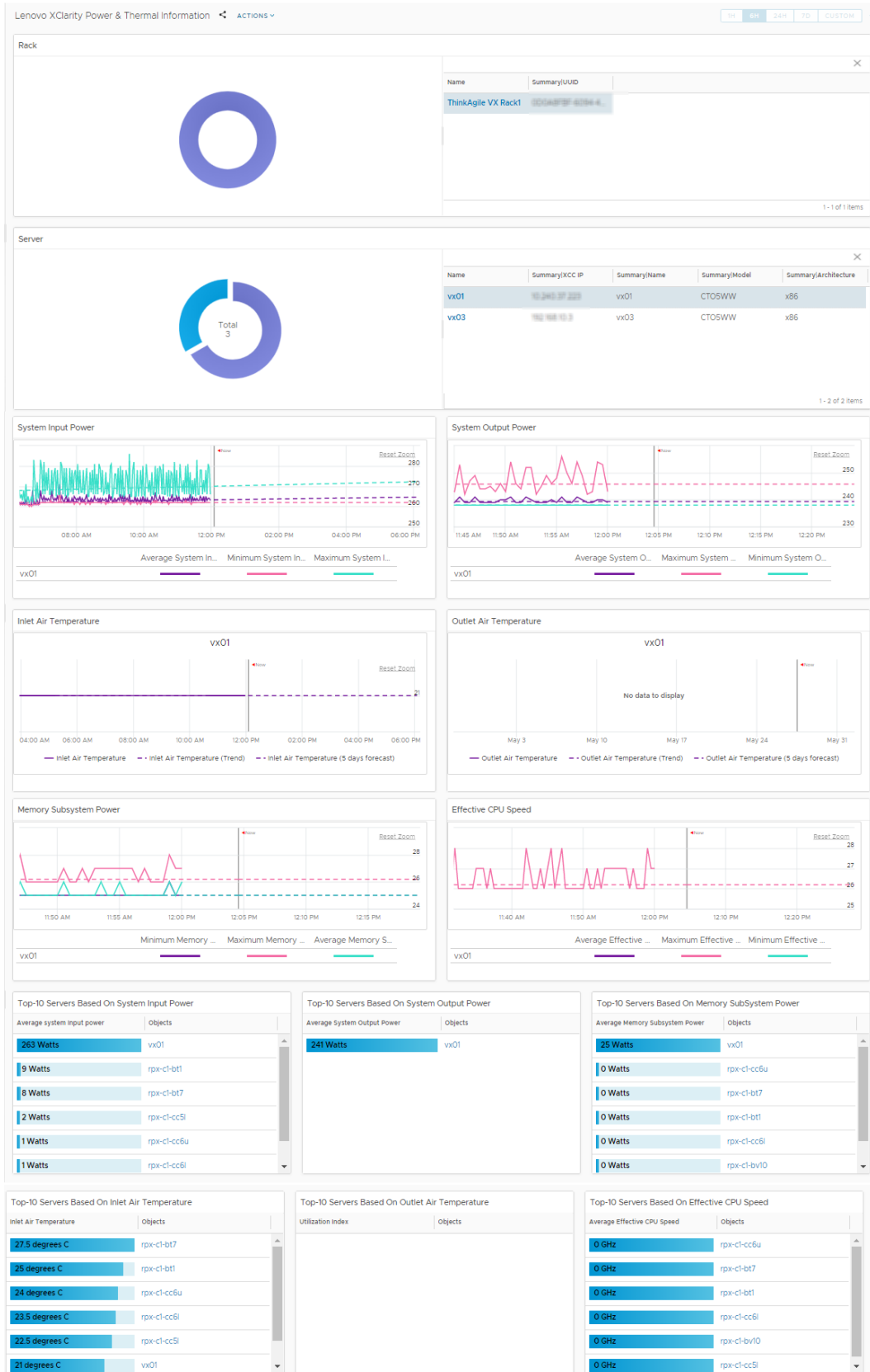
The screenshot shows the 'Lenovo XClarity Environment Overview' dashboard. It features a top navigation bar with 'Lenovo XClarity Environment Overview' and 'ACTIONS'. The main content area is divided into several panels:

- Environment Overview:** A hierarchical tree view showing resources like 'Lenovo XClarity Adapter World (1 of 1)', 'Lenovo XClarity Adapter Instance (2 of 2)', 'Rack (1 of 1)', 'Chassis (1 of 1)', 'Server (14 of 14)', 'vSAN Disk Group (14 of 14)', 'Host System (7 of 7)', 'vSAN Cluster (2 of 2)', and 'Datacenter (2 of 2)'. Each resource is represented by a colored square icon indicating its health status.
- Alert List:** A list of active alerts, including 'Redundancy Degraded from Non-redundant for Memory h...', 'Non-redundant Insufficient Resources has asserted', 'Redundancy Degraded for Memory has asserted', 'Redundancy Lost for Memory has asserted', 'System Numeric sensor going high (upper non-critical) has...', 'System Numeric sensor going low (lower non-recoverable) ...', 'Processor is operating in a Degraded State', 'Memory on Subsystem Throttled', and 'Memory Logging Limit Reached for Memory on Subsystem'. Each alert includes a severity icon, a trigger, a creation time, and a status.
- Property List:** A detailed view of an asset's properties, such as 'Asset information|Description', 'Asset information|FRU', 'Asset information|Machine Type', 'Asset information|Manufacturer', 'Asset information|Product Name', 'Asset information|Serial Number', and 'Asset information|UUID'. It also shows 'Boot Configuration|BootOrder' and 'Boot Configuration|HardDiskBootOrder'.
- Object List:** A table listing various objects with columns for Name, Adapter Type, Object Type, Policy, Collection State, and Collection Status.
- vSAN Cluster:** A table showing vSAN clusters with columns for Name, Capacity Remaining, and Time Remaining.
- Lenovo Node To Host Mapping:** A table mapping host nodes to physical servers, showing Group Name, Name, and Serial number.
- Lenovo Rack To Node Mapping:** A table mapping rack nodes to physical servers, showing Group Name, Name, Summary/ICC IP, and Asset information/Serial.

Widget	Description
Environment Overview	Lists the resources and their health. Select the required resource to populate the related widgets.
Alert List	Lists the alerts of the resource selected in the Environment Overview widget.

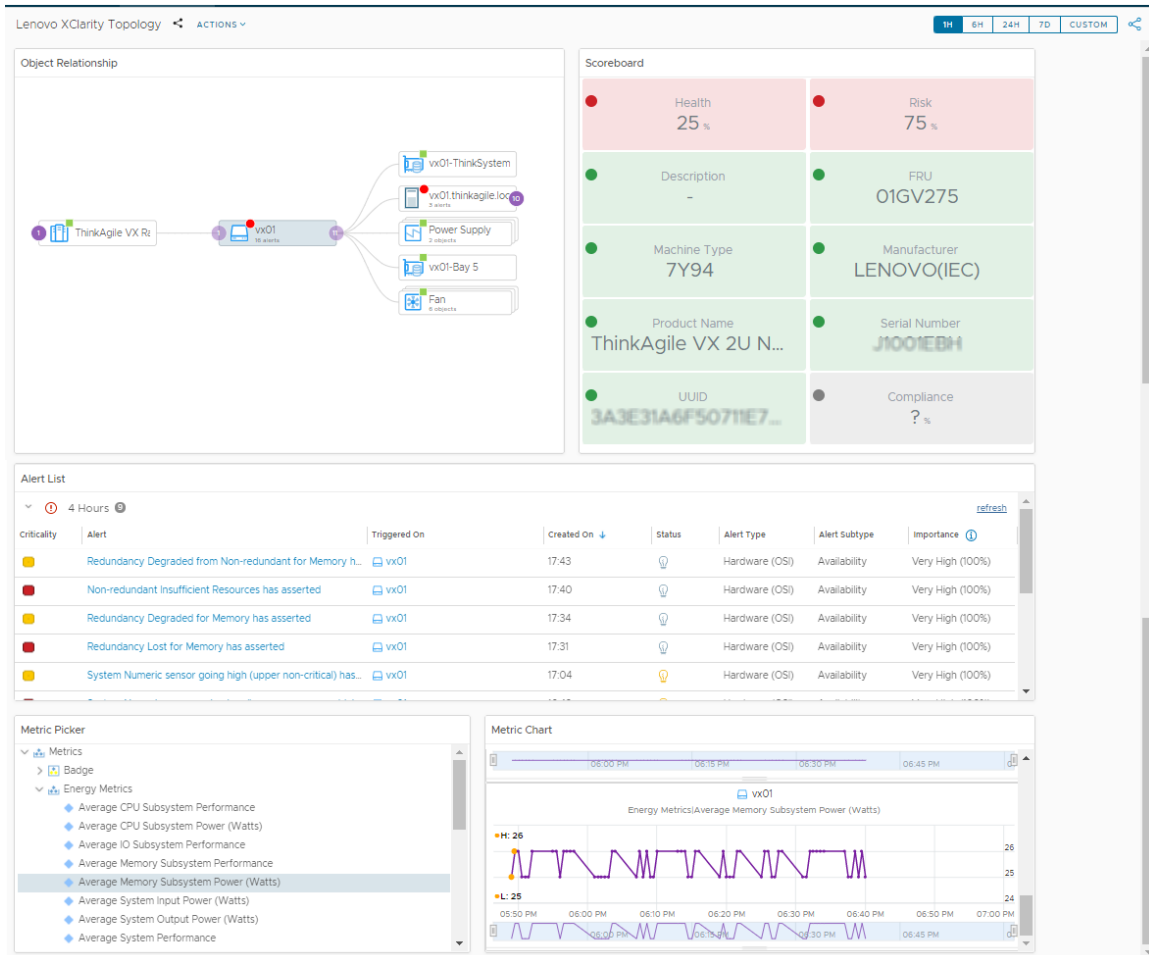
Widget	Description
Property List	Lists the details of the resource selected in the Environment Overview widget.
Object List	Lists the details of the object selected in the Environment Overview widget. It also displays the collection state and status of the resource.
vSAN Cluster	Lists the details of the vSAN cluster. Select a vSAN cluster to populate the related widgets.
Lenovo Node to Host Mapping	Lists the node to host mapping of the resource selected in the vSAN Cluster widget.
Lenovo Rack to Node Mapping	Lists the rack to node mapping details.

- **Lenovo XClarity Power & Thermal Information**



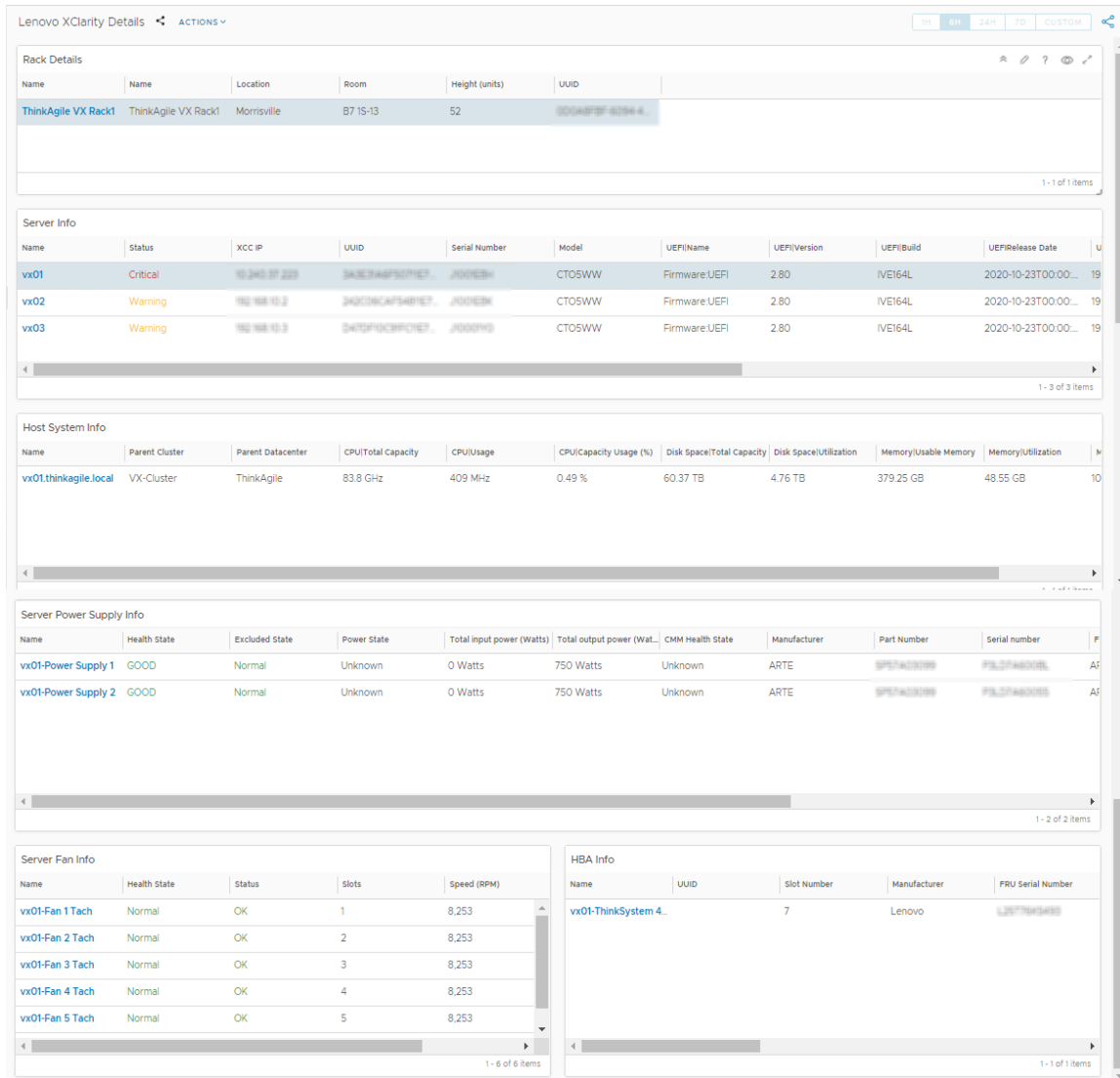
Widget	Description
Rack	Lists the details and utilization of the rack. To view further details of a rack, click the rack on the pie chart. Select a rack to populate the related widgets.
Server	Lists the server details and utilization for the rack selected in the Rack widget. To view further details of a server, click the required server on the pie chart. Select a server to populate the related widgets.
System Input Power	Lists the system input power graphical details of the server selected in the Server widget. Hover over the graph to view further details.
System Output Power	Lists the system output power graphical details of the server selected in the Server widget. Hover over the graph to view further details.
Inlet Air Temperature	Lists the inlet air temperature to the time of the server selected in the Server widget. Hover over the graph to view further details.
Outlet Air Temperature	Lists the outlet air temperature to the time of the server selected in the Server widget. Hover over the graph to view further details.
Memory Subsystem Power	Lists the memory details.
Effective CPU speed	Lists the effective CPU speed.
Top 10 servers based on system input power	Lists the top 10 servers that have maximum system input power.
Top 10 servers based on system output power	Lists the top 10 servers that have maximum system output power.
Top 10 servers based on memory subsystem power	Lists the top 10 servers that have maximum utilized memory subsystem power.
Top 10 servers based on inlet air temperature	Lists the top 10 servers that have maximum inlet air temperature.
Top 10 servers based on outlet air temperature	Lists the top 10 servers that have maximum outlet air temperature.
Top 10 servers based on effective CPU speed	Lists the top 10 servers that have maximum CPU speed.

- **Lenovo XClarity Topology**



Widget	Description
Object Relationship	Lists the relationship between the resources. Select the required object to populate the related widgets. Hover over the resource to view more details of the resource.
Scoreboard	Lists the details of the resource selected in the Object Relationship widget. Hover over the score to view more details.
Alert List	Lists the alerts of the selected resource. To view further details, click on the required alert to display the Alerts table.
Metric Picker	Navigate to the required metric and the selected metric details are listed in the adjacent Metric Chart widget.
Metric Chart	Lists the metric as selected in the Metric Picker widget.

- **Lenovo XClarity Details**



Widget	Description
Rack Details	Lists the rack details. Select a rack to populate the details in related widgets.
Server Info	Lists the server details of the rack selected in the Rack widget.
Host System Info	Lists the host system details.
Server Power Supply Info	Lists the server power supply details.
Server Fan Info	Lists the server fan details.
HBA Info	Lists the HBA details.

Viewing the inventory tree

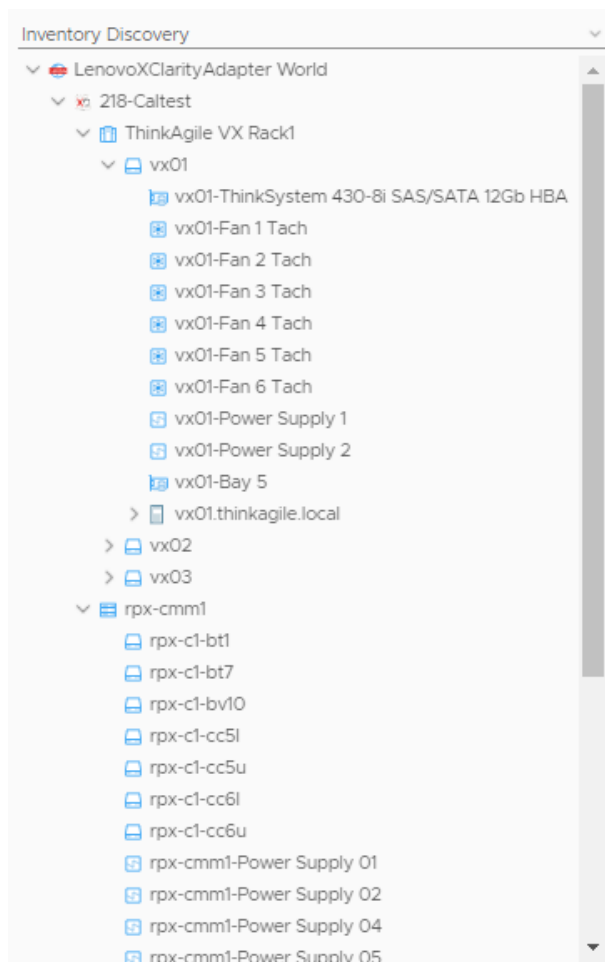
The inventory tree feature in vROps helps you to browse and select a Lenovo XClarity Adapter resource. The hierarchical structure of the inventory tree shows the relationship among the resources. It enables you to browse and view the resources to the lower level. This view helps to analyze the root cause of issues.

Procedure

To view the inventory tree, complete the following steps.

1. Log in to vROps as an admin user.
2. Navigate to the **Environment** tab.
3. View the data collection status as follows:
 - a. To view the collection status and state in the Objects pane, click
 - **Lenovo XClarity Adapter > Inventory Discovery > Lenovo XClarity Adapter World > Lenovo XClarity Adapter Instance > Rack > Summary**
 - **Lenovo XClarity Adapter > Inventory Discovery > Lenovo XClarity Adapter World > Lenovo XClarity Adapter Instance > Chassis > Summary**
 - b. To view the object relationship between Lenovo XClarity Adapter and vSphere/vSAN Adapter, click **Lenovo XClarity Adapter > Inventory Discovery > Lenovo XClarity Adapter World > Lenovo XClarity Adapter Instance > Rack > Metrics > Show Object Relationship**.
4. To display the polled data, click **Lenovo XClarity Adapter > Inventory Discovery > Lenovo XClarity Adapter World > Lenovo XClarity Adapter Instance > Rack > Metrics > Metrics > Resource group > Metrics (double click on metrics) > Metric Chart**.

The left navigation pane displays the Lenovo XClarity Adapter inventory tree.



The Lenovo XClarity Adapter World displays all the Lenovo XClarity Adapter MP resources in a parent-child relationship format. For more details on navigating to a resource, see “Monitoring the discovered resources” on page 26.

Monitoring the discovered resources

This topic gives an overview of the discovered Lenovo XClarity Adapter resources.

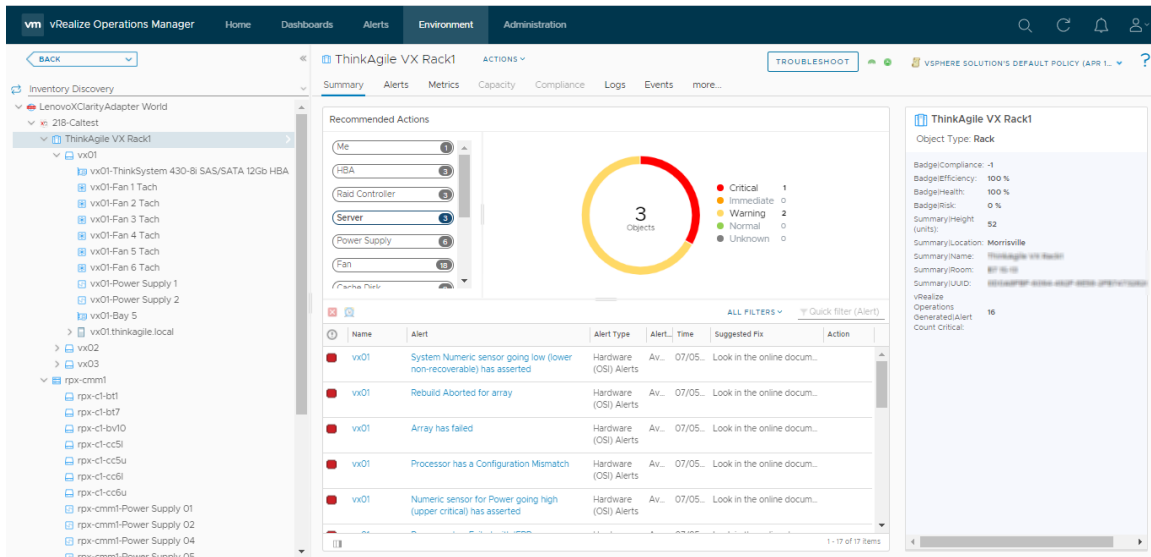
The MP discovers and collects defined metrics such as performance data, relationships, events, for the Lenovo XClarity Adapter resources. You can discover the following resources of the Lenovo XClarity ThinkAgile VX system:

Discovered resource	Icon
Rack	
Chassis	
Server Node	
PCI devices	
HBA	
Network Adaptor	
Server fan	
Power Supply	
Chassis fan	
Lenovo World	
Adapter Instance	

Procedure

To view Lenovo XClarity Adapter resources, complete the following steps.

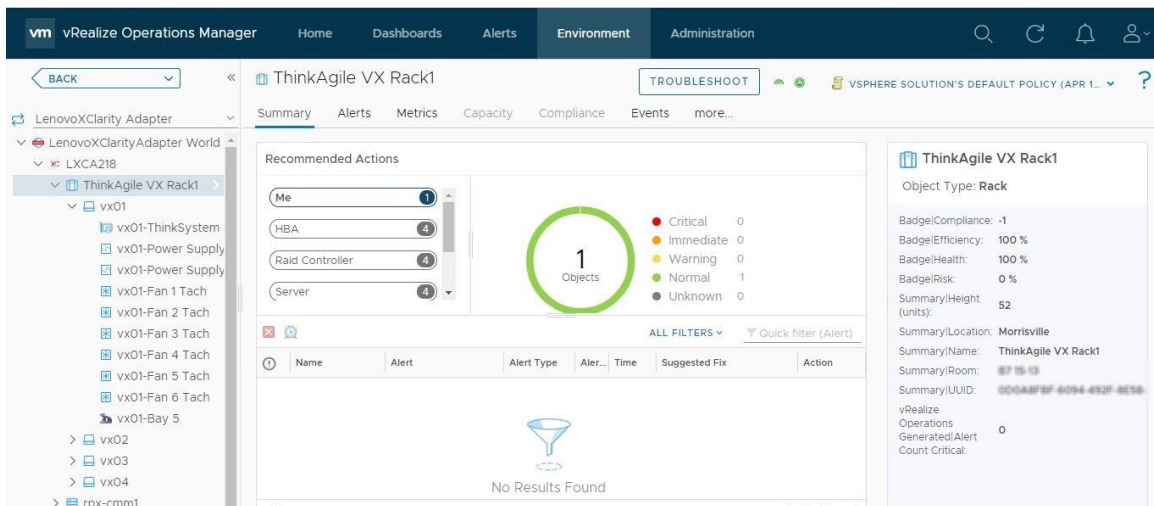
1. Log in to vROps as an admin user.
2. Navigate to the **Environment** tab.
3. View the resources related to Lenovo XClarity Adapter in the inventory tree, click **Lenovo XClarity Adapter > Inventory Discovery > Lenovo XClarity Adapter World > Lenovo XClarity Adapter Instance > Rack > Summary**.



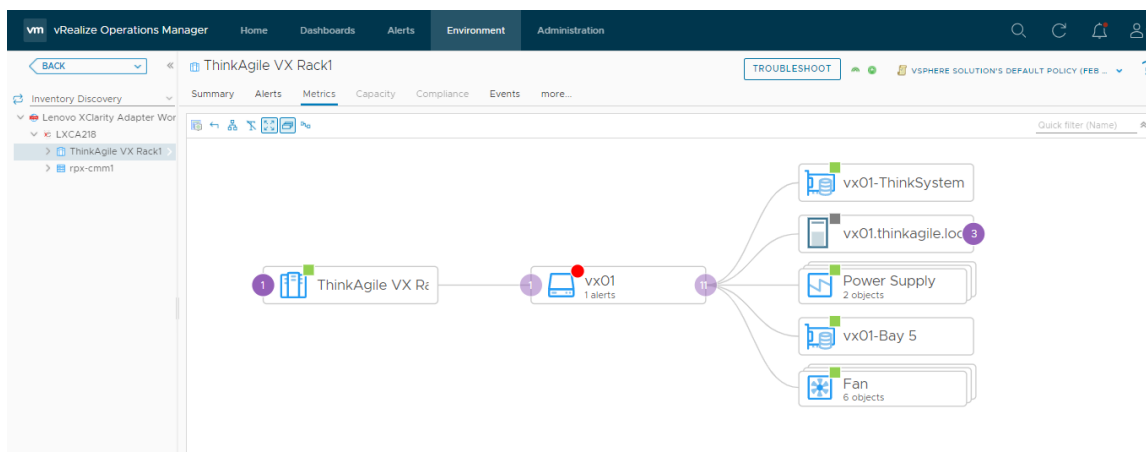
4. View the monitoring discovered resource as follows:

a. To view the collection status and state in the resources pane, click

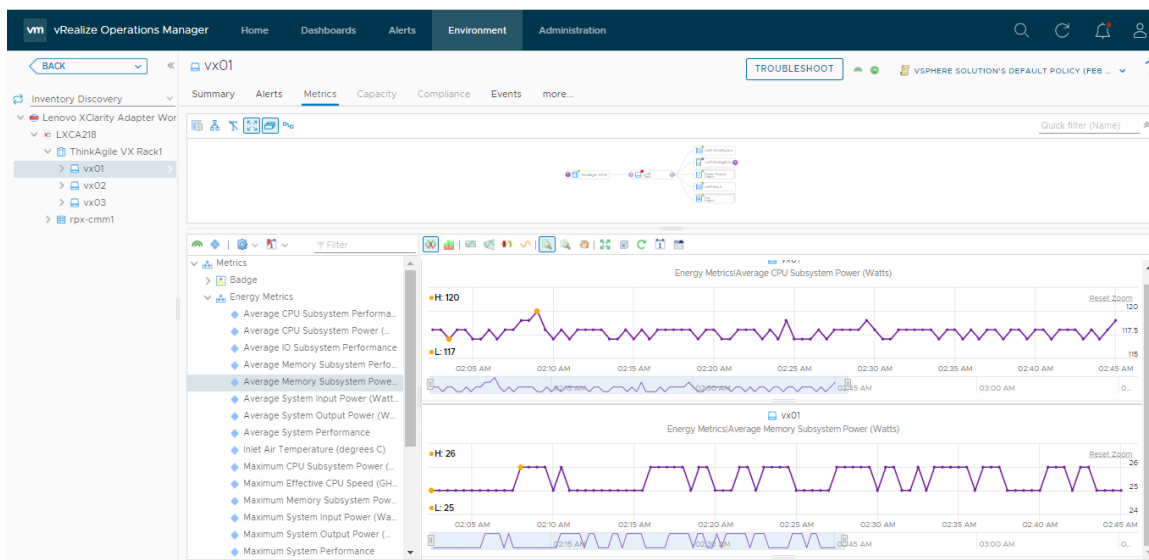
- **Lenovo XClarity Adapter > Inventory Discovery > Lenovo XClarity Adapter World > Lenovo XClarity Adapter Instance > Rack > Summary**
- **Lenovo XClarity Adapter > Inventory Discovery > Lenovo XClarity Adapter World > Lenovo XClarity Adapter Instance > Chassis > Summary**



b. To view the resource relationship between Lenovo XClarity Adapter and vSphere/vSAN Adapter, click **Lenovo XClarity Adapter > Inventory Discovery > Lenovo XClarity Adapter World > Lenovo XClarity Adapter Instance > Rack > Metrics > Show Object Relationship**.



5. To view the metrics and badges of the resource:
 - a. Click the **Metrics** tab.
 - b. Click the required resource on the right pane.
 - c. Navigate **Lenovo XClarity Adapter > Inventory Discovery > Lenovo XClarity Adapter World > Lenovo XClarity Adapter Instance > Rack > Metrics > Metrics > Resource group > Metrics (double click on metrics) > Metric Chart**.



Using the badges to monitor resources

Badges are high-level indicators of the system. vROps computes the values of the badges depending upon how the system is performing. Badges are computed on a lot of parameters internally by vROps. One of the important criteria for badge computation is alerts generated in the system with impact specified as a badge.

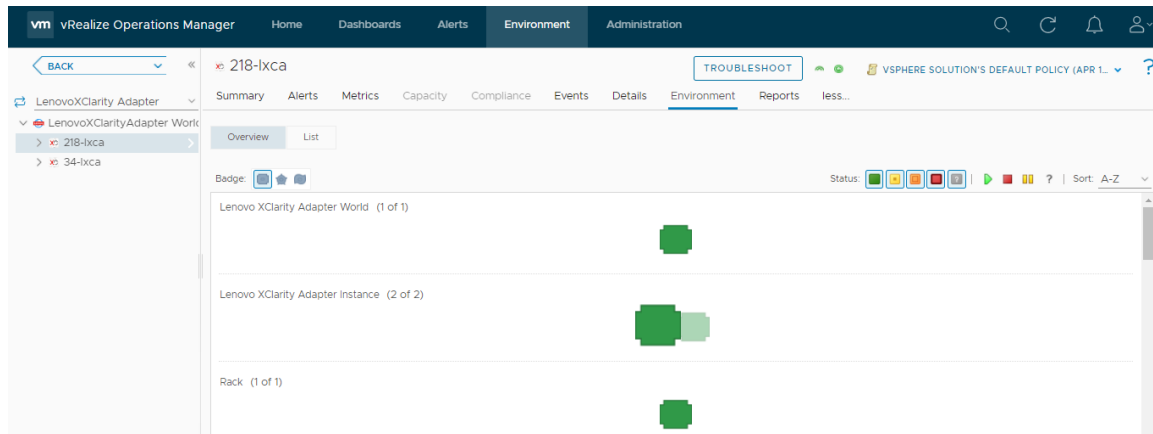
Based on VMware best practices, the Badge severity is defined. The health badge reflects the current health of a particular object. The Risk badge indicates potential problems that might eventually degrade the performance of the system. For more details of badges, see [VMware documentation](#).

Procedure

To view Lenovo XClarity Adapter resources, complete the following steps.

1. Log in to vROps as an admin user.

2. Navigate to the **Environment** tab and navigate to the resource level to view the badges of the resource. For more details on how to navigate to a specific resource, see “Monitoring the discovered resources” on page 26.
3. Select the resource and click the **Environment** tab on the right pane.



Viewing alerts

The alerts are fault events that are directly coming from LXCA. The alerts include a short description of the alert and recommendations.

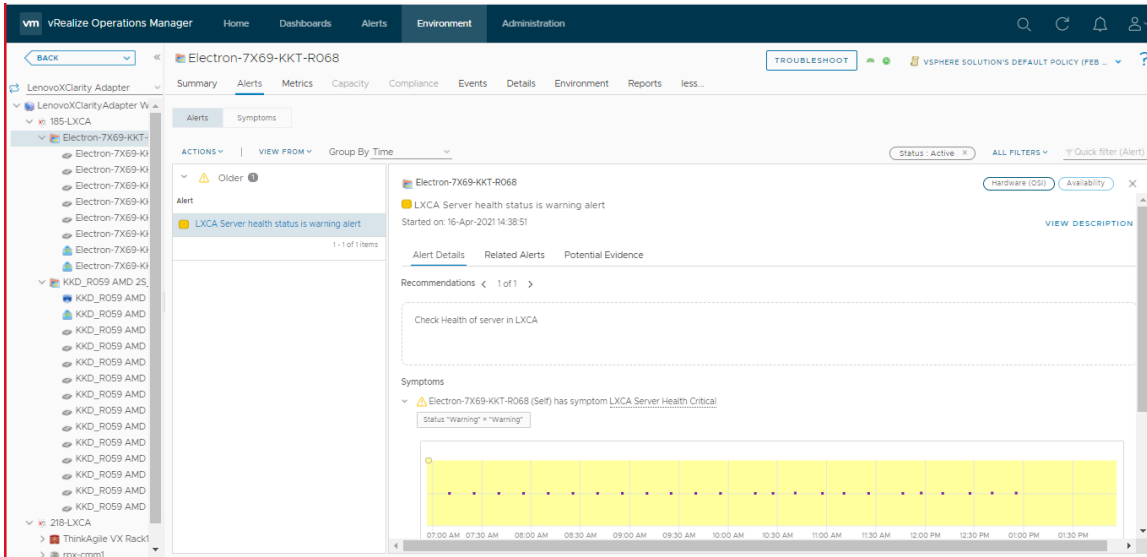
The Lenovo XClarity Adapter Management Pack provides a set of pre-defined alerts and symptoms for resources that the Lenovo XClarity Adapter instance monitors.

The plugin helps to monitor the hardware events in a Lenovo XClarity Administrator-managed environment. Quickly identify trends based on hardware events received, including hardware failures, power/thermal thresholds that exceeded, and PFAs (predicted failure alerts). These events categorize by source, type of hardware surfacing the events, and whether service is required. This information can help identify issues in your data centers so that you can react before more serious issues occur.

Procedure

To view alerts, complete the following steps.

1. Log in to vROps as an admin user.
2. To view alerts of specific resources, click **Environment > Lenovo XClarity Adapter > Lenovo XClarity Adapter World** and select the required resource.
3. Click the **Alerts** tab on the right pane to view the alerts of the selected resource.



- To view more details of each alert, click the alerts link to open the details on the right pane. For more details on Alerts, see [VMware documentation](#).

Please note that if two or more alerts are triggered in LXCA with the same msgID and different commonEventIDs, then only one alert is triggered in vROps that is defined for the msgID. A common alert message is created by using an alert message from all alerts with the same msgID from LXCA.

For example; Alert message in vROps is displayed as follows:

[Alert 1 message] [Alert 2 message] [Alert 3 message] [...] [...]

vx01 has symptom Numeric sensor going low (lower critical) has asserted Fault

[Numeric sensor Sys Fan Pwr going low (lower critical) has asserted.] [Numeric sensor CPU Power going low (lower critical) has asserted.] [Numeric sensor Exhaust Temp going low (lower critical) has asserted.] [Numeric sensor PCH Temp going low (lower critical) has asserted.]

Event source: Server

Source event object name: vx01

Source event name: [Numeric sensor Sys Fan Pwr going low (lower critical) has asserted.] [Numeric sensor CPU Power going low (lower critical) has asserted.] [Numeric sensor Exhaust Temp going low (lower critical) has asserted.] [Numeric sensor PCH Temp going low (lower critical) has asserted.]

Appendix A. Troubleshooting

This chapter provides the details to view the logs troubleshoot and resolve problems with Lenovo XClarity vROps.

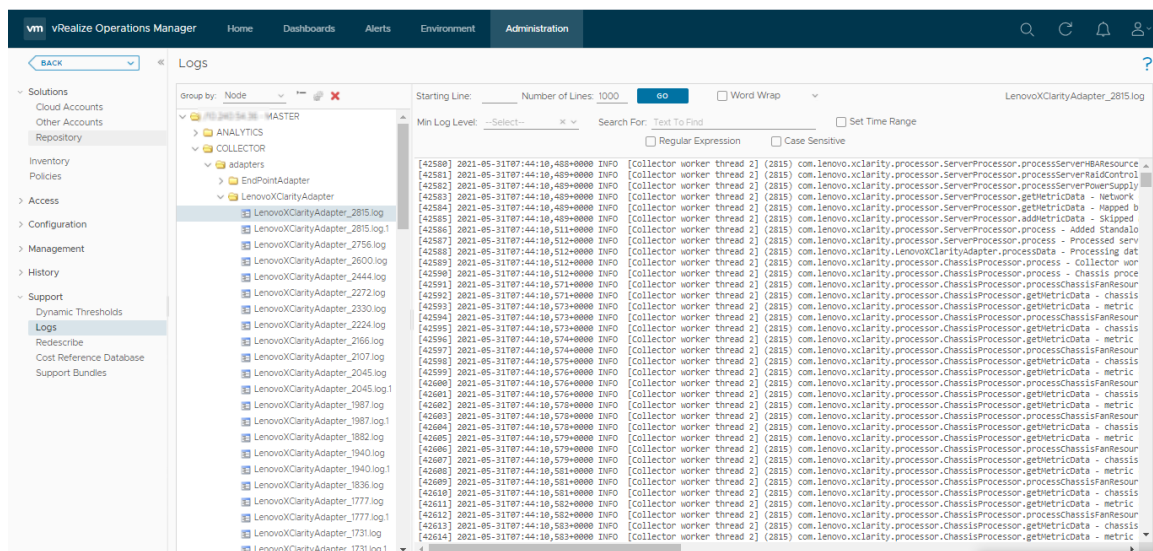
Viewing logs

This topic provides information about the MP logs and their location. The MP must provide logging details at various log levels including INFO, DEBUG, TRACE, and ERROR.

Procedure

To view logs, complete the following steps.

1. Log in to vROps as an admin user.
2. Click **Administration Support > Logs**.
3. Expand the node **Collector > adapters > Lenovo XClarity Adapter** folder to view the list of available log files.
4. Double-click the log entry to view the details of a specific log.



Known limitations

The following limitations apply to the Lenovo XClarity vROps, version 1.0.0:

- Alert threshold values are not displayed
- Top-10 widgets taking a minimum of 4 collection cycles to reflect the data.
- The scoreboard widget displays the data automatically based on the selected object.
- All alerts present on the LXCA are not displayed.
- The child widgets contain the data which is not changed unless you select the server (parent) resource.

Workaround: To view the object data of the child widgets, you must select the parent resource each time to render updated data. For example; In the Lenovo Power and thermal dashboard, the rack is a parent resource and top-level selector. Under rack, the server is a child, and the server has multiple child

widgets. Select one server to populate the child widgets of the server. Later if you select a rack but did not select a server, the previously selected server data is present on the server child widgets.

Troubleshooting issues

This topic details the cause and resolution of the known issues.

Duplicate dashboard entries

Issue

Duplicate dashboard entries are listed.

Cause


If the management pack was upgraded without selecting the **Reset Default Content** option, duplicate dashboard entries are listed. You must select this option so that the alert definitions, symptoms, recommendations, policy definitions, views, dashboards, reports are overwritten. For details on installing the MP, see “Installing the Lenovo XClarity Adapter” on page 6.

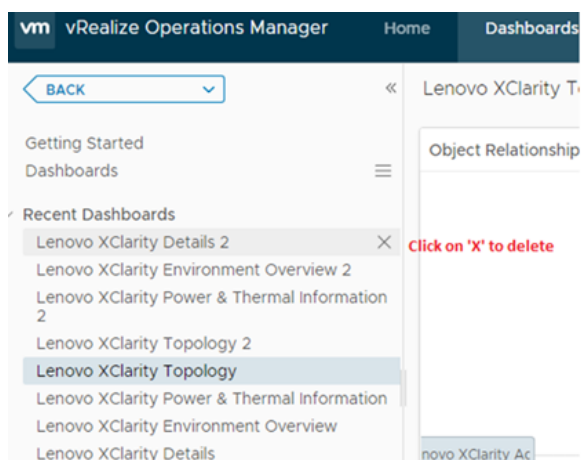
The screenshot shows the 'Add Solution' dialog box. On the left, a sidebar lists the steps: '1 Select Solution', '2 End User License Agreement', and '3 Install'. The main area is titled 'Select a Solution to Install' and contains the following elements:

- A text prompt: 'Browse your file system to select a PAK file for the solution you want to install.'
- A file selection field showing 'LenovoXClarityAdapter-1.0.0.pak' and a 'BROWSE...' button.
- A green checkmark and text: 'The selected file is ready to upload and install. Click Upload to continue.'
- A checked checkbox: 'Install the PAK file even if it is already installed.'
- An unchecked checkbox (highlighted with a red box): '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.'
- An 'UPLOAD' button and a progress bar showing '0%'.

Solution

To remove the duplicate dashboard entries, perform the following:

1. Log in to the vRealize Operations Manager UI using admin credentials.
2. Click **Dashboards**.
3. On the right pane, against the **Dashboards**, click the  menu to list the **Manage Dashboards** page.



4. Select the checkbox against the duplicate dashboards you want to delete, click the menu icon to list the options.
5. Select the **Delete** option.

The duplicate dashboards are deleted.

Dashboard not listing the resources

Issue

The dashboards (**Lenovo XClarity Details** and **Lenovo XClarity Power & Thermal Information**) are not listing the resources.

Cause

The dashboards are not listing the resources as the rack is not available in LXCA.

Solution

Add a rack in LXCA to list the rack details and rack servers in the dashboard widgets.

Installation errors

For any installation-related errors and exceptions, check the `collector.log` file.

Procedure

To view logs, complete the following steps.

1. Log in to vROps as an admin user.
2. Click **Administration**.
3. In the left pane, select **Support > Logs**.
4. From the **Logs** pane, go to **<Master node IP> > View_Bridge > <view-bridge.log>** as follows.

VM vRealize Operations Manager
Home Dashboards Alerts Environment Administration
🔍 🔄 🔔 👤

🏠 BACK

Logs

- 📂 Solutions
 - Cloud Accounts
 - Other Accounts
 - Repository
- Inventory
 - Policies
- Access
 - VIEW_BRIDGE
- Configuration
 - VCOPS_BRIDGE
- Management
 - SUITE_API
 - ADMIN_UI
- History
 - TOMCAT_WEBAPP
- Support
 - Dynamic Thresholds
 - Logs
 - Redescribe
 - Cost Reference Database
 - Support Bundles

Starting Line: Number of Lines: Word Wrap view-bridge.log

Min Log Level: Search For: Set Time Range

Regular Expression Case Sensitive

gerDistributedTask]	com.vmware.vcops.bridge.plugin.server.SolutionManagerDistributedTask.installSolution	installSolution: pakid = LenovoXClarityAdapter
gerDistributedTask]	com.vmware.vcops.bridge.plugin.server.SolutionManagerDistributedTask.installSolution	installSolution: pakid = LenovoXClarityAdapter
gerDistributedTask]	com.vmware.vcops.bridge.plugin.server.SolutionManagerDistributedTask.installSolution	installSolution: pakid = LenovoXClarityAdapter
gerDistributedTask]	com.vmware.vcops.bridge.plugin.server.SolutionManagerDistributedTask.installSolution	installSolution: pakid = LenovoXClarityAdapter
gerDistributedTask]	com.vmware.vcops.bridge.plugin.server.SolutionManagerDistributedTask.installSolution	installSolution: pakid = LenovoXClarityAdapter
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gerDistributedTask]	com.vmware.vcops.bridge.plugin.server.SolutionManagerDistributedTask.installSolution	installSolution: pakid = LenovoXClarityAdapter
gerDistributedTask]	com.vmware.vcops.bridge.plugin.server.SolutionManagerDistributedTask.installSolution	installSolution: pakid = LenovoXClarityAdapter
gerDistributedTask]	com.vmware.vcops.bridge.plugin.server.SolutionManagerDistributedTask.installSolution	installSolution: pakid = LenovoXClarityAdapter
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gerDistributedTask]	com.vmware.vcops.bridge.plugin.server.SolutionManagerDistributedTask.installSolution	installSolution: pakid = LenovoXClarityAdapter
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gerDistributedTask]	com.vmware.vcops.bridge.plugin.server.SolutionManagerDistributedTask.installSolution	installSolution: pakid = LenovoXClarityAdapter
gerDistributedTask]	com.vmware.vcops.bridge.plugin.server.SolutionManagerDistributedTask.installSolution	installSolution: pakid = LenovoXClarityAdapter
gerDistributedTask]	com.vmware.vcops.bridge.plugin.server.SolutionManagerDistributedTask.installSolution	installSolution: pakid = LenovoXClarityAdapter

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