



ServiceNow for Lenovo XClarity Orchestrator Installation and User's Guide



Version 1.0

Note

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About this publication

This book provides instructions for installing and using ServiceNow for Lenovo XClarity Orchestrator.

ServiceNow for Lenovo XClarity Orchestrator is a plug-in for ServiceNow that integrates with XClarity Orchestrator. It retrieves inventory data from XClarity Orchestrator into the ServiceNow configuration management database (CMDB), and enables event management, including viewing the information of fans, power supplies, and switches, and monitoring events of the Lenovo servers.

PDF and web resources

This product publication is available in PDF format.

- [Installation and User's Guide](#)

To view a PDF file, you need Adobe Reader. You can download it at no charge from the [Adobe Acrobat website](#).

Use the following resources to learn more about ServiceNow for Lenovo XClarity Orchestrator and related products.

- [ServiceNow for Lenovo XClarity Orchestrator support](#)
- [ServiceNow for Lenovo XClarity Orchestrator program license](#)
- [ServiceNow](#)
- [Lenovo XClarity Orchestrator](#)

Chapter 1. ServiceNow for XClarity Orchestrator

ServiceNow for Lenovo XClarity Orchestrator is a plug-in for ServiceNow that integrates with XClarity Orchestrator. It retrieves inventory data from XClarity Orchestrator into the ServiceNow configuration management database (CMDB), and enables event management, including viewing the information of fans, power supplies, and switches, and monitoring events of the Lenovo servers.

ServiceNow for XClarity Orchestrator connects to XClarity Orchestrator to synchronize inventory data between ServiceNow and XClarity Orchestrator using an HTTPS connection.

The primary feature of ServiceNow for XClarity Orchestrator is to retrieve inventory data from registered XClarity Orchestrator instances import the data into the ServiceNow configuration management database (CMDB) and enable event management. The incidents updated in the ServiceNow Incident table are reflected back to the XClarity Orchestrator instances.

Inventory data is imported into the ServiceNow CMDB, allowing you to use and track them along with existing inventories. As a part of event management, ServiceNow for XClarity Orchestrator raises incidents for serviceability events. Each incident includes inventory data from the hardware experiencing the issues. The ServiceNow incident passes on to the XClarity Orchestrator for further tracking. The ServiceNow for XClarity Orchestrator generates an email notification on incident creation and updating.

Event management helps you to track and resolve service requests that are generated from ServiceNow for XClarity Orchestrator. This integration enhances XClarity Orchestrator capabilities by merging them with ServiceNow capabilities.

ServiceNow for XClarity Orchestrator supports the following features:

- Register XClarity Orchestrator with ServiceNow.
- Import inventories and map them into the ServiceNow CMDB .
- Set up ServiceNow for XClarity Orchestrator as an event monitor in XClarity Orchestrator.
- Raise incidents for serviceability events.
- Send incident details to the XClarity Orchestrator instance that passed the generated event.
- Send incident updates from ServiceNow to XClarity Orchestrator.
- Provide email notification for any changes/updates in the Incident Table.

The following XClarity Orchestrator roles are required to perform certain functions.

- **Operator** or higher role is needed to import inventory and map them into the ServiceNow CMDB.
- **Administrator** or **Supervisor** role is needed to create data forwarders in XClarity Orchestrator to send event information.

Chapter 2. Installing and configuring ServiceNow for XClarity Orchestrator

Review this section for information about installing and configuring ServiceNow for Lenovo XClarity Orchestrator.

Installing and configuring ServiceNow for XClarity Orchestrator includes the following steps.

1. Install ServiceNow for XClarity Orchestrator in the ServiceNow instance.
2. Install the Management, Instrumentation, and Discovery (MID) Server on a system in the network, and configure it with information about the corresponding ServiceNow instance where ServiceNow for XClarity Orchestrator is installed.
3. Add the ServiceNow certificate to Lenovo XClarity Orchestrator.
4. (Optional): Create new users and groups.
5. Configure email notification.
6. Import inventories.
7. Schedule jobs.
8. Add XClarity Orchestrator.

Installing ServiceNow for XClarity Orchestrator

ServiceNow for Lenovo XClarity Orchestrator is an XML file that can be imported and committed to each ServiceNow instance that is running in your network.

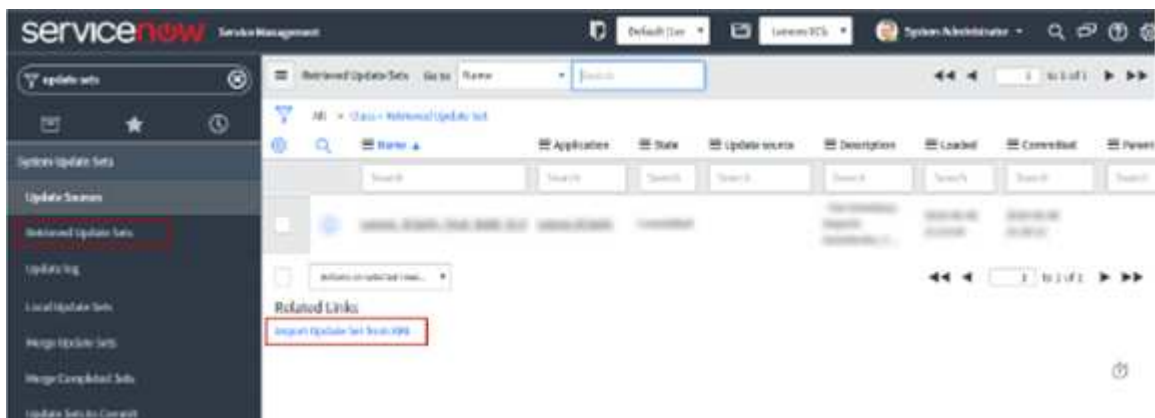
The following software is required by ServiceNow for XClarity Orchestrator.

- ServiceNow (Rome, Quebec, or San Deigo version)
- Mozilla Firefox or Google Chrome (latest version)

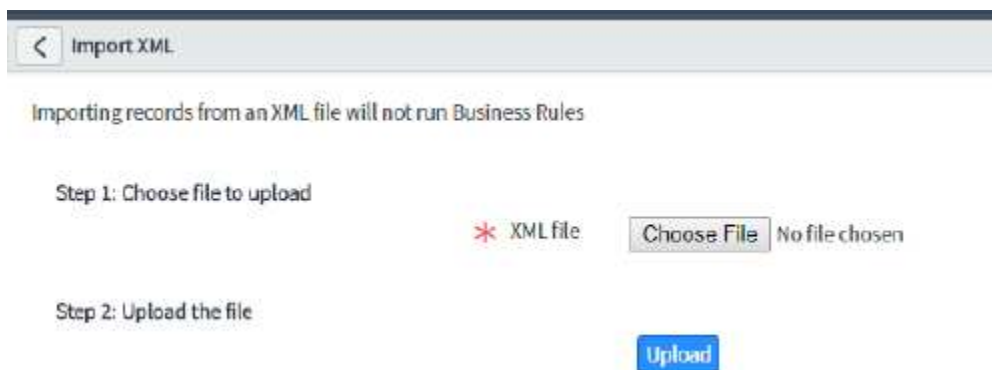
Procedure

To install the ServiceNow for XClarity Orchestrator, complete the following steps.

- Step 1. From the ServiceNow portal, type **Update Sets** in the left pane **Search** box, and then click **Retrieved Update Sets** on the left pane.



- Step 2. Click **Import Update Set from XML** to display the Import XML page.



Step 3. Click **Choose File**, and then click **XClarity Integrator for ServiceNow**.

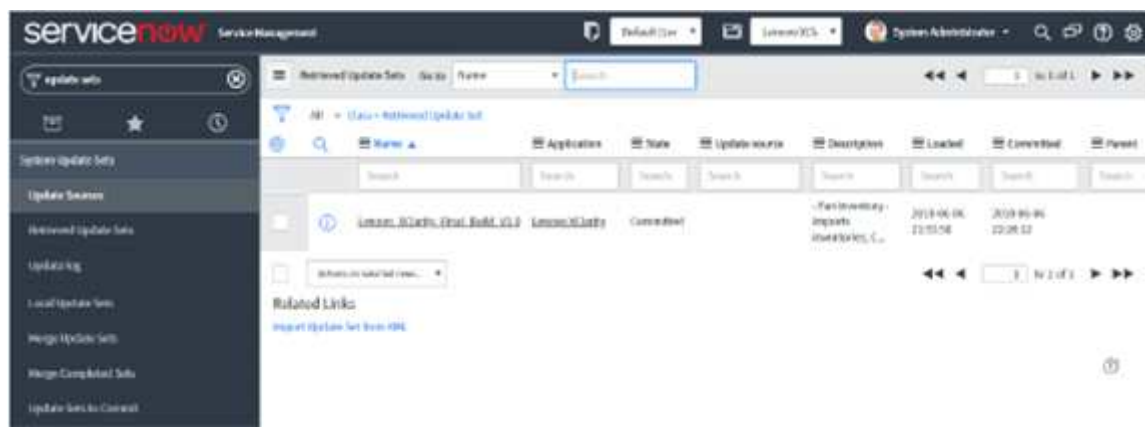
Note: After the xml file is uploaded, it displays the status as “Loaded.”

Step 4. Click the uploaded file, and then click **Preview Update Set**.

Step 5. Click **Commit Update Set**.

Important: If errors are generated before the update set is committed, accept the remote update option.

After ServiceNow for XClarity Orchestrator is successfully committed, you can view the details as shown in the following example.



Installing and configuring the MID Server on Linux

The Management, Instrumentation, and Discovery (MID) Server is a Java server that facilitates communication and movement of data between the ServiceNow platform and external applications, data sources, and services.

Before you begin

Ensure that the minimum requirements are met for the MID Server (see [MID Server system requirements](#) from the ServiceNow online documentation).

The MID Server connects to a ServiceNow instance by using the SOAP web service. To allow authentication with the ServiceNow instance, create a separate user account for each MID Server or share the same account across multiple MID Servers. Each MID Server account must use the “mid_server” role to access protected tables.

Procedure

To install the MID server, setup a MID Server user and role in ServiceNow, and then download and install the MID server files.

Step 1. Set up the MID Server user account on the ServiceNow instance.

- a. From the ServiceNow portal, click **User Administration → Users**.
- b. Locate the **mid.user** user account in the **User ID** column.
- c. Verify that the following fields are filled. Update the password, if required.
 - **User ID**. User ID that is to be specified in the **mid.instance.username** parameter of `config.xml`.
 - **Password**. Password that is to be specified in the **mid.instance.password** parameter of `config.xml`.
 - **First name**. User's first name
 - **Last name**. User's last name

Notes:

- Change the default password as soon as possible.
 - Avoid updating the fields other than **Password**. For information about the password for default user accounts, see [Creating a ServiceNow REST user](#).
- d. Click **Update**.

Step 2. Download and install the MID server files. For more information, see [Install a MID Server on Linux](#) from the ServiceNow online documentation.

- a. From the ServiceNow portal, click **Mid Server → Downloads**.
- b. Click the **Copy link** icon for the appropriate operating system to copy the file link, and then use the `wget <copied_link>` command to download the MID Server. For example

```
wget https://install.service-now.com/glide/distribution/builds/package/app-signed/mid-linux-installer/2022/01/04/mid-nux-installer.rome-06-23-2021_patch5-12-15-2021_01-04-2022_2221.linux.x86-64.rpm
```
- c. Run the following command to install the MID server file.
 - **RedHat Enterprise Linux**. `sudo rpm -ivh --nodeps <package_name>.rpm --prefix=/<path_to_user_directory>`
 - **Ubuntu**. `sudo dpkg -i <package_name>.deb`
- d. Run the `./installer.sh` command from the `agent/bin` directory as root and provide the required input to configure the MID Server service.
 - **ServiceNow Instance URL**. Enter the full URL of your ServiceNow instance, for example: `https://mycompanyinstance.service-now.com`
 - **MID-Server Username**. Enter the user name of the MID Server user that you already created. The MID Server user must have the **mid_server** role.
 - **MID-Server Password**. Set the password for the current MID Server user.
 - **MID-Server Name**. Set the name of the MID Server.

Step 3. Validate the MID server. For more information, see [Validate the MID Server](#) from the ServiceNow online documentation.

- a. From the ServiceNow portal, click **MID Server → Servers**.
- b. Open the new MID Server you created from the list of MID Servers.
- c. Under **Related Links**, click **Validate** to display the Set Initial Selection Criteria dialog.
- d. Use the toggles to enable or disable criteria for the MID Server.
 - **Allow ALL capabilities**: Allow all orchestration and event management functions.

- **Allow ALL applications:** Allow all applications that use MID Servers to use this MID Server.
 - **Allow ALL IP ranges:** Make all IP ranges valid for this MID Server, meaning that it can target any IP address.
- e. Click **OK** to start the validation process.

What to do next

The MID Server runs as a standalone service. It can be removed easily to accommodate such tasks as redeploying the MID Server to another host system or changing the unique name of a MID Server when deploying multiple MID Servers.

To remove the service and uninstall a MID Server on Linux, run the `uninstall.sh` script in the agent directory. For more information, see [Install a MID Server on Linux](#) from the ServiceNow online documentation

Adding the ServiceNow certificate to XClarity Orchestrator

You must add the ServiceNow certificate to Lenovo XClarity Orchestrator so that ServiceNow for XClarity Orchestrator can access to XClarity Orchestrator inventories and events.

Before you begin

This task requires NodeJS 14 or later.

Procedure

To add ServiceNow certificate to XClarity Orchestrator, complete the following steps.

- Step 1. Download the following script: [generateSNOWCertificate](#).
- Step 2. Edit the script and change the URL in line 10 to the URL of your ServiceNow instance.
- Step 3. From a command session, run the script to add the ServiceNow certificates. All certificates are printed to the command session.

```
node generateSNOWCertificate.js
```

Creating a ServiceNow REST user

Use this procedure to add a REST user account to the ServiceNow portal.

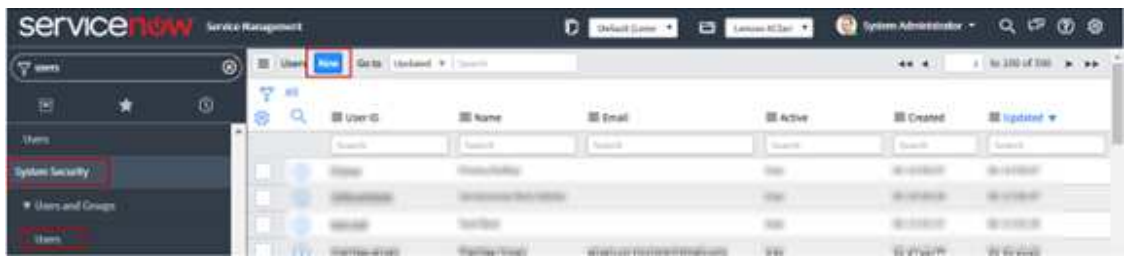
Before you begin

You must be logged in to the ServiceNow for Lenovo XClarity Orchestrator portal as a user with Admin privileges.

Procedure

To create the ServiceNow REST user account, complete these steps.

- Step 1. Create a REST user account.
 - a. From the ServiceNow portal, on the left navigation panel, type `Users`, and then click **Users** under the **System Security** category.



b. Click **New** to create new user.

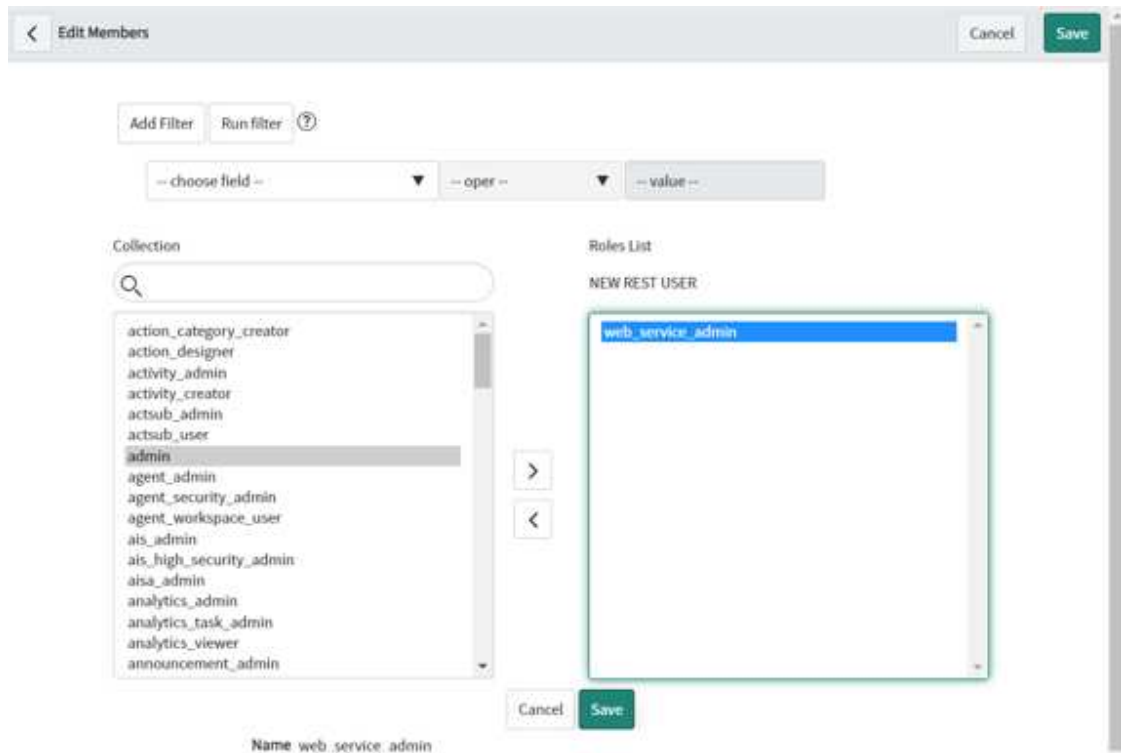
c. Fill in the fields on the form, and click **Update** to create a user.

d. After the user is created, select the created user from the list to assign roles.

e. In the **Roles** section at the bottom, click **Edit**.

Role	State	Inherited	Inheritance Count
admin	Active	false	
ais_admin	Active	true	1
announcement_admin	Active	true	1
api_analytics_read	Active	true	2
catalog	Active	true	1

- f. Type `web_service_admin` in the **Search** field, and click the right-arrow icon to move it under **Roles List** for a REST user only.
- g. Type `web_service_admin` in the **Search** field, and click the right-arrow icon to move it under **Roles List** for a REST user only.



Step 2. Update the credentials for the new REST user account.

- a. From the ServiceNow portal, click **Lenovo XClarity → REST Basic Authentication → REST User Credentials** in the left panel to display the REST User Credentials page.



- b. Enter the user ID of the ServiceNow REST user account that you created in the previous step in the **Name** field.
- c. Enter the password of the ServiceNow REST user account in the **Username** field.
- d. Enter the desired password in the **Password** field.
- e. Click **Update**.

Note: If you change the REST password after one or more event monitors are registered in ServiceNow, you must manually update the same password at the corresponding Lenovo

XClarity Orchestrator event monitor credentials. You can do this from XClarity Orchestrator by clicking **Monitoring → Event Monitors → Event Forwarding** and editing an event monitor.

What to do next

To change the password for a user, complete the following steps. You must be logged in to the ServiceNow for Lenovo XClarity Orchestrator portal using a user with Admin privileges to change passwords.

1. From the ServiceNow portal, on the left navigation panel, click **User Administration → Users**.
2. Type the user name whose password is to be set in the **Search** field.
3. Enter the password, and click **Update**.

Adding XClarity Orchestrator

When you add a Lenovo XClarity Orchestrator to ServiceNow, XClarity Orchestrator is registered as an event monitor and inventory data can be retrieved from XClarity Orchestrator.

Note: Only one XClarity Orchestrator user can be registered against a single XClarity Orchestrator IP address. The user account must be unique and have the **reporter** role.

Procedure

To add XClarity Orchestrator, complete the following steps.

- Step 1. From the ServiceNow portal, click **Administrator Configuration → Lenovo XClarity Configurations**. A list of registered XClarity Platforms are displayed.
- Step 2. Click **New**.



The screenshot shows the 'New record' form for 'XClarity Configurations'. The form has several required fields marked with a red asterisk: 'USER ID', 'PASSWORD', 'IP', 'MID SERVER', and 'Incident Assignment Group'. There is also an 'Events Forwarder' checkbox. A search icon is present next to the 'MID SERVER' and 'Incident Assignment Group' fields. The 'Add XClarity' button is located at the bottom left of the form.

- Step 3. Enter the username, password and XClarity Orchestrator IP address in the respective fields.
- Step 4. Enter the Incident Assignment Group and MID Server details.
- Step 5. Select **Events Forwarder** to enable forwarding data from XClarity Orchestrator to ServiceNow.

Attention: This value cannot be changed after the registration is complete.

- Step 6. Click **Add XClarity**. The XClarity Orchestrator instance is added.



The screenshot shows the 'Lenovo XClarity Configurations' list view. The table has columns for IP, MID SERVER, PASSWORD, USER ID, Incident Assignment Group, and Events Forwarder. The first record is displayed with the following values: IP: 10.281.54.169, MID SERVER: Dev_97719_Mid_Server, PASSWORD: ***** (masked), USER ID: USERID, Incident Assignment Group: lenovo_xClarity, and Events Forwarder: false.

IP	MID SERVER	PASSWORD	USER ID	Incident Assignment Group	Events Forwarder
10.281.54.169	Dev_97719_Mid_Server	*****	USERID	lenovo_xClarity	false

Note: The new XClarity Orchestrator instance is added only if the specified credentials are correct and the MID Server is running.

Importing inventory data from XClarity Orchestrator

ServiceNow provides access to Lenovo XClarity Orchestrator inventories by retrieving information from XClarity Orchestrator and mapping it to the configuration management database (CMDB).

Procedure

To import inventory data of the selected XClarity Orchestrator instances to the ServiceNow instance, complete the following steps.

- Step 1. From the ServiceNow portal, click **Lenovo XClarity Configuration** under the **Administrator Configuration** group in the left pane.
- Step 2. Select each XClarity Orchestrator, and click **Import Inventories** from the **Actions** drop-down. The **Queue** table shows the progress of retrieved data import. Following is a sample screen.

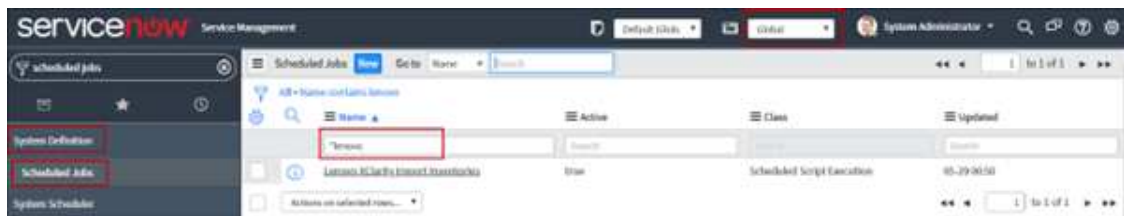
Incident Assignment Group	IP	MID SERVER	PASSWORD	USER ID
Lenovo xClarity	10.241.54.84	LXCO_Mid_Server	*****	USERID

- Step 3. Under **All Inventories**, click the desired module to view the records for each inventory. Following example shows the fan data.

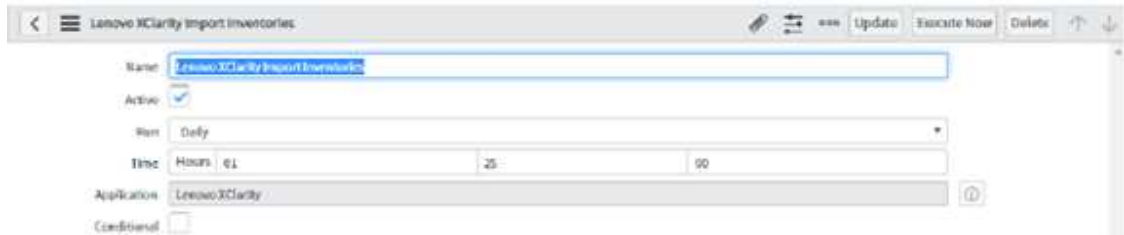
IPv4Address	IPv6Address	Product Name	Server	System-Firmware	Type-Model	lxcaUUID
10.243.9.253.169.2...	fd55:faafe:Lab202	ThinkSystem SR950	proton-253	[{"name": "XClarity Controller", "build": "...	7X12/ABC1WW	D693480E...
10.243.9.63.169.2...	fd55:faafe:Lab20...	ThinkSystem SR530/SR550 MB	XCC-7X03-0123456789	[{"name": "XClarity Controller", "build": "...	7X03/RC2000	D693480...
Not Available	Not Available	Not Available	Node 01	Not Available	Not Available	D693480...
10.243.10.32.169.2...	fd55:faafe:c1od...	IBM Flex System x880 XS Compute Node wit	10.243.10.32	[{"name": "Integrated Management Module V...	7196/NP1	D693480...
10.243.8.86.169.2...	fd55:faafe:Lab202	IBM Flex System x240 Compute Node M5 wit	10.243.8.86	[{"name": "Integrated Management Module V...	9532/AC1	D693480...
10.243.13.20.169.2...	fd55:faafe:Lab20...	IBM Flex System C3240 M5 Compute Node	Discovering	Not Available	8737/AC1	D693480...

- Step 4. Create a scheduled job to update the inventory records at regular interval of time. Not that the schedule is set to 24 hours by default.

1. From the ServiceNow portal, type scheduled jobs in the left panel Search box, and click **System Definition** → **Scheduled Jobs** from the left navigation.



2. Click the Lenovo XClarity Import Inventories link to display the following page.



3. Select the time interval for automatically updating the inventory records from Lenovo XClarity Orchestrator
4. Click **Update**.

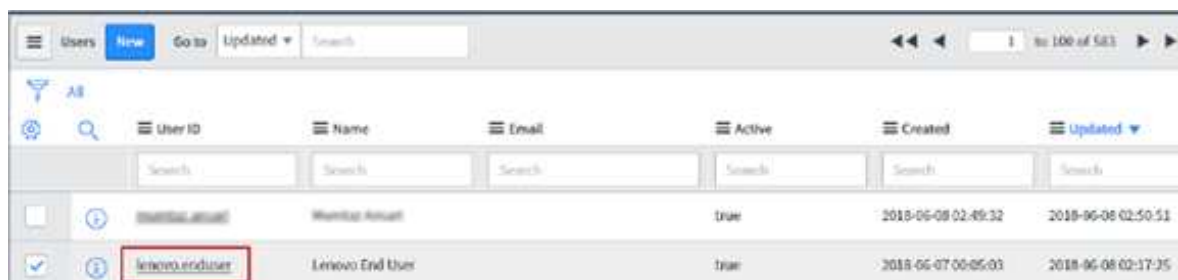
Assigning roles to a user or group

You can assign roles to users and groups.

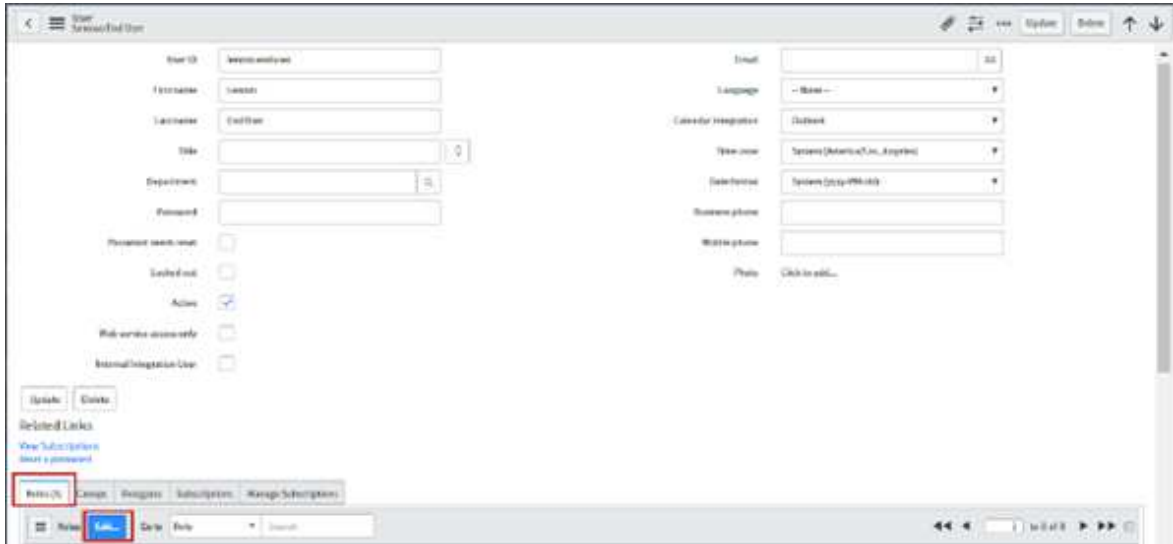
Procedure

To assign a role to a user or group, complete the following steps

- Step 1. From the ServiceNow portal, type "users" in the left panel **Search** field.
- Step 2. Click **User → Administration → Users**. A list of added user is displayed.



- Step 3. Click the user to which you want to assign roles.
- Step 4. Scroll the following screen to the bottom. Then, in the **Roles** tab, click the **Edit** button.



Step 5. Select the roles that you want to assign to the user, and click the appropriate arrow to move the roles to the list on the right.

Note: You must assign the “x_188271_lenovo_xc.user” role to the user. Optionally, you can add more roles, as needed.

Step 6. Click **Save**.

After the roles are assigned to the user, you can view the roles on the **Role** tab.

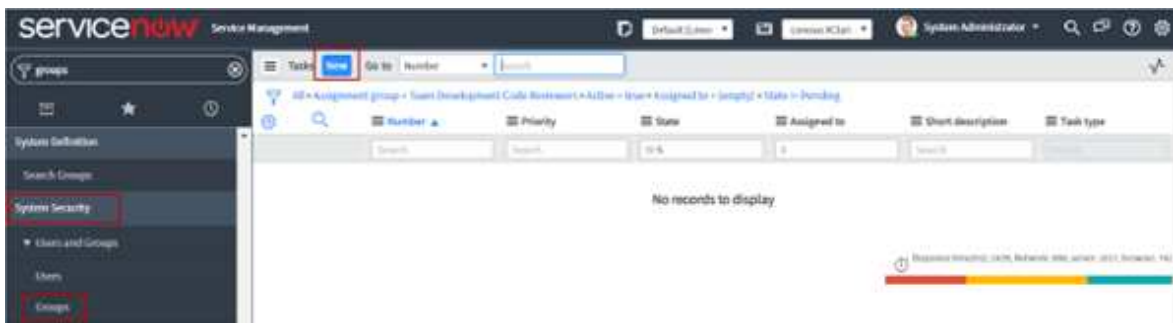
Creating new groups

If users are not added to the group, you can specify email ID in the Group email by editing the Group.

Procedure

To create a group with roles, complete these steps.

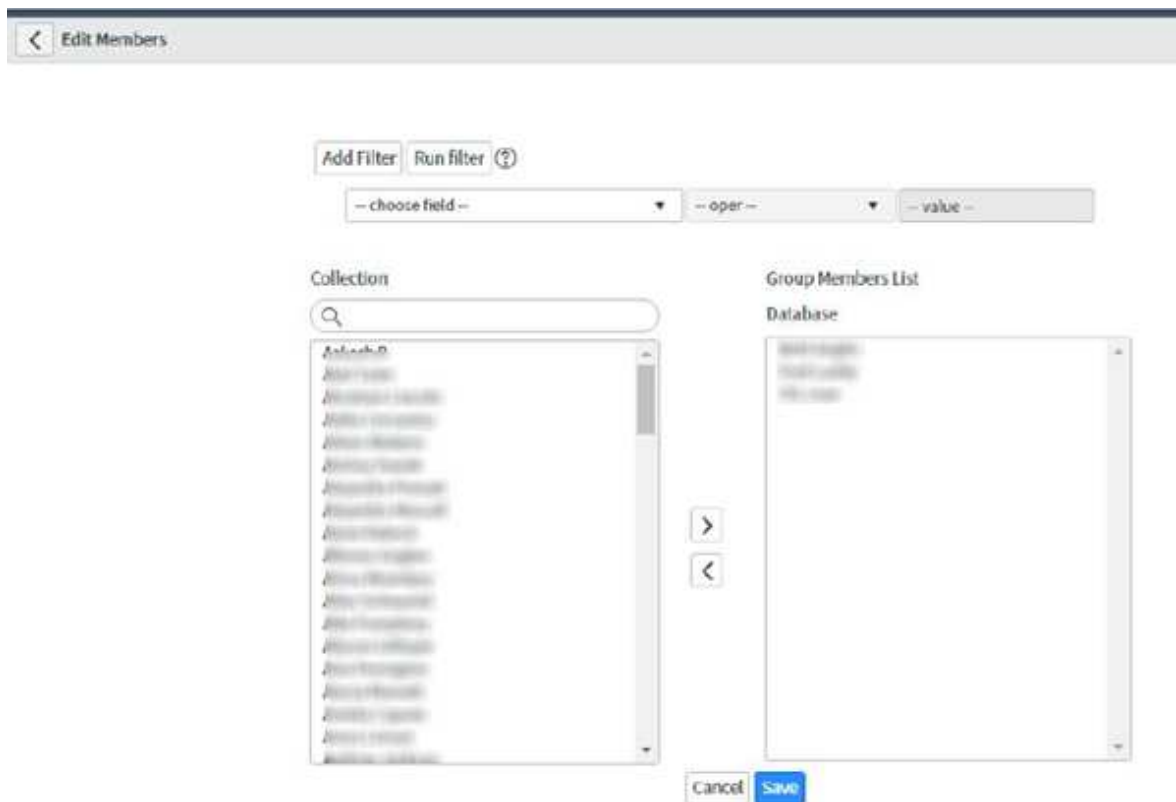
Step 1. From the ServiceNow portal, on the left navigation panel, type **Groups** and click **Groups** under the **System Security > Users and Groups** category.



Step 2. Click **New** to create a new group.

- Step 3. Fill in the fields on the form, and click the **Submit** button to create a group.
- Step 4. After the group is created, select the created group from the list to add members.
- Step 5. In the **Group Members** section at the bottom, click **Edit**.

- Step 6. Type the user names in **Search** field.
- Step 7. Select the name in the **Collection** list, and click the right arrow to move the name to the **Group Members List**.



Step 8. Click **Save**.

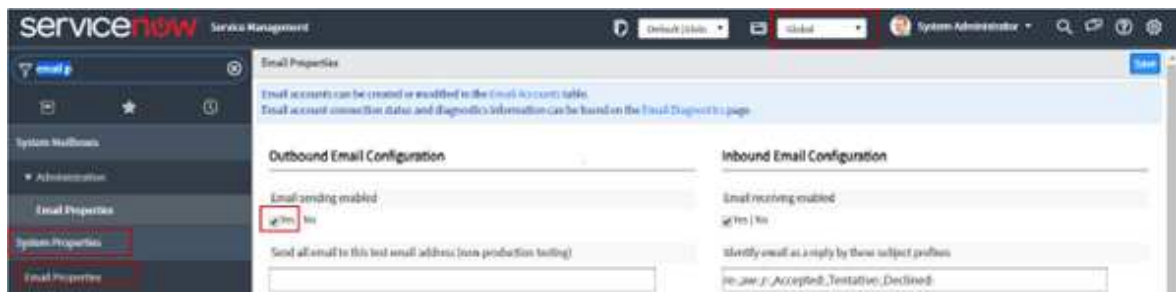
Configuring email notification

When a new incident is raised in the incident table or when the state of the incident changes, an email notification is sent to all users in the assigned group and to a specific assigned user for handling the incident. You can configure the email notification so that the configured email address receives notifications.

Procedure

To configure email notification, complete the following steps.

Step 1. From the ServiceNow portal, type "email properties" in the left pane **Search** box, and click **System Properties** → **Email Properties** from the left navigation.



Step 2. Select **Global** from the **Application** drop-down list on the top right corner.

Step 3. In the **Outbound Email Configuration** and **Inbound Email Configuration** sections, select **Yes**.

Step 4. Click **Save**.

Chapter 3. Uninstalling ServiceNow for Lenovo XClarity Orchestrator

You can uninstall the ServiceNow for Lenovo XClarity Orchestrator plugin from the ServiceNow instance by deleting the application (plugin).

Procedure

To uninstall ServiceNow for XClarity Orchestrator, complete the following steps.

Step 1. From the ServiceNow portal, navigate to **System Application** → **Applications**.



Step 2. In the **Develop** tab, open the ServiceNow for XClarity Orchestrator instance that you want to delete.



Step 3. Click **Delete** on the top-right corner. A confirmation dialog is displayed.

Step 4. Click **Delete** to delete the application.

For more details to delete an application, see your ServiceNow documentation

Chapter 4. Using ServiceNow for XClarity Orchestrator workflows

Use information in this section to perform specific tasks in ServiceNow for Lenovo XClarity Orchestrator.

About this task

- REST Basic Authentication
 - REST User Credentials
- Administrator Configuration
 - Lenovo XClarity Configurations
 - Lenovo XClarity Queues
- Events
 - Lenovo XClarity Incidents
 - Event Monitors
 - Lenovo XClarity Events
 - REST Message
- All Inventories
 - Fan
 - Power Supplies
 - Switches
 - Nodes
 - Storage
 - Chassis

Procedure

To view the ServiceNow workflows, complete the following steps.

Step 1. From the ServiceNow portal, type `Lenovo` in the left panel **Search** box.

Step 2. Click the required link to view more details in the right pane and to perform various actions.

Updating REST user credentials

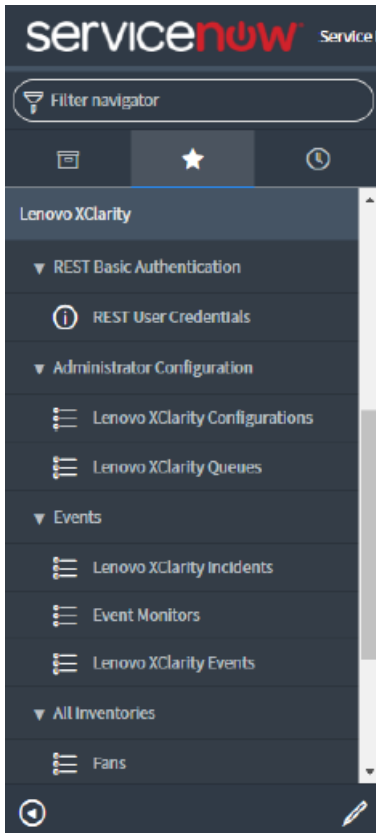
This section provides the details to update REST user credentials.

Values in the Name, Username and Password fields are the default. You must update the password for each newly created REST users after you install ServiceNow for Lenovo XClarity Orchestrator (see [Creating a ServiceNow REST user](#)). It is mandatory to update the credentials of the REST user

Procedure

To update a REST user credentials, complete the following steps.

Step 1. From the ServiceNow portal, click **Lenovo XClarity → REST Basic Authentication → REST User Credentials** in the left panel.



Step 2. Enter the desired name in the **Name** field.

Step 3. Enter the user ID in the **Username** field.

Note: The user ID must be assigned roles `web_service_admin` and `x_188271_lenovo_xc.user`.

Step 4. Enter the desired password in the **Password** field.

Step 5. Click **Update**.

Note: If you change the REST password after one or more event monitors are registered in ServiceNow, you must manually update the same password at the corresponding Lenovo XClarity Orchestrator event monitor credentials. You can do this from XClarity Orchestrator by clicking **Monitoring** → **Event Monitors** → **Event Forwarding** and editing an event monitor.

Viewing the XClarity Orchestrator inventories

You can view related list of inventories, such as fans, power supplies, switches, nodes, storage, and chassis.

Note: If an inventory item is unmanaged in Lenovo XClarity Orchestrator, the changed inventory is updated in ServiceNow when the next scheduler runs or when the inventory is manually imported again. When an inventory item is in the unmanaged state in XClarity Orchestrator, the **Is Obsolete** field is set to “true” for that inventory item.

Procedure

The following examples illustrate how to view different levels of details for inventories.

- Fans in the inventory

- From the ServiceNow portal, click the **All Inventories** group in the left pane, and then click **Fans**.

Name	Bay	Serial Number	Status	Created
Fan_01	1	YK10GM492059	Normal	2022-07-04 00:31:24
Fan_02	2	YK10JPD5T142	Normal	2022-07-04 00:31:24
Fan_03	3	YK10GM492066	Normal	2022-07-04 00:31:24
Fan_04	4	YK10JPD5T213	Normal	2022-07-04 00:31:24
Fan_05	5	YK10GM45K103	Normal	2022-07-04 00:31:24
Fan_06	6	YK10GM492060	Normal	2022-07-04 00:31:24
Fan_07	7	YK10JPD5T117	Normal	2022-07-04 00:31:24
Fan_08	8	YK10JPD5T049	Normal	2022-07-04 00:31:24
Fan_09	9	YK10GM492058	Normal	2022-07-04 00:31:24
Fan_10	10	YK10GM45K102	Normal	2022-07-04 00:31:24

- Click the required record to view details.

Name	Fan_01	Old Display Name	Fan_01
Manufacturer	EM	User Description	
Model ID		Part Number	492059
Manufacturer ID	2001	Machine Type	
Type	Fan	Hardware Position	S2
Serial Number		UUID	10012001000000000000000000000000
EM Serial Number	YK10GM492059	URL	http://10.10.10.10:8080/10012001000000000000000000000000
Site Number	1	Product ID	342
Description	Blade/Fan Module	Power State	Unknown
CMN Health State	Normal	Pin ID	10
Manufacturer Code	3004	Product Name	EM Fan System Enterprise Clouds Blade Fan Module
SKU ID	010	SKU	812000

You might need to scroll to view more details.

The tabs in between indicates sections that contain data that is related to same inventory. The tabs at the bottom are called as Related Lists that contain arrays of data or deep dives that are related to a particular record of an inventory.

Note: If there are more details of records that are shown in the Related Lists, click on any record in the extreme left column to display the details.

- Nodes and the boot-order list in the inventory
 1. Select record under the **Nodes** inventory.



2. Select **Boot Order Related List**



3. Click on the record in the left most columns. You are redirected to another page that contains details about a particular boot order that is under a particular record in the Node Inventory table.



4. Select any one of the record from the BootOrderList related list. You are redirected to another page listing two related lists.
 - Current Boot Order Devices
 - Possible Boot Order Devices



- Click on any one of the record in the related list to view more details.

This type of deep dive is found in the following related links under the inventories.

Inventory Name	Related List Name
Chassis	CMMS
Chassis	Energy Policies
Chassis	Fan Muxes
Nodes	Activation Keys
Nodes	Add In Cards
Nodes	Boot Order
Nodes	IP Interfaces
Nodes	On Board PCI Devices
Nodes	PCI Devices
Switches	IP Interfaces

Similarly, you can view the details of other inventories as well.

Viewing the CI Relationship among connected inventories

After importing the Lenovo XClarity Orchestrator data into ServiceNow CMDB, mapping is done to create inventory relationship by the plug-in.

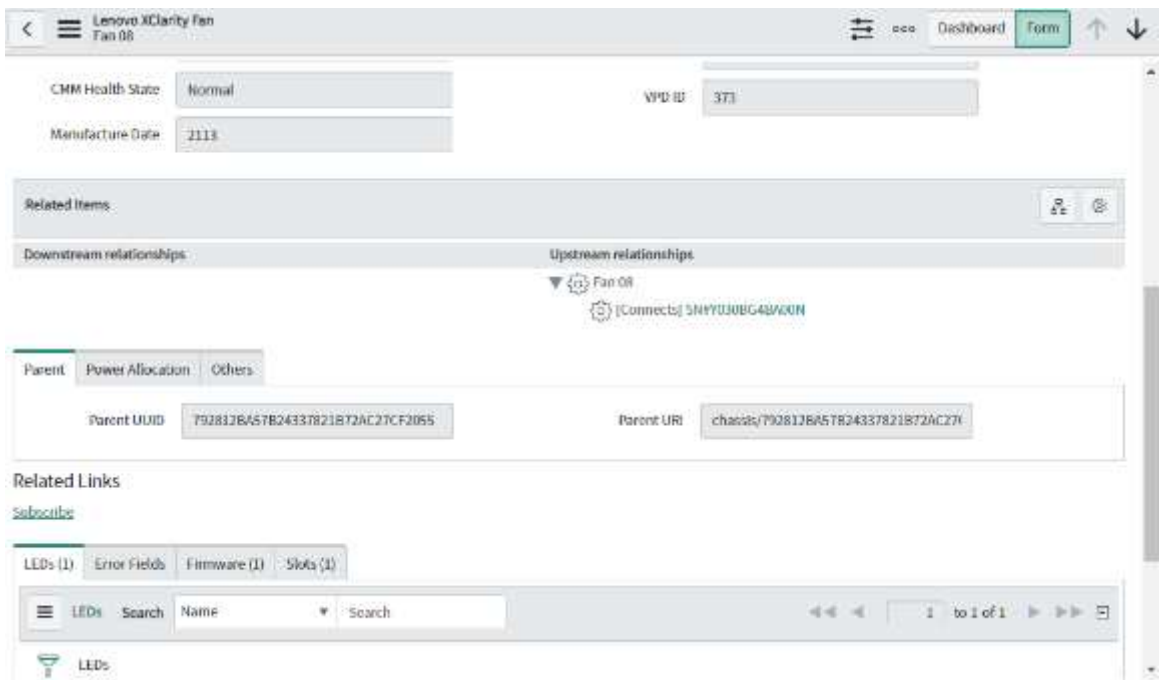
Under each inventory, there is a section tab named **CI Relations/ Related Items**. Chassis is the parent of all inventories for any XClarity Orchestrator. Under **All Inventories** (except chassis), their parent chassis is displayed as follows.




Procedure

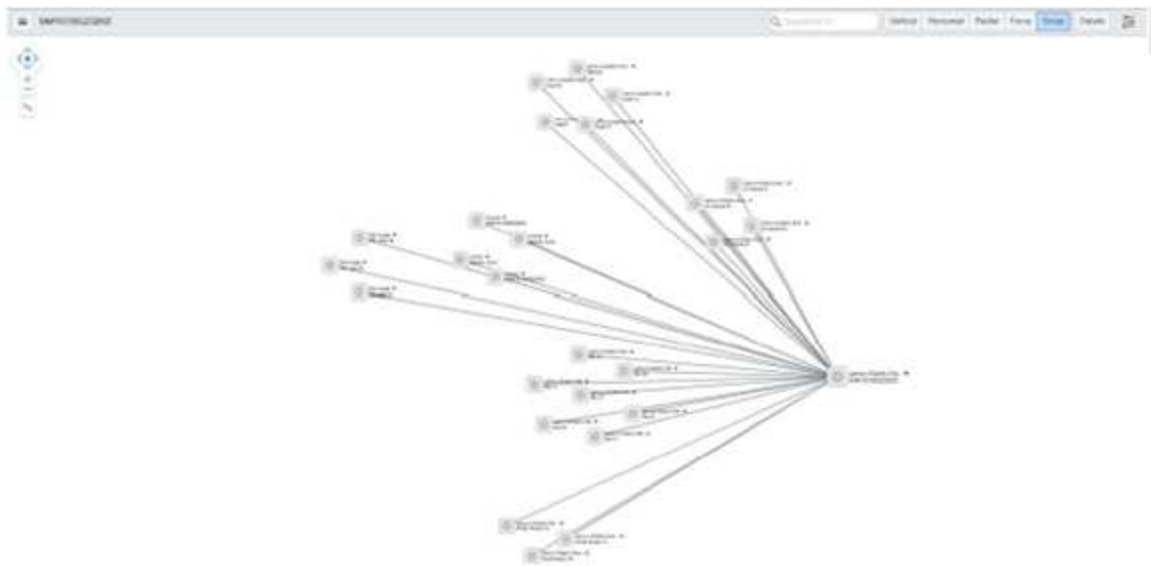
For example, to view the relationship of devices, complete the following steps.

- From the ServiceNow portal, click the **All Inventories** group in the left pane, and then click **Fans**.
- Click the desired fan to view the relationship.
- Click in the **Related Items** section to list the dependency views. Following is a sample dependency view for the CI Relations under chassis. This list shows the connected device under Chassis.



Note: The red cross icon (✖) indicates that an event was generated against that inventory and a ticket is open.

Step 4. Click on the  icon, and select **Group** to view the Dependency View. You are redirected to the other page.



Similar devices are grouped together under their parent chassis. The arrows indicate the direction of data flow.

Clearing the XClarity Orchestrator inventory

You can clear the Lenovo XClarity Orchestrator inventory in ServiceNow.

Procedure

To clear inventory, complete the following steps.

Step 1. From the ServiceNow portal, select the XClarity Orchestrator instances from the Lenovo XClarity Configurations page, and select **Clear Inventory**.

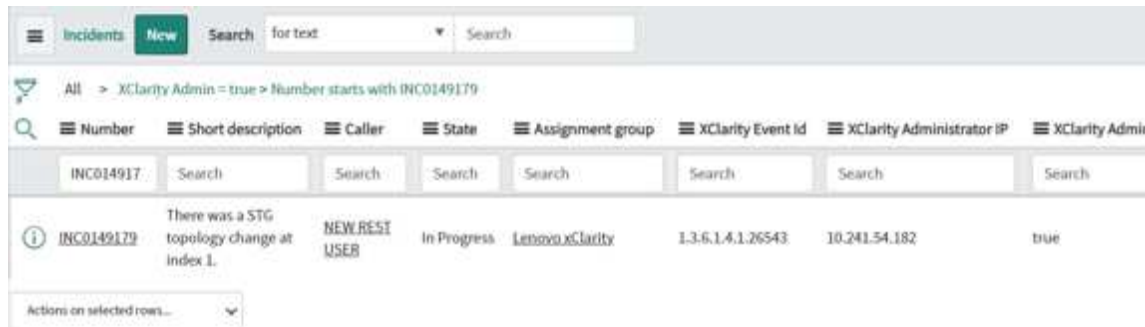


Step 2. Click **OK** to confirm

Monitoring events/incidents

You can monitor Lenovo XClarity Orchestrator events from ServiceNow.

After successful registering (adding) XClarity Orchestrator, all events/ that occur in the XClarity Orchestrator instances are pushed to ServiceNow instance and are listed in Lenovo XClarity Incidents.



Of the listed events, only the events that are serviceable by Lenovo Support (with a service parameter of 200 in XClarity Orchestrator) is added to the Lenovo XClarity Incidents table.

As incident status changes in ServiceNow, the status is reflected in the corresponding XClarity Orchestrator. An email notification is sent to the group or individual that is the assignee of ticket.

Note: Only user accounts with the “admin” role or end users with “itil” roles can view the incidents.

Procedure

To change the view of an incident to xClarityIncident, complete the following steps.

Step 1. From the ServiceNow portal, click the **Lenovo XClarity → Lenovo XClarity Incidents** to open an incident from list.

Step 2. Click on the icon near an Incident name at the top left corner, and then click **View → xClarityIncident**.

		componentID	managerID	Msg	Service	Severity	Updated by
	10.241.54.227	B9A5EDAF0C962351FBACC8271F50CD405		A user logged out of a device	None	Informational	restuser
	10.241.54.227	B9A5EDAF0C962351FBACC8271F50CD405		A user logged out of a device	None	Informational	restuser
	10.241.54.227	B9A5EDAF0C962351FBACC8271F50CD405		A user logged out of a device	None	Informational	restuser
	10.241.54.227	B9A5EDAF0C962351FBACC8271F50CD405		A user logged in to a device	None	Informational	restuser
	10.241.54.227	FFFFFFFFFFFFFFFFFFFFFFFF		Inventory has changed [{"switches/B9A5ED...	None	Informational	restuser
	10.241.54.227	FFFFFFFFFFFFFFFFFFFFFFFF	AB5E150DAA28456A8367E2AEBF555CBC	Event forwarding monitor LXCO_Forwarder_...	User	Warning	restuser
	10.241.54.227	B9A5EDAF0C962351FBACC8271F50CD405		A user logged in to a device	None	Informational	restuser
	10.241.54.227	FFFFFFFFFFFFFFFFFFFFFFFF		Event forwarding monitor LXCO_Forwarder_...	User	Warning	restuser
	10.241.54.227	B9A5EDAF0C962351FBACC8271F50CD405		A user logged out of a device	None	Informational	restuser

The form automatically reloads, and the selected view is applied for all the incidents. The following figure shows group/individual allocated against this incident and the ticket has been updated. A notification message is displayed.



You can change the state of a specific incident by changing the value of the **Impact** drop down menu.

Deleting XClarity Orchestrator

When you delete Lenovo XClarity Orchestrator, imported data is removed, and XClarity Orchestrator is deregistered as an event monitor. Incidents that were raised by XClarity Orchestrator are not removed, but further incidents cannot be raised for that XClarity Orchestrator instance.

Procedure

To delete XClarity Orchestrator, complete the following steps

Step 1. From the ServiceNow portal, select the XClarity Orchestrator instances from the Lenovo XClarity Configurations page, and select **Delete XClarity**.



Step 2. Click **OK** to confirm the deletion.

Step 3. Click **OK** to confirm that imported data will be deleted and XClarity Orchestrator will be deregister the ServiceNow instance.

Chapter 5. Troubleshooting

This section describes situations that sometimes occur with ServiceNow for Lenovo XClarity Orchestrator and how you can solve them.

Viewing logs

Log details are available under **System Logs**. Only users with “admin” privileges can view the logs.

Troubleshooting and common errors

Review these common errors when troubleshooting issues with ServiceNow for Lenovo XClarity Orchestrator.

- When registering a new XClarity Orchestrator, if an error occurs with the MID Server, an appropriate error message is displayed. For this case, verify that the MID Server is running.
- If an error occurs while retrieving inventories, error status is displayed in the **Queue** table, and appropriate logs are available under **System Logs**. Only users with “admin” privileges can view the logs.