

Monitoring devices

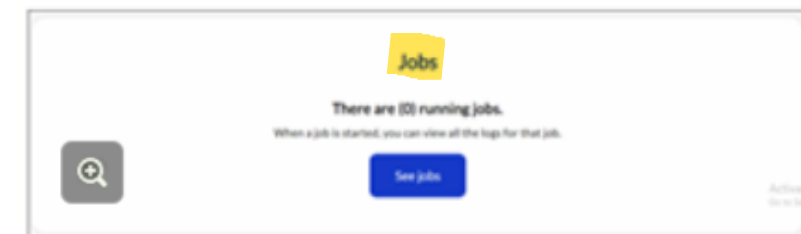
Events and alerts

Lenovo

Monitoring functions

XClarity One can monitor the asset inventories, firmware, health status, and event history of managed devices. This information can be accessed by selecting **Monitor** from the context menu. The information is grouped into the following sections:

- **Alerts** are hardware or management conditions that require investigation and user action. XClarity One polls the resource managers and displays alerts that are received from those resources.
- **Events** are all the resource and audit events.
- **Jobs** are long-running tasks that run in the background. A log of all jobs that XClarity One has started is available.
- **Forwarding** can send event data from XClarity One to external applications for monitoring and analysis.



Monitoring alerts

The **Alerts** section of the **Monitor** page contains a **donut chart**, which shows the total number of **critical** and **warning** alerts, and also a **bar chart**, which shows **how old** the **alerts** are.

Click the **donut chart** to go to the **Alerts** page, where **alerts** are listed with a **description**, a **severity level**, and **resource information**. By hovering the cursor over the item, the **date** and **time** of the **alert** is also shown.



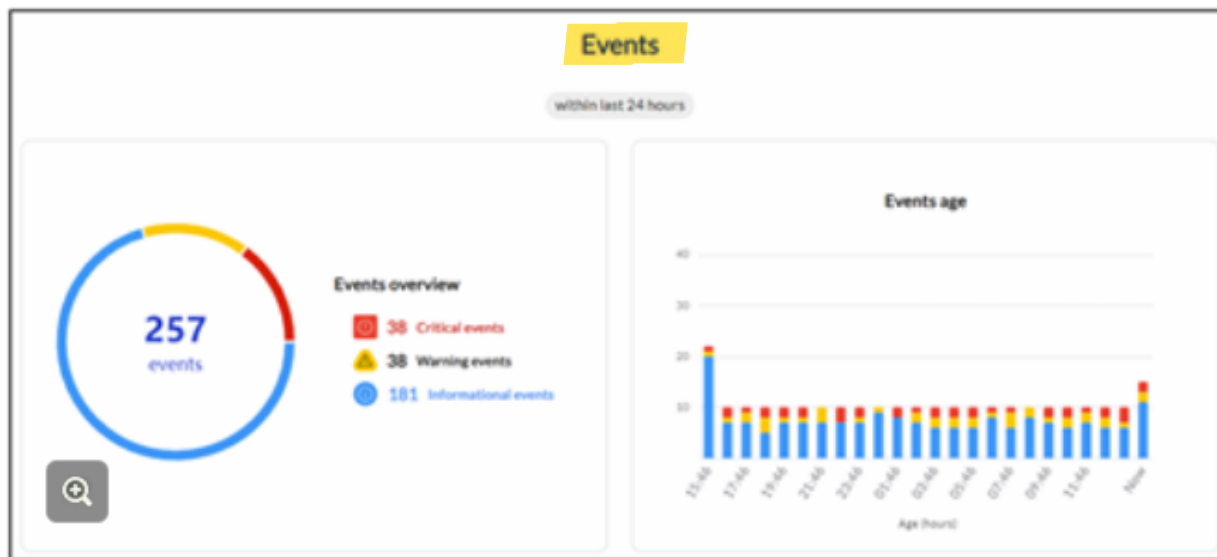
Alert	Severity	Resource	Date
<p>Power supply Power Supply 1 has lost input.</p> <p>When a hardware event is detected by the Lenovo XClarity Controller on the server, the Lenovo XClarity Controller writes that event in the system-event log on the server.</p> <p>Complete the following steps to resolve this problem:</p> <ol style="list-style-type: none"> 1) Check the LEDs on the PSU. 2) If the AC LED is not lit, check the power cord input and output voltage. 3) If the DC LED is not lit, remove and re-install the power supply. 4) If the problem persists, collect service data and contact Lenovo Support. 	Warning	Cyborg SR650-31.21 10.241.31.21	Yesterday 04/16/2024 - 16:01
Sensor Phy Presence Set has transitioned from normal to non-critical state.	Warning	Cyborg SR650-31.21 10.241.31.21	Yesterday
Device Phy Presence Jmp has been added.	Warning	Cyborg SR650-31.21 10.241.31.21	Yesterday

Monitoring events

The **Events** section of the **Monitor** page contains a **donut chart** and a **bar chart**. The **donut chart** shows the total number of critical, warning, and informational events. The **bar chart** shows how old the events are.

All the information shown here relates to events created in the last 24 hours.

Click the **donut chart** to go to the **Events** page, where events are listed with a **description**, a **severity level**, and **resource information**. By hovering the cursor over the item, the **date and time** of the event is also shown.



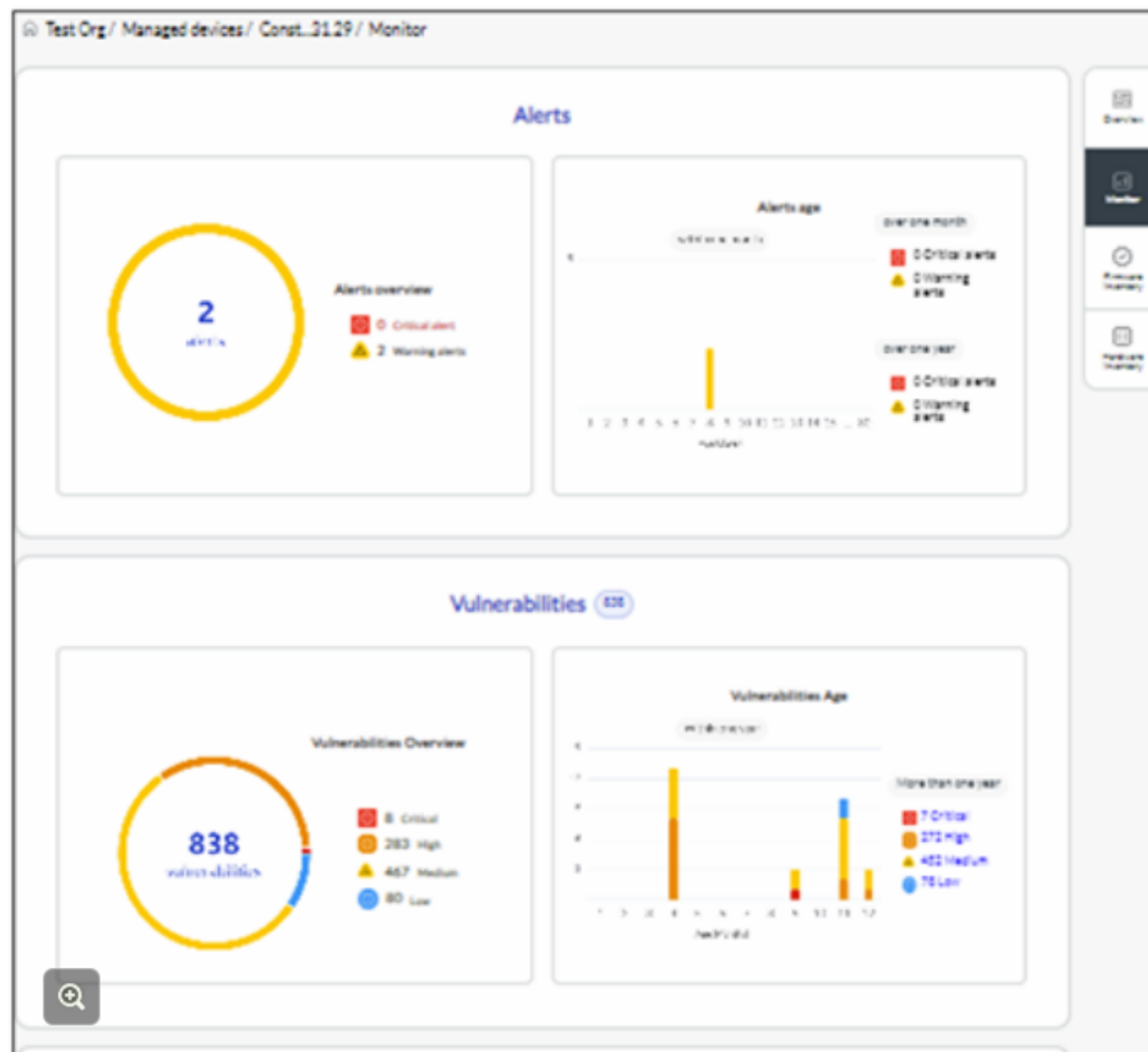
The screenshot shows the 'Events' page with a search bar and a table of events. The table has columns for Event, Severity, Resource, Date, and User. The events listed are related to creating collections of servers and a warranty expiration.

Event	Severity	Resource	Date	User
User npopa@lenovo.com from remote IP address 192.168.6.191 successfully created the collection All servers with 2 members.	Informational	All servers	34 minute(s) ago	npopa@lenovo.com
User npopa@lenovo.com from remote IP address 192.168.6.191 successfully created the collection 7X08 servers with 1 members.	Informational	7X08 servers	34 minute(s) ago	npopa@lenovo.com
User npopa@lenovo.com from remote IP address 192.168.6.191 successfully created the collection 7X04 servers with 1 members.	Informational	7X04 servers	34 minute(s) ago	npopa@lenovo.com
The warranty for device Carnage-SR550-31.23 has expired.	Warning	Carnage-SR550-31.23 10.241.31.23	53 minute(s) ago	-

04/22/2024 - 12:33

Monitoring specific device events

Specific devices can be monitored by selecting **Monitor** → **Managed devices** → and then choosing a device. Information about the device will be shown on a new page.



Custom alerts

Setting up custom alerts to monitor a device

Lenovo

XC1 custom alerts

XClarity One can set up thresholds on devices to monitor processor and memory usage. On the settings screen, select **Thresholds** from the context menu on the right.

The following configurable values are available:

- **Usage:** Select warning and critical thresholds
- **Time:** Select continuous or a specific period

If the specified threshold is exceeded, an alert will be raised along with a list of actions to take. For example, if memory usage exceeds 52% for a cumulative 10 minutes within a 60-minute window, a warning alert will be triggered.

Custom Alerts Test / Thresholds

Usage Thresholds

Name	Warning threshold	Critical threshold	Alert duration	Details
Memory	52%	54%	10 of 60 minutes	Memory Utilization thresholds for warning and critical alert and alert duration
Processor	52%	54%	10 of 60 minutes	Processor Utilization thresholds for warning and critical alert and alert duration

Context menu on the right:

- Coming soon
- General
- Call home
- Data forwarding
- Thresholds

Device J100CMM4 has CPU Utilization values above 52 % for 10 out of 60 minutes See details		J100CMM4 10.240.26.34	13 hour(s) ago
Device J100CMM4 has CPU Utilization values above 54 % for 10 out of 60 minutes See details		J100CMM4 10.240.26.34	13 hour(s) ago
Device J100CMM4 has Memory Utilization values above 52 % for 10 out of 60 minutes See details		J100CMM4 10.240.26.34	13 hour(s) ago
 Device J100CMM4 has Memory Utilization values above 54 % for 10 out of 60 minutes See details		J100CMM4 10.240.26.34	13 hour(s) ago

Forwarding monitoring data

Forwarding data by web service or email

Lenovo

Forwarding events

XClarity One can forward data about events to external services for monitoring and analysis.

Filters can be used to make sure that only data that meets specific criteria is forwarded.

After being set up, data forwarders can be enabled, edited, or deleted.

The following methods can be used to forward data:

- **Email:** Event data is forwarded to selected email addresses
- **Web service:** Event data is forwarded over the network to a REST web service

GARegression / Forwarding

Data forwarding 2

Search for anything

<input type="checkbox"/>	Name	State	Description	Type	Destination
<input checked="" type="checkbox"/>	rest01	⊖		REST Forwarder	https://dev207895.service-now.com/api/x_757322_lenovo_xc/forwarder_del
<input type="checkbox"/>	Test SMTP	⊖	test	SMTP (Email) Forwarder	psaxena1+gaqa2user@lenovo.com

1 selected

Items displayed 10 1 - 2 of 2

- Enable data forwarder
- Edit data forwarder
- Delete data forwarder

Creating a **data forwarder**


Work through the following steps to create a **data forwarder**:

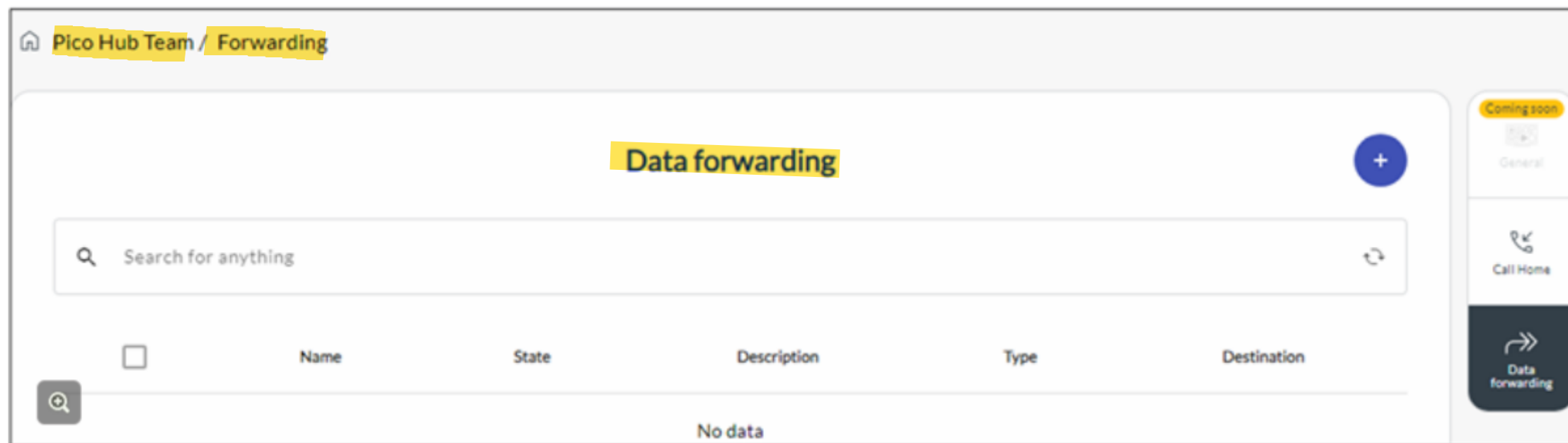
Click each number in turn to see the procedure.

Step



Creating a data forwarder

Step 1. Select **Data forwarding** from the **Settings** menu, and then click  to create a new data forwarder.



Step



Creating a data forwarder

Step 2. The **Create a data forwarder** pop-up window will be displayed. Users can select either a **Web service** or **Email** data forwarder, and then enter a name and description before continuing to the next step.

The image displays two screenshots of the 'Create a data forwarder' pop-up window. Both screenshots show a sidebar on the left with three options: 'Data forwarder' (selected with a green checkmark), 'Configure', and 'Filter'. The main area of the window is titled 'Create a data forwarder' and contains the instruction 'Select the platform where you want to forward data.' Below this instruction are three input fields: 'Type*', 'Name*', and 'Description'. In the left screenshot, 'Web service' is selected in the 'Type*' field, 'Test Webservice' is entered in the 'Name*' field, and 'Test webservice forwarder' is entered in the 'Description' field. In the right screenshot, 'Email' is selected in the 'Type*' field, 'Test SMTP' is entered in the 'Name*' field, and 'Test SMTP Forwarder' is entered in the 'Description' field. A red box highlights the 'Type*' field in both screenshots.

Step



Creating a data forwarder

Step 3. Configure the forwarder destination. Click the buttons for more information.

Configuring the forwarder destination through the web service

- Event data is forwarded over the network to an external REST web service using the HTTPS protocol. Secure port 443 is used by default.
- The **Test Connection** button can be used to test the settings. This test involves XClarity One importing and validating the certificate chain from the web service and then sending a sample event to the web service.

Web service

Email



The screenshot shows a configuration window titled 'Configure Connection to Web Service'. On the left, under 'Forwarder', there are three options: 'Data forwarder' (selected with a green checkmark), 'Configure' (with a blue circle), and 'Filter' (with a grey circle). Below these is a magnifying glass icon. The main area contains the following fields and controls:

- URL:** A text box containing 'https://dev207895.service-now.com/api/x_757322_lenovo_xc/forv'.
- Timeout:** A numeric input box set to '30' with the unit 'Sec'.
- Request Method:** Radio buttons for 'POST' (selected) and 'PUT'.
- Authentication Type:** Radio buttons for 'User credentials' (selected) and 'Token Header'.
- Username:** A text box containing 'qarestuser'.
- Password:** A masked text box (dots) with a toggle icon to show/hide the password.
- Test Connection:** A button at the bottom with a circular arrow icon.

Step



Creating a data forwarder

Step 3. Configure the **forwarder destination**. Click the buttons for more information.

Configuring the forwarder destination through **SMTP** for an **email data forwarder**

- Users can **forward event** data to **email addresses** for one or more users in the organization.
- Users **cannot send** data to **external users**.
- The emails are sent from noreply@xclarityone.lenovo.com with an **Event forwarding** subject.

Web service

Email

The screenshot shows a 'Forwarder' configuration window. On the left, there are three options: 'Data forwarder' (selected with a green checkmark), 'Configure' (with a blue circle), and 'Filter' (with a grey circle). On the right, the 'Configure Email' section is active. It has a title 'Configure Email' and a subtitle 'Provide a list of recipients where you want to send data.' Below this, there is a 'From' field containing 'noreply@xclarityone.lenovo.com'. A 'Recipients' dropdown menu is open, showing a list of email addresses: 'hdhanabalan+qatest1@lenovo.com', 'hsharma+qa1@lenovo.com', 'kmaharana+test1@lenov...', 'lbirzu@lenovo.com', and 'mdragomir+1@lenovo.com'. The first three addresses are checked with blue checkmarks, while the last two are unchecked.

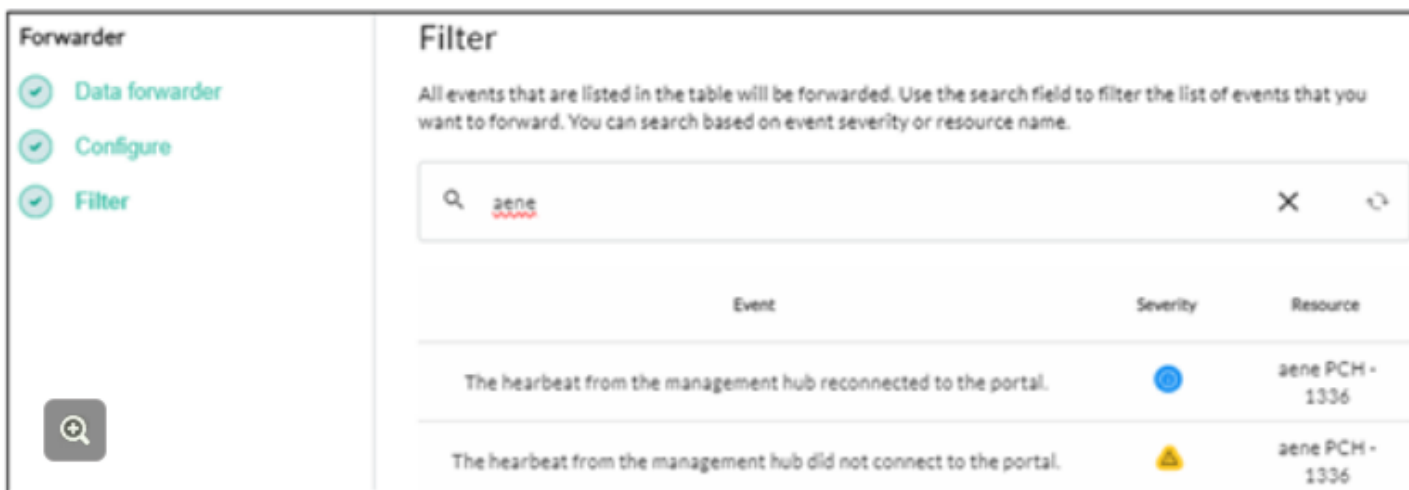
Step



Creating a data forwarder

Step 4. Configure the event filter

- **Filters** can be used so that **not all data is forwarded**. Events can be selected based on the **resource** or **device component** that generated the event, or by **event severity** (informational, warning, critical).
- If you **do not provide criteria**, data is **forwarded for all events generated by all resources**.
- Users have the option to **enable/disable** the **data forwarder**.



Step



Creating a data forwarder

An example of an event forwarded by email

An example of an event forwarded by the web service to an external application

Step **1** — **2** — **3** — **4** — **5**



Monitoring jobs

Jobs details, sub-jobs, and logs

Lenovo

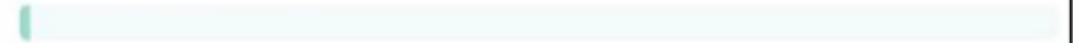
Jobs overview

- A **job** is a **process** created by a **system** or **user action**. The following actions generate jobs:
 - **Unmanage hub**
 - **Discover device**
 - **Manage device**
 - **Unmanage device**
 - **Power operations**
 - **Firmware update**
 - **Create a service ticket**
- When a job is started, a pop-up window with a **progress bar** will be displayed.
- The **Jobs** panel on the **Monitor** page shows how many jobs are **in progress**.
- Clicking the panel title or the **See jobs** button will redirect the user to the **Jobs** page.

Discovering manageable devices

A job was created to complete this task. If you close this dialog, you can monitor the job status from the Jobs panel, which is accessed from the Monitor tab.

Created: 04/10/2024 - 17:01:33



 **Running**

[See job details](#)

[Close](#)

Jobs

There are (2) running jobs.

When a job is started, you can view all the logs for that job.

[See jobs](#)

Jobs page

- On the **Jobs** page, **root jobs** are listed with their **title**, **status**, **start** and (if applicable) **end time**, and the **resource** for which the job was **generated**. By hovering the cursor over a **running job**, a **percentage completion** figure can also be seen.
- A maximum of **500 jobs** can be listed. If more jobs are created beyond this number, the **oldest jobs** will be **automatically deleted**.
- Jobs can also be **deleted manually**.
- More information about a job can be seen by clicking the job title.

Jobs

Search for anything

<input type="checkbox"/>	Jobs	Progress	Resource
<input type="checkbox"/>	Manage devices	Created: 04/16/2024 - 13:59:22 Complete: 04/16/2024 - 14:02:13	Madrid-SDV-ST650v3-36.41 10.241.36.41
<input type="checkbox"/>	Manage devices	Created: 04/16/2024 - 13:54:51 Stopped With Errors: 04/16/2024 - 13:55:13	Madrid-SDV-ST650v3-36.41 10.241.36.41
<input type="checkbox"/>	Discovering manageable devices	Created: 04/16/2024 - 13:54:01 Complete With Warnings: 04/16/2024 - 13:54:22	Boarding1337 10.241.36.204
<input type="checkbox"/>	Manage devices	Created: 04/16/2024 - 13:53:38 Complete: 04/16/2024 - 13:53:13	Colossus-ST650v2-36.71 10.241.36.71
<input type="checkbox"/>	Discovering manageable devices	Created: 04/16/2024 - 13:48:44 Complete: 04/16/2024 - 13:48:44	aene PCH - 1337 10.241.35.245
<input type="checkbox"/>	Discovering manageable devices	Created: 04/16/2024 - 13:48:22 Complete: 04/16/2024 - 13:48:28	aene PCH - 1337 10.241.35.245
<input type="checkbox"/>	Removing hub aene PCH - 1337	Created: 04/16/2024 - 13:47:11 Complete: 04/16/2024 - 13:47:11	aene PCH - 1337 10.241.35.245
<input type="checkbox"/>	Executing service process for device lctc-lab-r30u19-bmc.lctc-mgmt	Created: 04/16/2024 - 08:13:22 Aborted: 04/16/2024 - 08:13:40	lctc-lab-r30u19-bmc.lctc-mgmt 10.212.4.61

Jobs

Search for anything

Delete selected jobs

<input type="checkbox"/>	Jobs	Progress	Resource
<input checked="" type="checkbox"/>	Manage devices	Created: 04/16/2024 - 13:59:22 Complete: 04/16/2024 - 14:02:13	Madrid-SDV-ST650v3-36.41 10.241.36.41
<input checked="" type="checkbox"/>	Manage devices	Created: 04/16/2024 - 13:54:51 Stopped With Errors: 04/16/2024 - 13:55:13	Madrid-SDV-ST650v3-36.41 10.241.36.41
<input type="checkbox"/>	Discovering manageable devices	Created: 04/16/2024 - 13:54:01 Complete With Warnings: 04/16/2024 - 13:54:22	Boarding1337 10.241.36.204

Filtering jobs by device

Starting from a device page, users can navigate to the **Monitor** page and then the **Jobs** page to see only the jobs for that specific device.

- Click on a **job** to open its **sub-jobs**, which provide **additional details** about **progress** and **completion status**
- Clicking any **sub-job** opens a dialog that displays a **history of logs** related to the device. (Click [HERE](#) for details)

