

Reports

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About Reports

You can utilize data from the **Reports** feature to derive insights into your network and its operation. Reporting data in several formats and providing flexible scheduling and configuration options allows you to easily customize both data and reports to meet your operational needs.

The **Reports** feature supports the following use cases:

- Capacity planning: Understanding how the application utilizes the devices within your network.
- Change of pattern: Tracking how usage pattern trends change on the network. Usage pattern trends include clients, devices, bands, or applications.
- Operational reporting: Reviewing reports about network operations, such as upgrade completions or provisioning failures.
- Network health: Determining the overall health of your network through reports.

Run Your First Report

Perform this procedure to begin running specialized data reports about your network.

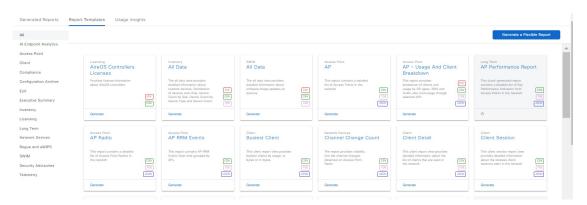
Before you begin

Run a successful **Discovery** job in Catalyst Center. You can check whether a **Discovery** job is successful in **Device Inventory**. From the top-left corner, click the menu icon and choose **Provision** > **Inventory** to view the results

- **Step 1** From the top-left corner, click the menu icon and choose **Reports**.
- Step 2 In the Run Your First Report window, click Start.

The **Report Templates** window displays the supported reporting categories. A link represents each category. Click a link to view only the supported reports for that category.

Figure 1: Report Templates Window



Note Available options depend on the type of report selected.

Step 3 After clicking a link, review the **Report Templates** window for the selected category.

Each tile represents a template and contains information about the report and links to generate a report. Determine which template you want to use to generate a report. Within each tile are icons that represent the supported file types for the reports (PDF, CSV, TDE, or JSON).

Step 4 In the tile, click the header to view a sample report.

A **Preview** window appears for the sample report. Use the side bar in the window to scroll down and review the entire sample report displaying the following data:

- Applied filters (data filters that are used in building the report).
- Data metrics and summaries.
- Graphical representation of the data (including line, bar, and pie graphs).
- Tables that assist you in analyzing data.

Note You can use the sample report to plan how you want your report to look.

Step 5 Click **X** to close the preview.

Step 6 In the tile, click the **Generate** link to configure parameters to build a report.

The **Generate** window lets you choose a format type for the report, apply data filters for your reports, and set up schedules for the actual report generation.

Step 7 In the Generate a New Report window, click Let's Do It to get started with the wizard.

Alternatively, click the menu icon and choose **Workflows** > **Generating a New Report** to launch the wizard for generating a new report.

Step 8 In the **Select Report Template** window, choose the template for the report.

The **Template** consists of the individual report types within the categories for the release. You can review an autogenerated sample in the same window.

Click Next.

Step 9 In the **Setup Report Scope** window, enter a name for the report and choose scope.

Enter a report name in the **Report Name** field and click the **Scope** field to display the available filter. Click the filter options that you want for the report.

Note The Setup Report Scope options change depending upon the selected Template Group.

Click Next.

Step 10 In the **Select File Type** window, choose the file type for the report.

Depending on the report that you are creating, the following **File Type** options are available:

- PDF
- · CSV
- Tableau Data Extract
- JSON

For the **CSV**, **JSON**, and **Tableau Data Extract** file types, use the **Fields** option to choose attributes for the CSV, JSON, and Tableau Data Extract results.

- **Step 11** In the **Schedule Report** window, choose the schedule for the report. Then, click **Next**.
- **Step 12** In the **Delivery and Notification** window, choose the delivery mechanism for the report:
 - None: No email or webhook notifications sent.
 - **Email Report**: Receive the email report as a link or attachment.

Note If you have not yet configured an SMTP server for the emails, you are prompted to configure one. Follow the prompts to the **Email** tab in the GUI to configure an SMTP server. Choose **System** > **Settings** > **External Services** > **Destinations** > **Email**.

• Link: The email notification of a successfully compiled report has a link back to itself and the **Generated Reports** window under **Reports**. You can view and download the report from this link and location.

Note

Email notifications with embedded links to reports support up to 20 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

• Attachment: The Report is attached to the email notification.

Note

PDF reports support email notification attachments of up to 20 MB in size and up to 10 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

Catalyst Center sends the following email notifications for the report:

- Report is in the queue waiting to be processed.
- Report processing is in progress.
- · Report has successfully been compiled and is completed.
- Webhook Notification: Notification is sent as a webhook to the configured webhook URL address (callback URL). Choose a webhook from the drop-down list (Subscription Profile field).

Note

If you have not yet created a webhook, you are prompted to create one. Follow the prompts to the **Webhook** tab in the GUI to configure a webhook. In general, to configure a webhook, choose **System** > **Settings** > **External Services** > **Destinations** > **Webhook**.

You will receive the status for the report in the form of webhook notifications like "In Queue", "In Progress", and "Success". You can also view these notifications in the GUI.

Step 13 In the **Summary** window, review the configuration and edit any of the files, if necessary.

Click Generate Report.

After report generation, a success window appears.

Step 14 Click the View all Reports link.

The **Generated Reports** window shows instance details of the scheduled report.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports, on page 45.

Run an Access Point Report

Perform this procedure to configure **Access Point** reports for your network.

Before you begin

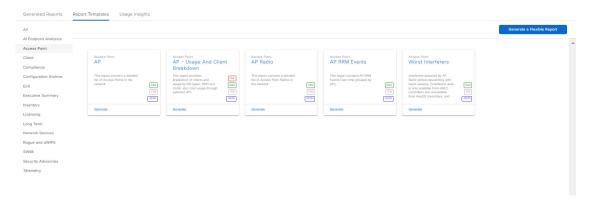
Run a successful **Discovery** job in Catalyst Center. You can check whether a **Discovery** job is successful in **Device Inventory**. From the top-left corner, click the menu icon and choose **Provision** > **Inventory** to view the results.

Step 1 From the top-left corner, click the menu icon and choose **Reports** > **Report Templates**.

The **Report Templates** window displays the supported reporting categories. A link represents each category. Click a link to view the supported reports for the selected category.

Step 2 After clicking a link, review the **Report Templates** window for the selected category.

Figure 2: Access Point Report



Each template is represented by a tile and contains information about the report and links to generate a report. Determine the template that you want to use to generate a report.

Step 3 In the tile, click the header to view a sample report.

A window appears for the sample report. Use the side bar in the window to scroll down and review the entire sample report.

Note You can use the sample report to plan how you want your report to look.

- **Step 4** Click **X** to close the preview.
- **Step 5** In the tile, click the **Generate** link to configure parameters to build a report.

The **Generate** window lets you choose a format type for the report, apply data filters for your reports, and set up schedules for the actual report generation.

Step 6 In the Generate a New Report window, click Let's Do It to get started.

To skip this screen in the future, check the **Don't show this to me again** check box.

Step 7 In the Select Report Template window, choose the template from Template drop-down list.

Note The **Template** consists of the individual report types within the category for the release.

You can review an auto-generated sample in the same window.

- Step 8 Click Next.
- **Step 9** In the **Setup Report Scope** window, name the report, choose the scope and choose the time range.

Enter a report name in the **Report Name** field and click **Scope** to display the available filter. Click the filter options that you want for the report and select the **Time Range**.

Note

The **Setup Report Scope** options change depending on the selected **Template**. The Access Point reports support up to 90 days of data retention.

- Step 10 Click Next.
- **Step 11** In the **Select File Type** window, choose the file type for the report.

Depending on the report that you are creating, the following **File Type** options may be available:

- PDF
- CSV
- Tableau Data Extract
- · JSON

For the **CSV**, **JSON**, and **Tableau Data Extract** file types, a **Fields** option lets you choose attributes (additional fields) for the CSV, JSON, and Tableau Data Extract results.

- Step 12 Click Next.
- **Step 13** In the **Schedule Report** window, choose the schedule for the report. Then, click **Next**.
- **Step 14** In the **Delivery and Notification** window, choose the delivery mechanism for the report:
 - None: No email or webhook notifications sent.
 - Email Report: Email report is sent as a link or attachment.

Note

If you have not yet configured an SMTP server for the emails, you are prompted to configure one. Follow the prompts to the **Email** tab in the GUI to configure an SMTP server. Choose **System** > **Settings** > **External Services** > **Destinations** > **Email**.

• As a Link: The email notification of a successfully compiled report has a link back to itself and the **Generated Reports** window under **Reports**. You can view and download the report from this link and location.

Note

Email notifications with embedded links to reports support up to 20 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

• **As an Attachment**: Report is attached to the email notification.

Note

PDF reports support email notification attachments of up to 20 MB in size and up to 10 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

Catalyst Center sends the following email notifications for the report:

- Report is in the queue waiting to be processed.
- Report processing is in progress.
- Report has successfully been compiled and is completed.
- **Webhook Notification**: Notification is sent as a webhook to the configured webhook URL address (callback URL). Choose a webhook from the drop-down list (**Subscription Profile** field).

Note

If you have not yet created a webhook, you are prompted to create one. Follow the prompts to the **Webhook** tab in the GUI to configure a webhook. In general, to configure a webhook, choose **System** > **Settings** > **External Services** > **Destinations** > **Webhook**.

Catalyst Center sends the following status webhook notifications for the report:

- In Queue
- In Progress
- Success
- Step 15 Click Next.
- **Step 16** In the **Summary** window, review the configuration and edit any of the files, if necessary.

Click Generate Report.

After the report is generated, a success window appears.

Step 17 Click the **View the Generated Reports** link.

The **Generated Reports** window shows instance details of the report that was scheduled.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports, on page 45.

Run an Audit Log Report

Perform this procedure to configure **Audit Log** reports for your network.

Before you begin

Run a successful **Discovery** job in Catalyst Center. You can check whether a **Discovery** job is successful in **Device Inventory**. From the top-left corner, click the menu icon and choose **Provision** > **Inventory** to view the results.

Step 1 From the top-left corner, click the menu icon and choose **Reports > Report Templates**.

The **Report Templates** window displays the supported reporting categories. A link represents each category. Click a link to view the supported reports for the selected category.

Step 2 After clicking a link, review the **Report Templates** window for the selected category.

Figure 3: Audit Log Report



Each template is represented by a tile and contains information about the report and links to generate a report. Determine which template you want to use to generate a report.

Step 3 In the tile, click the header to view a sample report.

A window appears for the sample report. Use the side bar in the window to scroll down and review the entire sample report.

Note You can use the sample report to plan how you want your report to look.

- **Step 4** Click **X** to close the preview.
- **Step 5** In the tile, click the **Generate** link to configure parameters to build a report.
- Step 6 In the Generate a New Report window, click Let's Do It to get started.

To skip this screen in the future, check the **Don't show this to me again** check box.

Step 7 In the **Select Report Template** window, choose the template for the report.

Choose the **Template** from the drop-down lists.

Note The **Template** list consists of the individual report types within the categories for the release.

You can review an auto-generated sample in the same window.

- Step 8 Click Next.
- **Step 9** In the **Setup Report Scope** window, name the report and choose the scope.

Enter a report name in the **Report Name** field and click in the **Scope** field to display the available filter. Click the filter options that you want for the report and select the **Time Range**.

Note The **Setup Report Scope** options change depending on the selected **Template**.

Click Next.

Step 10 In the **Select File Type** window, choose the file type for the report.

Catalyst Center displays the following **File Type** options for the Audit Log report type:

• CSV

· JSON

For the CSV and JSON file types, a Fields option lets you choose attributes for the CSV and JSON results.

- Step 11 Click Next.
- **Step 12** In the **Schedule Report** window, choose the schedule for the report. Then, click **Next**.
- **Step 13** In the **Delivery and Notification** window, choose the delivery mechanism for the report:
 - None: No email or webhook notifications sent.
 - Email Report: Email report is sent as a link or attachment.

Note If you have not yet configured an SMTP server for the emails, you are prompted to configure one. Follow the prompts to the **Email** tab in the GUI to configure an SMTP server. Choose **System** > **Settings** > **External Services** > **Destinations** > **Email**.

• Link: The email notification of a successfully compiled report has a link back to itself and the **Generated Reports** window under **Reports**. You can view and download the report from this link and location.

Note Email notifications with embedded links to reports support up to 20 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

• Attachment: Report is attached to the email notification.

Note PDF reports support email notification attachments of

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Catalyst Center sends the following email notifications for the report:

- Report is in the queue waiting to be processed.
- Report processing is in progress.
- Report has successfully been compiled and is completed.
- Webhook Notification: Notification is sent as a webhook to the configured webhook URL address (callback URL). Choose a webhook from the drop-down list (Subscription Profile field).

Note If you have not yet created a webhook, you are prompted to create one. Follow the prompts to the Webhook tab in the GUI to configure a webhook. In general, to configure a webhook, choose System > Settings > External Services > Destinations > Webhook.

You will receive status webhook notifications for the report. For example, you will receive "In Queue," "In Progress," and "Success" webhook notifications. You will also be able to view these notifications in the GUI.

- Step 14 Click Next.
- **Step 15** In the **Summary** window, review the configuration and edit any of the files, if necessary.

Click Generate Report.

After the report is generated, a success window appears.

Step 16 Click the View the Generated Reports link.

The **Generated Reports** window shows instance details of the report that was scheduled.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports, on page 45.

Run a Client Report

Perform this procedure to configure specialized **Client** reports for your network.

Before you begin

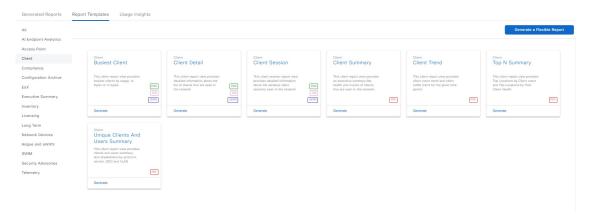
Run a successful **Discovery** job in Catalyst Center. You can check whether a **Discovery** job is successful in **Device Inventory**. From the top-left corner, click the menu icon and choose **Provision** > **Inventory** to view the results.

Step 1 From the top-left corner, click the menu icon and choose **Reports > Report Templates**.

The **Report Templates** window displays the supported reporting categories. A link represents each category. Click a link to view the supported reports for the selected category.

Step 2 After clicking a link, review the **Report Templates** window for the selected category.

Figure 4: Client Report



Each template is represented by a tile and contains information about the report and links to generate a report. Determine which template you want to use to generate a report.

Step 3 In the tile, click the header to view a sample report.

A window appears for the sample report. Use the side bar in the window to scroll down and review the entire sample report. For some of the client reports, the following data is presented:

- Applied filters (data filters that were used to build the report).
- Data metrics and summaries.

- Graphical representation of the data (including line, bar, and pie graphs).
- Tables that assist you in analyzing the data.

Note You can use the sample report to plan how you want your report to look.

- **Step 4** Click **X** to close the preview.
- **Step 5** In the tile, click the **Generate** link to configure parameters to build a report.

The **Generate** window lets you choose a format type for the report, apply data filters for your reports, and set up schedules for the actual report generation.

Step 6 In the Generate a New Report window, click Let's Do It to get started.

To skip this screen in the future, check the **Don't show this to me again** check box.

Step 7 In the **Select Report Template** window, choose the template for the report.

Choose the **Template** from the drop-down lists.

Note The **Template** consists of the individual report types within the categories for the release.

You can review an auto-generated sample in the same window.

- Step 8 Click Next.
- **Step 9** In the **Setup Report Scope** window, name the report and choose the scope.

Enter a report name in the **Report Name** field and click in the **Scope** field to display the available filter. Click the filter options that you want for the report and select the **Time Range**.

Note The **Setup Report Scope** options change depending on the selected **Template**. The Client reports support up to 90 days of data retention.

Click Next.

Step 10 In the **Select File Type** window, choose the file type for the report.

Depending on the report that you are creating, the following **File Type** options may be available:

- PDF
- CSV
- Tableau Data Extract
- JSON

For the **CSV**, **JSON**, and **Tableau Data Extract** file types, a **Fields** option lets you choose attributes (additional fields) for the CSV, JSON, and Tableau Data Extract results.

- Step 11 Click Next.
- **Step 12** In the **Schedule Report** window, choose the schedule for the report. Then, click **Next**.
- **Step 13** In the **Delivery and Notification** window, choose the delivery mechanism for the report:
 - None: No email or webhook notifications sent.
 - Email Report: Email report is sent as a link or attachment.

Note

If you have not yet configured an SMTP server for the emails, you are prompted to configure one. Follow the prompts to the **Email** tab in the GUI to configure an SMTP server. Choose **System** > **Settings** > **External Services** > **Destinations** > **Email**.

• Link: The email notification of a successfully compiled report has a link back to itself and the **Generated Reports** window under **Reports**. You can view and download the report from this link and location.

Note

Email notifications with embedded links to reports support up to 20 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

• Attachment: Report is attached to the email notification.

Note

PDF reports support email notification attachments of up to 20 MB in size and up to 10 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

Catalyst Center sends the following email notifications for the report:

- Report is in the queue waiting to be processed.
- Report processing is in progress.
- Report has successfully been compiled and is completed.
- Webhook Notification: Notification is sent as a webhook to the configured webhook URL address (callback URL). Choose a webhook from the drop-down list (Subscription Profile field).

Note

If you have not yet created a webhook, you are prompted to create one. Follow the prompts to the **Webhook** tab in the GUI to configure a webhook. In general, to configure a webhook, choose **System** > **Settings** > **External Services** > **Destinations** > **Webhook**.

You will receive status webhook notifications for the report. For example, you will receive "In Queue," "In Progress," and "Success" webhook notifications. You will also be able to view these notifications in the GUI.

- Step 14 Click Next.
- **Step 15** In the **Summary** window, review the configuration and edit any of the files, if necessary.

Click Generate Report.

After the report is generated, a success window appears.

Step 16 Click the View the Generated Reports link.

The **Generated Reports** window shows instance details of the report that was scheduled.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports, on page 45.

Run a Compliance Report

Catalyst Center allows you to retrieve a consolidated compliance audit report that shows the compliance status of individual network devices. With this report, you can get complete visibility of your network.

The following procedure describes how to configure a **Compliance** report for your network.

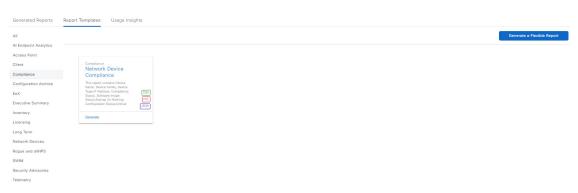
Step 1 From the top-left corner, click the menu icon and choose **Reports > Report Templates**.

The **Report Templates** window displays the supported reporting categories.

Step 2 From the left pane, click **Compliance** to display the Compliance templates.

Each template is represented by a tile and contains information about the report and links to generate a report.

Figure 5: Compliance Report



Step 3 In the tile, click the header to view a sample report.

A window appears for the sample report. Use the side bar in the window to scroll down and review the entire sample report.

- **Step 4** Click **X** to close the preview.
- **Step 5** In the tile, click the **Generate** link to configure parameters to build a report.
- Step 6 In the Generate a New Report window, click Let's Do It to get started.

To skip this screen in the future, check the **Don't show this to me again** check box.

Step 7 In the Select Report Template window, you can change the template from Template drop-down list.

Note You can review an automatically generated sample in the same window.

Step 8 Click Next.

The **Setup Report Scope** window appears.

- **Step 9** In the **Report Name** field, enter a report name.
- In the **Scope** area, choose the **Compliance Status**, **Compliance Category**, **Device Family** and **Device Type** to include in the report.

Note The **Setup Report Scope** options change depending on the selected template.

- Step 11 Click Next.
- **Step 12** In the **Select File Type** window, choose the file type for the report.

Catalyst Center displays the following **File Type** options for the Compliance report type:

- PDF
- CSV
- · JSON

For the CSV and JSON file types, a Fields option lets you choose attributes for the CSV and JSON results.

- Step 13 Click Next.
- **Step 14** The **Schedule Report** window appears. Choose the schedule for the report. Then, click **Next**.
- **Step 15** In the **Delivery and Notification** window, choose the delivery mechanism for the report:
 - None: No email or webhook notifications sent.
 - Email Report: Email report is sent as a link or attachment.

If an SMTP server is not configured for emails, Catalyst Center prompts you to configure one. Click the link to configure the email destination in **System > Settings > External Services > Destinations > Email**.

• As a Link: The email notification of a successful compiled report contains a link back to itself and the Generated Reports page under Reports. You can view and download the report from this link and location.

Note

Email notifications with embedded links to reports support up to 20 email addresses. To add multiple email addresses, you must add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

• As an Attachment: Report is attached to the email notification.

Note

PDF reports support email notification attachments of up to 20 MB in size and up to 10 email addresses. To add multiple email addresses, you must add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

Catalyst Center sends the following email notifications for the report:

- Report is in the queue waiting to be processed.
- Report processing is in progress.
- Report has successfully been compiled and is completed.
- **Webhook Notification**: Notification is sent as a webhook to the configured webhook URL address (callback URL).

Note If a webhook is not created, Catalyst Center prompts you to create one. Click the link to configure a webhook in Webhook tab in System > Settings > External Services > Destinations > Webhook.

Catalyst Center sends you the following status webhook notifications for the report:

• In Queue

- In Progress
- Success

You can view the event notification status in **Platform > Runtime Dashboard > Event Summary**.

- Step 16 Click Next.
- **Step 17** In the **Summary** window, review the configuration and edit any of the files, if necessary.
- **Step 18** Click **Generate Report**.

After the report is generated, a success window appears.

Step 19 Click the **View the Generated Reports** link.

The Generated Reports window appears with instance details of the report that was scheduled.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports.

Run a Configuration Archive Report

Use the procedure below to get a consolidated report of configuration changes on your network devices.

Step 1 From the top-left corner, click the menu icon and choose **Reports** > **Report Templates**.

The **Report Templates** window displays the supported reporting categories.

Step 2 From the left pane, click **Configuration Archive** to display the template.

Figure 6: Configuration Archive Report



Each template is represented by a tile and contains information about the report and links to generate a report.

Step 3 In the tile, click the header to view a sample report.

A window appears for the sample report. Use the side bar in the window to scroll down and review the entire sample report.

- **Step 4** Click **X** to close the preview.
- **Step 5** In the tile, click the **Generate** link to configure parameters to build a report.
- Step 6 In the Generate a New Report window, click Let's Do It to get started.

To skip this screen in the future, check the **Don't show this to me again** check box.

Step 7 In the Select Report Template window, you can change the template from the Template drop-down list.

Note You can review an automatically generated sample in the same window.

Step 8 Click Next.

The **Setup Report Scope** window appears.

- **Step 9** In the **Report Name** field, enter a report name.
- **Step 10** In the **Scope** area, choose **Category** from the drop-down list.

In band refers to configuration changes done by Catalyst Center.

Out Of Band refers to the configuration changes done outside Catalyst Center.

Step 11 Choose the **Device Family** and **Device Type** to include in the report.

Note The **Setup Report Scope** options change depending on the selected template.

- Step 12 Click Next.
- **Step 13** In the **Select File Type** window, choose the file type for the report.

Catalyst Center displays the following **File Type** options for the Configuration Archive report type:

- PDF
- · CSV
- JSON

For the CSV and JSON file types, a Fields option lets you choose attributes for the CSV and JSON results.

- Step 14 Click Next.
- **Step 15** The **Schedule Report** window appears. Choose the schedule for the report. Then, click **Next**.
- **Step 16** In the **Delivery and Notification** window, choose the delivery mechanism for the report:
 - None: No email or webhook notifications sent.
 - Email Report: Email report is sent as a link or attachment.

If an SMTP server is not configured for emails, Catalyst Center prompts you to configure one. Click the link to configure the email destination in **System** > **Settings** > **External Services** > **Destinations** > **Email**.

• As a Link: The email notification of a successful compiled report contains a link back to itself and the Generated Reports page under Reports. You can view and download the report from this link and location.

Note

Email notifications with embedded links to reports support up to 20 email addresses. To add multiple email addresses, you must add each email address separately and click **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

• As an Attachment: Report is attached to the email notification.

Note

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Catalyst Center sends the following email notifications for the report:

- The report is in the queue waiting to be processed.
- Report processing is in progress.
- The report has successfully been compiled and is completed.
- Webhook Notification: Notification is sent as a webhook to the configured webhook URL address (callback URL).

Note If a webhook is not created, Catalyst Center prompts you to create one. Click the link to configure a webhook in the Webhook tab in System > Settings > External Services > Destinations > Webhook.

Catalyst Center sends you the following status webhook notifications for the report:

- In Queue
- In Progress
- Success

You can view the event notification status in **Platform > Runtime Dashboard > Event Summary**.

- Step 17 Click Next.
- **Step 18** In the **Summary** window, review the configuration and edit any of the files, if necessary.
- Step 19 Click Generate Report.

After the report is generated, a success window appears.

Step 20 Click the View the Generated Reports link.

The **Generated Reports** window appears with instance details of the report that was scheduled.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports.

Run an End-of-Life Report

The following procedure describes how to configure an **End of Life (EoX)** report for your network.

Before you begin

- You must accept the end-user license agreement (EULA) before downloading software or provisioning a device. For more information, see the **Accept the License Agreement** topic in the *Cisco Catalyst Center Administrator Guide*.
- Ensure that the Cisco CX cloud connection is enabled. For more information, see the **Update the Machine Reasoning Knowledge Base** topic in the *Cisco Catalyst Center Administrator Guide*.
- Run a successful **Discovery** job in Catalyst Center. You can check whether a **Discovery** job is successful in **Device Inventory**. From the top-left corner, click the menu icon and choose **Provision** > **Inventory** to view the results.
- Step 1 From the top-left corner, click the menu icon and choose Reports > Report Templates.

The **Report Templates** window opens and displays the supported reporting categories. A link represents each category.

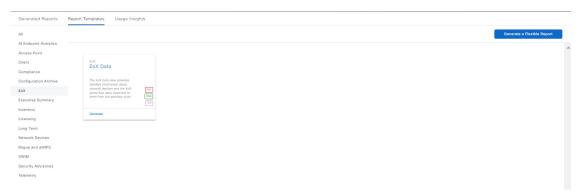
In the **Report Templates** window, each template is represented by a tile and contains information about the report and links to generate a report. Determine which template you want to use to generate a report.

Step 2 In the tile, click the header to view a sample report.

A window appears for the sample report. Use the side bar in the window to scroll down and review the entire sample report.

- **Step 3** Click **X** to close the preview.
- **Step 4** In the tile, click the **Generate** link to configure parameters to build a report.

Figure 7: EoX Report



Step 5 In the Generate a New Report window, click Let's Do It to get started.

To skip this screen in the future, check the **Don't show this to me again** check box.

Step 6 In the **Select Report Template** window, choose the template from **Template** drop-down list.

Note The **Template** consists of the individual report types within the categories for the release.

You can review an automatically generated sample in the same window.

Step 7 Click Next.

The **Setup Report Scope** window appears.

Step 8 In the **Report Name** field, enter a report name.

Step 9 In the **Scope** area, choose the **Device Type** and **Location** to include in the report.

Note The **Setup Report Scope** options change depending on the selected template.

Step 10 Click Next.

Step 11 In the **Select File Type** window, choose the file type for the report.

Based on your report, Catalyst Center displays the following File Type options:

- PDF
- CSV
- Tableau Data Extract

For the **CSV** and **Tableau Data Extract** file types, a **Fields** option lets you choose attributes (additional fields) for the **CSV** and **Tableau Data Extract** results.

Step 12 Click Next.

In the **Schedule Report** window, choose the schedule for the report.

- Step 13 Click Next.
- **Step 14** In the **Delivery and Notification** window, choose the delivery mechanism for the report:
 - None: No email or webhook notifications sent.
 - Email Report: Email report is sent as a link or attachment.

Follow the prompts to the **Email** tab in the Catalyst Center GUI to configure an SMTP server.

If an SMTP server is not configured for emails, Catalyst Center prompts you to configure one.

• As a Link: The email notification of a successful compiled report contains a link back to itself and the Generated Reports page under Reports. You can view and download the report from this link and location.

Note

Email notifications with embedded links to reports support up to 20 email addresses. To add multiple email addresses, you must add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

• As an Attachment: Report is attached to the email notification.

Note

PDF reports support email notification attachments of up to 20 MB in size and up to 10 email addresses. To add multiple email addresses, you must add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

Catalyst Center sends the following email notifications for the report:

- Report is in the queue waiting to be processed.
- Report processing is in progress.
- Report has successfully been compiled and is completed.
- Webhook Notification: Notification is sent as a webhook to the configured webhook URL address (callback URL).

Note If a webhook is not created, Catalyst Center prompts you to create one. Follow the prompts to the **Webhook** tab in the Catalyst Center GUI to configure a webhook.

Catalyst Center sends you the following status webhook notifications for the report:

- In Oueue
- In Progress
- Success

You can view these notifications in the GUI.

- Step 15 Click Next.
- **Step 16** In the **Summary** window, review the configuration and edit any of the files, if necessary.
- **Step 17** Click **Generate Report**.

After the report is generated, a success window appears.

Step 18 Click the View the Generated Reports link.

The **Generated Reports** window appears with instance details of the report that was scheduled.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports.

Run an Executive Summary Report

Perform this procedure to configure **Executive Summary** reports for your network.

Before you begin

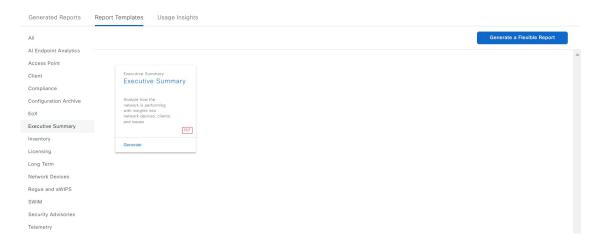
Run a successful **Discovery** job in Catalyst Center. You can check whether a **Discovery** job is successful in **Device Inventory**. From the top-left corner, click the menu icon and choose **Provision** > **Inventory** to view the results.

Step 1 From the top-left corner, click the menu icon and choose **Reports** > **Report Templates**.

The **Report Templates** window displays the supported reporting categories. A link represents each category. Click a link to view only the supported reports for that category.

Step 2 After clicking a link, review the **Report Templates** window for that selected category.

Figure 8: Executive Summary Report



Each template is represented by a tile and contains information about the report and links to generate a report. Determine which template you want to use to generate a report. Within the tile are icons that represent the supported file types for the reports.

Step 3 In the tile, click the header to view a sample report.

A window appears for the sample report. Use the side bar in the window to scroll down and review the entire sample report. The following data is presented:

- Data metrics and summaries.
- Graphical representation of the data (including line, bar, and pie graphs).
- Tables that assist you in analyzing the data.

Note You can use the sample report to plan how you want your report to look.

- **Step 4** Click **X** to close the preview.
- **Step 5** In the tile, click the **Generate** link to configure parameters to build a report.

The **Generate** window lets you choose a format type for the report, apply data filters for your reports, and set up schedules for the actual report generation.

- Step 6 In the Generate a New Report window, click Let's Do It to get started.
- **Step 7** In the **Select Report Template** window, choose the template for the report.

Choose the **Template** from the drop-down lists.

Note The **Template** consists of the individual report types within the categories for the release.

You can review an auto-generated sample in the same window.

Click Next.

Step 8 In the **Setup Report Scope** window, name the report and choose the scope and the time range.

Enter a report name in the **Report Name** field and click in the **Scope** field to display the available filter. Click the filter options that you want for the report and select the **Time Range**.

Note

The **Setup Report Scope** options change depending on the selected **Template**. The Executive Summary reports support up to 90 days of data retention.

Click Next.

Step 9 In the **Select File Type** window, choose the file type for the report.

Depending on the report that you are creating, the following **File Type** options may be available:

- PDF
- CSV
- Tableau Data Extract
- JSON

For the **CSV**, **JSON**, and **Tableau Data Extract** file types, a **Fields** option lets you choose attributes (additional fields) for the CSV, JSON, and Tableau Data Extract results.

Click Next.

- **Step 10** In the **Schedule Report** window, choose the schedule for the report. Then, click **Next**.
- **Step 11** In the **Delivery and Notification** window, choose the delivery mechanism for the report:
 - None: No email or webhook notifications sent.
 - Email Report: Email report is sent as a link or attachment.

Note

If you have not yet configured an SMTP server for the emails, you are prompted to configure one. Follow the prompts to the **Email** tab in the GUI to configure an SMTP server. Choose **System** > **Settings** > **External Services** > **Destinations** > **Email**.

• Link: The email notification of a successfully compiled report has a link back to itself and the **Generated Reports** window under **Reports**. You can view and download the report from this link and location.

Note

Email notifications with embedded links to reports support up to 20 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

• Attachment: Report is attached to the email notification.

Note

PDF reports support email notification attachments of up to 20 MB in size and up to 10 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

Catalyst Center sends the following email notifications for the report:

- Report is in the queue waiting to be processed.
- Report processing is in progress.
- Report has successfully been compiled and is completed.

• **Webhook Notification**: Notification is sent as a webhook to the configured webhook URL address (callback URL). Choose a webhook from the drop-down list (**Subscription Profile** field).

Note

If you have not yet created a webhook, you are prompted to create one. Follow the prompts to the **Webhook** tab in the GUI to configure a webhook. In general, to configure a webhook, choose **System** > **Settings** > **External Services** > **Destinations** > **Webhook**.

You will receive status webhook notifications for the report. For example, you will receive "In Queue," "In Progress," and "Success" webhook notifications. You will also be able to view these notifications in the GUI.

Click Next.

Step 12 In the **Summary** window, review the configuration and edit any of the files, if necessary.

Click Generate Report.

After the report is generated, a success window appears.

Step 13 Click the View the Generated Reports link.

The **Generated Reports** window shows instance details of the report that was scheduled.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports, on page 45.

Run an Inventory Report

Perform this procedure to configure **Inventory** reports for your network.

Before you begin

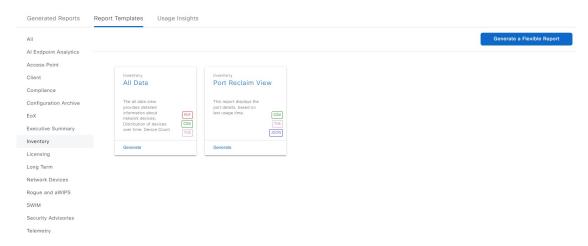
Run a successful **Discovery** job in Catalyst Center. You can check whether a **Discovery** job is successful in **Device Inventory**. From the top-left corner, click the menu icon and choose **Provision** > **Inventory** to view the results.

Step 1 From the top-left corner, click the menu icon and choose **Reports > Report Templates**.

The **Report Templates** window displays the supported reporting categories. A link represents each category. Click a link to view only the supported reports for that category.

Step 2 After clicking a link, review the **Report Templates** window for that selected category.

Figure 9: Inventory Report



Each template is represented by a tile and contains information about the report and links to generate a report. Determine which template you want to use to generate a report. Within the tile are icons that represent the supported file types for the reports.

Step 3 In the tile, click the header to view a sample report.

A window appears for the sample report. Use the side bar in the window to scroll down and review the entire sample report. The following data is presented:

- Applied filters (data filters that were used to build the report).
- · Data metrics and summaries
- Graphical representation of the data (including line, bar, and pie graphs).
- Tables that assist you in analyzing the data.

Note You can use the sample report to plan how you want your report to look.

- **Step 4** Click **X** to close the preview.
- **Step 5** In the tile, click the **Generate** link to configure parameters to build a report.

The **Generate** window lets you choose a format type for the report, apply data filters for your reports, and set up schedules for the actual report generation.

Step 6 In the Generate a New Report window, click Let's Do It to get started.

To skip this screen in the future, check the **Don't show this to me again** check box.

Step 7 In the **Select Report Template** window, choose the template for the report.

Choose the **Template** from the drop-down lists.

Note The **Template** consists of the individual report types within the categories for the release.

You can review an auto-generated sample in the same window.

Click Next.

Step 8 In the **Setup Report Scope** window, name the report and choose the scope.

Enter a report name in the **Report Name** field and click in the **Scope** field to display the available filter. Click the filter options that you want for the report.

Note The **Setup Report Scope** options change depending on the selected **Template**.

Click Next.

- **Step 9** In the **Select File Type** window, choose the file type for the report.
- Step 10 Click Next.
- **Step 11** In the **Schedule Report** window, choose the schedule for the report.

Click Next.

- **Step 12** In the **Delivery and Notification** window, choose the delivery mechanism for the report:
 - None: No email or webhook notifications sent.
 - Email Report: Email report is sent as a link or attachment.

Note If you have not yet configured an SMTP server for the emails, you are prompted to configure one. Follow the prompts to the **Email** tab in the GUI to configure an SMTP server. Choose **System** > **Settings** > **External Services** > **Destinations** > **Email**.

• Link: The email notification of a successfully compiled report has a link back to itself and the **Generated Reports** window under **Reports**. You can view and download the report from this link and location.

Note Email notifications with embedded links to reports support up to 20 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

• **Attachment**: Report is attached to the email notification.

Note

PDF reports support email notification attachments of up to 20 MB in size and up to 10 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

Catalyst Center sends the following email notifications for the report:

- Report is in the queue waiting to be processed.
- Report processing is in progress.
- Report has successfully been compiled and is completed.
- **Webhook Notification**: Notification is sent as a webhook to the configured webhook URL address (callback URL). Choose a webhook from the drop-down list (**Subscription Profile** field).

Note If you have not yet created a webhook, you are prompted to create one. Follow the prompts to the Webhook tab in the GUI to configure a webhook. In general, to configure a webhook, choose System > Settings > External Services > Destinations > Webhook.

You will receive status webhook notifications for the report. For example, you will receive "In Queue," "In Progress," and "Success" webhook notifications. You will also be able to view these notifications in the GUI.

Click Next.

Step 13 In the **Summary** window, review the configuration and edit any of the files, if necessary.

Click Generate Report.

After the report is generated, a success window appears.

Step 14 Click the **View the Generated Reports** link.

The **Generated Reports** window shows instance details of the report that was scheduled.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports, on page 45.

Run a Licensing Report

Perform this procedure to configure **Licensing** reports about your network.

Before you begin

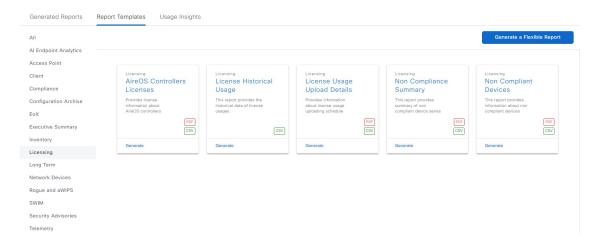
Run a successful **Discovery** job in Catalyst Center. You can check whether a **Discovery** job is successful in **Device Inventory**. From the top-left corner, click the menu icon and choose **Provision** > **Inventory** to view the results.

Step 1 From the top-left corner, click the menu icon and choose **Reports** > **Report Templates**.

The **Report Templates** window displays the supported reporting categories. A link represents each category. Click a link to view only the supported reports for that category.

Step 2 After clicking a link, review the **Report Templates** window for that selected category.

Figure 10: Licensing Report



Each template is represented by a tile and contains information about the report and links to generate a report. Determine which template you want to use to generate a report. Within the tile are icons that represent the supported file types for the reports.

Step 3 In the tile, click the header to view a sample report.

A window appears for the sample report. Use the side bar in the window to scroll down and review the entire sample report. The following data is presented:

- Applied filters (data filters that were used to build the report).
- · Data metrics and summaries.
- Tables that assist you in analyzing the data.

Note You can use the sample report to plan how you want your report to look.

- **Step 4** Click **X** to close the preview.
- **Step 5** In the tile, click the **Generate** link to configure parameters to build a report.

The **Generate** window lets you choose a format type for the report, apply data filters for your reports, and set up schedules for the actual report generation.

Step 6 In the Generate a New Report window, click Let's Do It to get started.

To skip this screen in the future, check the **Don't show this to me again** check box.

Step 7 In the **Select Report Template** window, choose the template for the report.

Choose the **Template** from the drop-down lists.

Note The **Template** consists of the individual report types within the categories for the release.

You can review an auto-generated sample in the same window.

Click Next.

Step 8 In the **Setup Report Scope** window, name the report and choose the scope and the time range.

In the **Report Name** field, enter a report name and click inside the **Scope** field to display the available filter. Click the filter options that you want for the report and select the **Time Range**.

Note The Setup Report Scope options change depending on the selected Template.

Click Next.

Step 9 In the **Select File Type** window, choose the file type for the report.

Depending on the report that you are creating, the following **File Type** options may be available:

- PDF
- CSV
- Tableau Data Extract
- JSON

For the **CSV**, **JSON**, and **Tableau Data Extract** file types, a **Fields** option lets you choose attributes (additional fields) for the CSV, JSON, and Tableau Data Extract results.

Click Next.

Step 10 In the **Schedule Report** window, choose the schedule for the report.

Click Next.

- **Step 11** In the **Delivery and Notification** window, choose the delivery mechanism for the report:
 - None: No email or webhook notifications sent.
 - **Email Report**: Email report is sent as a link or attachment.

Note

If you have not configured an SMTP server for the emails, you are prompted to configure one. Follow the prompts to the **Email** tab in the GUI to configure an SMTP server. Choose **System** > **Settings** > **External Services** > **Destinations** > **Email**.

• Link: The email notification of a successfully compiled report has a link to the report and to the **Generated Reports** window under **Reports**. You can view and download the report from this location.

Note

Email notifications with embedded links to reports support up to 20 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

• **Attachment**: Report is attached to the email notification.

Note

PDF reports support email notification attachments of up to 20 MB in size and up to 10 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

Catalyst Center sends the following email notifications for the report:

- Report is in the queue waiting to be processed.
- Report processing is in progress.
- Report has successfully been compiled and is completed.
- Webhook Notification: Notification is sent as a webhook to the configured webhook URL address (callback URL). Choose a webhook from the drop-down list (Subscription Profile field).

Note

If you have not yet created a webhook, you are prompted to create one. Follow the prompts to the **Webhook** tab in the GUI to configure a webhook. In general, to configure a webhook, choose **System** > **Settings** > **External Services** > **Destinations** > **Webhook**.

You receive status webhook notifications for the report, for example, **In Queue**, **In Progress**, and **Success**. You are also able to view these notifications in the GUI.

Click Next.

Step 12 In the **Summary** window, review the configuration and edit the files, if necessary.

Click Generate Report.

After the report is generated, a success window appears.

Step 13 Click the **View the Generated Reports** link.

The **Generated Reports** window shows instance details of the report that was scheduled.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports, on page 45.

Run a Network Devices Report

Perform this procedure to configure **Network Devices** reports for your network.

Before you begin

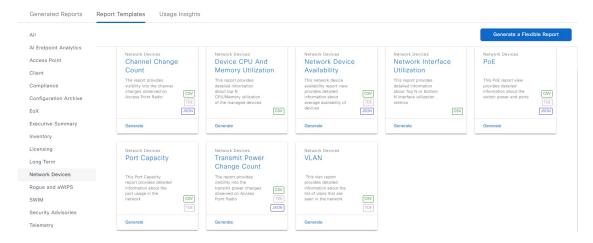
Run a successful **Discovery** job in Catalyst Center. You can check whether a **Discovery** job is successful in **Device Inventory**. From the top-left corner, click the menu icon and choose **Provision** > **Inventory** to view the results.

Step 1 From the top-left corner, click the menu icon and choose **Reports** > **Report Templates**.

The **Report Templates** window displays the supported reporting categories. Each category is represented by link. Click a link to view only the supported reports for that category.

Step 2 After clicking a link, review the **Report Templates** window for that selected category.

Figure 11: Network Devices Report



Each template is represented by a tile and contains information about the report and links to configure (generate) a report. Determine which template you want to use to generate a report. Within the tile are icons that represent the supported file types for the reports.

Step 3 In the tile, click the header to view a sample report.

A window appears for the sample report. Use the side bar in the window to scroll down and review the entire sample report. The following data is presented:

- Applied filters (data filters that were used to build the report)
- Data metrics and summaries
- Graphical representation of the data (including line, bar, and pie graphs)
- Tables that assist you in analyzing the data

Note You can use the sample report to plan how you want your report to look.

- **Step 4** Click **X** to close the preview.
- **Step 5** In the tile, click the **Generate** link to configure parameters to build a report.

The **Generate** window lets you choose a format type for the report, apply data filters for your reports, and set up schedules for the actual report generation.

- Step 6 In the Generate a New Report window, click Let's Do It to get started.
- **Step 7** In the **Setup the Report Template** window, choose the template for the report.

Choose the **Template** from the drop-down menus.

Note The **Template** consists of the individual report types within the categories for the release.

You can review an autogenerated sample in the same window.

Click Next.

Step 8 In the **Setup Report Scope** window, name the report and choose the scope and the time range.

Enter a report name in the **Report Name** field and click in the **Scope** field to display the available filter. Click the filter options that you want for the report and select the **Time Range**.

Note The **Setup Report Scope** options change depending on the selected **Template**.

Click Next.

Step 9 In the **Select File Type** window, choose the file type for the report.

Depending on the report that you are creating, the following **File Type** options may be available:

- PDF
- CSV
- Tableau Data Extract
- · JSON

For the **CSV**, **JSON**, and **Tableau Data Extract** file types, a **Fields** option lets you choose attributes (additional fields) for the CSV, JSON, and Tableau Data Extract results.

Click Next.

Step 10 In the **Schedule Report** window, choose the schedule for the report.

Click Next.

Step 11 In the **Delivery and Notification** window, choose the delivery mechanism for the report:

- None: No email or webbook notifications sent.
- Email Report: Email report is sent as a link or attachment.

Note If you have not yet configured an SMTP server for the emails, you are prompted to configure one. Follow the prompts to the **Email** tab in the GUI to configure an SMTP server. Choose **System** > **Settings** > **External Services** > **Destinations** > **Email**.

• Link: The email notification of a successfully compiled report will have a link back to itself and the **Generated Reports** window under **Reports**. You can view and download the report from this link and location.

Note

Email notifications with embedded links to reports support up to 20 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

• **Attachment**: Report is attached to the email notification.

Note

PDF reports support email notification attachments of up to 20 MB in size and up to 10 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

Catalyst Center sends the following email notifications for the report:

- Report is in the queue waiting to be processed.
- Report processing is in progress.
- Report has successfully been compiled and is completed.
- **Webhook Notification**: Notification is sent as a webhook to the configured webhook URL address (callback URL). Choose a webhook from the drop-down menu (**Subscription Profile** field).

Note

If you have not yet created a webhook, you are prompted to create one. Follow the prompts to the **Webhook** tab in the GUI to configure a webhook. In general, to configure a webhook, choose **System** > **Settings** > **External Services** > **Destinations** > **Webhook**.

You will receive status webhook notifications for the report. For example, you will receive "In Queue," "In Progress," and "Success" webhook notifications. You will also be able to view these notifications in the GUI.

Click Next.

Step 12 In the **Summary** window, review the configuration and edit any of the files, if necessary.

Click Generate Report.

After the report is generated, a success window appears.

Step 13 Click the View the Generated Reports link.

The **Generated Reports** window shows instance details of the report that was scheduled.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports, on page 45.

Run a Rogue and aWIPS Report

Perform this procedure to configure **Rogue and aWIPS** reports for your network.

Before you begin

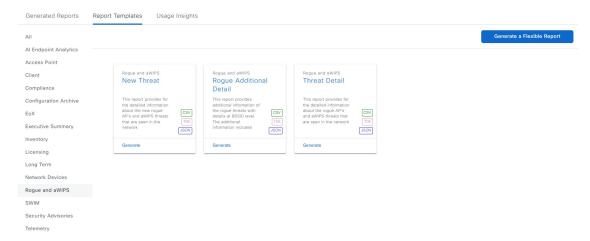
Run a successful **Discovery** job in Catalyst Center. You can check whether a **Discovery** job is successful in **Device Inventory**. From the top-left corner, click the menu icon and choose **Provision** > **Inventory** to view the results

Step 1 From the top-left corner, click the menu icon and choose **Reports** > **Report Templates**.

The **Report Templates** window displays the supported reporting categories. A link represents each category. Click a link to view only the supported reports for that category.

Step 2 After clicking a link, review the **Report Templates** window for that selected category.

Figure 12: Rogue and aWIPS Report



Each template is represented by a tile and contains information about the report and links to generate a report. Determine which template you want to use to generate a report. Within the tile are icons that represent the supported file types for the reports.

Step 3 In the tile, click the header to view a sample report.

A window appears for the sample report. Use the side bar in the window to scroll down and review the entire sample report. The following data is presented:

- Applied filters (data filters that were used to build the report).
- Data metrics and summaries
- Graphical representation of the data (including line, bar, and pie graphs).
- Tables that assist you in analyzing the data.

Note You can use the sample report to plan how you want your report to look.

- **Step 4** Click **X** to close the preview.
- **Step 5** In the tile, click the **Generate** link to configure parameters to build a report.

The **Generate** window lets you choose a format type for the report, apply data filters for your reports, and set up schedules for the actual report generation.

- Step 6 In the Generate a New Report window, click Let's Do It to get started.
- **Step 7** In the **Select Report Template** window, choose the template for the report.

Choose the **Template** from the drop-down lists.

Note The **Template** consists of the individual report types within the categories for the release.

You can review an auto-generated sample in the same window.

Click Next.

Step 8 In the **Setup Report Scope** window, name the report and choose the scope and the time range.

Enter a report name in the **Report Name** field and click in the **Scope** field to display the available filter. Click the filter options that you want for the report and select the **Time Range**.

Note

- The **Setup Report Scope** options change depending on the selected **Template**.
- If all the APs in your network are not assigned to a floor and you choose **Global** in the **Location** filter, the **Rogue and aWIPS** report displays only the threats associated with assigned APs under the global hierarchy. To view the threats associated with unassigned APs, you must keep the location filter empty.

Click Next.

Step 9 In the **Select File Type** window, choose the file type for the report.

Depending on the report that you are creating, the following File Type options may be available:

- PDF
- · CSV
- Tableau Data Extract
- JSON

For the **CSV**, **JSON**, and **Tableau Data Extract** file types, a **Fields** option lets you choose attributes (additional fields) for the CSV, JSON, and Tableau Data Extract results.

Click Next.

Step 10 In the **Schedule Report** window, choose the schedule for the report.

Click Next.

- **Step 11** In the **Delivery and Notification** window, choose the delivery mechanism for the report:
 - None: No email or webbook notifications sent.
 - Email Report: Email report is sent as a link or attachment.

Note

If you have not yet configured an SMTP server for the emails, you are prompted to configure one. Follow the prompts to the **Email** tab in the GUI to configure an SMTP server. Choose **System** > **Settings** > **External Services** > **Destinations** > **Email**.

• Link: The email notification of a successfully compiled report has a link back to itself and the **Generated Reports** window under **Reports**. You can view and download the report from this link and location.

Note

Email notifications with embedded links to reports support up to 20 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

• Attachment: Report is attached to the email notification.

Note

PDF reports support email notification attachments of up to 20 MB in size and up to 10 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

Catalyst Center sends the following email notifications for the report:

- Report is in the queue waiting to be processed.
- Report processing is in progress.
- Report has successfully been compiled and is completed.
- Webhook Notification: Notification is sent as a webhook to the configured webhook URL address (callback URL). Choose a webhook from the drop-down list (Subscription Profile field).

Note

If you have not yet created a webhook, you are prompted to create one. Follow the prompts to the **Webhook** tab in the GUI to configure a webhook. In general, to configure a webhook, choose **System** > **Settings** > **External Services** > **Destinations** > **Webhook**.

You will receive status webhook notifications for the report. For example, you will receive "In Queue," In Progress," and "Success" webhook notifications. You will also be able to view these notifications in the GUI.

Click Next.

Step 12 In the **Summary** window, review the configuration and edit any of the files, if necessary.

Click Generate Report.

After the report is generated, a success window appears.

Step 13 Click the **View the Generated Reports** link.

The **Generated Reports** window shows instance details of the report that was scheduled.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports, on page 45.

Run an ROI Report

The Catalyst Center platform ROI Insights report is a customized report that shows the productivity improvement of network operations with Catalyst Center and comparative ROI insights with a traditional NMS.

The following procedure describes how to configure an ROI report for a network operation.

Step 1 From the top-left corner, click the menu icon and choose **Reports** > **Usage Insights**.

The **Usage Insights** window displays the following information:

- SAVINGS: Displays the time and cost saved on network operation with Catalyst Center for a selected time range.
- **ROI Insights**: Lists the ROI Insights report that is created based on features, time and cost saved, usage KPIs, traditional NMS time, and actions.
- Savings Trends: Displays the savings trend of Cost and Time for an ROI Insights report.

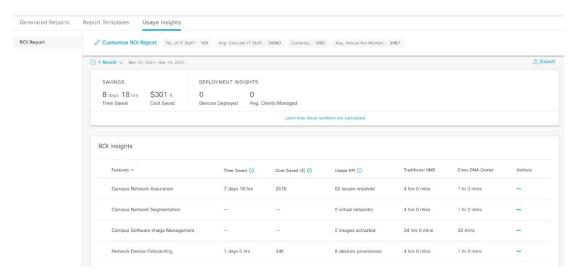
Note The **Savings Trends** area appears only if the selected time range is more than a month.

- Step 2 In the Campus Network Assurance, Network Device Onboarding, Campus Software Image Management, and Campus Network Segmentation areas, enter the time savings in the Hours and Minutes name fields for a traditional NMS and Catalyst Center.
 - Traditional NMS: Average time to detect and resolve an issue in the network without Catalyst Center.
 - Catalyst Center: Average time to detect and resolve an issue in the network with Catalyst Center.
- Step 3 To modify the Cost Inputs and IT Inputs, click Customize ROI Insights and make the changes.

The Customize ROI Insights area displays the preconfigured Avg. Cost per IT Staff, Currency, No. of IT Staff, and Avg. Annual Hrs Worked.

- **Step 4** To edit the time savings for a feature, click the corresponding **Edit** link under the **Actions** column and update the time in the subsequent pop-up window.
- Step 5 To choose the time range for which you want to see the ROI report, click the time range drop-down list below the Customize ROI Insights pane and click a time range radio button.
 - a) Choose from the available time range options: 1 Month, 3 Months, 6 Months, and 1 Year.
 - b) To customize the time range of ROI reports, click the time range drop-down list, click **Custom**, and define the **Start Date** and **End Date**.

Figure 13: Usage Insights Report Dashboard



Step 6 Click Learn how these numbers are calculated above the ROI Insights table in the middle pane to see the calculation details.

The Calculation Details window shows how to calculate Time Saved and Cost Saved.

Step 7 To export the ROI report, click **Export**.

The supported file types for the reports are PDF and CSV.

Run a Security Advisories Report

Perform this procedure to configure a **Security Advisories** report about your network.

Before you begin

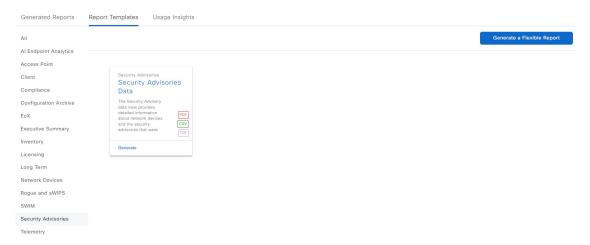
Run a successful **Discovery** job in Catalyst Center. You can check whether a **Discovery** job is successful in **Device Inventory**. From the top-left corner, click the menu icon and choose **Provision** > **Inventory** to view the results.

Step 1 From the top-left corner, click the menu icon and choose **Reports** > **Report Templates**.

The **Report Templates** window displays the supported reporting categories. A link represents each category. Click a link to view only the supported reports for that category.

Step 2 After clicking a link, review the **Report Templates** window for that selected category.

Figure 14: Security Advisories Report



Each template is represented by a tile and contains information about the report and links to generate a report. Determine which template you want to use to generate a report. Within the tile are icons that represent the supported file types for the reports.

Step 3 In the tile, click the header to view a sample report.

A window appears for the sample report. Use the side bar in the window to scroll down and review the entire sample report. The following data is presented:

- Applied filters (data filters that were used to build the report).
- · Data metrics and summaries.
- Tables that assist you in analyzing the data.

Note You can use the sample report to plan how you want your report to look.

- **Step 4** Click **X** to close the preview.
- **Step 5** In the tile, click the **Generate** link to configure parameters to build a report.

The **Generate** window lets you choose a format type for the report, apply data filters for your reports, and set up schedules for the actual report generation.

- Step 6 In the Generate a New Report window, click Let's Do It to get started.
- **Step 7** In the **Select Report Template** window, choose the template for the report.

Choose the **Template** from the drop-down lists.

Note The **Template** consists of the individual report types within the categories for the release.

You can review an auto-generated sample in the same window.

Click Next.

Step 8 In the **Setup Report Scope** window, name the report and choose the scope and time range.

Enter a report name in the **Report Name** field and click in the **Scope** field to display the available filter. Click the filter options that you want for the report and select the **Time Range**.

Note The **Setup Report Scope** options change depending on the selected **Template**.

Click Next.

Step 9 In the **Select File Type** window, choose the file type for the report.

Depending on the report that you are creating, the following **File Type** options may be available:

- PDF
- · CSV
- Tableau Data Extract
- JSON

For the **CSV**, **JSON**, and **Tableau Data Extract** file types, a **Fields** option lets you choose attributes (additional fields) for the CSV, JSON, and Tableau Data Extract results.

Click Next.

Step 10 In the **Schedule Report** window, choose the schedule for the report.

Click Next.

Step 11 In the **Delivery and Notification** window, choose the delivery mechanism for the report:

• Email Report: Email report is sent as a link or attachment.

Note

If you have not yet configured an SMTP server for the emails, you are prompted to configure one. Follow the prompts to the **Email** tab in the GUI to configure an SMTP server. Choose **System** > **Settings** > **External Services** > **Destinations** > **Email**.

• Link: The email notification of a successfully compiled report has a link back to itself and the **Generated Reports** window under **Reports**. You can view and download the report from this link and location.

Note

Email notifications with embedded links to reports support up to 20 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

• **Attachment**: Report is attached to the email notification.

Note

PDF reports support email notification attachments of up to 20 MB in size and up to 10 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

Catalyst Center sends the following email notifications for the report:

- Report is in the queue waiting to be processed.
- Report processing is in progress.
- Report has successfully been compiled and is completed.
- Webhook Notification: Notification is sent as a webhook to the configured webhook URL address (callback URL). Choose a webhook from the drop-down list (Subscription Profile field).

Note

If you have not yet created a webhook, you are prompted to create one. Follow the prompts to the **Webhook** tab in the GUI to configure a webhook. In general, to configure a webhook, choose **System** > **Settings** > **External Services** > **Destinations** > **Webhook**.

You will receive status webhook notifications for the report. For example, you will receive "In Queue," "In Progress," and "Success" webhook notifications. You will also be able to view these notifications in the GUI.

Click Next.

Step 12 In the **Summary** window, review the configuration and edit any of the files, if necessary.

Click Generate Report.

After the report is generated, a success window appears.

Step 13 Click the **View the Generated Reports** link.

The **Generated Reports** window shows instance details of the report that was scheduled.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports, on page 45.

Run a SWIM Report

Perform this procedure to configure **SWIM** reports about your network.

Before you begin

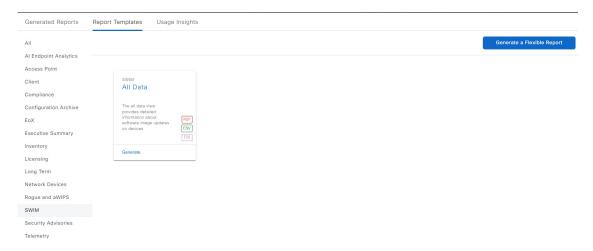
Run a successful **Discovery** job in Catalyst Center. You can check whether a **Discovery** job is successful in **Device Inventory**. From the top-left corner, click the menu icon and choose **Provision** > **Inventory** to view the results.

Step 1 From the top-left corner, click the menu icon and choose **Reports** > **Report Templates**.

The **Report Templates** window displays the supported reporting categories. A link represents each category. Click a link to view only the supported reports for that category.

Step 2 After clicking a link, review the **Report Templates** window for that selected category.

Figure 15: SWIM Report



Each template is represented by a tile and contains information about the report and links to generate a report. Determine which template you want to use to generate a report. Within the tile are icons that represent the supported file types for the reports.

Step 3 In the tile, click the header to view a sample report.

A window appears for the sample report. Use the side bar in the window to scroll down and review the entire sample report. The following data is presented:

- Applied filters (data filters that were used to build the report).
- · Data metrics and summaries.
- Tables that assist you in analyzing the data.

Note You can use the sample report to plan how you want your report to look.

- **Step 4** Click **X** to close the preview.
- **Step 5** In the tile, click the **Generate** link to configure parameters to build a report.

The **Generate** window lets you choose a format type for the report, apply data filters for your reports, and set up schedules for the actual report generation.

Step 6 In the Generate a New Report window, click Let's Do It to get started.

To skip this screen in the future, check the **Don't show this to me again** check box.

Step 7 In the **Select Report Template** window, choose the template for the report.

Choose the **Template** from the drop-down lists.

Note The **Template** consists of the individual report types within the categories for the release.

You can review an auto-generated sample in the same window.

Click Next.

Step 8 In the **Setup Report Scope** window, name the report and choose the scope and time range.

Enter a report name in the **Report Name** field and click in the **Scope** field to display the available filter. Click the filter options that you want for the report and select the **Time Range**.

Note The **Setup Report Scope** options change depending on the selected **Template**.

Click Next.

Step 9 In the **Select File Type** window, choose the file type for the report.

Depending on the report that you are creating, the following **File Type** options may be available:

- PDF
- CSV
- Tableau Data Extract
- JSON

For the **CSV**, **JSON**, and **Tableau Data Extract** file types, a **Fields** option lets you choose attributes (additional fields) for the CSV, JSON, and Tableau Data Extract results.

Click Next.

Step 10 In the **Schedule Report** window, choose the time range and schedule for the report.

Click Next.

Note

- **Step 11** In the **Delivery and Notification** window, choose the delivery mechanism for the report:
 - None: No email or webhook notifications sent.
 - Email Report: Email report is sent as a link or attachment.

Note If you have not yet configured an SMTP server for the emails, you are prompted to configure one. Follow the prompts to the **Email** tab in the GUI to configure an SMTP server. Choose **System** > **Settings** > **External Services** > **Destinations** > **Email**.

• Link: The email notification of a successfully compiled report has a link back to itself and the **Generated Reports** window under **Reports**. You can view and download the report from this link and location.

Note Email notifications with embedded links to reports support up to 20 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

• **Attachment**: Report is attached to the email notification.

PDF reports support email notification attachments of up to 20 MB in size and up to 10 email addresses. To add multiple email addresses, you need to add each email address separately and press **Enter** (on your keyboard) after each addition. Catalyst Center platform validates the email addresses and notifies you if the syntax is incorrect.

Catalyst Center sends the following email notifications for the report:

- Report is in the queue waiting to be processed.
- Report processing is in progress.

- Report has successfully been compiled and is completed.
- **Webhook Notification**: Notification is sent as a webhook to the configured webhook URL address (callback URL). Choose a webhook from the drop-down list (**Subscription Profile** field).

Note

If you have not yet created a webhook, you are prompted to create one. Follow the prompts to the **Webhook** tab in the GUI to configure a webhook. In general, to configure a webhook, choose **System** > **Settings** > **External Services** > **Destinations** > **Webhook**.

You will receive status webhook notifications for the report. For example, you will receive "In Queue," "In Progress," and "Success" webhook notifications. You will also be able to view these notifications in the GUI.

Click Next.

Step 12 In the **Summary** window, review the configuration and edit any of the files, if necessary.

Click Next

After the report is generated, a success window appears.

Step 13 Click the View the Generated Reports link.

The **Generated Reports** window shows instance details of the report that was scheduled.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports, on page 45.

Generate a Flexible Report

Catalyst Center allows you the flexibility to generate customized reports for your wired and wireless networks. This procedure describes how to configure **Flexible** reports based on your choice of entity, attributes, aggregation, and filters.

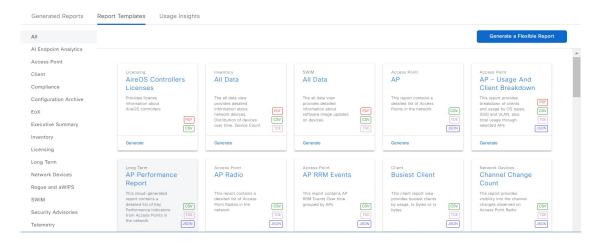
You can configure Flexible reports using the Reports window in the Catalyst Center GUI.

Before you begin

Run a successful **Discovery** job in Catalyst Center. You can check whether a **Discovery** job is successful in **Device Inventory**. From the top-left corner, click the menu icon and choose **Provision** > **Inventory** to view the results.

Step 1 From the top-left corner, click the menu icon and choose **Report S Report Templates**.

Figure 16: Generate a Flexible Report



Step 2 Click **Generate a Flexible Report**.

Note Alternatively, click the menu icon and choose Workflows > Flexible Report.

Step 3 In the Flexible Report window, click Let's Do it to get started.

The Name Your Report and Select a Time Range for this Report window appears.

Note To skip the Flexible Report dialog box in the future, check the Don't show this to me again check box.

Step 4 In the **Report Name** field, enter the name of your report. Choose the **Time Range**.

Note The supported time range for **Client** reports is 90 days. For **Network Device**, **PoE** and **AP** reports, the supported time range is 30 days.

Step 5 Click Next.

Step 6 In the Create a Subreport window, enter the Subreport Name and choose the entity, report type, filter criteria, and respective attributes.

In this release, the following options are available in the **Select an entity** drop-down list:

- Network Device
- PoE
- AP
- SWIM
- Client

The following **Report Type** options are available:

- Trend
- Summary
- Top N
- Distribution

Choose the filter criteria for the selected report type.

For example, for a **Trend** report type, choose **Trending Interval** from the drop-down list.

Choose the attributes from the **Attributes available for this report type** area.

You can configure groups based on the group-by, sort-by, and aggregate options available for each attribute.

Note Selection of attributes supporting group-by and aggregate options is mandatory for **Trend** and **Distribution** report types. Selection of an attribute supporting the sort-by option is mandatory for **Top N** report type.

Step 7 Click Next.

Step 8 In the Configure Group By, Aggregates and Sorting Options as Applicable window, do the following:

Choose Configure Group By.

Note Configure Group By is required or optional based on the chosen report type.

- Choose **Aggregate Options** for each of the supported attributes from the drop-down list.
- In **Configure Sorting Option**, you can choose either **Target Attributes** or **Sort Type** for each subreport, and then choose respective options from the drop-down list.

Step 9 Click Next.

The **Filters for the Current Subreport** window opens.

• Choose a filter option from the drop-down list and set corresponding filter values.

Check the **Apply this filter for the entire report** check box, if necessary.

• Configure the field filters available for the report.

Choose a filter from the drop-down list. Based on the selection, configure the **Operator** and **Value** options, or select a range, and then choose the corresponding **Unit**.

Note In this release, the operator-based filter options are available for the Client, AP and Network Device entities.

Step 10 Click Next.

The Would you like to add another Subreport window opens.

Step 11 Choose **Yes** to add another subreport.

In the **Subreports Created** area, you can edit the parameters of any subreport, if necessary.

Click Next.

Step 12 In the Schedule the Report, Select Output Format and Choose the Delivery Method window, do the following:

- Choose the schedule for the report.
- Choose the output file format.

Note In this release, the supported report file format is CSV. The flexible report allows you to generate or view separate CSV files for each subreport, or download or view related subreports together as a ZIP file.

• Choose the delivery mechanism for the report.

Note You can configure Integration Settings using the link available to enable delivery options.

The report delivery options include:

- None: You can choose to only view the report.
- Email Report: Email report is sent as a link or attachment.

Note If you have not yet configured an SMTP server for the emails, you are prompted to configure one. Follow the prompts to the **Email** tab in the GUI to configure an SMTP server. Choose **System > Settings > External Services > Destinations > Email**.

• Webhook Notification: Notification is sent as a webhook to the configured webhook URL address (callback URL). Choose a webhook from the drop-down list (Subscription Profile field).

Note If you have not yet created a webhook, you are prompted to create one. Follow the prompts to the Webhook tab in the GUI to configure a webhook. In general, to configure a webhook, choose System > Settings > External Services > Destinations > Webhook.

Catalyst Center sends the following status webhook notifications for the report:

- In Queue
- · In Progress
- Success

You can also view these notifications in the GUI.

Step 13 Click Next.

In the **Summary** window, you can review the subreports and edit the parameters, if necessary.

Step 14 Click Generate Report.

After you generate the report, a success window appears with the following options:

- Create Another Flexible Report
- View the Generated Reports

Step 15 Click View the Generated Reports.

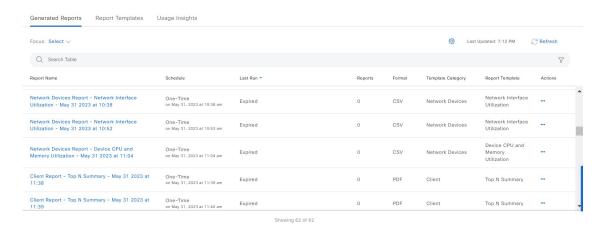
The **Generated Reports** window shows details of the new flexible report.

You can download, review, edit, duplicate, or delete the report in the **Generated Reports** window. For more information, see View Generated Reports, on page 45.

View Generated Reports

Perform this procedure to download, review, edit, duplicate, or delete a previously generated report.

Figure 17: Generated Reports



Before you begin

- Run a successful **Discovery** job in Catalyst Center. You can check whether a **Discovery** job is successful in **Device Inventory**. From the top-left corner, click the menu icon and choose **Provision** > **Inventory** to view the results.
- Create a report using the **Schedule** functionality in the **Catalog**.
- **Step 1** From the top-left corner, click the menu icon and choose **Reports**.

Step 2 Click Generated Reports.

The following information is displayed:

• Report Name: Name of the report.

If you did not give the report a name, a default name is given to the report that contains the report type with the date and time of the report.

Note The report name is a link that opens up a view of the report itself within the **Generated Reports** window. Use the **Download** link to download a copy of the report.

- **Schedule**: One-time generated report or reoccurring report. Also displayed is a brief description of the schedule that generated the report.
- Last Run: Displays report execution status and details. The following report execution status types may be displayed:
 - Not Initiated: Report scheduled but not yet started.
 - In Queue: Report scheduled and in the processing queue to be executed.
 - In Progress: Report currently being executed.
 - **Completed**: Report execution completed displaying the date and time.

Clicking on the icon (downward pointing arrow) downloads the last generated report.

- Expired: Report expired and no longer available in Catalyst Center.
- Error: Report execution failed.

• **Reports**: Number of reports up to a total of seven.

Hover (mouse) over the displayed report number and **View Report List** appears. Click **View Report List** to display a reports dialog box. The reports dialog box lists all the report executions, their status (**Not Initiated**, **In Queue**, **In Progress**, **Completed**, **Expired**, and **Error**) and a **Download** button to download a copy. Clicking **Error** displays any errors and warnings for the report execution.

Important

Catalyst Center retains a total of seven reports. Specifically, Catalyst Center retains the last seven reports that are executed, as well as the last seven reports executed over the last seven days (week). For example, if you run eight reports in a single day, Catalyst Center only retains the last seven reports. If you schedule one report for each day, Catalyst Center retains only the most recent seven reports over the last seven days (week). You can export the reports in their various formats from Catalyst Center and archive them to a safe location.

- **Format**: File format type, such as PDF or CSV.
- Template Category: Type of report based on the catalog options (Client, Executive Summary, SWIM, or Inventory).
- Report Template: Template used when generating the report.
- Actions: List of tasks you can perform with the reports.

You can adjust the downloads that are displayed in the GUI by clicking the **Filter** icon and using the filter, or by entering a keyword in the **Find** field.

Step 3 Click **Actions** to perform one or more of the following tasks:

- View Config: Opens a window where the configured parameters for the report are displayed (including the schedule). You can review the configured report parameters in this window. You cannot make any changes to the report configuration in this read-only window. If you must edit the configuration, click Edit. You can both view and edit a report configuration by clicking Edit.
- **Edit**: Opens a window where configured parameters for the report are displayed (including the schedule). You can review the parameters and also edit them in this window. Click **Save** after making any edits to the report.

Important

After you edit and update the report configuration, any future report executions reflect this new configuration. This is important if reports are being generated on a reoccurring schedule. Also, if you edit and update a report configuration, all the previous reports in Catalyst Center will be deleted. The GUI displays a warning about the deletion when clicking the **Save** button. You do not have to make any edits in the configuration to click the **Save** button and delete all previous reports.

• **Duplicate**: Opens the **Duplicate** window, where you can either view or configure the parameters for the report. Click **Generate Report** to generate the report again.

Note

If you want to create a new report based on an existing report and its configuration, use the **Duplicate** option and make changes to the configuration. This lets you create a new report similar to the existing one, while retaining the existing report and its configuration. If you want to discard the existing report and completely replace it with a new report, use the **View Config** and **Edit** options as described previously.

• Run Now: Starts the process to execute the report. A success message appears after a successful report execution.

Note

If you try to execute a report and there are seven previous reports, the GUI displays a warning that only the last seven reports are saved. You use the **Run Now** option when you must generate a report outside of an existing schedule for the reports.

• Delete: Deletes the report. You are prompted to confirm the action before the report is deleted.