



## Creating New Interactive Reports

Operations Reports allows you to create your own reports with the data of your choice. This is useful when the data you need is more specific than what is represented by a prepackaged report. For example, the Mobility Gateway prepackaged reports provide a snapshot view of the services configured on selected devices but they do not provide full details of the services. You can create a new report that includes these details.

The first step in creating a new report is to select the data source on which the report will be based, which will determine what type of information that will be available for inclusion in the report. Then, you can drag and drop the required information into the report, and group and filter it as required. Operations Reports provides live rendering of the report which means that you can see the report layout as you build it.

Once you have created your new report, you can save it in the relevant report folder - Fault, Data Center, Mobility, or Physical Inventory. You can export the report to a format of your choice, including HTML, PDF, CSV, or Excel. On the new report you create, you can add templates, filter, group, and sort data further. Formatting changes can be made on the fly.

All the reports that you create are available in the location it was saved to at the time of creation.



### Note

You cannot delete interactive reports and the folders.

This section contains the following topics:

- [Creating a New Report, page 4-1](#)
- [Choosing a Data Source to Determine the Report Content Type, page 4-5](#)

## Creating a New Report

To create a new interactive report, follow the steps below. To illustrate the procedure, we will create an example Mobility report to display details of the LTE services in the network.

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- Step 1** From the Operations Reports home page, go to **File > New > Interactive Report**.  
The Select Data Source dialog box appears.
- Step 2** Select the Data Source that is appropriate for your report, and click **OK**. To determine the data source that is appropriate for the report you need, see [Choosing a Data Source to Determine the Report Content Type, page 4-5](#).  
To generate an LTE services report, choose LTE.

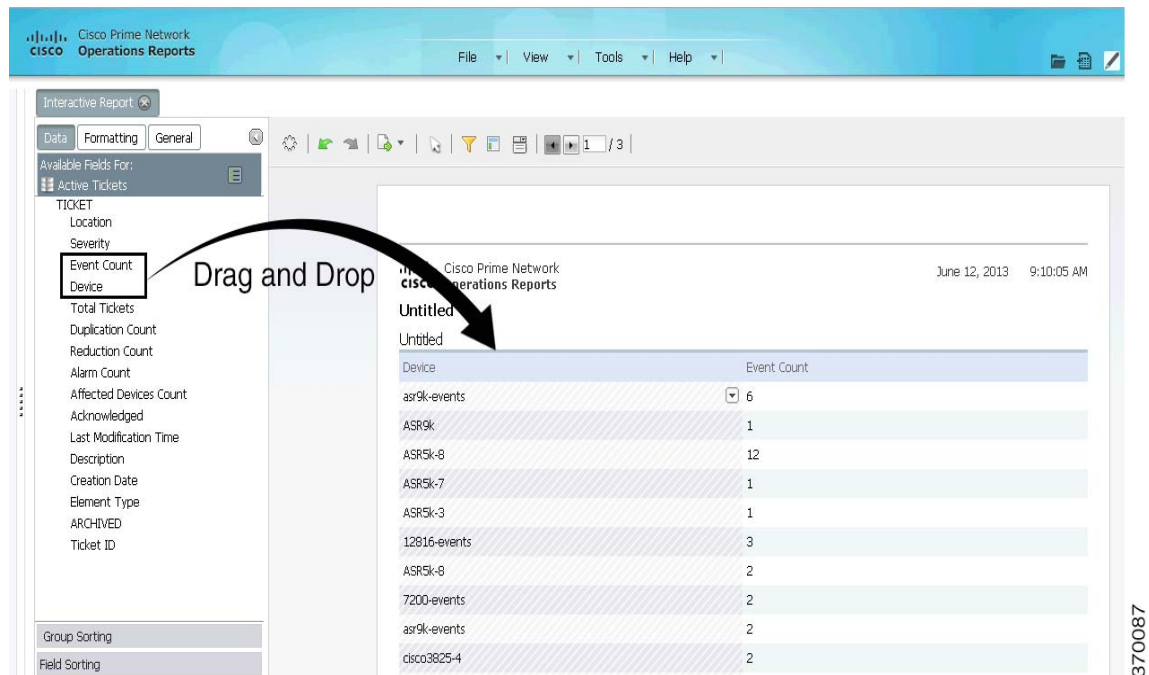
The Interactive Reporting page appears.

- Step 3** To add your first column, click and drag a field from the **Browse** pane and onto the report pane. You can add as many columns as you require to the report. Repeat this step until you have all the columns of your report in place. For Portrait layout, we recommend that your report contains not more than 7 columns; for Landscape layout, limit the number of columns to up to 12 columns.



**Tip** If you want to make sure subsequent columns appear in correct order, drag and drop the columns, as required. Click the **Undo** or **Redo** buttons in your toolbar, if required.

**Figure 4-1** Creating New Interactive Report



You can save your report at this point or continue customizing it. For information on customizing reports, see [Customizing Reports, page 5-1](#).

For this example LTE services report, drag the parameters Device Name, SAE Gateway Service Name, Context Name, Packet Data Network Gateway (PGW) service name, and Serving Gateway (SGW) onto the report. The report displays the SAE gateway, SGW, PGW that are configured for a particular context in each device.

- Step 4** Click the **Save** icon on the toolbar.  
The Save dialog box appears.
- Step 5** In the File Name text box, enter a file name for your report.
- Step 6** Browse to locate the folder in which to save your report. The path to the folder which will contain your report appears in the Location text box. You cannot save a report in the root directory.
- Step 7** Click **Save**.

- Step 8** By default, the title of an interactive report reads **Untitled**. To change the title, double-click the word **Untitled** on the upper left corner of the report. Perform the same procedure to change the footer of a report.
- Step 9** You can apply templates, change the format and the layout of the report you created. For more information, see [Changing the Report Template, page 5-5](#).

The generated LTE report appears as depicted in [Figure 4-2](#).

**Figure 4-2** LTE Service Report—Example

Device Name	Context Name	SGW Service Name	PGW Service Name	SAEGW Service Name
ASR_10.56.22.54	vaishali	sgw1	pgw1	saegw1
ASR_10.56.22.54	Velankani		pgw56	report-1

370261

## Refreshing Interactive Reports

By default, interactive reports are updated with the latest changes in database when you open the report from the left navigation pane. If new devices are added, the devices appear in the Device Selector list after one hour of generation of the report for the first time. To view the updated list of devices in the Device Selector, close and reopen the report.

However, it takes up to five minutes for changes made in the Prime Network GUI clients to be reflected in Operations Reports. For example, when a VNE is added to the system, it is not shown in Operations Reports until the discovery is complete which could take up to five minutes. Other changes to devices, such as port up/down, might take less time to be reflected in the reports. After five minutes, click **View Report** for the report to be updated with the relevant data.

If you prefer the report to be created as you generate and perform the customization, enable the auto refresh option. When you disable the Auto Refresh mode, you can design your report layout first, including calculations and filtering, without querying the database until you are done. Once the report layout is complete, you can re-enable Auto Refresh. Data retrieval will occur once and your report will

display the requested data. Disable auto refresh if you want to reduce the number of queries executed against the data source or if you know that the data source returns data slowly. Follow the procedure given below to enable auto refresh:

**Step 1** Open the interactive report. From the left navigation pane, select the **Query Settings** icon.

**Step 2** Enable **Auto Refresh**.

**Figure 4-3** Enabling Auto Refresh Option

The screenshot shows the Cisco Prime Network Operations Reports interface. A 'Query Settings' dialog box is open, displaying the following options:

- Select Distinct
- Row Limit
- Query Timeout
- Auto-Refresh

The background shows a table of 'Archive Events Detailed' with columns for 'Device', 'Severity', and 'Alarm Old'. The table lists several devices, all with a 'Cleared' severity. The interface also shows a 'Data' tab, 'Formatting', and 'General' options at the top, and a 'Group Sorting' and 'Field Sorting' section at the bottom left.

### Important Notes to Consider

- If the state of devices is Operational or Partially Discovered or Currently Unsynchronized, the reports contain all device-related details. However, if the state of the device is Discovering, the report contains only the entry for the device. All other details are populated once the device reaches one of the states that is final. To view the device in the device selector drop-down list, close and reopen the report. The device details are updated.
- While creating new reports, you must ensure that the report parameters are related. For example, if you are creating a report to understand the relationship between device connection and Packet Data Serving Node (PDSN) service, you can drag an associated field such as Foreign Agent (FA) service. This creates a report with the PDSN and the related FA services that are configured on a particular device. However, if you wish to view the Home Agent (HA) services that are configured, you must create a new report. Since FA service and HA service are not related, creating a report with two unrelated columns will not present any usable data.
- Create separate reports for data that represent different details. For example, to view the port attributes of modules and submodules, two different reports must be created—one representing port attributes and modules, and another report representing submodules and the its port attributes.

## Choosing a Data Source to Determine the Report Content Type

Interactive reports rely on data sources to determine the type of content that will be displayed in the report. Operations Reports provides a predefined set of data sources, each of which extracts from the database a different set of parameters that can be included in the report. From this master list of parameters, you can choose those you want to use in your report. For example, using the model Active Tickets, you can view the following data of active tickets (tickets that are not archived): Location, Severity, Event Count, Device, Count, Duplication Count, Reduction Count, Alarm Count, Affected Devices Count, Acknowledged, Last Modification Time, Description, and Date/Time. This section describes the content that each data source provides and maps the data sources to the relevant report type - fault, physical inventory, mobility, or data center. To view the data that can be represented by each data source, see [Appendix A, “Predefined Data in Data Sources”](#).

**Note**

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The functionality to create a new Data Source has not been tested and validated on Prime Network 4.2.2 Operations Reports.

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**Table 4-1 Data Sources to Create New Interactive Reports**

Report Category	Maps to Data Source	Description
Physical Inventory	Device	<p>Generates a report on devices that are monitored. Provides information on the following:</p> <ul style="list-style-type: none"> <li>• Device details such as type, IP address, vendor, series.</li> <li>• Management state of the device such as SNMP state, SNMP enabled state, SNMP protocol.</li> <li>• Telnet connectivity of the device</li> <li>• XML status; includes XML state, XML state description, and XML state since when.</li> </ul>
	Module	<p>Generates a report on the module details such as:</p> <ul style="list-style-type: none"> <li>• Device details.</li> <li>• Chassis details such as name, shelf serial number, shelf status.</li> <li>• Module details such as name, type, software version, hardware version, number of ports.</li> <li>• Sub-module details such as name, type, software version, hardware version, and number of ports.</li> </ul> <p><b>Note</b> To generate meaningful reports with module and sub-module data, you must include one of the following combinations:</p> <ul style="list-style-type: none"> <li>– Module name and module details or sub-module details</li> <li>– Module name and sub-module name.</li> </ul> <p>A combination of module details and sub-module details will not render a meaningful report.</p>
	Hardware Inventory	<p>Provides a report on the hardware inventory details:</p> <ul style="list-style-type: none"> <li>• Device details such as type, IP address, vendor, series.</li> <li>• Chassis details such as name, shelf serial number, shelf status.</li> <li>• Module details such as name, type, software version, hardware version, number of ports, sub module name.</li> <li>• Port details including name, operational status, admin status, connector type, port ID.</li> <li>• Sub-module port details such as sub-module port alias, port location, connector type, pluggable port state.</li> </ul>

**Table 4-1** Data Sources to Create New Interactive Reports (continued)

Report Category	Maps to Data Source	Description
Mobility	Mobility Applications	Generates a report on mobility applications for the following details: <ul style="list-style-type: none"> <li>• Device details</li> <li>• Chassis details</li> <li>• Mobility applications—provides details of the configured service</li> <li>• APN charging characteristics such as home profile, home bit behavior, visiting profile, visiting bit behavior.</li> <li>• APN QoS Up/Down link details including negotiation link, peak data rate, rate limit, committed data rate.</li> </ul>
	Code Division Multiple Access (CDMA)	For the selected CDMA service, generates a report on the following: <ul style="list-style-type: none"> <li>• Device details</li> <li>• PDSN service name</li> <li>• APN details such as name, accounting mode, context name, active charging rule base, L3 to L2 address policy.</li> </ul>
	CDMA-Systems Architecture Evolution (SAE)	Generates a report on the following for the selected CDMA-SAE service: <ul style="list-style-type: none"> <li>• CDMA-SAE details including PDSN name, SGW name, FA name.</li> <li>• Device details</li> <li>• APN details such as name, accounting mode, context name, active charging rule base, L3 to L2 address policy.</li> </ul>

Table 4-1 Data Sources to Create New Interactive Reports (continued)

Report Category	Maps to Data Source	Description
	Long Term Evolution (LTE)	For the selected LTE, the report displays the following: <ul style="list-style-type: none"> <li>• Device details</li> <li>• Serving gateway details such as name, status, Egress protocol, accounting policy.</li> <li>• Packet Data Network Gateway (PGW) details such as name, status, QCI QoS mapping table, new call policy.</li> <li>• Mobile management entity (MME) details</li> <li>• APN details such as name, L3 to L2 address policy, accounting mode, IP header compression.</li> </ul>
	Universal Mobile Telecommunication System (UMTS)	For the selected device, presents data on the following: <ul style="list-style-type: none"> <li>• Device details</li> <li>• Gateway GPRS support node</li> <li>• Serving GPRS support node</li> <li>• APN details</li> </ul>
	EPC	Displays the following information: <ul style="list-style-type: none"> <li>• Device details</li> <li>• Serving gateway details</li> <li>• Packet Data network gateway details</li> <li>• Gateway GPRS support node details</li> <li>• SAE gateway details</li> <li>• APN details</li> <li>• MME details</li> </ul>
Data Center	Data Center Inventory	Presents a report on the inventory; for the selected vCenter, represents the following: <ul style="list-style-type: none"> <li>• vCenter details</li> <li>• Host Name</li> <li>• Host statistics</li> <li>• Virtual machine details</li> <li>• Virtual machine statistics</li> </ul>



**Table 4-1** Data Sources to Create New Interactive Reports (continued)

Report Category	Maps to Data Source	Description
Faults	Archived Events Detailed <sup>1</sup>	For the selected device, displays event details such as location, alarm ID, count, device type, severity.
	Active Events	For a selected device, provides a list of all active events, with details such as duplication count, reduction count.
	Active Tickets	For the selected device, generates a report on the number of active tickets, location, severity, alarm count, duplication and reduction count.
	Archive Events	For a selected device, presents details on the event type, count, first and last occurrence, severity, device, device type.
	Archive Tickets	For the selected device, generates a report on the number of active tickets, location, severity, alarm count, duplication and reduction count.
	Standard Events	For the selected device, displays information such as, event count, reduction count, duplication count, causing event ID, severity, and location.
Network Service	Virtual connection	For each Virtual connection, the report displays: <ul style="list-style-type: none"> <li>• Virtual connection or Layer 2 VPN name</li> <li>• Business tag assigned to the Virtual connection or Layer 2 VPN instance</li> <li>• EVC name</li> <li>• Business tag assigned to the EVC</li> <li>• Maps containing the Virtual connection or Layer 2 VPN</li> <li>• Edge EFPs associated with the EVC or Layer 2 VPN</li> <li>• EFD fragment names</li> <li>• EFD fragment type</li> </ul>
	Network pseudowire	For the selected pseudowire, the report displays the network pseudowire name, type, business tag, and map name.
	VPLS	For the selected VPLS, the report displays the VPLS name, business tag, and map name.

1. Archived means that the event/ticket has been cleared, closed, and removed.

■ Choosing a Data Source to Determine the Report Content Type