



CHAPTER 19

Configuring Gateway Device Reports

CAR provides reporting capabilities for three levels of users: administrators, managers, and individual users. Only administrators generate device reports.

Device reports track the load and performance of Cisco Unified Communications Manager related devices, such as conference bridges, voice-messaging servers, and gateways.

This chapter contains the following topics:

- [Configuring Gateway Detail Reports, page 19-1](#)
- [Configuring Gateway Summary Reports, page 19-4](#)
- [Configuring Gateway Utilization Reports, page 19-6](#)
- [Related Topics, page 19-8](#)
- [Additional Cisco Documentation, page 19-8](#)

Only CAR administrators generate the gateway reports. The following sections describe how to configure Gateway Detail, Gateway Summary, and Gateway Utilization reports.

Configuring Gateway Detail Reports

Only CAR administrators generate the Gateway Detail report. Use the Gateway Detail report to track issues with specific gateways.

This section describes how to generate, view, or mail detailed information about selected gateways.

Procedure

Step 1 Choose **Device Reports > Gateway > Detail**.

The Gateway Detail window displays.

Step 2 To display the list of gateways that you can include in the report, in the List of Gateways box perform one of the following tasks:

- To display all gateways in the List of Gateways box, click **Gateway Types** in the column on the left side of the window.
- To display gateways for a particular gateway type in the List of Gateways box, click the icon next to **Gateway Types** in the column on the left side of the window. The tree structure expands, and a list of gateway types displays. Choose a gateway type from the list, and the gateway name displays in the List of Gateways box.



Note The List of Gateways box will list up to 200 gateways that are configured for the chosen gateway type.

- To display all gateways that are associated with configured route patterns/hunt pilots, click the **Route/Patterns/Hunt Pilots** in the column on the left side of the window.
- To display gateways that use a particular route pattern, rather than a gateway type, click the icon next to **Route Patterns/Hunt Pilots** in the column on the left side of the window. The tree structure expands and displays a list of route patterns/hunt lists. Choose a route pattern/hunt pilot from the list, and the gateway name displays in the List of Gateways box.



Note You can also search for specific route patterns/hunt lists by entering part of the name of the route pattern(s)/hunt list(s) in the Route Patterns/Hunt Pilots box in the column on the left side of the window. CAR searches for the route pattern(s)/hunt list(s) that matches the search string.

Step 3 In the List of Gateways box, choose the gateways that you want to include in the report.



Note You can generate a report for up to five gateways at a time.

Step 4 To move the chosen gateway to the list of Selected Gateways box, click the down arrow.

The gateway(s) that you chose displays in the Selected Gateways box.

Step 5 In the Select Call Types area, check the check boxes for the types of calls that you want to include in the report. [Table 19-1](#) describes the call types.

Table 19-1 Gateway Details by Call Types

Call Type	Description
On Net	Outgoing calls that originate on one Cisco Unified Communications Manager network, go out through a trunk, and terminate on a different Cisco Unified Communications Manager network. For CAR purposes, be aware that any outgoing call can be classified as an On Net call if it is configured as such in the CAR dial plan configuration window. See “Configuring the Dial Plan” section on page 29-2 .
Local	Local calls that are routed through the public switched telephone network (PSTN) to numbers without an area code or that include one of the local area codes.
Long Distance	Long-distance calls that originate in the Cisco Unified Communications Manager network and go out through the PSTN.
International	International calls that originate in the Cisco Unified Communications Manager network and go out through the PSTN.

Table 19-1 Gateway Details by Call Types (continued)

Call Type	Description
Incoming	Inbound calls that originate outside the Cisco Unified Communications Manager network, enter through a gateway, and go into the Cisco Unified Communications Manager network.
Tandem	Inbound calls that originate outside the Cisco Unified Communications Manager network, enter the Cisco Unified Communications Manager network through a gateway, and transfer outbound from the Cisco Unified Communications Manager network through a gateway.
Others	All other outgoing calls, such as toll-free numbers or emergency calls such as 911.

- Step 6** In the Select QoS area, check the check boxes for the voice-quality categories that you want to include in the report. The parameters that are set in the “[Configuring QoS Values](#)” section on page 35-1 provide the basis for all voice-quality categories.

Table 19-2 Gateway Detail Voice Quality

Voice Quality	Description
Good	QoS for these calls represents the highest possible quality.
Acceptable	QoS for these calls, although slightly degraded, still falls within an acceptable range.
Fair	QoS for these calls represents degraded quality but still within a usable range.
Poor	QoS for these calls represents unsatisfactory quality.
NA	These calls do not match any criteria for the established QoS categories.

- Step 7** Choose the date range for the period for which you want to see call information.



Note Ensure the date and time range does not exceed one month.

- Step 8** If you want the report in CSV format, choose CSV (comma separated value) in the Report Format area. Be aware that the CSV-format report is limited to 20,000 records. If you want the report in PDF format, choose PDF (portable document format) in the Report Format area. Be aware that the PDF-format report is limited to 5000 records.

- Step 9** Click the **View Report** button.
The report displays.

- Step 10** If you want to mail the report, click the **Send Report** button. To send the report, follow the procedure that is described in the “[Mailing a Report](#)” section on page 3-3.

Additional Information

See the “[Related Topics](#)” section on page 19-8.

Configuring Gateway Summary Reports

Only CAR administrators generate the Gateway Summary report. This report provides a summary of all the calls that went through the gateways. You can use this information for monitoring the traffic and QoS for calls through the gateways.

You can either view reports that the system automatically generates or generate new reports. Only CAR administrators can schedule reports for automatic generation. See the “[Configuring CAR System Parameters](#)” section on page 29-1, for more information.

This section describes how to generate, view, or mail summary information about gateways.

Procedure

- Step 1** Choose **Device Reports > Gateway > Summary**.
The Gateway Summary window displays.
- Step 2** In the Available Reports field, choose an automatically generated report (if available) and go to [Step 6](#) or use the default setting, Generate New Report and go to [Step 3](#).
- Step 3** In the Select Call Types area, check the check boxes for the types of calls that you want to include in the report. [Table 19-3](#) describes the call types.



Tip To check all check boxes, click **Select All**; to uncheck the check boxes, click **Clear All**.

Table 19-3 Gateway Summary by Call Types

Call Type	Description
On Net	Outgoing calls that originate on one Cisco Unified Communications Manager network, go out through a trunk, and terminate on a different Cisco Unified Communications Manager network. For CAR purposes, be aware that any outgoing call can be classified as an On Net call if it is configured as such in the CAR dial plan configuration window. See “ Configuring the Dial Plan ” section on page 29-2.
Internal	Calls, including intracluster calls, that originate in the Cisco Unified Communications Manager network and end in the same Cisco Unified Communications Manager network (no gateways or trunks are used).

Table 19-3 Gateway Summary by Call Types (continued)

Call Type	Description
Local	Local calls that are routed through the public switched telephone network (PSTN) to numbers without an area code or that include one of the local area codes.
Long Distance	Long-distance calls that originate in the Cisco Unified Communications Manager network and go out through the PSTN.
International	International calls that originate in the Cisco Unified Communications Manager network and go out through the PSTN.
Incoming	Inbound calls that originate outside the Cisco Unified Communications Manager network, enter through a gateway, and go into the Cisco Unified Communications Manager network.
Tandem	Inbound calls that originate outside the Cisco Unified Communications Manager network, enter the Cisco Unified Communications Manager network through a gateway, and transfer outbound from the Cisco Unified Communications Manager network through a gateway.
Others	All other outgoing calls, such as toll-free numbers or emergency calls such as 911.

- Step 4** If you chose Generate New Report, choose the date range of the period for which you want to generate the report.
- Step 5** If you want the report in CSV format, choose CSV (comma separated value) in the Report Format area. Be aware that the CSV-format report is limited to 20,000 records. If you want the report in PDF format, choose PDF (portable document format) in the Report Format area. Be aware that the PDF-format report is limited to 5000 records.
- Step 6** Click the **View Report** button.
The report displays.
- Step 7** If you want to mail the report, click the **Send Report** button. To send the report, perform the procedure that is described in the [“Mailing a Report” section on page 3-3](#).

Additional Information

See the [“Related Topics” section on page 19-8](#).

Configuring Gateway Utilization Reports

Only CAR administrators generate the Gateway Utilization report. The report provides an estimate of the utilization percentage of the gateway for the period and not the exact utilization. For example, the system calculates the utilization of a gateway between 11hrs-12hrs, as the (sum of the duration of the calls that used the gateway in that hour / (maximum duration seconds in an hour * maximum number of ports in a gateway * number of days between the fromDate and toDate selected) * 100). Similarly, to get a utilization for the whole day, the system calculates the utilization as mentioned for each hour. You can examine the usage based on each hour of a day or on a specified number of days for each week or month.

In the case of weekly utilization reports, the system calculates the utilization as ((sum of the duration of the calls that used the gateway in a day) / (maximum duration seconds in each day * number of each day between the fromDate and toDate selected * maximum number of ports in a gateway) * 100).

In case of monthly utilization reports, the system calculates the utilization as ((sum of the duration of the calls that used the gateway in a day) / (maximum duration seconds in each day * number of each day between the fromDate and toDate selected * maximum number of ports in a gateway) * 100).

Reports generate for each gateway that is chosen.

For calculation of the utilization of H.323 gateways, the system uses the port numbers from the CAR Gateway Configuration window. To find this window, choose **System > System Parameters > Gateway Configuration**. You cannot take port details for H.323 gateways from the Cisco Unified Communications Manager database because the H.323 port number always equals zero in the database. The user must update H.323 gateway ports information in the CAR Gateway Configuration window.

Be aware that the only port detail information that is taken from the CAR Gateway Configuration window is only for those gateways that do not have port details that are available or that show zero in the Cisco Unified Communications Manager database.

You can either view reports that the system automatically generates or generate new reports. Only CAR administrators can schedule reports for automatic generation. See the [“Configuring CAR System Parameters”](#) section on page 29-1, for more information.

This section describes how to generate, view, or mail Gateway Utilization reports.

Procedure

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- Step 1** Choose **Device Reports > Gateway > Utilization**.
The Gateway Utilization window displays.
- Step 2** In the Generate Reports field, choose a time as described in [Table 19-4](#).

Table 19-4 Generate Report Fields

Parameter	Description
Hour of Day	Displays the cumulative utilization for each hour in a 24-hour period for the period that you specify in Step 8 .
Day of Week	Displays the cumulative utilization for the days of the week that occur within the period that you specify in Step 8 .
Day of Month	Displays the cumulative utilization for the days of the month that occur within the period that you specify in Step 8 .

Step 3 In the Available Reports field, choose an automatically generated report (if available) and go to [Step 10](#) or use the default Generate New Report and go to [Step 4](#).

Step 4 To display the list of gateways that you can include in the report in the List of Gateways box, perform one of the following tasks:

- To display all gateways in the List of Gateways box, click **Gateway Types** in the column on the left side of the window.
- To display gateways for a particular gateway type in the List of Gateways box, click the icon next to **Gateway Types** in the column on the left side of the window. The tree structure expands, and a list of gateway types displays. Choose a gateway type from the list, and the gateway name displays in the List of Gateways box.



Note The List of Gateways box will list up to 200 gateways that are configured for the chosen gateway type.

- To display all gateways that are associated with configured route patterns/hunt pilots, click the **Route Patterns/Hunt Pilots** in the column on the left side of the window.
- To display gateways that use a particular route pattern, rather than a gateway type, click the icon next to **Route Patterns/Hunt Pilots** in the column on the left side of the window. The tree structure expands and displays a list of route patterns/hunt lists. Choose a route pattern/hunt pilot from the list, and the gateway name displays in the List of Gateways box.



Note You can also search for specific route patterns/hunt lists by entering part of the name of the route pattern(s)/hunt list(s) in the Route Patterns/Hunt Pilots box in the column on the left side of the window. CAR searches for the route pattern(s)/hunt list(s) that matches the search string.

Step 5 Choose a gateway type from the list.
The gateway name displays in the List of Gateways box.



Note The List of Gateways box will display up to 200 gateways that are configured for the chosen gateway type.

Step 6 In the List of Gateways box, choose the gateways that you want to include in the report.



Note You can generate a report for up to five gateways at a time.

Step 7 To move the chosen gateway to the list of Selected Gateways box, click the down arrow.
The gateway(s) that you chose displays in the Selected Gateways box.

Step 8 If you chose Generate New Report, enter the date range of the period for which you want to see call information.



Note Ensure the date and time range does not exceed one month.

Step 9 If you want the report in CSV format, choose **CSV** (comma separated value) in the Report Format area. If you want the report in PDF format, choose **PDF** (portable document format) in the Report Format area.

Step 10 Click the **View Report** button.

The report displays.

Step 11 If you want to mail the report, click the **Send Report** button. To send the report, perform the procedure that is described in the [“Mailing a Report”](#) section on page 3-3.

Additional Information

See the [“Related Topics”](#) section on page 19-8.

Related Topics

- [CDR Analysis and Reporting Configuration Checklist, page 2-1](#)
- [Chapter 18, “Understanding CAR Device Reports”](#)
- [Chapter 20, “Configuring Route Pattern and Hunt Pilot Device Reports”](#)
- [Chapter 21, “Configuring Conference Bridge Device Reports”](#)
- [Chapter 22, “Configuring Voice Messaging Utilization Device Reports”](#)
- [Chapter 23, “Configuring Trunk Device Reports”](#)
- [Chapter 24, “Reviewing CAR Device Reports Results”](#)

Additional Cisco Documentation

- *Cisco Unified Communications Operating System Administration Guide*
- *Cisco Unified Serviceability Administration Guide*
- *Cisco Unified Communications Manager Call Detail Records Administration Guide*