System Reports

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CAR System Reports

CAR provides reporting capabilities for three levels of users:

- Administrators - Generate system reports to help with load balancing, system performance, and troubleshooting.
- Managers - Generate reports for users, departments, and QoS to help with call monitoring for budgeting or security purposes and for determining the voice quality of the calls.
- Individual users - Generate a billing report for calls of each user.

Note You may have access restrictions to view some reports depending on your job function.

System Reports Summary Description

CDR Analysis and Reporting provide system reports for managers and CAR administrators. Managers or CAR administrators can access the QoS summary report. Only CAR administrators can access all other reports. This section describes the following reports:

- QoS
  - Detail - Available for CAR administrators. The QoS detail report provides the QoS ratings that are attributed to inbound and outbound calls on the Unified Communications Manager network for the

period that you specify. Use this report to help monitor the voice quality of all calls on a user-level basis for the entire system. The call details in CDRs and CMRs and the QoS parameters that you choose provide the basis for assigning a particular voice-quality category to a call.

- Summary - Available for managers and CAR administrators. This report provides a two-dimensional pie chart that shows the distribution of QoS grades that are achieved for the specified call classifications and period. The report also provides a table that summarizes the calls for each QoS. The call details in CDRs and CMRs and the QoS parameters that you choose provide the basis for assigning a call to a particular voice-quality category. Use this report to monitor the voice quality of all calls through the network.
- By Gateway - Available for CAR administrators. This report shows the percentage of the calls for each of the chosen gateways that meet the QoS criteria that the user chooses. You can generate this report on an hourly, daily, or weekly basis.
- By Call Types - Available for CAR administrators. This report shows the percentage of the calls for each chosen call type that meet the QoS criteria that the user chooses. You can generate this report on an hourly, daily, or weekly basis.

- Traffic
  - Summary - Available for CAR administrators. This report provides information about the call volume for a period that you specify and include only those call types and QoS voice-quality categories that you choose. Use this report to determine the number of calls that are being made on an hourly, weekly, or daily basis. This report helps you identify high- and low-traffic patterns for capacity planning.
  - Summary by Phone Number - Available for CAR administrators. This report provides information about the call volume for a period and set of phone numbers that you specify. It includes only those call types and phone numbers that you choose. You can generate the report on an hourly, weekly, or daily basis. This report helps you determine high-usage users or groups by aggregating the usage level across the users that you specify.

- FAC/CMC
  - Client Matter Code - Available for CAR administrators. This report allows administrators to view the originating and destination numbers, the date, and time that the call originated, the call duration in seconds, and the call classification for calls that relate to each chosen client matter code.
  - Authorization Code Name - Available for CAR administrators. This report allows administrators to view the originating and destination numbers, the date, and time that the call originated, the call duration in seconds, the call classification, and the authorization level for calls that relate to each chosen authorization code name.
  - Authorization Level - Available for CAR administrators. This report allows administrators to view the originating and destination numbers, the date, and time that the call originated, the call duration in seconds, the authorization code name, and the call classification for calls that relate to each chosen authorization level.

- Malicious Call Details - Available for CAR administrators. The Unified Communications Manager Malicious Call Identification (MCID) service tracks malicious calls. The Malicious Call Details report displays the details of malicious calls for a given date range.
- Precedence Call Summary - Available for CAR administrators. The Unified Communications ManagerCall Precedence service allows authenticated users to preempt lower priority phone calls. The PDF version

of the CAR Precedence Call Summary report displays the Call Summary for the precedence values in the form of a bar chart, on an hour of the day, day of the week, or day of the month basis, for each of the precedence levels that you choose. CAR generates one chart for each precedence level, a table for each precedence level that lists the number of call legs, and a subtable that summarizes the percentage distribution for each precedence level. CAR makes the report available on-demand; the report does not get autogenerated.

- System Overview - Available for CAR administrators. Use the System Overview report to see a high-level picture of the Unified Communications Manager network. The System Overview provides the following reports:
  - Top 5 Users Based on Charge
  - Top 5 Destinations Based on Charge
  - Top 5 Calls Based on Charge
  - Top 5 Users Based on Duration
  - Top 5 Destinations Based on Duration
  - Top 5 Calls Based on Duration
  - Traffic Summary Hour of Day - Incoming, Internal, International, Local, Long Distance, On Net, Others, Tandem, and Total calls
  - Traffic Summary Day of Week - Incoming, Internal, International, Local, Long Distance, On Net, Others, Tandem, and Total calls
  - Traffic Summary Day of Month - Incoming, Internal, International, Local, Long Distance, On Net, Others, Tandem, and Total calls
  - QoS Summary
  - Gateway Summary
- CDR Error - Available for CAR administrators. This report provides statistics for the number of error records in the CAR Billing_Error table and the reason for the errors. Use this report to determine whether CAR incurred any errors with CDR data while the CDR data was loaded. This report lists the percentage of CDRs that are invalid and the reason that these CDRs have been classified as invalid.

User Search

Many reports in CAR provide a search function, so you can look for users. The following CAR System reports support search by user: QoS Details and Traffic Summary by Phone Number. You can mail all reports that can be generated by using the Send Report button.

Before you begin

You must use the window in System Reports that allows you to search for users.

This section describes how to search for a user.

Procedure

Step 1 Click the **Search Users** link.

A User Search window displays.

Step 2 In the First Name and Last Name fields, enter characters of the first or last name of the user and click **Search**.

A User Search Results window displays in the same window and lists all users who matched the search criteria that you entered.

Step 3 In the row for the user that you want, click **Select** link.

The user that you chose gets added to the List of Users in the User Search window. Repeat this step to add more users.

Step 4 When you have added all users, click **Close** in the User Search window.

QoS System Reports

CAR provides reporting capabilities for three levels of users:

- Administrators - Generate system reports to help with load balancing, system performance, and troubleshooting.
- Managers - Generate reports for users, departments, and QoS to help with call monitoring for budgeting or security purposes and for determining the voice quality of the calls.
- Individual users - Generate a billing report for calls by each user.

Note You may have access restrictions to view some reports depending on your job function.

Only CAR administrators generate the QoS detail report. The report details the QoS ratings that are attributed to inbound and outbound calls on the Unified Communications Manager network for the period that is specified.

Managers or CAR administrators generate the QoS summary report. The report provides a two-dimensional pie chart that shows the distribution of QoS grades that are achieved for the specified call classifications and period. The report also provides a table that summarizes the calls for each QoS. The call details in CDRs and CMRs and the QoS parameters that are provided in the Define QoS Values provide a basis for assigning a particular voice-quality category to a call.

You can either view reports that the system automatically generates or generate new reports. Only CAR administrators can schedule reports for automatic generation. For more information, see Automatic Generation of CAR Reports and Alerts.

QoS Parameter Operators

The following table describes the QoS parameter operators that you use in generating the QoS reports.

Table 1: QoS Parameter Operators

Operator	Description
>=	Choose this operator to generate jitter, latency, or lost packet data that is greater than or equal to the specified value.
=	Choose this operator to generate jitter, latency, or lost packet data that is equal to the specified value.
<=	Choose this operator to generate jitter, latency, or lost packet data that is less than or equal to the specified value.
N.A.	Choose this operator to preclude jitter, latency, or lost packet data.
Between	Choose this operator to generate jitter, latency, or lost packet data that occurs between one value and another value. When you choose this operator, a second field displays, so you can set the start and end values.

Generate QoS Detail Reports

This section describes how to generate, view, or mail detailed information about the system QoS.

Procedure

Step 1 Choose **System Reports** > **QoS** > **Detail**.

The QoS Detail window displays.

Step 2 In the Select Call Types area, check the check boxes for the types of calls that you want the report to include. The following table describes the call types.

Table 2: QoS Detail Report Call Types

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

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 Unified Communications Manager network and go out through the PSTN.
International	International calls that originate in the Unified Communications Manager network and go out through the PSTN.
Incoming	Inbound calls that originate outside the Unified Communications Manager network, enter through a gateway and go into the Unified Communications Manager network.
Tandem	Inbound calls that originate outside the Unified Communications Manager network, enter the Unified Communications Manager network through a gateway and are transferred outbound from the Unified Communications Manager network through a gateway.
Others	All other outgoing calls, such as toll-free numbers or emergency calls such as 911.

Step 3 In the Select QoS area, check the check boxes for the voice-quality categories that you want to be included in the report. The parameters set in the following table provide the basis for all voice-quality categories.

Table 3: QoS Detail Report Voice Quality

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

Step 4 Choose the date range for the period for which you want to see QoS information.

Step 5 In **Select Users** field, you can either choose all users or search for particular users. To choose all users, check the **Select All Users** check box. To choose individual users, enter the user ID of the individual in the User ID field and click **Add** .

Note
You can also use a provided search function. See the User Search, on page 3.

Step 6 Choose **CSV** in the Report Format area, if you want the report in CSV format. Choose **PDF** in the Report Format area, if you want the report in PDF format.

Step 7 Click **View Report**.

Step 8 Click **Send Report**, if you want to mail the report. To send the report, perform the procedure that is described in the Mail Reports.

Generate QoS Summary Reports

This section describes how to generate, view, or mail summary information about the system QoS.

Procedure

Step 1 Perform one of the following steps:

a) If you are a manager, choose **QoS** > **Summary**.

b) If you are a CAR administrator, choose **System Reports** > **QoS** > **Summary**.

The QoS Summary window displays.

Step 2 In the **Available Reports** field, choose an automatically generated report (if available) and go to the following step, or use the default setting, **Generate New Report**, and go to the next step

Note
You can only choose the automatically generated report if you are logged in as a CAR administrator. The automatically generated reports do not display in the drop-down list box if you are logged in as a manager.

Step 3 In the Select Call Types area, check the check boxes for the types of calls that you want the report to include. The following table describes the call types.

Table 4: QoS Summary Report Call Types

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

Call Type	Description
Incoming	Inbound calls that originate outside the Unified Communications Managernetwork, enter through a gateway, and go into the Unified Communications Managernetwork.
Tandem	Inbound calls that originate outside the Unified Communications Manager network, enter the Unified Communications Managernetwork through a gateway, and transfer outbound from the 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 in the previous step, choose the date range for the period for which you want to generate the report.

Step 5 Choose **CSV** in the Report Format area, if you want the report in CSV format. Choose **PDF** in the Report Format area, if you want the report in PDF format.

Step 6 Click **View Report**.

Step 7 Click **Send Report**, if you want to mail the report. To send the report, perform the procedure that is described in the Mail Reports.

Generate QoS by Gateway Reports

Only CAR administrators generate the QoS by Gateway report. The report provides the percentage of calls that satisfy the selected QoS criteria for a period that is specified for the selected gateways.

Caution Use CAR only during off-peak hours. Otherwise, data collection and report generation could cause performance degradation on the Unified Communications Manager system.

This section describes how to generate, view, or mail QoS information about all chosen gateways.

Before you begin

Configure the gateway by using the procedures in the Set Up Gateway.

Procedure

Step 1 Choose **System Reports** > **QoS** > **By Gateways**.

The QoS based on Gateways window displays.

Step 2 In the **Generate Reports** field, choose a time as described in the following table.

Table 5: Generate Report Fields

Parameter	Description
Hour of Day	Displays the percentage of the calls, for each selected gateway, that satisfies the QoS criteria for the period that you specify in Step 6, on page 9. The percentage results show for an hour of the day.
Day of Week	Displays the percentage of the calls, for each selected gateway, that satisfies the QoS criteria for the period that you specify in Step 6, on page 9. The percentage results show for a day of the week.
Day of Month	Displays the percentage of the calls, for each selected gateway, that satisfies the QoS criteria for the period that you specify in Step 6, on page 9. The percentage results show for day of month.

Step 3 In the **Jitter** field, choose the operator that you want to use and enter the value for jitter. See the Table 1: QoS Parameter Operators, on page 5 for descriptions of operators.

Step 4 In the **Latency** field, choose the operator that you want to use and enter the value for latency. See the Table 1: QoS Parameter Operators, on page 5 for descriptions of operators.

Step 5 In the **LostPackets** field, choose the operator that you want to use and enter the value for a number of lost packets. See the Table 1: QoS Parameter Operators, on page 5 for descriptions of operators.

Step 6 Choose the date range of the period for which you want to see call information.

Step 7 To choose the type of gateway that you want to be included in the report, perform one of the following tasks:

a) To display all the gateways that are configured in the system, click **Gateway Types** in the column on the left side of the window.

b) To expand the tree structure and display the type of gateway from which you can choose, click the icon next to Gateway Types.

c) To choose a gateway that uses a particular route pattern/hunt pilot, rather than a gateway type, click **Route Patterns/Hunt Pilots** in the column on the left side of the window. The tree structure expands and displays the gateways that are associated with the configured Route Patterns/Hunt Pilots.

d) To expand the tree structure and display route pattern/hunt pilot for you to choose, click the icon next to Route Patterns/Hunt Pilots.

Note
You can also search for specific route patterns/hunt pilots by entering part of the name of the route pattern(s)/hunt pilot(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 pilot(s) that matches the search string.

Step 8 From the list, choose a gateway type.

The gateway name displays in the List of Gateways box.

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

Step 9 In the **List of Gateways** box, select the gateways that you want to include in the report.

Note
You can generate a report for up to 15 gateways at a time. If you select more than 15 gateways, you will see the message "Select 15 or fewer gateways to generate a new report."

Step 10 Click the down arrow icon to move the chosen gateway to the list of Selected Gateways box.

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

Step 11 Choose **CSV** in the Report Format area, if you want the report in CSV format. Choose **PDF** in the Report Format area, if you want the report in PDF format.

Step 12 Click **View Report**.

Step 13 Click **Send Report**, if you want to mail the report. To send the report, perform the procedure that is described in the Mail Reports.

Generate QoS by Call Types Reports

Only CAR administrators generate the QoS by Call Types report. The report provides jitter, latency, and lost packet information for a period that is specified for all calls of a chosen type.

This section describes how to generate, view, or mail QoS information about all calls of a certain type.

Caution Use CAR only during off-peak hours. Otherwise, data collection and report generation could cause performance degradation on the Unified Communications Manager system.

Procedure

Step 1 Choose **System Reports** > **QoS** > **By Call Types**.

The QoS based on Call Types window displays.

Step 2 In the **Generate Report** field, choose a time as described in the following table.

Table 6: Generate Report Fields

Parameter	Description
Hour of Day	Displays the percentage of the calls, for each call type, that satisfies the QoS criteria for the period that you specify in Step 7, on page 12. The percentage results show for an hour of the day.
Day of Week	Displays the percentage of the calls, for each call type, that satisfies the QoS criteria for the period that you specify in Step 7, on page 12. The percentage results show for a day of the week.

Parameter	Description
Day of Month	Displays the percentage of the calls, for each call type, that satisfies the QoS criteria for the period that you specify in Step 7, on page 12. The percentage results show for a day of the month.

Step 3 In the **Jitter** field, choose the operator that you want to use and enter the value for jitter. See the Table 1: QoS Parameter Operators, on page 5 for descriptions of operators.

Step 4 In the **Latency** field, choose the operator that you want to use and enter the value for latency. See the Table 1: QoS Parameter Operators, on page 5 for descriptions of operators.

Step 5 In the **LostPackets** field, choose the operator that you want to use and enter the value for a number of lost packets. See the Table 1: QoS Parameter Operators, on page 5 for descriptions of operators.

Step 6 In the **Select Call Types** area, check the check boxes for the types of calls that you want the report to include. The following table describes the call types.

Table 7: QoS Parameters by Call Types

Call Type	Description
On Net	Outgoing calls that originate on one Unified Communications Manager network, go out through a trunk and terminate on a different Unified Communications Manager network. For CAR purposes, be aware that any outgoing call can be classified as an OnNet call if it is configured as such in the CAR dial plan configuration window. See Set Up Dial Plan.
Internal	Calls, including intracluster calls, that originate in the Unified Communications Manager network and end in the same Unified Communications Manager network (no gateways or trunks are used).
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 Unified Communications Manager network and go out through the PSTN.
International	International calls that originate in the Unified Communications Manager network and go out through the PSTN.
Incoming	Inbound calls that originate outside the Unified Communications Manager network, enter through a gateway and go into the Unified Communications Manager network.

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

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

Step 8 Choose **CSV** in the Report Format area, if you want the report in CSV format. Choose **PDF** in the Report Format area, if you want the report in PDF format.

Step 9 Click **View Report**.

Step 10 Click **Send Report**, if you want to mail the report. To send the report, perform the procedure that is described in the Mail Reports.

Traffic System Reports

CAR provides reporting capabilities for three levels of users:

- Administrators - Generate system reports to help with load balancing, system performance, and troubleshooting.
- Managers - Generate reports for users, departments, and QoS to help with call monitoring for budgeting or security purposes and for determining the voice quality of the calls.
- Individual users - Generate a billing report for calls by each user.

Note You may have access restrictions to view some reports depending on your job function.

Only CAR administrators can generate the traffic summary report. The report provides information about the call volume for a period that you specify. It includes only those call types and QoS voice-quality categories that you chose.

Tip When you configure CAR to generate a traffic summary report, you can choose different call types (On Net, Internal, Local, Long Distance, and so on). CAR compares the traffic volume for every hour interval and identifies the hour with the highest traffic volume (the Busy Hour Call Completion [BHCC] number). To obtain the overall BHCC number, choose all call types when you configure CAR. Under the report title, a separate line displays the BHCC number for that day.

Only CAR administrators can generate the traffic summary by phone numbers report. The report provides information about the call volume for a period and set of phone numbers that you specify, and includes only those call types and phone numbers that you choose.

Tip You can use this report to track call usage by a specified group of users, by a department, or by another criteria, such as lobby phones or conference room phones. You can set up this report to generate on a weekly basis. This report helps you determine high-usage users or groups by aggregating the usage level across the users that you specify.

Generate Traffic Summary Reports

Only CAR administrators generate the Traffic Summary report. The report provides information about the call volume for a period that you specify.

You can either view reports that the system automatically generates or generate new reports. For more information, see Set Up CDR Load Schedule.

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

Procedure

Step 1 Choose **System Reports** > **Traffic** > **Summary**.

The Traffic Summary window displays.

Step 2 In the **Generate Report** field, choose a time as described in the following table.

Table 8: Generate Report Fields

Parameter	Description
Hour of Day	Displays the average number of calls in the system for the period that you specify in Step 4, on page 14, the call types that you specify in Step 5, on page 14, and the QoS values that you specify in Step 6, on page 15 for an hour of the day. If the period that you specify in Step 4, on page 14 is within one day, the system compares the traffic volume for every hour interval and identifies the hour with the highest traffic volume as the BHCC number for that day.
Day of Week	Displays the average number of calls in the system for the period that you specify in Step 4, on page 14, the call types that you specify in Step 5, on page 14, and the QoS values that you specify in Step 6, on page 15 for the day of the week.

Parameter	Description
Day of Month	Displays the average number of calls in the system for the period that you specify in Step 4, on page 14, the call types that you specify in Step 5, on page 14, and the QoS values that you specify in Step 6, on page 15 for a day of the month.

Step 3 In the **Available Reports** field, choose an automatically generated report (if available) and go to Step 8, on page 15 or use the default setting, Generate New Report and go to Step 4, on page 14.

Step 4 Choose the date range for the period for which you want to generate the report.

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. To obtain the overall BHCC number for a particular hour or 24-hour period, choose all call types. The following table describes the call types.

Table 9: Traffic Summary by Call Types

Call Type	Description
On Net	Outgoing calls that originate on one Unified Communications Manager network, go out through a trunk and terminate on a different Unified Communications Manager network. For CAR purposes, be aware that any outgoing call can be classified as an OnNet call if it is configured as such in the CAR dial plan configuration window. See Set Up Dial Plan.
Internal	Calls, including intracluster calls, that originate in the Unified Communications Manager network and end in the same Unified Communications Manager network (no gateways or trunks are used).
Local	Local calls that route 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 Unified Communications Manager network and go out through the PSTN.
International	International calls that originate in the Unified Communications Manager network and go out through the PSTN.
Incoming	Inbound calls that originate outside the Unified Communications Manager network, enter through a gateway and go into the Unified Communications Manager network.
Others	All other outgoing calls, such as toll-free numbers or emergency calls such as 911.

Note
The calls that the chart/table shows comprise an average number of calls per day. If the data that is generated is less and you have chosen a wide date range, the report shows negligible values that are treated as 0, and the graph does not display. For example, if a Day of Week report gets generated for eight days that comprise two Mondays, the data that is shown for Monday represents the average number of calls for both the Mondays (the sum of all the calls in each Monday that is divided by 2). Similarly, in an Hour of Day report, the data that displays against 05-06 will designate the average number of calls per day between the time 05 and 06 of the date range that was chosen for the report.

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 following table provide the basis for all voice-quality categories.

Table 10: QoS Detail Report 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, although degraded, remains within a usable range.
Poor	Poor voice quality indicates that QoS for these calls is unsatisfactory.
NA	These calls did not match any criteria for the established QoS categories.

Step 7 Choose **CSV** in the Report Format area, if you want the report in CSV format. Choose **PDF** in the Report Format area, if you want the report in PDF format.

Step 8 Click **View Report**.

Step 9 Click **Send Report**, if you want to mail the report. To send the report, perform the procedure that is described in the Mail Reports.

Generate Traffic Summary by Phone Number Reports

Only CAR administrators generate the Traffic Summary by Phone Number report. The report provides information about the call volume for a period and set of phone numbers that you specify.

This section describes how to generate, view, or mail a traffic summary report based on user phone numbers.

Procedure

Step 1 Choose **System Reports** > **Traffic** > **Summary By Phone Number**.

The Traffic Summary that is based on Phone Number(s) window displays.

Step 2 In the **Generate Report** field, choose a time as described in the following table.

Table 11: Generate Report Fields

Parameter	Description
Hour of Day	Displays the average number of calls in the system for the chosen phone numbers for the date range that was chosen for an hour of the day. **Note** Ensure that the date and time range does not exceed one month.
Day of Week	Displays the average calls in the system for the selected phone numbers for the date range that was chosen for the day of the week. **Note** Ensure that the date and time range does not exceed one month.
Day of Month	Displays the average calls in the system for the selected phone numbers for the date range that was chosen for the day of the month. **Note** Ensure that the date and time range does not exceed one month.

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. The following table describes the call types.

Table 12: Traffic Summary (Phone Number) by Call Types

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

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 Unified Communications Manager network and go out through the PSTN.
International	International calls that originate in the Unified Communications Manager network and go out through the PSTN.
Incoming	Inbound calls that originate outside the Unified Communications Manager network, enter through a gateway and go into the Unified Communications Manager network.
Others	All other outgoing calls, such as toll-free numbers or emergency calls such as 911.

Note
The calls that the chart/table shows comprise an average number of calls per day. If the data that is generated is less and you have chosen a wide date range, the report shows negligible values that are treated as 0, and the graph does not display. For example, if a Day of Week report gets generated for eight days that comprise two Mondays, the data that is shown for Monday represents the average number of calls for both the Mondays (the sum of all the calls in each Monday that is divided by 2). Similarly, in an Hour of Day report, the data that displays against 05-06 will represent the average number of calls per day between the time 05 and 06 of the date range that was chosen for the report.

Step 4 In the Select Phone Number(s) group box, you can either choose all phone numbers or search for phone numbers based on users.

Note
You can enter a wildcard pattern like "!" or "X" to search on phone numbers. The "!" represents any n digit that has 0-9 as each of its digits, and the "X" represents a single digit in the range 0-9.

To choose all phone numbers, check the **Select All Phone Number(s)** check box. To choose phone numbers based on users, enter the phone number of the individual in the Phone Number field and click the **Add Phone Number** button. You can also use a provided search function, as described in the User Search, on page 3.

Step 5 Choose **CSV** in the Report Format area, if you want the report in CSV format. Choose **PDF** in the Report Format area, if you want the report in PDF format.

Step 6 Click **View Report**.

Step 7 Click **Send Report**, if you want to mail the report. To send the report, perform the procedure that is described in the Mail Reports.

FAC/CMC System Reports

CAR provides reporting capabilities for three levels of users:

- Administrators - Generate system reports to help with load balancing, system performance, and troubleshooting.
- Managers - Generate reports for users, departments, and QoS to help with call monitoring for budgeting or security purposes and for determining the voice quality of the calls.
- Individual users - Generate a billing report for calls by each user.

Note You may have access restrictions to view some reports depending on your job function.

Only CAR administrators can generate Forced Authorization Code (FAC)/Client Matter Code (CMC) reports.

The following sections describe how to configure FAC/CMC reports:

Generate Client Matter Code Reports

Only CAR administrators can generate the Client Matter Code report. You can generate a report that shows the origination (calling number), destination (called number), origination date time (the date and time that the call originated), duration (call duration in seconds), and the call classification that relates to each CMC.

The following procedure describes how to generate a report that shows the usage of specific client matter codes.

Procedure

Step 1 Choose **System Reports** > **FAC/CMC** > **Client Matter Code**.

The Call Details for Client Matter Code window displays a list of all client matter codes that are configured in the system.

Step 2 In the List of Client Matter Codes box, choose the codes that you want to be included in the report.

Note
You can choose up to 100 Client Matter Codes.

Step 3 To add the chosen code(s) to the Selected Client Matter Codes box, click down arrow.

The report includes all codes, for which data is available, that are listed in this box.

Step 4 In the **From Date** and **To Date** pull-down list boxes, enter the date range of the period for which you want to see Client Matter Code information.

Step 5 Choose **CSV** in the Report Format area, if you want the report in CSV format. Choose **PDF** in the Report Format area, if you want the report in PDF format.

Step 6 Click **View Report**.

Step 7 Click **Send Report**, if you want to mail the report. To send the report, perform the procedure that is described in Mail Reports.

Generate Authorization Code Name Reports

Only CAR administrators can generate the Authorization Code Name report. You can generate a report that shows the origination (calling number), destination (called number), origination date time (the date and time that the call originated), duration (call duration in seconds), and the call classification that relates to each chosen authorization code name.

Note For security purposes, the authorization code does not display; instead, the authorization code name (description) displays.

The following procedure describes how to generate a report that shows the usage of specific authorization code names.

Procedure

Step 1 Choose **System Reports** > **FAC/CMC** > **Authorization Code Name**.

The Call Details for Authorization Code Name window displays a list of all authorization code names that are configured in the system.

Step 2 In the List of Authorization Code Names box, choose the code names that you want to be included in the report.

Note
You can choose up to 30 code names.

Step 3 To add the chosen code name(s) to the Selected Authorization Code Names box, click the down arrow.

The report includes all code names, for which data is available, that are listed in this box.

Step 4 In the **From Date** and **To Date** drop-down list boxes, enter the date range of the period for which you want to see authorization code name information.

Step 5 Choose **CSV** in the Report Format area, if you want the report in CSV format. Choose **PDF** in the Report Format area, if you want the report in PDF format.

Step 6 Click **View Report**.

Step 7 Click **Send Report**, if you want to mail the report. To send the report, perform the procedure that is described in Mail Reports.

Generate Authorization Level Reports

Only CAR administrators can generate the Authorization Level report. You can generate a report that shows the origination (calling number), destination (called number), origination date time (the date and time that the call originated), duration (call duration in seconds), and the call classification that relate to each chosen authorization level.

The following procedure describes how to generate a report that shows the usage of specific authorization levels.

Procedure

Step 1 Choose **System Reports** > **FAC/CMC** > **Authorization Level**.

The Call Details by Authorization Level window displays a list of all authorization levels that are configured in the system.

Step 2 In the List of Authorization Levels box, choose the levels that you want to be included in the report.

Step 3 To add the chosen level(s) to the Selected Authorization Levels box, click the down arrow.

The report includes all levels, for which data is available, that are listed in this box.

Note
Only FAC authorization levels reports that are associated with Route Patterns will get generated.

Step 4 In the **From Date** and **To Date** drop-down list boxes, enter the date range of the period for which you want to see authorization level information.

Step 5 Choose **CSV** in the Report Format area, if you want the report in CSV format. Choose **PDF** in the Report Format area, if you want the report in PDF format.

Step 6 Click **View Report**.

Step 7 Click **Send Report**, if you want to mail the report. To send the report, perform the procedure that is described in the Mail Reports.

Malicious Call Details System Reports

CAR provides reporting capabilities for three levels of users:

- Administrators - Generate system reports to help with load balancing, system performance, and troubleshooting.
- Managers - Generate reports for users, departments, and QoS to help with call monitoring for budgeting or security purposes and for determining the voice quality of the calls.
- Individual users - Generate a billing report for calls by each user.

Note You may have access restrictions to view some reports depending on your job function.

Generate Malicious Call Details Reports

Only CAR administrators generate the Malicious Call Details report. The report displays the following details about malicious calls for a particular date range: origination time, termination time, duration (in seconds), origination (calling number), destination (called number), origination device, destination device, and call classification.

This section describes how to generate, view, or mail a Malicious Call Detail report.

Procedure

Step 1 Choose **System Reports** > **Malicious Call Details**.

The Malicious Call Details window displays.

Step 2 In the **From Date** drop-down list boxes, choose the month, day, and year from which you want malicious call details.

Step 3 In the **To Date** drop-down list boxes, choose the month, day, and year to which you want malicious call details.

Step 4 Choose **CSV** in the Report Format area, if you want the report in CSV format. Choose **PDF** in the Report Format area, if you want the report in PDF format.

Step 5 To view the report, click **View Report**.

Step 6 To mail the report to an email recipient, see the Mail Reports.

Precedence Call Summary System Reports

CAR provides reporting capabilities for three levels of users:

- Administrators - Generate system reports to help with load balancing, system performance, and troubleshooting.
- Managers - Generate reports for users, departments, and QoS to help with call monitoring for budgeting or security purposes and for determining the voice quality of the calls.
- Individual users - Generate a billing report for calls by each user.

Note You may have access restrictions to view some reports depending on your job function.

Generate Precedence Call Summary Reports

Only CAR administrators generate the Call Summary by Precedence report. The report displays the Call Summary for the precedence values that you choose by Hour of Day, Day of Week, or Day of Month.

This section describes how to generate, view, or mail a Call Summary by Precedence report.

Procedure

Step 1 Choose **System Reports** > **Precedence Call Summary**.

The Call Summary by Precedence window displays.

Step 2 In the **Generate Reports** field, choose a time as described in the following table.

Table 13: Generate Report Fields

Parameter	Description
Hour of Day	Displays the average number of calls in the system for the chosen phone numbers for the date range that was chosen for an hour of the day. **Note** Ensure that the date and time range does not exceed one month.
Day of Week	Displays the average number of calls in the system for the chosen phone numbers for the date range that was chosen for the day of the week. **Note** Ensure that the date and time range does not exceed one month.
Day of Month	Displays the average number of calls in the system for the chosen phone numbers for the date range that was chosen for the day of the month. **Note** Ensure that the date and time range does not exceed one month.

Step 3 In the **Select Precedence Levels** field, check a precedence level that you want in the report or click **Select All** to check all precedence levels.

Table 14: Call Precedence Levels

Voice Quality	Description
Flash Override	Highest precedence setting for MLPP calls.
Flash	Second highest precedence setting for MLPP calls.
Immediate	Third highest precedence setting for MLPP calls.
Priority	Fourth highest precedence setting for MLPP calls.
Routine	Lowest precedence setting for MLPP calls.

Note
The Executive Override precedence level that is mentioned in the MLPP Precedence level on the Administration page will be considered as Flash Override in this report.

Note
To uncheck the precedence level check boxes, click **Clear All**.

Step 4 In the **From Date** drop-down list boxes, choose the month, day, and year from which you want precedence summary information.

Step 5 In the **To Date** drop-down list boxes, choose the month, day, and year for which you want precedence summary information.

Step 6 Choose **CSV** in the Report Format area, if you want the report in CSV format. Choose **PDF** in the Report Format area, if you want the report in PDF format.

Step 7 Click **View Report**.

Step 8 To mail the report to an e-mail recipient, see the Mail Reports.

System Reports

CAR provides reporting capabilities for three levels of users:

- Administrators - Generate system reports to help with load balancing, system performance, and troubleshooting.
- Managers - Generate reports for users, departments, and QoS to help with call monitoring for budgeting or security purposes and for determining the voice quality of the calls.
- Individual users - Generate a billing report for each call by each user.

Note You may have access restrictions to view some reports depending on your job function.

Generate System Reports

Only CAR administrators generate the System Overview report that provides the entire set of system reports in one report.

The System Overview report includes the following information:

- Top five users based on charge.
- Top five destinations based on charge.
- Top five calls based on charge.
- Top five users based on duration.
- Top five destinations based on duration.
- Top five calls based on duration.

- Traffic summary - Hour of day for incoming, internal, international, local, long distance, on the net, others, tandem, and total calls.
- Traffic summary - Day of the week for incoming, internal, international, local, long distance, on the net, others, tandem, and total calls.
- Traffic summary - Day of month for incoming, internal, international, local, long distance, on the net, others, tandem, and total calls.
- Quality of service summary.
- Gateway summary.

For more information about the System Overview reports, see the System Reports Results, on page 27.

You can either view reports that the system automatically generates or generate new reports. Only CAR administrators can schedule reports for automatic generation. For more information, see Set Up CDR Load Schedule.

This section describes how to generate, view, or mail summary information about the Unified Communications Manager system.

Procedure

Step 1 Choose **System Reports** > **System Overview**.

The System Overview window displays.

Step 2 In the **Available Reports** field, select an automatically generated report (if available) and go to Step 6, on page 24, or use the default setting, Generate New Report, and go to Step 3, on page 24.

Step 3 Choose the date range for the period for which you want to generate the report.

Step 4 From the List of Reports, select the reports that you want to be generated by highlighting the report and clicking the right arrow.

The reports that you select appear in the Selected Reports list box.

Tip
You can highlight more than one report at a time by pressing the **Ctrl** key on your keyboard while clicking the reports.

Step 5 Choose **CSV** in the Report Format area, if you want the report in CSV format. Choose **PDF** in the Report Format area, if you want the report in PDF format.

Step 6 Click **View Report**.

Step 7 Click **Send Report**, if you want to mail the report. To send the report, perform the procedure that is described in Mail Reports.

CDR Error System Reports

CAR provides reporting capabilities for three levels of users:

- Administrators - Generate system reports to help with load balancing, system performance, and troubleshooting.
- Managers - Generate reports for users, departments, and QoS to help with call monitoring for budgeting or security purposes and for determining the voice quality of the calls.
- Individual users - Generate a billing report for calls by each user.

Note You may have access restrictions to view some reports depending on your job function.

Generate CDR Error Reports

Only CAR administrators generate the CDR Error report. The report provides statistics for the number of error records in the CAR Billing Error (tbl_billing_error) table for a particular time period.

In order to determine why the error records failed the CDR Load, you must review the information in the tbl_error_id_map table.

The following table lists the CDR error codes and the definition of the error.

Table 15: CDR Error Codes

Error Code	Definition
CDRs	
31101	CDR globalCallID_callManagerId <= 0
31102	CDR globalCallID_callId <= 0
31103	CDR origLegCallIdentifier <= 0
31105	CDR dateTimeOrigination <= 0
31108	CDR destLegIdentifier <= 0
31110	CDR dateTimeConnect <= 0
31111	CDR dateTimeDisconnect <= 0
31119	CDR originalCalledPartyNumber is empty
31120	CDR finalCalledPartyNumber is empty
31122	CDR duration < 0
31137	CDR LDAP error while retrieving UserID or ManagerID
31139	CDR callingPartyNumber is empty
31147	CDR origDeviceName is empty

Error Code	Definition
31148	CDR destDeviceName is empty
31151	CDR origCallTerminationOnBehalfOf < 0
31152	CDR destCallTerminationOnBehalfOf < 0
31153	CDR lastRedirectRedirectOnBehalfOf < 0
31155	CDR destConversationId < 0
31156	CDR globalCallId_ClusterID is empty
Orig CMR	
31123	Orig CMR globalCallID_callManagerId <= 0
31124	Orig CMR globalCallID_callId <= 0
31125	Orig CMR numberPacketsSent < 0
31126	Orig CMR numberPacketsReceived < 0
31127	Orig CMR jitter < 0
31129	Orig CMR callIdentifier <= 0
31149	Orig CMR deviceName is empty
31157	Orig CMR globalCallId_ClusterID is empty
Dest CMR	
31140	Dest CMR globalCallID_callManagerId <= 0
31141	Dest CMR globalCallID_callId <= 0
31142	Dest CMR numberPacketsSent < 0
31143	Dest CMR numberPacketsReceived < 0
31144	Dest CMR jitter < 0
31145	Dest CMR callIdentifier <= 0
31150	Dest CMR deviceName is empty
31158	Dest CMR globalCallId_ClusterID is empty

This section describes how to generate, view, or mail information about the CDR Error report.

Procedure

Step 1 Choose **System Reports** > **CDR Error**.

The CDR Error window displays.

Step 2 Choose the date range of the period for which you want to generate the report.

Step 3 Choose **CSV** in the Report Format area, if you want the report in CSV format. Choose **PDF** in the Report Format area, if you want the report in PDF format.

Step 4 Click **View Report**.

Step 5 Click **Send Report**, if you want to mail the report. To send the report, perform the procedure that is described in the Mail Reports.

System Reports Results

This chapter describes report output information for each CAR system report.

QoS Detail Report Results

The results of the QoS Detail report include the following fields. See the following table.

Table 16: QoS Detail Report Fields

Field	Description
Orig. Time	The time that the call was placed, in 24-hour, minute, and second format.
Term. Time	The time that the call disconnected, in 24 hour, minute, and second format.
Duration(s)	The time, in seconds, that the call was connected.
Orig.	The originating number from which the call was placed.
Dest.	The destination number to which the call was directed.
Call Classification - Call categories specify classes.	

Field	Description
On Net	Outgoing calls that originate on one Unified Communications Manager network, go out through a trunk, and terminate on a different Unified Communications Manager network. For CAR purposes, be aware that any outgoing call can be classified as an OnNet call if it is configured as such in the CAR dial plan configuration window. See Set Up Dial Plan.
Internal	Calls, including intracluster calls, that originate in the Unified Communications Manager network and end in the same Unified Communications Managernetwork (no gateways or trunks are used).
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 Unified Communications Manager network and go out through the PSTN.
International	International calls that originate in the Unified Communications Managernetwork that go out through the PSTN.
Incoming	Inbound calls that originate outside the Unified Communications Manager network, enter through a gateway, and go into the Unified Communications Manager network.
Tandem	Inbound calls that originate outside the Unified Communications Managernetwork, enter the Unified Communications Managernetwork through a gateway, and are transferred outbound from the Unified Communications Manager network through a gateway.
Others	All other outgoing calls, such as toll-free numbers or emergency calls such as 911.
Orig. Codec	The codec that the originating device uses.
Dest. Codec	The codec that the destination device uses.
Orig. Device	The name of the device that placed the call.
Dest. Device	The name of the device that received the call.
Orig. QoS	The voice quality that the device that placed the call experienced.

Field	Description
Dest. QoS	The voice quality that the device that received the call experienced.

The following figure displays sample output of the QoS Detail report in PDF format.

Figure 1: QoS Detail Report

Quality of Service - Detail

From Date:Jan 17, 2008
To Date:Jan 17, 2008

Date:Jan 17, 2008
Page:1 of 52

Report Generation Criteria-
Call Classification: On Net, Internal, Local, Long Distance, International, Incoming, Tandem, Others
QoS: Good, Acceptable, Fair, Poor, NA

Orig. Time	Term. Time	Duration (sec)	Orig.	Dest.	Call Classification	Orig. Codec	Dest. Codec	Orig Device	Dest Device	Orig. QoS	Dest. QoS
Jan 17, 2008											
7:09:14 PM	7:09:17 PM	3	1002	1003	Internal	G711Ulaw 64k	G711Ulaw 64k	SEP000011110003	SEP000011110004	NA	NA
7:09:14 PM	7:09:17 PM	3	1000	1001	Internal	G711Ulaw 64k	G711Ulaw 64k	SEP000011110001	SEP000011110002	NA	NA
7:09:14 PM	7:09:17 PM	3	1004	1005	Internal	G711Ulaw 64k	G711Ulaw 64k	SEP000011110005	SEP000011110006	NA	NA
7:09:14 PM	7:09:17 PM	3	1008	1009	Internal	G711Ulaw 64k	G711Ulaw 64k	SEP000011110009	SEP00001111000A	NA	NA
7:09:14 PM	7:09:17 PM	3	1006	1007	Internal	G711Ulaw 64k	G711Ulaw 64k	SEP000011110007	SEP000011110008	NA	NA
7:09:18 PM	7:09:21 PM	3	1002	1003	Internal	G711Ulaw 64k	G711Ulaw 64k	SEP000011110003	SEP000011110004	NA	NA

290493

QoS Summary Report Results

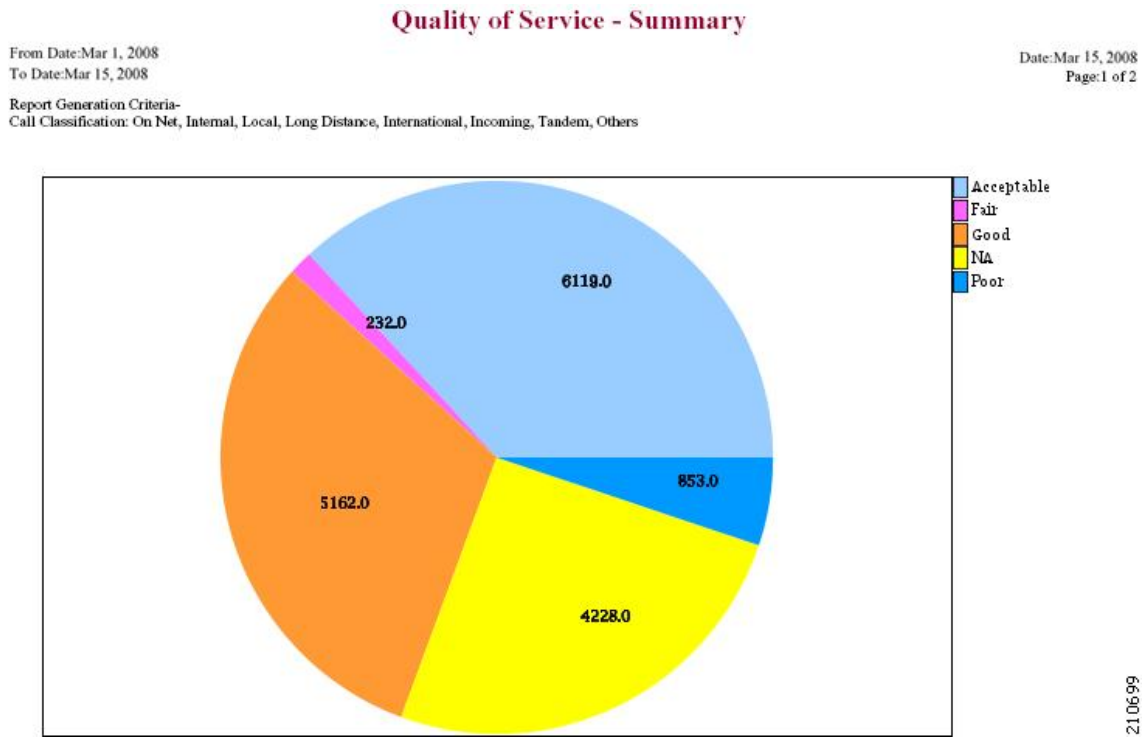
The QoS Summary report includes the following fields. See the table. If you select PDF format for the report output, the report shows a pie chart that displays the QoS of the total number of calls.

Table 17: QoS Summary Report Fields

Field	Description
Quality of Service	The quality of service of the calls.
Call Legs	Number of call legs with the quality of service that the Quality of Service field specified.

Figure 2: QoS Summary Report in PDF Format, on page 30 displays sample output of the QoS Summary Report in PDF format.

Figure 2: QoS Summary Report in PDF Format



QoS by Gateways Report Results

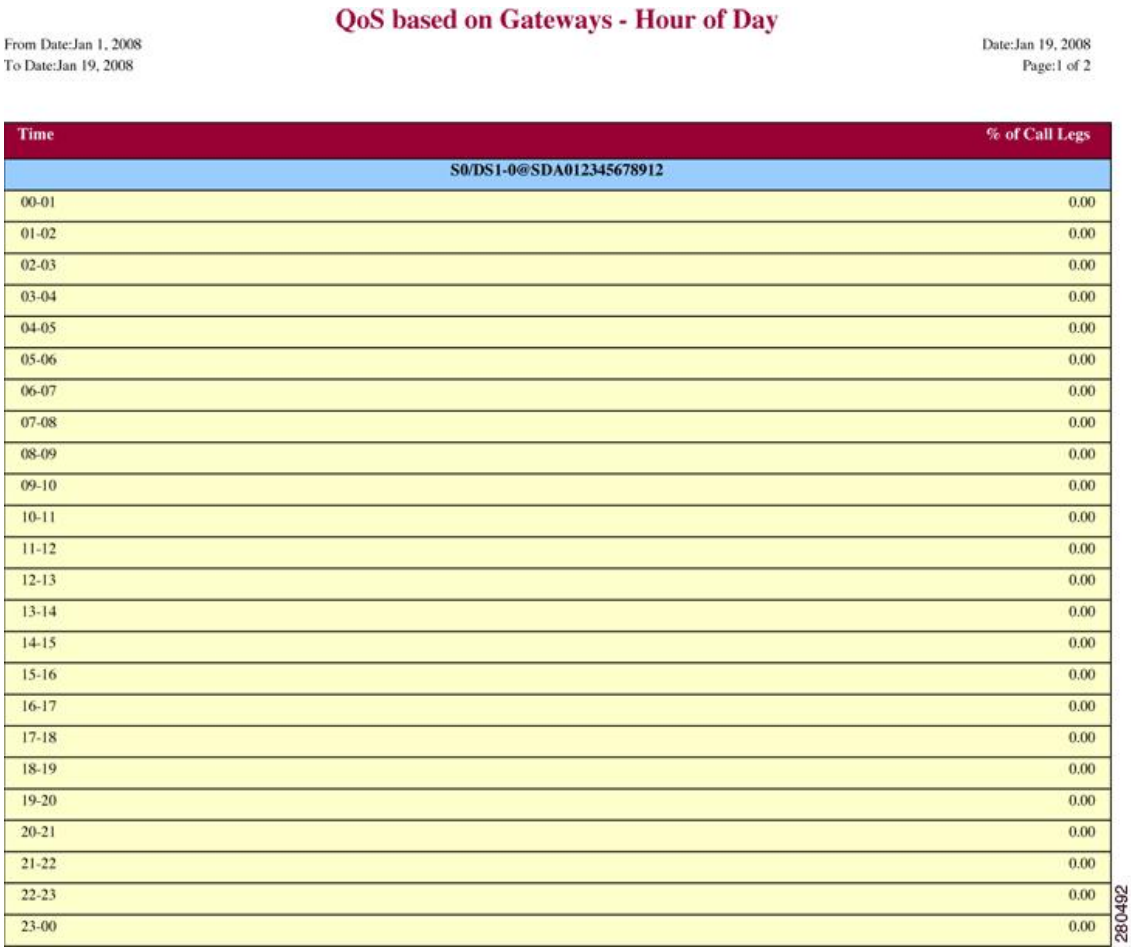
The QoS by Gateways report provides the following information. See the table.

Table 18: QoS by Gateways Report Fields

Field	Description
Time/Day	Indicates the cumulative hours of the day(s), the days of the week, or the days of the month for the selected date range.
% of Call Legs	Displays the percentage of calls for each gateway for the hours of the day, the days of the week, or the days of the month for the selected date range.

Figure 3: QoS by Gateways Report, on page 31 displays sample output of the QoS by Gateways report in PDF format.

Figure 3: QoS by Gateways Report



QoS based on Gateways - Hour of Day

From Date:Jan 1, 2008
To Date:Jan 19, 2008

Date:Jan 19, 2008
Page:1 of 2

Time	% of Call Legs
S0/DS1-0@SDA012345678912	
00-01	0.00
01-02	0.00
02-03	0.00
03-04	0.00
04-05	0.00
05-06	0.00
06-07	0.00
07-08	0.00
08-09	0.00
09-10	0.00
10-11	0.00
11-12	0.00
12-13	0.00
13-14	0.00
14-15	0.00
15-16	0.00
16-17	0.00
17-18	0.00
18-19	0.00
19-20	0.00
20-21	0.00
21-22	0.00
22-23	0.00
23-00	0.00

280492

QoS by Call Types Report Results

The QoS by Call Types report provides the following information. See the table.

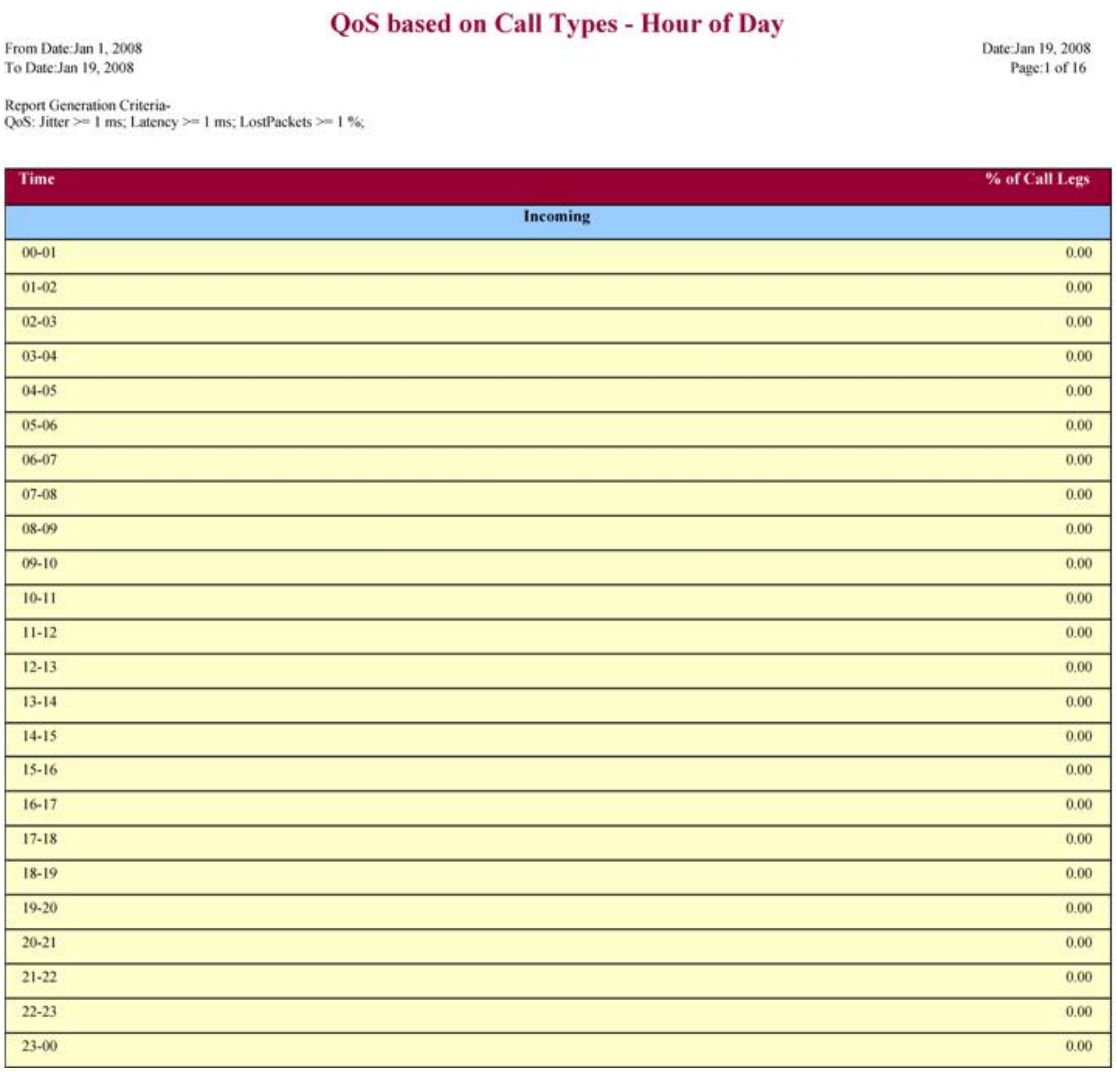
Table 19: QoS by Call Types Report Fields

Field	Description
Time/Day	The cumulative hours of the day(s), the days of the week, or the days of the month for the selected date range.
% of Call Legs	The percentage of calls for each gateway for the hours of the day, the days of the week, or the days of the month for the selected date range.

Field	Description
Internal	Calls, including intracluster calls, that originate in the Unified Communications Manager network and end in the same Unified Communications Managernetwork (no gateways or trunks are used).
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 Unified Communications Manager network and go out through the PSTN.
International	International calls that originate in the Unified Communications Manager network that go out through the PSTN.
On Net	Outgoing calls that originate on one Unified Communications Manager network, go out through a trunk, and terminate on a different Unified Communications Manager network. For CAR purposes, be aware that any outgoing call can be classified as an OnNet call if it is configured as such in the CAR dial plan configuration window. See Set Up Dial Plan.
Incoming	Inbound calls that originate outside the Unified Communications Manager network, enter through a gateway, and go into the Unified Communications Manager network.
Tandem	Inbound calls that originate outside the Unified Communications Manager network, enter the Unified Communications Manager network through a gateway, and are transferred outbound from the Unified Communications Manager network through a gateway.
Others	All other outgoing calls, such as toll-free numbers or emergency calls such as 911.

Figure 4: QoS by Call Types Report, on page 33 displays sample output of the QoS by Call Types report in PDF format.

Figure 4: QoS by Call Types Report



QoS based on Call Types - Hour of Day

From Date:Jan 1, 2008
To Date:Jan 19, 2008

Date:Jan 19, 2008
Page:1 of 16

Report Generation Criteria-
QoS: Jitter >= 1 ms; Latency >= 1 ms; LostPackets >= 1 %;

Time	% of Call Legs
Incoming	
00-01	0.00
01-02	0.00
02-03	0.00
03-04	0.00
04-05	0.00
05-06	0.00
06-07	0.00
07-08	0.00
08-09	0.00
09-10	0.00
10-11	0.00
11-12	0.00
12-13	0.00
13-14	0.00
14-15	0.00
15-16	0.00
16-17	0.00
17-18	0.00
18-19	0.00
19-20	0.00
20-21	0.00
21-22	0.00
22-23	0.00
23-00	0.00

290491

Traffic Summary Report Results

The Traffic Summary and Traffic Summary by Phone Number reports contain the same information and include some or all the following fields. See the table. A separate line displays under the report title for the Busy Hour Call Completion (BHCC) number for that day.

Table 20: Traffic Summary Report Fields

Field	Description
Time/Day	The cumulative hours of the day(s), the days of the week, or the days of the month for the selected date range.

Field	Description
Average Number of Calls	The percentage of calls for each gateway for the hours of the day, the days of the week, or the days of the month for the selected date range.
On Net	Outgoing calls that originate on one Unified Communications Manager network, go out through a trunk,and terminate on a different Unified Communications Manager network. For CAR purposes, be aware that any outgoing call can be classified as an OnNet call if it is configured as such in the CAR dial plan configuration window. See Set Up Dial Plan.
Internal	Calls, including intracluster calls, that originate in the Unified Communications Manager network and end in the same Unified Communications Manager network (no gateways or trunks are used).
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 Unified Communications Manager network and go out through the PSTN.
International	International calls that originate in the Unified Communications Manager network that goes out through the PSTN.
Incoming	Inbound calls that originate outside the Unified Communications Manager network, enter through a gateway and go into the Unified Communications Manager network.
Tandem	Inbound calls that originate outside the Unified Communications Manager network, enter the Unified Communications Manager network through a gateway and are transferred outbound from the Unified Communications Manager network through a gateway.
Others	All other outgoing calls, such as toll-free numbers or emergency calls such as 911.
Total	The total number of calls for each hour or day.

Figure 5: Traffic Summary Report Results, on page 35 and Figure 6: Traffic Summary By Phone Number Report Results, on page 36 display sample output of the Traffic Summary and the Traffic Summary by Phone Number report results in PDF format.

Figure 5: Traffic Summary Report Results

Traffic Summary - Hour of Day

From Date:Jan 1, 2008
To Date:Jan 19, 2008

Date:Jan 19, 2008
Page:18 of 19

Report Generation Criteria-
Call Classification: On Net, Internal, Local, Long Distance, International, Incoming, Tandem, Others
QoS: Good, Acceptable, Fair, Poor, NA

BHCC:19

Time	Average Number Of Calls
Total	
00-01	0
01-02	0
02-03	0
03-04	0
04-05	0
05-06	0
06-07	0
07-08	0
08-09	0
09-10	0
10-11	0
11-12	0
12-13	0
13-14	0
14-15	0
15-16	0
16-17	4
17-18	1
18-19	0
19-20	19
20-21	0
21-22	0
22-23	0
23-00	0

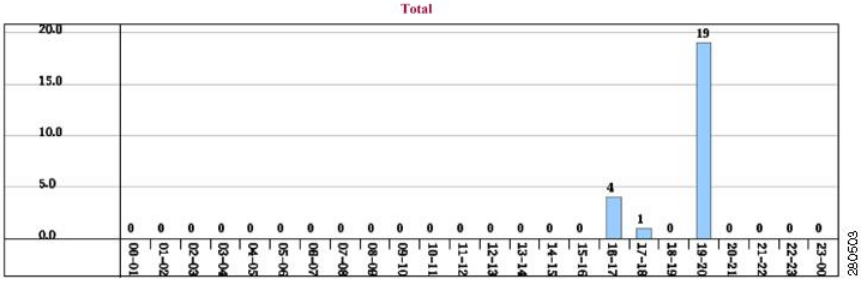
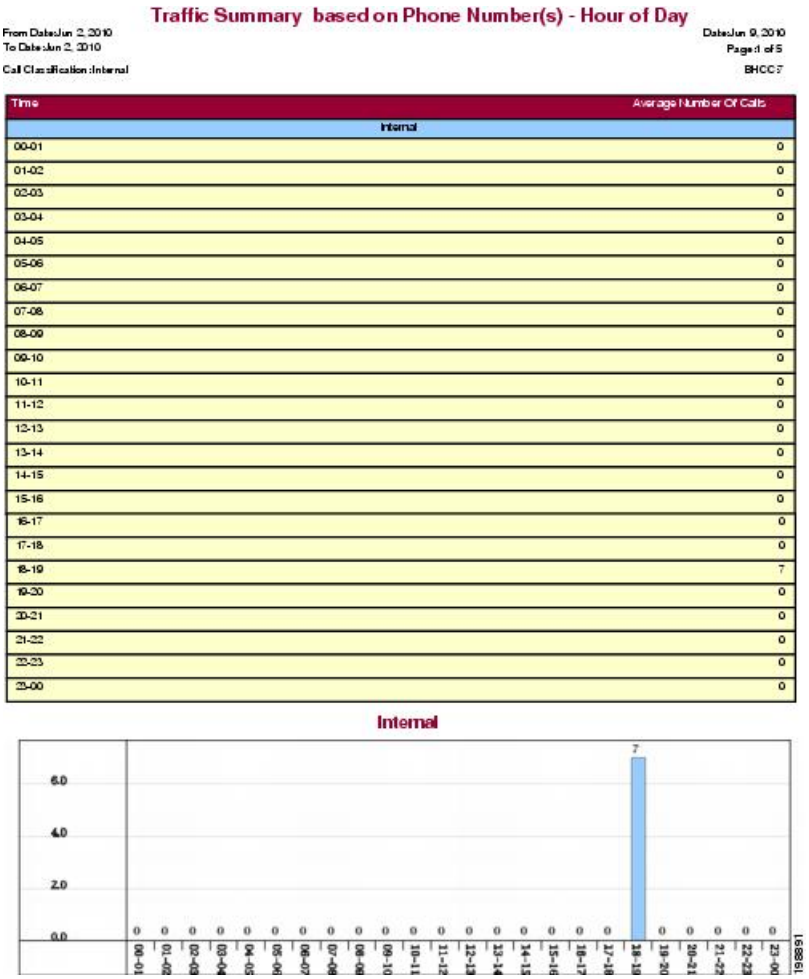


Figure 6: Traffic Summary By Phone Number Report Results



Traffic Summary based on Phone Number(s) - Hour of Day

From Date:Jun 2, 2010
To Date:Jun 2, 2010
Call Classification:Internal

Date:Jun 9, 2010
Page:1 of 5
BHCC7

Time	Average Number Of Calls
Internal	
00-01	0
01-02	0
02-03	0
03-04	0
04-05	0
05-06	0
06-07	0
07-08	0
08-09	0
09-10	0
10-11	0
11-12	0
12-13	0
13-14	0
14-15	0
15-16	0
16-17	0
17-18	0
18-19	7
19-20	0
20-21	0
21-22	0
22-23	0
23-00	0

Internal

Authorization Code Name Call Details Report Results

This report shows the usage of specific authorization code names. For security purposes, the authorization code name (description) displays and not the authorization code. The Authorization Code Name Call Details report includes the following fields (see the table).

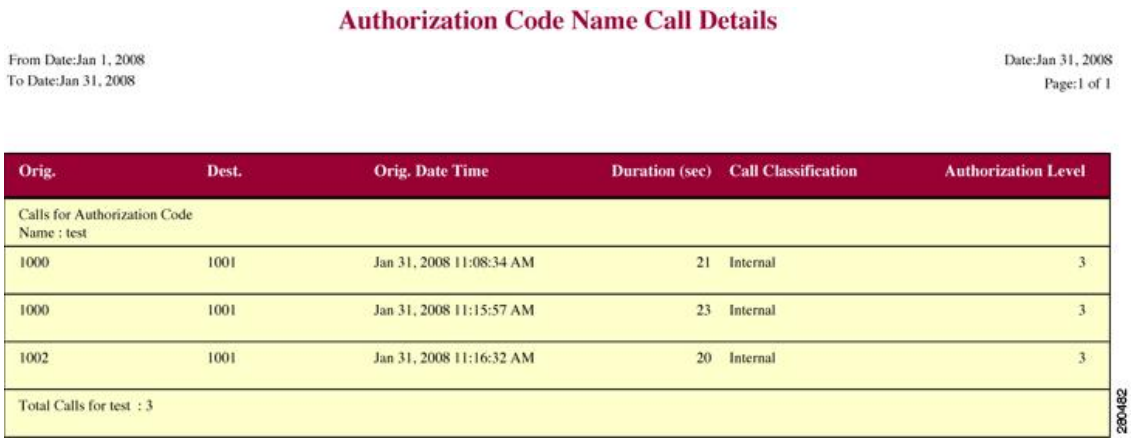
Table 21: Authorization Code Name Call Details Report Fields

Field	Description
Orig.	The originating number from which the call was placed.
Dest.	The destination number to which the call was directed.
Orig. Date Time	The date and time that the call originated.
Duration (sec)	The time, in seconds, that the call connected.

Field	Description
Call Classification	The type of call (internal, incoming, on so on.)
Authorization Level	The authorization level for calls for each chosen authorization code name.

Figure 7: Authorization Code Name Call Details Report, on page 37 displays sample output of the Authorization Code Name Call Details report in PDF format.

Figure 7: Authorization Code Name Call Details Report



Authorization Code Name Call Details

From Date:Jan 1, 2008
To Date:Jan 31, 2008

Date:Jan 31, 2008
Page:1 of 1

Orig.	Dest.	Orig. Date Time	Duration (sec)	Call Classification	Authorization Level
Calls for Authorization Code Name : test					
1000	1001	Jan 31, 2008 11:08:34 AM	21	Internal	3
1000	1001	Jan 31, 2008 11:15:57 AM	23	Internal	3
1002	1001	Jan 31, 2008 11:16:32 AM	20	Internal	3
Total Calls for test : 3					

280482

Authorization Level Call Details Report Results

This report shows the usage of specific authorization levels. The Authorization Level Call Details report includes the following fields (see the table).

Table 22: Authorization Level Call Details Report Fields

Field	Description
Orig.	The originating number from which the call was placed.
Dest.	The destination number to which the call was directed.
Orig. Date Time	The date and time that the call originated.
Duration (sec)	The time, in seconds, that the call connected.
Call Classification	The type of call (internal, incoming, and so on.)
Authorization Code Name	The authorization code name for each authorization level that you chose.

Figure 8: Authorization Level Call Details Report, on page 38 displays sample output of the Authorization Level Call Details report in PDF format.

Figure 8: Authorization Level Call Details Report

Authorization Level Call Details

From Date:Mar 26, 2008
To Date:Mar 28, 2008

Date:Apr 1, 2008
Page:1 of 2

Orig.	Dest.	Orig. Date Time	Duration (sec)	Call Classification	Authorization Code Name
Calls for Authorization Level : 1					
1000	1001	Mar 27, 2008 12:14:24 AM	5	Internal	national
1000	1001	Mar 27, 2008 12:14:24 AM	5	Internal	national
1000	1001	Mar 27, 2008 12:14:24 AM	5	Internal	national
Total Calls for 1 : 3					
Calls for Authorization Level : 3					
1000	1001	Mar 27, 2008 12:14:24 AM	5	Internal	local
1000	1001	Mar 27, 2008 12:14:24 AM	5	Internal	local
1000	1001	Mar 27, 2008 12:14:24 AM	5	Internal	local
Total Calls for 3 : 3					

290521

Client Matter Code Details Report Results

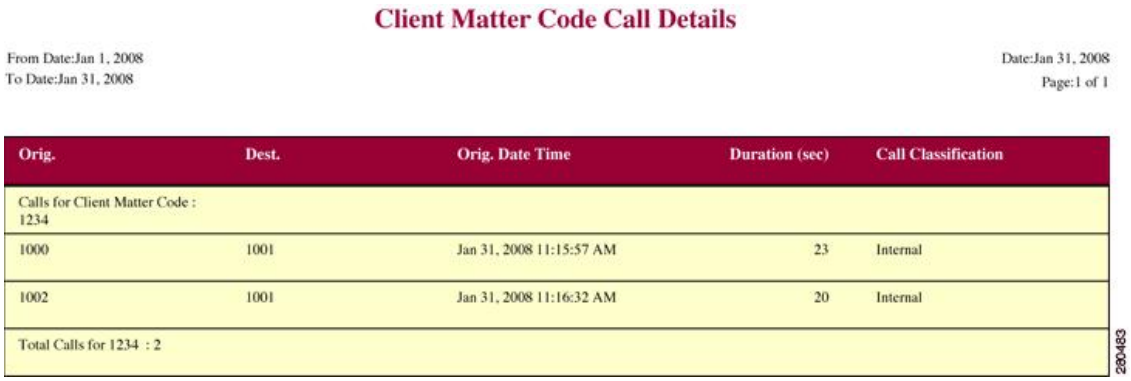
The report shows the usage of specific client matter codes. The Client Matter Code Details report includes the following fields (see the following table).

Table 23: Detail Report Fields

Field	Description
Orig.	The originating number from which the call was placed.
Dest.	The destination number to which the call was directed.
Orig. Date Time	The date and time that the call originated.
Duration (sec)	The time, in seconds, that the call connected.
Call Classification	The type of call (internal, incoming, and so on).

Figure 9: Client Matter Code Details Report, on page 39 displays sample output of the Client Matter Code Details report in PDF format.

Figure 9: Client Matter Code Details Report



Client Matter Code Call Details

From Date:Jan 1, 2008
To Date:Jan 31, 2008

Date:Jan 31, 2008
Page:1 of 1

Orig.	Dest.	Orig. Date Time	Duration (sec)	Call Classification
Calls for Client Matter Code : 1234				
1000	1001	Jan 31, 2008 11:15:57 AM	23	Internal
1002	1001	Jan 31, 2008 11:16:32 AM	20	Internal
Total Calls for 1234 : 2				

280483

Malicious Call Details Report Results

The Malicious Call Details report provides information about malicious calls. The report provides the following fields. See the table.

Table 24: Malicious Call Details Report Fields

Field	Description
Orig. Time	Time at which the malicious call originated.
Term. Time	Time at which the malicious call terminated.
Duration	Total time of malicious call in seconds.
Orig.	Originating DN.
Dest.	Destination DN.
Orig. Device	Name of the originating device.
Dest. Device	Name of the destination device.
Call Classification	Classification of the malicious call.

Figure 10: Malicious Calls Detail Report, on page 40 displays sample output of the Malicious Calls Detail report in PDF format.

Figure 10: Malicious Calls Detail Report

Malicious Call Details

From Date:Jan 1, 2008
To Date:Jan 19, 2008

Date:Jan 19, 2008
Page:1 of 9

Orig. Time	Term. Time	Duration (sec)	Orig.	Dest.	Orig Device	Dest Device	Call Classification
Jan 17, 2008 7:09:14 PM	Jan 17, 2008 7:09:17 PM	3	1002	1003	S0/DS1-0@SDA012345678912	S0/DS1-0@SDA012345678912	Internal
Jan 17, 2008 7:09:18 PM	Jan 17, 2008 7:09:21 PM	3	1002	1003	S0/DS1-0@SDA012345678912	S0/DS1-0@SDA012345678912	Internal
Jan 17, 2008 7:09:22 PM	Jan 17, 2008 7:09:25 PM	3	1002	1003	S0/DS1-0@SDA012345678912	S0/DS1-0@SDA012345678912	Internal
Jan 17, 2008 7:09:26 PM	Jan 17, 2008 7:09:29 PM	3	1002	1003	S0/DS1-0@SDA012345678912	S0/DS1-0@SDA012345678912	Internal
Jan 17, 2008 7:09:30 PM	Jan 17, 2008 7:09:34 PM	4	1002	1003	S0/DS1-0@SDA012345678912	S0/DS1-0@SDA012345678912	Internal
Jan 17, 2008 7:09:35 PM	Jan 17, 2008 7:09:38 PM	3	1002	1003	S0/DS1-0@SDA012345678912	S0/DS1-0@SDA012345678912	Internal
Jan 17, 2008 7:09:39 PM	Jan 17, 2008 7:09:42 PM	3	1002	1003	S0/DS1-0@SDA012345678912	S0/DS1-0@SDA012345678912	Internal
Jan 17, 2008 7:09:43 PM	Jan 17, 2008 7:09:46 PM	3	1002	1003	S0/DS1-0@SDA012345678912	S0/DS1-0@SDA012345678912	Internal
Jan 17, 2008 7:09:47 PM	Jan 17, 2008 7:09:50 PM	3	1002	1003	S0/DS1-0@SDA012345678912	S0/DS1-0@SDA012345678912	Internal

280499

Precedence Call Summary Report Results

The Precedence Call Summary report provides information about calls based on precedence levels. The report displays the call summary for the precedence values in the form of a bar chart on an “Hour of Day,” “Day of Week,” or “Day of Month” basis for each precedence level that you choose. If you choose to display the report in PDF format, two tables, one reflecting the bar chart, and the other listing the “Number of Calls” and “Percentage” for each precedence level that was chosen, display in the report. See the table.

Table 25: Precedence Call Summary Report Fields

Field	Description
Time/Day	Indicates the cumulative hours of the day(s), the days of the week, or the days of the month for the selected date range.
Call Legs	Number of calls for each precedence level by time/day.
Precedence Level	Precedence level value of the call.
No. of Call Legs	Number of call legs per each precedence level.
Percentage	Percentage of calls per each precedence level.

Figure 11: Precedence Call Summary Report, on page 41 displays sample output of the Precedence Call Summary by Hour of Day report in PDF format.

Figure 11: Precedence Call Summary Report

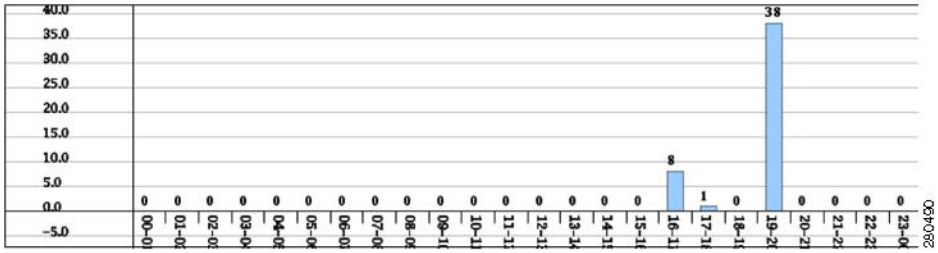
Call Summary by Precedence - Hour of Day

From Date:Jan 1, 2008
To Date:Jan 19, 2008

Date:Jan 19, 2008
Page:10 of 14

Report Generation Criteria-
Call Precedence Levels: FLASH OVERRIDE, FLASH, IMMEDIATE, PRIORITY, ROUTINE

Time	Average Call Legs
ROUTINE	
00-01	0
01-02	0
02-03	0
03-04	0
04-05	0
05-06	0
06-07	0
07-08	0
08-09	0
09-10	0
10-11	0
11-12	0
12-13	0
13-14	0
14-15	0
15-16	0
16-17	8
17-18	1
18-19	0
19-20	38
20-21	0
21-22	0
22-23	0
23-00	0



System Report Results

The system overview provides information about all parts of the Unified Communications Manager network. The report provides the following sections. See the table.

Table 26: System Overview Report

Field	Description
Top 5 Users based on Charge	Details the five users who have incurred the highest charges for calls that occurred during the specified date range. See the Top N by Charge or Duration Report Results for details about this section of the system overview report.
Top 5 Destinations based on Charge	Details the five called numbers that have incurred the highest charges for calls during the specified date range. See the Top N by Charge or Duration Report Results for details about this section of the system overview report.
Top 5 Calls based on Charge	Details the five calls that have incurred the highest charges for calls during the specified date range. See the Top N by Charge or Duration Report Results for details about this section of the system overview report.
Top 5 Users based on Duration	Details the five users who have spent the most time on calls during the specified date range. See Top N by Charge or Duration Report Results for details about this section of the system overview report.
Top 5 Destinations based on Duration	Details the five called numbers that have been engaged in calls for the longest time during the specified date range. See the Top N by Charge or Duration Report Results for details about this section of the system overview report.
Top 5 Calls based on Duration	Details the five longest calls for the specified date range. See the Top N by Charge or Duration Report Results for details about this section of the system overview report.
Traffic Summary Report - Hour of Day	Shows the volume of calls during the specified date range based on each hour of the day. If the date range is within one day, the system identifies the hour with the highest traffic volume (the BHCC number). See the Traffic Summary Report Results, on page 33 for details about this section of the system overview report.
Traffic Summary Report - Day of Week	Shows the volume of calls during the specified date range based on each day of the week. See the Traffic Summary Report Results, on page 33 for details about this section of the system overview report.

Field	Description
Traffic Summary Report - Day of Month	Shows the volume of calls during the specified date range based on each day of the month. See the Traffic Summary Report Results, on page 33 for details about this section of the system overview report.
Quality of Service Report - Summary	Shows the number of calls that fell within each voice-quality category during the specified date range. See the QoS Summary Report Results, on page 29 for details about this section of the system overview report.
Gateway Summary Report	Shows the summary of the call classification for each gateway along with the QoS, the number of calls, and the duration for each classification for the gateway during the specified date range. See the QoS by Gateways Report Results, on page 30 for details about this section of the system overview report.

CDR Error Report Results

The CDR Error report provides the following information. See the following table.

Table 27: CDR Error Report Fields

Field	Description
Time	The hour of the specified day that the error occurred.
No of Error CDRs	The total number of CDR records that were not processed during the CAR load because of an error.
No of Valid CDRs	The total number of CDR records that were successfully loaded into CAR.
% of Error CDRs	The percentage of failed CDR data records out of all the CDR data records to be loaded.

The following figure displays sample output of the CDR Error report in PDF format.

Figure 12: CDR Error Report

CDR Error

From Date:Jan 1, 2008
To Date:Jan 26, 2008

Date:Jan 26, 2008
Page:1 of 2

Time	No. of Error CDRs	No. of valid CDRs	% of Error CDRs
00-01	0	0	0.00
01-02	0	0	0.00
02-03	0	0	0.00
03-04	0	0	0.00
04-05	0	0	0.00
05-06	0	0	0.00
06-07	0	0	0.00
07-08	0	0	0.00
08-09	0	0	0.00
09-10	0	0	0.00
10-11	0	0	0.00
11-12	0	3	0.00
12-13	0	2	0.00
13-14	0	0	0.00
14-15	0	2	0.00
15-16	0	0	0.00
16-17	0	23	0.00
17-18	0	4	0.00
18-19	0	0	0.00
19-20	0	0	0.00
20-21	0	0	0.00
21-22	0	0	0.00
22-23	0	0	0.00
23-00	0	0	0.00

280480