AVAYA

Avaya Aura™ Contact Center

Performance Management

NN44400-710

Contents

Contents

Contents

New in this release

The following sections detail what is new in the *Avaya Aura™ Contact Center Performance Management Data Dictionary* (NN44400-117) Release 6.0/6.1.

Navigation

Features

See the following sections for information about features:

Contact Types

Reports include the following new contact types:

- Scanned document
- Fax
- SMS
- Voice mail

Summarized historical statistics interval

Summarized historical statistics are statistics accumulated over a period of time. The new default value is three minutes.

Expert consultation

A peer-to-peer expert consultation is an agent-initiated outgoing contact made while the agent has an existing primary contact already opened. Such consultation contacts are initiated by using a user interface (UI) feature in the Avaya Aura™ Agent Desktop client. This feature is available only for SIP-enabled contact centers.

Real-time Reporting Dashboard Display

The Contact Center Manager Administration Real-time reporting displays provide you with up-to-date statistics for your contact center and resources.

Other changes

There are no other changes in this release.

Introduction

This document provides the procedures to generate performance management reports for Avaya Aura™ Contact Center Release 6.0/6.1.

Prerequisites

- Ensure that you have the most recent documentation. Documentation is available on the Avaya web site at www.avaya.com/support.
- Install the Contact Center Server software.
- Install the following Contact Center components:
  — Contact Center Manager Administration
  — Contact Center Multimedia (optional)

Navigation

Performance management fundamentals

This section provides an overview of performance management reporting tools and utilities.

Navigation

Filters

In Avaya Aura™ Contact Center, you can create filters. Each filters contains only one type of data: skillsets, applications, route numbers, route names, DNIS numbers, or DNIS names. However, you can use the Contact Server filter-importing utility to import filters into Contact Center Manager Administration that you create and save in the Avaya Aura™ Contact Center. After, you can add various types of data to the filters.

You can configure skillset, application, and agent filters, and filters with a combination of the three data types.

Use filters to specify the skillset, application, and agent data that you want to see in the real-time displays. In the Filters window, configure the filters from all elements in the partition assigned to you. After, you can assign the filters to your private real-time displays.

The real-time displays show subtotals of data for each filter, which further divide into the subtotals for each site that belongs to the filter. For network consolidated real-time displays, the system calculates the network total for each of the two types of statistics:

- for raw statistics, such as the number of calls answered, the network total is the sum of all filter subtotals.
- for calculated statistics, such as the average answer delay, the network total is the amount reached after applying the appropriate formula to the sum of all individual statistics in the column. The system does not use the subtotal values in this calculation.

With the filters feature you select the sites and site resources to include in a network consolidated report, for example, the Network Consolidated Skillset Performance Report. After you create a filter, you can include the filters whenever you generate a report. You can create multiple filters, by selecting different sets of sites and resources for reporting.

You can also run filters from Historical Reporting in Contact Center Manager Administration.

Thresholds

You can assign threshold alerts to real-time and graphical displays. Assign colors to threshold settings to highlight text when a threshold level is exceeded.

You can define threshold values for system activity. These values result in three operational levels:

- Below level 1: Based on the statistic type. The level can indicate normal contact center operation and no action required (that is, the lower the number of calls waiting, the better), or it can signify an alert situation that requires attention.

- Greater than or equal to level 1 and less than or equal to level 2: This level can indicate a required action to prevent contact center performance from moving beyond acceptable operating levels.

- Above level 2: Based on the statistic type, this level can mean normal contact center operation and no action required (that is, the higher the service level percentage, the better), or it can signify an alert situation that requires attention.

Historical statistics

Use the Historical Reporting component to generate reports detailing the past performance of a contact center. In the Historical Reporting window, you can select the server in Contact Center Manager Server from which you want to run and schedule performance, configuration, and network reports (if you work in a networked environment). These reports can help you to monitor system performance by providing information about system activity.

You must have Historical Statistics access to configure the Historical statistics. You can configure historical statistics collection options, such as the values for general system parameters, the types of call flow, agent, and IVR historical statistics to be collected, and the applications for which call-by-call data collects.

Real-time statistics

The Contact Center Manager Administration Real-Time Reporting displays provide up-to-date statistics for your contact center and resources. You can view changes in call activity in real time, such as the number of calls waiting to be answered, the number of agents assigned to each skillset, and the number of abandoned calls.

You must have Real-Time Statistics access to configure these statistics. You can configure collection options, the data collection interval, and the minimum refresh rate. Two types of real-time statistics are available: network consolidated and nodals.

Network-consolidated displays

You can view the network-consolidated displays only if you have the networking feature enabled and you have access to a Network Control Center (NCC) server. These displays provide an overall, real-time view of contact center activities across a network linked by multiple servers in Contact Center Manager Server.

Nodal displays

Nodal displays provide a real-time view of contact center activities for a specific contact center.

Access and partition management

Contact Center Manager Administration includes four main components that help administrators control the data that users can access in the contact center. The administrator can use these components to tailor access rights to suit every user in the contact center. The following four components are available:

- basic access rights to each component in Contact Center Manager Administration
- partitions
- supervisor-reporting agent combinations
- access classes

The first level of security is the overall right to access the applications within Contact Center Manager Administration. When an administrator defines Contact Center Manager Administration users in Access and Partition Management, the administrator specifies the applications that the user can access.

The next level of security involves partitions, supervisor-reporting agent combinations, and access classes. The administrator can use partitions and supervisor-reporting agent combinations to specify the data that Contact Center Manager Administration users can view and manage. The administrator can use access classes to control the actions that users can perform in the Contact Center Management, Scripting, Historical Reporting, Real-Time Reporting, and Configuration components.

Crystal Reports

You can use Crystal Reports to design and generate reports from a wide range of data sources. To generate revenue reports containing currency symbols such as the euro symbol, you must modify an existing report template or create a new report template, and then import the custom report into Contact Center Manager Administration. You can use the Template Importing Wizard to import report templates into Contact Center Manager Administration that you create using the Crystal Reports.

Filter management

You can use filters to specify the skillsets, applications, the agents that you want to see in the real-time display grids, and the agents that you want to see in the agent map graphical displays.

Prerequisites to filter management

- Ensure that you have access to Filters.

- Ensure that you do not log on as webadmin.

Navigation

Creating a filter in Real-time Reporting

Create filters to specify the skillsets, applications, and agents that you want to see in the real-time display grids, and the agents that you want to see in the agent map graphical displays.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

- Ensure that you have access to filters.

- Ensure that you do not log on as the webadmin.

Procedure steps

Step	Action
1	From the **Filters** menu, select **Manage Filters**.

2	From the **Filters** menu, select **Add Filter**.
3	In the **New Filter Name** box, type the name of the filter. You can use only alphanumeric characters; do not use special characters.
4	Click **Submit** to save the filter.

--End--

Creating a filter in Historical reporting

Create and use the filters in the Historical Reporting application for Network Consolidated reports.

Prerequisites

- Log on to Historical Reporting.

Procedure steps

Step	Action
1	Select **Filters**, **Manage Filters**.
2	Click **Filter**, **Add Filter**.
3	In the box, enter the name of the new filter.
4	Click **Submit**.
5	Click the required resource tab.
6	Select the required resource.
7	Click **Submit**.

--End--

Adding skillset elements to a filter

You must add skillset elements to a filter to view the statistics that you require.

Prerequisites

- Log on to Real-Time Reporting or Historical Reporting. See or .

- Create at least one filter. See .

- Ensure that you have access to filters.

- Ensure that you do not log on as the webadmin.

Procedure steps

Step	Action
1	From the **Filters** menu, select **Manage Filters**.
2	In the left pane, select the filter to edit.
3	Select the Contact Center Manager Server on which to add the elements.
4	Select the **Skillsets** tab.
5	Click the **Assign Skillsets** heading.
6	From the list, select **contains**, **is equal to**, or **start with**.
7	In the box, type the skillset name.
8	Click **Search**.
9	In the list of available skillsets, select the check box for each skillset to add to the filter.
	OR
	To select all available skillsets, select the **Select All** check box.
10	Click **Submit** to save your changes.

--End--

Adding application elements to a filter

To specify a server, you must add application elements.

Prerequisites

- Log on to Real-Time Reporting or Historical Reporting. See Logging on to Real-Time Reporting (page 23) or Logging on to Historical Reporting (page 74).
- Create at least one filter. See Creating a filter in Real-time Reporting (page 15).
- Ensure that you have access to filters.
- Ensure that you do not log on as the webadmin.

Procedure steps

Step	Action
1	From the **Filters** menu, select **Manage Filters**.
2	In the left pane, select the filter to edit.
3	Select the Contact Center Manager Server on which to add the elements.
4	Select the **Application** tab.
5	In the list of available applications, select the check box for each application to add to the filter.

| 6 | To choose all available applications, select the **Select All** check box. |
| 7 | Click **Submit** to save your changes. |

--End--

Adding agent elements to a filter

Include specific agents' statistics by adding agent elements.

Prerequisites

- Log on to Real-Time Reporting or Historical Reporting. See Logging on to Real-Time Reporting (page 23) or Logging on to Historical Reporting (page 74).
- Create at least one filter. See Creating a filter in Real-time Reporting (page 15).
- Ensure that you have access to filters.
- Ensure that you do not log on as the webadmin.

Procedure steps

Step	Action
1	From the **Filters** menu, select **Manage Filters**.
2	In the left pane, select the filter to edit.
3	Select the Contact Center Manager Server on which to add the elements.
4	Select the **Agents** tab.
5	Click the **Assign Agents** heading.
6	From the first list, select **Last Name**, **First Name**, **Department**, **Comment**, or **Login ID**.
7	From the second list, select **contains**, **is equal to**, or **start with**.
8	In the box, type a value to search. You can search for up to five levels by selecting And or Or from the last list.
9	Click **Search**. *Agents that match your criteria appear in a table.*
10	In the list of available agents, select the check box for each agent to add to the filter. **OR** To choose all available agents, select the **Select All** check box.
11	Click **Submit** to save your changes.

--End--

Removing elements from a filter

To modify the report display, remove elements from a filter.

Prerequisites

- Log on to Real-Time Reporting or Historical Reporting. See Logging on to Real-Time Reporting (page 23) or Logging on to Historical Reporting (page 74).
- Create at least one filter. See Creating a filter in Real-time Reporting (page 15).
- Ensure that you have access to filters.
- Ensure that you do not log on as the webadmin.

Procedure steps

Step	Action
1	From the **Filters** menu, select **Manage Filters**.
2	In the left pane, select the filter from which to remove applications, skillsets, or agents.
3	Clear the check boxes for each skillset, application, or agent to remove from the filter.
4	Click **Submit** to save your changes.

--End--

Deleting a filter

If you need to rename a filter, you must delete the filter and create a new one with the new name.

Prerequisites

- Log on to Real-Time Reporting or Historical Reporting. See Logging on to Real-Time Reporting (page 23) or Logging on to Historical Reporting (page 74).
- Create at least one filter. See Creating a filter in Real-time Reporting (page 15).
- Ensure that you have access to filters.
- Ensure that you do not log on as the webadmin.

Procedure steps

Step	Action
1	From the **Filters** menu, select **Manage Filters**.
2	In the left pane, select the filter to delete.

3	In the right pane, click **Delete Filter**.
4	In the message box that appears asking you to confirm your choice, click **OK**.

--End--

Applying filters to real-time displays

Use the Filters page to apply filters to customize your real-time displays. You can apply a filter, a supervisor-reporting agent combination, or both.

Prerequisites

- Log on to Real-time reporting. See Logging on to Real-Time Reporting (page 23).
- Create at least one filter. See Creating a filter in Real-time Reporting (page 15).
- Ensure that you have access to filters.
- Ensure that you do not log on as the webadmin.

Procedure steps

Step	Action
1	In the left pane, under the server containing the real-time display to which to apply filters, select the **Private Tabular Displays** folder.
2	Click the private display to customize.
3	Click the **Filters** tab.
4	From the list of available filters, select the check box for each filter to assign to the real-time display.
	OR
	To assign all of the available filters (and supervisor-reporting agent combinations listed, if you customize the Standard Agent display), click **Select All**.
5	Click **Submit** to save your changes.
6	Click **Launch Display** to start the display and view your changes

--End--

Applying supervisor-reporting agent combinations to real-time displays

You can apply supervisor-reporting agent combinations to the Standard Agent Display.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

- Ensure that you have access to filters.

- Ensure that you do not log on as the webadmin.

Procedure steps

Step	Action
1	In the left pane, select the server containing the Standard Agent real-time display to which to apply supervisor-reporting agent combinations.
2	Select the **Private Tabular Displays** folder.
3	Click the private agent display to customize.
4	Click the **Filters** tab.
5	From the list of available supervisor-reporting agent combinations, select the check box for each supervisor to assign to the real-time display.
6	To assign all the available supervisor-reporting agent combinations and all filters, click **Select All**.
7	Click **Submit** to save your changes.
8	Click **Launch Display** to start the display and view your changes.

--End--

Removing filters from a real-time display

To modify a real-time display, you can remove a filter that you do not require.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

- Ensure that you have access to filters.

- Ensure that you do not log on as webadmin.

Procedure steps

Step	Action
1	In the left pane, select the server that contains the real-time display from which to remove filters.
2	Select the **Private Tabular Displays** folder
3	Click the display to customize.
4	Click the **Filters** tab.

5 From the list of assigned filters, clear the check box for each filter to remove from the real-time display.

6 To remove all of the filters from the real-time display, click **Clear All**.

7 Click **Submit** to save your changes

--End--

Real-time Reporting

The Contact Center Manager Administration (CCMA) Real-Time Reporting displays provide up-to-date statistics for your contact center and resources. With access to statistics that update in real time, such as the number of calls waiting to be answered, the number of agents assigned to each skillset, and the number of abandoned calls, you can view changes in call activity as they occur.

If you use Avaya and Predictive Outbound Real-time displays from CCMA, an agent's status is different for each display.

Prerequisites to real-time reports

- Ensure that you have access to the Real-Time Reporting (RTR) component and associated access class elements.

Navigation

Logging on to Real-Time Reporting

Access Real-Time Reporting, by logging on to RTR.

Prerequisites

- Ensure that you have access to Real-Time Reporting.

Procedure steps

Step   Action

    1   Log on to Contact Center Manager Administration.

    2   On the launchpad, click **Real-Time Reporting**.

                 The Real-Time Reporting window appears.

                                        --End--

Creating a private real-time display

Create a private real-time display to customize real-time displays.

For more information about customizing real-time displays. See Real-time report customization (page 55).

Prerequisites

- Create a copy of a public display template. See Making a public copy of a private real-time display (page 25).
- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the left pane, click the server on which to create a private real-time display.
2	Select the **Public Tabular Displays** folder.
3	From the expanded **Public Tabular Displays** folder, select the display to copy.
4	In the **Public Display** window, type the name of your new private display. You can use only alphanumeric characters in the display name; do not use special characters.
	When you copy a display, the system gives the new display a default name in the format [server name]_[display name]. Because each private display must have a unique name, you must type a new name if you save a private display with the same default name.
5	To save the display in the **Private Tabular Displays** folder, click **Make Private Copy**.
6	On the **Properties** page, you can change the colors, font size, and the refresh rate.

                                        --End--

Making a public copy of a private real-time display

After you customize a real-time display and save it in your Private Tabular Displays folder, you can share the display with other users by making a public copy. You can copy the display to the Public Tabular Displays folder on the currently selected server or across all servers on the network to which you have access.

For information about making public copies of graphical displays, see Making a public copy of a graphical display (page 40) or Creating a public collection or public billboard collection (page 53).

Procedure steps

Step	Action
1	Log on to the Real-Time Reporting component.
2	In the left pane, click the Contact Center Manager Server on which to create a public copy of a private real-time display.
3	Select the **Private Tabular Displays** folder.
4	From the expanded **Private Tabular Displays** folder, select the display to copy.
5	At the bottom of the **Properties** page, type the name of the display as you want it to appear in the **Public Tabular Displays** folder.

Attention: You can use only alphanumeric characters in the display name; do not use special characters. You cannot type the same name used by one of the Standard Public displays because you cannot overwrite these displays. If you type the same name as an existing copied display; then you overwrite the existing display.

Step	Action
6	Select the servers on which you want the public copy of your private display to appear. You can choose the current server on which you save the private display or all servers to which you have access.
	If you have access to an NCC server and you copy a nodal display across all servers, you do not see the nodal display on the NCC server. You can copy nodal real-time displays to every server on the network except the NCC server. Likewise, you can copy private network-consolidated displays to the Public Tabular Displays folder only on the NCC server (that is, you cannot copy these displays across all servers in the network).
7	Click **Make Public Copy** to save the private display in the **Public Tabular Displays** folder.
8	In the **Public Display** window, you can view the public display, make a new private copy of it, or, if you are an administrator logged on as webadmin, you can delete the display.

--End--

Deleting public displays

If required, you can delete custom public displays. You cannot delete standard public displays (the displays that come with the Contact Center Manager Administration software).

Prerequisites

- Ensure that you log on to Contact Center Manager Administration as the webadmin administrator.
- Log on to Real-Time Reporting.

Procedure steps

Step	Action
1	In the left pane, navigate to the public display to delete.
2	In the Public Display window, click **Delete Public Display**.
3	In the message box that asks you to confirm your choice, click **OK**.

Attention: The same public display can exist on multiple servers if the user who saved it chose to copy it to all servers on the network. If you delete the display on one server, you do not delete all copies.

--End--

Applying custom formulas to real-time displays

After you create custom formulas in the Formula Editor, apply them to your private real-time displays in the Real-Time Reporting component.

You can customize only the columns in private displays. If you choose a public display, you must first copy and save it in your Private Displays folder before you can customize the columns. See Creating a private real-time display (page 24).

Procedure steps

Step	Action
1	In the **Real-Time Reporting** main window, select the **Private Tabular Displays** folder under the server containing the display to customize.
2	Click the display to customize.
3	Click the **Columns** tab.
4	From the **Available Fields** list, select the formula to add to the real-time display.
5	Click **Add Field**.
6	Click **Submit** to save your changes.

7   Click **Launch Display** to view your changes.

--End--

Starting a network summary

You can start a performance summary chart in bar format of all sites in the network (if you work in a networked environment). The chart updates at the same refresh rate as the real-time display grid.

Procedure steps

Step	Action
1	Log on to **Real-Time Reporting**.
2	In the left pane, click the NCC server.
3	Navigate to the network summary chart.
4	Click **Network Summary**.

The chart appears approximately after a 5-second delay.

--End--

Printing a summary chart

If you require a hard copy, you can print a summary chart.

Prerequisites

• Ensure that a NCC server is available.

Procedure steps

Step	Action
1	Log on to **Real-Time Reporting**.
2	In the left pane, click the server on which the summary chart is stored.
3	Navigate to the summary chart.
4	Click **Print**.
5	In the **Print** dialog box, from the **Printer Name** list, select the desired printer.

To view the summary chart in color, select a color printer.

| 6 | Click **OK**. |

--End--

Printing a real-time display

If you require a hard copy, you can print a real-time display.

Procedure steps

Step	Action
1	Log on to **Real-Time Reporting**.
2	In the left pane, click the server on which the real-time display is stored.
3	Navigate to the real-time display.
4	Click **Print**.
5	In the **Print** dialog box, from the **Printer Name** list, select the desired printer.
6	Click **OK**.

--End--

Deleting a private display

Delete private tabular and graphical displays.

After you delete a display, you cannot recover it.

Prerequisites

- At least one private display must exist

Procedure steps

Step	Action
1	Log on to the **Real-Time Reporting** component.
2	In the left pane, click the server that contains the private display to delete.
3	Click the **Private Tabular Displays** folder to delete a private tabular display. **OR** Click the **Private Graphical Displays** folder to delete a private graphical display.
4	In the selected folder, click the private display to delete.
5	In the right pane, click **Remove Private Display** to delete a private tabular display. **OR** Click **Remove Display** to delete a private graphical display.
6	In the confirmation dialog box, click **OK**. *The system permanently deletes the display.*

--End--

Deleting an exported real-time display grid

You can delete real-time display grids from the Contact Center Manager Administration server that you export as HTML files.

Procedure steps

Step	Action
1	Log on to the **Real-Time Reporting** component.
2	From the **Displays** menu, click **Manage Exported Displays.**
3	In the right pane, select the check box for each exported file to delete.
4	To delete all files, click **Select All**.
5	Click **Delete** to remove the selected files from the Contact Center Manager Administration server.

--End--

Viewing the non-staffed skillsets

Use the Non-Staffed Skillsets window to view the list of all the skillsets of logged-on agents from those agents included in the partition assigned to you. Unlike the real-time display from which you launch this window, the list of nonstaffed skillsets does not refresh automatically. Instead, you must manually refresh the list to obtain the most recent information.

Procedure steps

Step	Action
1	Log on to the **Real-Time Reporting** component.
2	In the right pane, click the server and then click the folder that contains the skillset display to launch.
3	Select the skillset display and in the left pane click **Launch Display**.
	The display launches.
4	In the display, click **Non-Staffed Skillsets**.
	The Non-Staffed Skillsets window appears, listing all of the skillsets within your partition without logged-on agents.
5	Click **Refresh**.

--End--

Exported displays

The procedures in this section describe how to work with exported real-time displays.

Prerequisites to exported displays

- Ensure that you have access to the Real-Time Reporting component and associated access class elements.

Navigation

Exporting summary charts

You can export site summary charts as a bit map or a jpeg file.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the left pane, under the relevant server, click the folder that contains the display.
2	In the expanded list, click the desired real-time display or chart graphical display.
3	In the right pane, click **Launch Display**.
4	On the real-time display, click **[site name] Summary** to view the real-time display site summary chart.
5	If you view a site summary from a network consolidated real-time display, in the **Site** column, click the desired site name
6	On the summary chart, click **Export BMP**. **OR** Click **Export JPG**.

A message box appears with the name of the exported file and the export time.

For example, if you export the Agent display site summary chart for the Winnipeg site as a .bmp file on June 29, 2000 at 2:23 p.m., the exported file name is StandardAgent_Winnipeg_20000629_142307.bmp.

7   Click **OK**.

--End--

Exporting network summary charts

You can export network summary charts as a bit map or a jpeg file.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

- Ensure that you have an NCC server.

Procedure steps

Step	Action
1	In the left pane, under the Network Control Center (NCC) server, open the desired public or private network consolidated real-time display.
2	From the display, click **Network Summary**.
3	On the network summary chart, click **Export BMP**. **OR** Click **Export JPG**. *A message box shows the exported file name and the export time. For example, if you export the Network Consolidated Agent Position Status Count network summary chart as a .bmp file on June 29, 2000 at 2:23 p.m., the exported file name is Ntwk_AgentPositionCount_20000629_142307.bmp.*
4	Click **OK**.

--End--

Viewing an exported real-time display

You must view an exported real-time displays, to print the display.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	From the **Displays** menu, select **Manage Exported Displays**.
2	In the right pane, from the list of HTML files, click the name of the file to view.
	The snapshot of the real-time display grid appears in a new Internet Explorer window.
3	To print the exported grid, in **Internet Explorer**, from the **File** menu, select **Print**.
4	To view the colored rows of the real-time display, in the **Print** dialog box, select a color printer.
5	Click **Print**.

--End--

Exporting real-time display grids

You can export real-time displays to open the file in a new Internet Explorer window.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the left pane, double-click the real-time display grid to export.
2	On the real-time display grid, click **Export**.
3	To open the file in a new Internet Explorer window, click **View**.

--End--

Changing the file name prefix of exported real-time display grids

You can choose the prefix to appear in the file name when you export the real-time display grids to the Contact Center Manager Administration server as HTML files. An example of the prefix for the Consolidated Skillset Display is ConsolidatedSS.

The exported file name includes your user name, the prefix that you select, the date and time you save the file. For example, if your user name is John, your prefix is ConsolidatedSS, and you chose to export the Consolidated Skillset Display as an HTML file on April 10, 2000 at 2:45:28 p.m., the system saves it on the server as John_ConsolidatedSS_20000410_144528.htm.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the left pane, under the server containing the display to customize, click the **Private Tabular Displays** folder.
2	Click the display name.
3	On the **Properties** page, in the **Grid export prefix** box, type the prefix to appear in the HTML file name.
	Do not include spaces in the prefix.
4	Click **Submit** to save your changes.

--End--

Changing the path to export a summary chart

You can choose the folder in which to save summary charts that you export as .bmp or .jpg files. The folder that you choose can be on the application server or on your computer.

If you leave this field blank, the system saves the files on your desktop.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the left pane, under the server containing the display to customize, click the **Private Tabular Displays** folder.
2	Click the display name.
3	On the **Properties** page, in the **Summary chart export path** box, type the folder where you want to save snapshots of the network or site summary charts (as .bmp or .jpg files).

For example, to save the summary chart in the My Documents folder on the C drive of your computer, type C:\My Documents in this box.

4   Click **Submit** to save your changes.

--End--

Printing a real-time display grid

If you require a hard copy of a real-time display, print a real-time display grid.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the left pane, navigate to and double-click the display to print.
2	In the real-time display grid, click **Print**.
3	In the **Print** dialog box, from the **Printer Name** list, select a printer, or accept the default printer.
4	Click **OK**.

--End--

Graphical displays

In the Graphical Display window, you can configure one of seven types of graphical displays:

- Billboard displays
- Chart displays
- Time Line displays
- Agent maps
- Collections
- Billboard collections
- Dashboard displays

Prerequisites to graphical display management

- Ensure that you have access to the Real-Time Reporting component and associated access class elements.

Navigation

Adding a graphical display

Create a graphical display.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	From the **Displays** menu, select **Add Graphical Display**.
2	In the **Name** box, type the name of the new graphical display.
	This is the name that appears on the system tree.
3	From the **Server** list, select the server on which to create the graphical display.
	You cannot create agent maps or IVR graphical displays on the Network Control Center (NCC) server.
4	In the **Element Type** area, select the from the following list the element type that corresponds to the type of graphical display to create:

- Agent: Create an agent map.
- Application: Create an application billboard or chart or time line.
- IVR: Create an IVR billboard or chart or time line.
- Skillset: Create a skillset billboard or chart or time line.
- Agent Position Count: Create an agent position count billboard or chart.
- All: Create a dashboard or a private or public collection, or a private billboard or public billboard collection.

5	In the **Presentation** area, select the type of graphical display to create.
	The type of chart you can create varies according to the selection you made in the Element type area.
6	Click **Edit Properties** to configure the graphical display. The corresponding properties window appears.

--End--

Opening a graphical display

View a graphical display.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

- Create at least one graphical display. See Adding a graphical display (page 38).

Procedure steps

Step	Action
1	In the left pane, click the folder containing the graphical display to view.
2	Click the graphical display to view.
3	In the right pane, review the current settings for the graphical display.
4	If you change settings, click **Submit** to save your changes.
5	Click **Launch**.

While you view an agent map or billboard graphical display, the display can change color. This change alerts you when the statistic values exceed the configured threshold values. In addition to changing color, if you select the Pop to front on threshold option when you configure the display, the display moves to the front of all other browser windows open on your computer. The display does not move to the front of open software applications, such as Microsoft Word. For agent map displays, text flashes when a threshold value is reached while you view the display in box view (if you configure the display with this feature).

--End--

Deleting a graphical display

When you no longer require a graphical display, you can delete the display.

Prerequisites

- If you logged on as the administrative user, webadmin, you can open the Public Graphical Displays folder and delete the displays.

- If you log on as another user, however, you can delete only the graphical displays that you save in your Private Graphical Displays folder.

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the left pane, click the **Private Graphical Displays** folder.

Attention: When you delete a graphical display, you cannot restore it. Instead, you must create a new graphical display.

Step	Action
2	In the list of displays, click the graphical display to delete.
3	In the right pane, click **Remove Display**.
4	In the message box that appears asking you to confirm your choice, click **OK**.

--End--

Making a public copy of a graphical display

Make a public copy of a billboard or chart or time line graphical display; then, after you customize the display, you can save it in your Private Graphical Displays folder. You can share the display with other users by making a public copy of it. You can make public copies of all types of graphical displays except agent maps. You can copy only the display to the Public Graphical Displays folder on the currently selected server; you cannot copy graphical displays across all servers on the network to which you have access (unlike real-time tabular displays).

After you make a public copy of a private display, only the administrator (logged on as webadmin) can delete the display. To modify the display, you or another user must first make a private copy. For details about creating public collections and billboard collection displays, see .

Prerequisites

- Log on to Real-Time Reporting. See .

Procedure steps

Step	Action
1	In the left pane, under the server containing the display to copy, click the **Private Graphical Displays** folder.
2	In the list of displays, select the chart or billboard or time line display to copy.
3	At the bottom of the right pane, type the name of the display to appear in the **Public Tabular Displays** folder.

You can only use alphanumeric characters in the display name; do not use special characters. If you type the same name as an existing copied display, you overwrite this display.

When you copy a private display, the system gives the new display a default name in the format [server name]_[private display name]. Because each public display must have a unique name, you must type a new name if you save a public display with the same default name. If you do not type a new name, the system overwrites the existing display.

4   Click **Make Public Copy** to save the private display in the **Public Graphical Displays** folder under the same server.

--End--

Assigning threshold alerts to a nodal real-time display

An administrator can use two threshold values to define system activity: the low value (level 1), and the high value (level 2). These values result in three operational levels:

- Below level 1: Based on the type of statistic, this level can mean normal contact center operation and no action required (that is, the lower the number of calls waiting, the better), or it can signify an alert situation that requires attention (that is, the lower the service level percentage, the worse the situation).

- Between level 1 and level 2: This level can indicate a required action to prevent contact center performance to move beyond acceptable operating levels.

- Above level 2: Based on the type of statistic, this level can mean normal contact center operation and no action required (that is, the higher the service level percentage, the better), or it can signify an alert situation that requires attention (that is, the greater the number of calls waiting, the worse the situation).

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

- Create at least one private display. You can customize only the columns in private displays. If you choose a public display, you must first copy and save it in your Private displays folder before you can customize the columns. See Making a public copy of a graphical display (page 40).

Procedure steps

Step	Action
1	In the left pane, under the server that contains the private display to customize, navigate to the private display.
2	In the right pane, click the **Columns** tab.
3	From the sample table, select the statistic for which to define the threshold colors.
4	From the threshold colors boxes, select the colors for the statistic if it is below the level 1 threshold value, if it reaches a value between level 1 and level 2, and if it exceeds level 2.

5   Click **Submit** to save your changes.

--End--

Configuring an agent map

You can configure an agent map to view a representation of all the agents to whom you have access in your contact center.

Prerequisites

- You must create the agent filter before you can assign it to the map display and save the display. See Creating a filter in Real-time Reporting (page 15) and Adding agent elements to a filter (page 18).

Procedure steps

Step	Action
1	In the **Real-Time Reporting** main window, from the menu, select **Displays**, **Add Graphical Display**.
2	In the **Name** box, type the name of the new agent map. This is the name that appears in the system tree. You can only use alphanumeric characters in the agent map name; you cannot use special characters.
3	From the **Server** list, select the server on which to configure the agent map. You cannot create agent map displays on the Network Control Center (NCC) server.
4	In the **Element Type** area, select **Agent**.
5	In the **Presentation** area, confirm that **Agent Map** is selected.
6	Click **Edit Properties** to configure the new agent map. The Agent Map Properties dialog box appears.
7	In the **Agent map** title box, type the agent map name to appear at the top of the agent map display, or accept the default name. Do not include spaces, special characters, punctuation, or the ampersand (&) in the agent map title.
8	From the **Data collection mode** list, select **Moving window** or **Interval-to-date**.
9	From the **Optional field** list, select **Position ID** or **Personal DN** to see either in the agent map.
10	From the **Agent Name** list, select how the agent name and login ID appear in the header of each icon in Icon view. You can choose from the following options:

- agent first name, followed by last name

- agent last name, followed by first name

- agent first name and login ID

- agent last name and login ID

| 11 | From the **Linked Display** list, select the display. You can choose from all the private, public, and standard displays (both tabular and graphical) to which you have access on the currently selected server. If you choose nothing from the Linked Display list when you configure the agent map, the Standard Agent display appears for the same server on which you configure the agent map when you click Linked Display. |

12   From the **Associated filter** list, select the agent filter to assign to the agent map. Only filters containing agents on the selected server appear. If your filters contain no agents on the selected server, no filters appear in this list.

13   In the **Threshold settings** area, click the colors to which the text in the box view agent map change when a threshold level is exceeded. In icon view, the agent icon changes to these colors when a threshold level is exceeded.

14   When you choose the threshold colors, select colors that make the text easy to view against the agent state background colors in box view.

15   If you do not use a mouse, press Tab until the status bar indicates that you have reached the desired color. After, press the spacebar to select the color.

16   Select the **Pop to front** check box to move the agent map to the front of your desktop when a threshold level is exceeded.

When an agent map moves to front, it only moves to the front of the browser session from which you activate it. It does not move in front of other browser sessions, or other open applications on your desktop, such as Microsoft Word.

17   Select the **Text Flash** check box to view the text in the launched box view agent map flash when a threshold level is exceeded. (This option is not applicable to icon view agent map displays.)

18   Select the **Hide logged out Agents** check box to view logged on agents only when activate the agent map. If you do not select this check box, you see all agents in the filter that you attach to the display, both logged on and logged off.

19   In the Agent state colors area, select the appropriate check boxes to choose the colors to shown for each agent state.

20   Click **Submit** to save your changes.

The new agent map appears in the system tree under Graphical Displays.

--End--

Adding agents to an agent map

You cannot add an agent directly to an agent map. Instead, you must add the agent to the filter that you assign to the agent map.

Prerequisites
- Ensure you have agent elements in a filter. See Adding agent elements to a filter (page 18).

Procedure steps

Step	Action
1	On the main menu, click **Filters**, **Manage Filters**.
2	On the **Filters** tree, click the filter that is assigned to the agent map.

3   Click the **Agent** tab.

4   Select the agents to add to the agent map.

5   Click **Submit** to save the changes.

6   On the main menu, click **Displays**, **View Displays**.

7   On the system tree, click the **Graphical Displays** folder under the server containing the agent map.

8   Double-click the agent map, and then view the added agent.

--End--

Arranging agents in an agent map using drag and drop

Position an agent within the agent map.

Procedure steps

Step	Action
1	On the agent map display, right-click the agent block to move within the display.
2	While pressing the right mouse button on the agent, drag the agent to the new position within the agent map.
3	Release the mouse button to leave the agent in the new position.
4	Click **Save Layout** to save the new arrangement.

--End--

Arranging agents in an agent map automatically

Arrange agents in alphabetical order within the agent map.

Procedure steps

Step	Action
1	On the agent map display, click **Tile Agents**.
2	Click **Save Layout** to save the new arrangement.

--End--

Customizing the agent map layout

Adapt an agent map layout to meet your requirements.

Procedure steps

Step	Action
1	In the agent map, click and drag the agent icons to the desired position.
2	To change the size of the window, place your cursor on the edge of the window until a two-headed arrow appears.
3	Click the edge of the window, and then drag it to the desired size.
4	Click **Save Layout** to save your changes. The next time you open the agent map, your custom layout appears.
5	To rearrange the icons automatically in the window, click **Tile Agents**.

--End--

Resizing an agent map

When you resize an agent map, you can save the size. Your settings remain in effect until you resize the agent map again.

Prerequisites

- You must have an agent map. See .

Procedure steps

Step	Action
1	Place your cursor on the edge of the agent map display until it becomes a double-headed arrow.
2	Right-click and drag the edge of the agent map to the required size.
3	Release the mouse button.
4	Click **Save Layout**.

--End--

Changing the header format of icons in an agent map

You can specify how the agent name and login ID appear in the icon headers when you look at an agent map in icon view.

You can choose from the following options:

- agent first name, followed by last name
- agent last name, followed by first name
- agent first name and login ID
- agent last name and login ID

Prerequisites
- Log on to Real-time reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the **Real-Time Reporting** main window, click the server containing the agent map to edit.
2	The server expands to reveal a series of folders. On the system tree, click the **Public Graphical Displays** or **Private Graphical Displays** folder containing the agent map that you want to configure.
3	The folder expands to reveal the graphical displays that you save under this server.
4	Click the agent map to configure. The **Agent Map Properties** window appears in the right pane.
5	From the **Agent Name** list, select how the agent name and login ID appear in the header of each icon in Icon view.
6	Review all other properties for the agent map.
7	After you approve the agent map properties, click **Submit** to save your changes. The next time you view this agent map in Icon view, the header for each icon appears in the format that you selected.

--End--

Zooming in or out on an agent map display

While you look at the agent map in box view, you can resize the display to 50, 75, 125 or 150 percent of normal size when you use the zoom feature. The resizing option does not apply to agent maps that appear in icon view. When you resize an agent map, the text within the agent blocks is also resized, and the relative position of the icons maintains. To return the display to the normal size, select 100 percent from the list.

If you resize an agent map to 50 percent of the normal size, the spacing between the agent map icons is halved.

Procedure steps

Step	Action
1	From the Zoom list, select a value to resize the agent map.

--End--

Activate a display from an agent map

On the agent map graphical display, you can view a grid display that you select on the server. When you customize the agent map, you can choose which display to view when you click the Linked Display button. You can choose from all the private, public, and standard displays (both tabular and graphical) to which you have access on the currently selected server.

If you do not configure which display to view with the Linked Display feature, the Standard Agent Display for this server becomes the default server when you click the Linked Display button.

Prerequisites

• Log on to Real-time reporting. See Logging on to Real-Time Reporting (page 23).

• Configure an agent map. See Configuring an agent map (page 43).

Procedure steps

Step	Action
1	On the agent map display, click **Linked Display**.

The display that you choose from the Linked Display list activates from the server on which you configured the agent map.

--End--

Activate an agent details window from an agent map

When you look at an agent map in box view, you can double-click the agent icons to view a separate window that lists details about the agent. The window shows the agent's name, login ID, supervisor, position ID, and personal DN. You can double-click the agent icons in the display, for both logged on and logged off agents, to activate this details window.

Prerequisites

• Log on to Real-time reporting. See Logging on to Real-Time Reporting (page 23).

- Configure an agent map. See .

Procedure steps

Step	Action
1	Activate the required agent map display in box view.
2	Double-click an agent icon in the agent map display.
	A new window appears that lists the agent details.

--End--

Configuring a billboard display

You can configure a billboard display to select a statistic to monitor closely.

Prerequisites

- Log on to Real-time reporting. See .

Procedure steps

Step	Action
1	In the **Real-Time Reporting** main window, from the menu, select **Displays**, **Add Graphical Display**.
2	In the **Name** box, type the name of the new billboard graphical display. This is the name that appears in the system tree. You can use alphanumeric characters only.
3	From the **Server** list, select the server on which to create and save the billboard.
4	If you selected the **NCC** server, in the **Element Type** area, select **Agent Position Count**, **Application**, or **Skillset**.
5	If you selected a nodal server, in the **Element Type** area, select **Application**, **IVR**, or **Skillset**.
6	In the **Presentation** area, select **Billboard**.
7	Click **Edit Properties** to configure the new billboard display.
8	In the **Billboard title** box, accept the default name provided, or delete the default name and type a custom name to appear at the top of the billboard display.
	Do not include spaces, special characters, punctuation, or the ampersand (&) in the billboard title.
9	From the **Data collection mode** list, select either moving window or interval-to-date.
10	For nodal billboards, from the **Application** or **Skillset** list, select the application or skillset to monitor, or select **Summary**.
11	For IVR or NCC billboards, you can select only **Summary**. When you select Summary, you can monitor the statistic across all the applications or skillsets in your partition on

the selected server and across all the applications or skillsets in your partition on all servers on the network across all IVR queues on the selected server.

12 From the **Statistic** list, select the statistic to monitor in the billboard. The name of the statistic that you monitor appears in the title bar of the billboard display window when you activate it.

13 From the **Font color** boxes, select the color for the statistic.

The background color of the billboard display is black until a threshold value is reached, at which time it changes to either of the threshold colors you selected, and the font color changes to black.

If you do not use a mouse, press Tab until the status bar indicates that you have the selected color. After, press the Spacebar to select the color.

14 From the **Threshold settings** boxes, click to select the colors for the thresholds below level 1, between level 1 and level 2, and above level 2, or accept the default colors shown.

You can view the current Level 1 and Level 2 threshold values configured for this statistic in the Value boxes beside the threshold settings boxes.

15 Select the **Pop to front** check box to move the activated billboard to the front on your desktop when a threshold level is reached.

When a billboard moves to front, it only moves to the front of the browser session from which you activate it. It does not move in front of other browser sessions, or other open applications on your desktop.

16 Click **Submit** to save your changes.

The new billboard appears in the system tree under **Private Graphical Displays**.

--End--

Configuring a chart display

You can configure a chart display for skillsets, applications, or statistics to monitor in a customized chart.

Prerequisites

- Log on to Real-time reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the **Real-Time Reporting** main window, from the menu, select **Displays**, **Add Graphical Display**.
2	In the **Name** box, type the name of the new chart graphical display. This is the name that appears in the system tree. You can use alphanumeric characters only.
3	From the **Server** list, select the server on which to create and save the display.

4   If you selected a nodal server, in the **Element Type** area, select the **Application**, **IVR**, or **Skillset**.

5   If you selected an **NCC** server, in the **Element Type** area, select the **Agent Position Count**, **Application**, or **Skillset**.

6   If you select Application on a nodal server, in the **Presentation** area, select the **Chart (choose statistics per application)** or the **Chart (choose applications per statistic)**.

7   If you selected Application on an NCC server, in the **Presentation** area, select the **Chart (choose statistics per application)**.

8   If you select Skillset on a nodal server, in the **Presentation** area, select the **Chart (choose statistics per skillset)** or the **Chart (choose skillsets per statistic)**.

9   If you select Skillset on an NCC server or Agent Position Count, in the **Presentation** area, select **Chart (choose statistics per skillset)**.

10   IVR, in the Presentation area, select **Chart (choose statistics for IVR summary)**.

11   In the **Chart title** box, accept the default name, or delete the default name and type a custom name to appear at the top of the chart display.

12   From the **Chart type** list, select the type of chart to configure. You can choose from Horizontal Bar, Vertical Bar, or Pie.

13   From the **Chart fill** list, select **Color** or **Pattern (Black & White)**.

14   If you select **Chart (choose applications per statistic),** or **Chart (choose skillsets per statistic)** from the **Statistics** list, select a statistic.

15   From the **Application** list, select an application to monitor. Choose **Summary** to view a summary of all applications in your partition on the selected server.

16   For **Chart (choose statistics per skillset)** on a nodal server, from the **Skillset** list, select a skillset to monitor. Choose **Summary** to view a summary of all skillsets in your partition on the selected server. If you select **Summary**, the total for statistics such as Agents Staffed, Agents Active, Agents Not Ready, or Agents Idle is shown as 0 because one agent is typically assigned to more than one skillset, which results in misleading totals.

17   From the **Data Collection Mode** list, select the **Moving window** or **Interval-to-date**.

18   In the **Export path** box, type the path on which to save a copy of the chart that you export as a BMP or JPG file (for example, C:\My Documents). If you leave this field blank, the file is exported to your desktop.

19   If you select **Chart (choose statistics per application)**, **Chart (choose statistics for IVR summary)**, or **Chart (choose statistics per skillset)**, in the **Statistic** area, select the check box for each statistic to view in the chart display.

20   If you select **Chart (choose applications per statistic)**, in the **Applications** area, select the check box for each application to view in the chart display.

21   If you select **Chart (choose skillsets per statistic)**, in the **Skillsets** area, select the check box for each application to view in the chart display.

22   To select all check boxes, click **Select All**. To clear all check boxes, click **Clear All**.

23 Click **Submit** to save your changes. The new chart appears in the system tree under **Graphical Displays** and the **Graphical Display** window refreshes.

24 To create a public copy of your custom display, in the Type in the name of your public display box, type a name for the public display, and then click **Make Public Copy**.

A copy of your display appears in the **Public Graphical Displays** folder.

--End--

Creating a private collection

You can configure and save your favorite combination of data windows.

Prerequisites

- Log on to Real-time reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the **Real-Time Reporting** main window, select **Displays**, **Add Graphical Display**.
2	In the **Name** box, type the name of the new collection. This is the name that appears on the system tree. You can use only alphanumeric characters in the collection name; you cannot use special characters.
3	From the **Server** list, select the server on which to create and save the collection.
4	In the **Element Type** area, select **All**.
5	In the **Presentation** area, select **Private Collection**.
6	Click **Edit Properties** to configure the new collection.
7	The **Private Collection Properties** window appears. From each display list, select a display to include in this collection. The display lists include all of the public displays and private displays saved on the selected server. You can choose a maximum of six different displays. You must configure the graphical displays on the server before you can include them in your collection.
8	Click **Submit** to save your changes. The new collection appears on the system tree under Private Graphical Displays.

--End--

Creating a private billboard collection

You can configure and save your favorite combination of billboards.

Prerequisites

- Log on to Real-time reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the Real-Time Reporting main window, from the menu, select **Displays**, **Add Graphical Display**.
2	In the **Name** box, type the name of the new collection or billboard collection. This is the name that appears on the system tree. You can use only alphanumeric characters in the collection name; you cannot use special characters.
3	From the **Server** list, select the server on which to create and save the private billboard collection.
4	In the **Element Type** area, select **All**.
5	In the **Presentation** area, select **Private Billboard Collection**.
6	Click **Edit Properties** to configure the new collection.
7	The **Private Billboard Collection Properties** window appears. In the **Available** box, highlight each public or private billboard to include in your billboard collection, and then click the right arrow (>) to move the billboard to the **Selected** box. Private billboards are marked with an asterisk (*). You can choose from all public or private billboards to which you have access on the current server, up to a maximum of 25 billboards.
8	Click **Submit** to save the private billboard collection. The new billboard collection appears on the system tree under your Private Graphical Displays folder on the currently selected server.

--End--

Creating a public collection or public billboard collection

When you save a public display, you share it with all users that have access to public graphical displays on the selected server.

Prerequisites

- Log on to Real-time reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the **Real-Time Reporting** main window, select **Displays**, **Add Graphical Display**.

2 In the **Name** box, type the name of the new collection or billboard collection. This is the name that appears on the system tree. You can use only alphanumeric characters in the collection name; you cannot use special characters.

3 From the **Servers** list, select the server on which to create and save the public collection.

4 In the **Element Typ**e area, select All.

5 In the **Presentation** area, select either **Public Collection** or **Public Billboard Collection**.

6 Click **Edit Properties**. The Public Collection Properties or Public Billboard Collection Properties window appears.

7 If you create a public billboard collection, proceed to step 10.

8 From each display list, select a display to include in this collection. The lists include all the public grid and graphic displays that you save on the selected server. You can choose maximum six different displays.

9 Click **Submit** to save the public collection.

10 In the **Available** box, highlight each public billboard to include in your billboard collection, and then click the right arrow (>) to move the billboard to the **Selected** box. You can choose from all public billboards on the current server, up to a maximum of 25 billboards.

11 Click **Submit** to save the public billboard collection.

The new collection or billboard collection appears on the system tree under the **Public Graphical Displays** folder on the currently selected server.

--End--

Arranging the billboards in a billboard collection

When you first activate a public or private billboard collection, the billboards appear in a default order. However, you can change this order by dragging and dropping the individual billboards within the billboard collection.

Procedure steps

Step   Action

1 To rearrange the billboards back in the original layout, click **Tile Billboards**.

2 Click **Save Layout**.

--End--

Real-time report customization

The procedures in this section describe how to customize your real-time reports. You can customize real-time report displays and real-time report summary charts.

Prerequisites to real-time reporting customization

- At least one real-time report must exist. See Adding a graphical display (page 38).

Navigation

Creating a Real-time Dashboard display

You can create a Real-time Dashboard display to provide you with multiple views of up-to-date statistics for your contact center and its resources.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	From the **Displays** menu, select **Add Graphical Display**.
2	From **Element Type**, select **All**.
3	From **Presentation**, select **Dashboard**.
4	Type the new display name.

Attention: You can use only alphanumeric characters in the display name; do not use special characters. The display name must be unique; if you type the same name as an existing display, then you overwrite the existing display.

Step	Action
5	Click **Edit Properties**.
6	Click **Submit** to save your changes.

The new display appears under Private Graphical Displays.

--End--

Adding charts to the Real-time Dashboard

You can add charts to the Real-time Dashboard to view them.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).
- Create a Real-time Dashboard display. See Creating a Real-time Dashboard display (page 56).

Procedure steps

Step	Action
1	In the left pane, under the server that contains the display to customize, click the **Private Graphical Displays** folder.
2	Click the Real-time Dashboard display.
3	Click **Launch**.
4	From the **Displays** menu, select a display chart.

5   From the display chart menu, select the data to display on the chart.

The data appears on the chart in the Realtime Dashboard display.

--End--

Changing chart properties in the Real-time Dashboard display

You can change the items that appear on the charts in the Real-time Dashboard to meet your requirements.

Prerequisites

• Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

• Create a Real-time Dashboard display. See Creating a Real-time Dashboard display (page 56).

• Add a display to the Real-time Dashboard. See Adding charts to the Real-time Dashboard (page 56).

Procedure steps

Step	Action
1	Click the **Properties** tab of the chart to change.
2	Select the skillsets, applications, and statistics to display on the chart.
3	Click the **Display** tab to display the updated chart.

--End--

Removing display charts from the Real-time Dashboard display

You can remove display charts from the Real-time Dashboard display.

Prerequisites

• Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

• Create a Real-time Dashboard display. See Creating a Real-time Dashboard display (page 56).

• Add a display chart to the Real-time Dashboard. See Adding charts to the Real-time Dashboard (page 56).

Procedure steps

Step	Action

1 In the left pane, under the server that contains the display to customize, click the **Private Graphical Displays** folder.

2 Select the Real-time Dashboard display.

3 Click **Launch**.

4 Click the X button beside the display to remove.

5 On the message box, click **OK**.

--End--

Saving the real-time display

Save the Real-time Dashboard display window size and the following attributes of each Real-time Display chart:

- size and position of the window
- display type
- list of selected statistics
- list of selected skillsets or applications

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).
- Create a Real-time Dashboard display. See Creating a Real-time Dashboard display (page 56).
- Add a display to the Real-time Dashboard. See Adding charts to the Real-time Dashboard (page 56).

Procedure steps

Step **Action**

1 Close the Real-time Dashboard display window and select **Yes** on the **Save** dialog.

OR

Select **Save** from the **File** menu.

--End--

Adding a new column to a real-time display

When you customize your private real-time display grids, you can add new columns by choosing from a list of available statistics. The available statistics can include custom formulas if your administrator creates them in the Configuration component.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the left pane, select the server that contains the display to customize.
2	Click the **Private Tabular Displays** folder.
	The folder expands to show a list of private displays.
3	Click the display to customize.
4	Click the **Columns** tab.
5	From the **Available Fields** list, select the statistic to add to the real-time display.
6	Click **Add Field**.
	The column appears in the sample display table.
7	Click **Submit** to save your changes.

--End--

Customizing display properties

You can customize private display properties to meet your requirements.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).
- Create a private display. See Creating a private real-time display (page 24).

Procedure steps

Step	Action
1	In the left pane, under the server that contains the display to customize, click the **Private displays** folder.
2	Click the real-time display to customize.
3	On the **Properties** page, select your customized settings.
4	Click **Submit** to save your changes

--End--

Changing the refresh rate of a real-time display

A slight delay occurs between the events in the contact center and the statistics that you see in the displays. The length of the delay depends on the refresh rate settings in the Real-time Statistics Multicast (RSM) component and on the application server. For more information about these settings and the effect they have on the real-time displays, see the *Avaya Aura™ Contact Center Installation* (NN44400-311).

The refresh rate that you specify applies to both the private real-time displays and the site performance summary charts.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).
- Create a private real-time display. See Creating a private real-time display (page 24).

Procedure steps

Step	Action
1	In the left pane, under the server containing the display to customize, select the **Private Tabular Displays** folder.
2	Click the display name.
3	Click the **Properties** tab.
4	In the **Refresh rate** box, type the rate at which to refresh data in the real-time display. You can specify a minimum value of 0.5 seconds, or a number from 1 to 99 (seconds).
5	Click **Submit** to save your changes.

--End--

Changing the font size in a real-time display grid

You can select the font size for the column headings and the column data in your private real-time displays.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).
- Create a private display. See Creating a private real-time display (page 24).

Procedure steps

Step	Action
1	In the left pane, under the server containing the display to customize, click the **Private Tabular Displays** folder.

2   Click the display name.

3   Click the **Properties** tab.

4   In the **Column font size** boxes, type the size for the column headings and the column data. You can choose a font size from 8 to 14.

         If you make no selection, the system applies the default font size of 8.

5   Click **Submit** to save your changes.

--End--

Changing the chart type for a site summary

You can specify the chart type for the site performance summaries that you view from each real-time display window. You can choose bar chart or pie chart format.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).
- Create a private site summary chart.

Procedure steps

Step	Action
1	In the left pane, under the server that contains the display to customize, navigate to the site summary chart.
2	In the right pane, on the **Properties** tab, from the **Type for site summary** list, select the chart type to use to display the performance summaries of each site in the network.
3	Click **Submit** to save your changes.

--End--

Changing the color settings of a real-time display grid

You can configure the color settings for the data, filter and site subtotals, and the summary rows of the real-time display grids. If you choose no custom color, the system applies the default colors to each area.

The summary rows include the Ntwk (Network) Total in the network-consolidated real-time displays, and the [site name] Total in the nodal real-time displays. The subtotal rows contain the statistics subtotals for each site in the network (for network consolidated displays), and for each filter group.

Prerequisites

• Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the left pane, under the server that contains the display to customize, navigate to the display.
2	In the right pane, on the **Properties** tab, in the **Color settings** area, choose the color settings to appear in the real-time display grids.
3	Click **Submit** to save your changes.

--End--

Changing the fill color of a summary chart

You can specify whether to view the performance summary charts in color or in black and white. If you select black and white, the system represents the summary statistics in varying shades of gray with distinct patterns for each type of data. If you select color, the system assigns a different color to represent each type of data.

Prerequisites

• Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the left pane, under the server that contains the display to customize, navigate to the display.
2	In the right pane, on the **Properties** tab, from the **Site summary fill** and **Network summary fill** lists, select whether to see the charts in color or in a black and white pattern.
3	Click **Submit** to save your changes.

The option that you choose becomes the default color for all site summary and network summary charts. However, when you view a chart, you can change the fill color instantly by clicking Color/Pattern at the bottom of the chart panel.

--End--

Changing column names

You can change the column names of private displays. You can customize the columns of private displays only. If you choose a public display, you must first copy it and save it in your Private Displays folder before you can customize the columns. See Creating a private real-time display (page 24).

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the left pane, under the server that contains the real-time display to customize, navigate to the display.
2	In the right pane, click the **Columns** tab.
3	To add columns to the display, from the **Available Fields** list, select a column, and then click **Add Field**.
4	In the **Column Name** box, type the new name to appear in the real-time display grid, and then press **Tab**.
	The new column name appears in the sample table.
	You can change as many names as you want.
5	After you change the names, click **Submit** to save your changes.
6	Click **Launch Display** to view the real-time display to see your changes.

--End--

Changing the column width in a real-time display

You can customize the columns of private displays only. If you choose a public display, you must first copy it and save it in your private folder before you can customize the columns. For more information, see Creating a private real-time display (page 24).

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the left pane, under the server that contains the real-time display to customize, navigate to the display.
2	In the right pane, click the **Columns** tab.
3	Click the name of the column to resize.

> **4**   In the **Column width** box, type the width of the column in characters.
>
> **Attention:** You cannot make the column narrower than the column text. To shrink the column to the exact width of the column heading text, type a low number of characters in the Column width box (for example, type 5).
>
> **5**   Click **Submit** to save your changes.
>
> **6**   Click **Launch Display** to start the real-time display and to view your changes.
>
> **--End--**

Rearranging columns in a real-time display

> You can rearrange the columns only of private displays. If you choose a public display, you must first copy it and save it in your Private Tabular Displays folder before you can customize the columns. See Creating a private real-time display (page 24).
>
> You cannot move the Site, Filter, Skillset, or Application column headings. However, you can choose the order in which they appear in the private network-consolidated real-time displays.

Prerequisites
> • Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

> | Step | Action |
> |---|---|
> | **1** | In the left pane, under the server that contains the real-time display to customize, click **Private Tabular Displays**. |
> | **2** | Click the private display to customize. |
> | **3** | In the right pane, click the **Columns** tab. |
> | **4** | Click the name of the column to move. |
> | **5** | Click **Move Left** or **Move Right** to move the column heading to the desired position. |
> | **6** | Click **Submit** to save your changes. |

> **--End--**

Changing the data collection mode of a real-time display

> Specify the mode in which you want to view collected contact center data.

Prerequisites
  • Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the left pane, under the server that contains the display to customize, click **Private Tabular Displays**.
2	Click the display name.
3	In the right pane, click the **Properties** tab.
4	From the **Data collection mode** list, select the mode in which to view the collected data.
5	Click **Submit** to save your changes.

--End--

Changing the title of a real-time display grid

Select the title to appear at the top of each private real-time display grid.

Prerequisites
  • Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	In the left pane, under the server containing the display to customize, click **Private Tabular Displays**.
2	Click the display name.
3	In the right pane, click the **Properties** tab.
4	In the **Display Title** box, type the title to appear at the top of the real-time display. If you type no title, the system applies the default title that is shown.
5	Click **Submit** to save your changes.

--End--

Deleting columns from a real-time display

When you customize your private real-time display grids, you can delete a column except the Site, Filter, and Skillset/Application columns.

Prerequisites
- Customize the columns in private displays only. If you choose a public display, you must first copy it and save it in your Private Tabular Displays folder before you can customize the columns. See Making a public copy of a graphical display (page 40).

Procedure steps

Step	Action
1	In the left pane, under the server that contains the display to customize, navigate to the private display.
2	In the right pane, click the **Columns** tab.
3	From the sample table, click the statistic to delete from the real-time display.
4	Click **Delete**.
5	Click **Submit** to save your changes.

--End--

Moving the chart contents within the window

You can move the summary chart contents within the window frame to concentrate on specific areas of the chart.

Prerequisites
- Log on to Real-time reporting. See Logging on to Real-Time Reporting (page 23).

Procedure steps

Step	Action
1	While viewing the chart, press **Shift**.
2	While pressing **Shift**, hold down both mouse buttons.
3	On the chart, move your mouse to drag the contents to the desired position.
4	Release **Shift** and the mouse buttons.
5	To restore the chart to the original state, press **R** on your keyboard.

--End--

Rotating a summary chart

Rotate a summary chart to view the complete content.

You cannot rotate network summary charts.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).
- Open a summary chart.

Procedure steps

Step	Action
1	While viewing the chart, press both mouse buttons.
2	Move your mouse in a circular direction.
	The chart contents rotate.

--End--

Increasing or decreasing the summary chart size

Customize the size of the chart contents within the chart frame. You cannot increase the size of the chart frame.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).
- Open a summary chart.

Procedure steps

Step	Action
1	While viewing the chart, press **Ctrl**.
2	While pressing **Ctrl**, hold down both mouse buttons.
3	On the chart, move your mouse upward to decrease the size of the chart contents or downward to increase chart contents.
4	After you adjust the size appropriately, release **Ctrl** and the mouse buttons.
5	To restore the chart to the original state, press **R** on your keyboard.

--End--

Zooming in on areas of a summary chart

Zoom in on a summary chart to view specific information.

Prerequisites

- Log on to Real-Time Reporting. See Logging on to Real-Time Reporting (page 23).
- Open a summary chart.

Procedure steps

Step	Action
1	While viewing the summary chart, press **Shift**.
2	While pressing **Shift**, click and drag to select the area of the chart to view more closely.
3	Release **Shift** and the mouse button.
	The area increases in size.
4	To restore the chart to the original state, press **R** on your keyboard.

--End--

Contact Center Multimedia reports

This section provides procedures to generate Contact Center Multimedia (CCMM) reports.

Prerequisites to CCMM reports

- Install Report Creation Wizard.
- Install Crystal Reports.

Navigation

Creating a CCMM report template for user-created reports

To configure the selection criteria in a reports, you must create a CCMM report.

Procedure steps

Step	Action
1	In **Contact Center Manager Administration**, click **Launchpad**, **Historical Reporting**.
2	In the system tree, click the server to log on to.
3	From the menu, choose **Report**, **Report Creation Wizard**.
4	Select the **Advanced Report (via OBDC)** option.
5	Click **Next**.
6	In the **DSNs Available** list, click **CCMM DSN**.

Attention: The OBDC DSN must be CCMM_<IPadress>_DSN

Step	Action
7	In the **Selected DSN Properties** area, type the user ID and password. If the fields automatically fill in with values, proceed to step 8.
8	Click **Next.**
9	From the **Tables Available** list, double-click a table.
10	To add another table, repeat step 9; otherwise click Next.
11	If you select only one table, skip step 12 to step 16. If you select multiple tables, proceed to step 17.
12	From each of the right and left **Tables** lists, select a table.

13   From each of the left and right **Fields** lists, click a field to include.

Attention: The selected field on the right Fields list must contain the same data as the selected field on the left Fields list.

14   From the **Join** list, select a join type.

15   Click **link**.

16   Click **Next**.

17   In the **Fields** list, double-click a formula or field to add to the report.

18   Use the up and down arrows to change the order of the selected fields.

19   Click the configuration icon.

20   In the report layout section, select **Portrait** or **Landscape**.

21   On the toolbar, click the **Save Report** icon.

22   Select the folder in which to save the report.

23   In the report **Name** box, type the name of the report.

24   Click **Save**.

--End--

Importing a CCMM user-created report

Import a Contact Center Multimedia report into Crystal to customize the report layout and to add and delete database tables and database fields.

The following is a list of items and features that you cannot edit, delete, or add to a report:

- Connections
- Formulas
- Record selection formulas
- Subreports or command tables

Prerequisites
- Install Report Creation Wizard.

Procedure steps
Step   Action

1   On the **Report Creation Wizard** tool bar, click the **Import to Historical Reporting** icon.

2   In the **Report Title** box, type the <report name >.

3   Click **Browse**.

4   Navigate to the report to import.

5   Click **Open**.

6   From the **Time Zone** list, select the time zone of the server to which you want to import the report.

7   In the comment box, type additional information about the report.

8   Click the **Report Options** header.

9   Select a **Report Mode**.

10   For advanced reports, from the **Report Type** list, select the report type.

11   From the **Report Group** list, select the folder from which the report imports.

12   In the **Select Service** list, select the servers to which you want to import the report.

13   Click the **Data Range** header.

14   From the **Table Alias** list, select a table.

15   In the **Table** box, for the data range that matches the selected Table Alias time period, type the table name.

16   In the **Timestamp** box, for the data range that matches the selected Table Alias time period, type the name of the field.

17   Click **Import**.

--End--

Historical Reporting

You can select the server in Contact Center Manager Server from which to run and schedule performance, configuration, and network reports (if you work in a networked environment). Reports help you monitor system performance by providing information about system activity.

Prerequisites to Historical Reporting

- Log on to Contact Center Manager Administration.
- Ensure that you have the required access to work in Historical Reporting.
- Ensure that you understand Historical Reporting.

Navigation

Logging on to Historical Reporting

To access Historical Reporting, log on to Historical Reporting.

Prerequisites

- Ensure that you have access to Historical Reporting.

Procedure steps

Step	Action
1	Log on to Contact Center Manager Administration.
2	On the launchpad, click **Historical Reporting**.

The Historical Reporting window appears.

--End--

Applying filters to network consolidated historical reports

When you configure a network consolidated historical report on the NCC server, you have two choices to add the selection criteria:

- Network Sites: You can select the network sites to include in the report from those listed in the Available table. To select individual sites, select the check box beside the site names, and then click Update Selection Criteria.

- Filters: Click the Filters heading to choose from the filters that you created and saved. The filter names appear in a table. To select the filters to include in the report, select the check box beside the filter names, and the click Save Report or Run Now.

While you can apply more than one filter to a report, the combined total number of filter elements in all filters that you apply to a single report cannot exceed 300. For example, you can apply one filter that includes 200 skillsets, and another filter that includes 100 skillsets to a single network-consolidated report because the total number of filter elements is 300.

Prerequisites

- Log on to Historical Reporting. For information, see Logging on to Historical Reporting (page 74).

- At least one filter must exist. See Creating a filter in Real-time Reporting (page 15).

Procedure steps

Step	Action
1	In the right pane, click the NCC server that contains the network-consolidated report to define.
2	Click the **Public Report Templates** folder.
3	Click the **NCC** folder.
4	In the **NCC** folder, select the report to use.
5	Click the **Selection Criteria** heading.
6	Click the **Filters** heading.
7	In the table, select the check box for each filter to apply to the report.
8	Click **Run Now** to generate the report.
9	To save your changes, in the **Save As** box, type a name for the report, choose a save location, and then click **Save Report**.

--End--

Defining the selection criteria

Users of the Avaya Aura™ Contact Center can create filters. However, each of these classic client filters contains only one type of data: skillsets, applications, route numbers, route names, DNIS numbers, or DNIS names.

An administrator can use the Contact Center Manager filter importing utility to import filters into Contact Center Manager Administration that were created and saved in the Avaya Aura™ Contact Center. While each of the classic client filters contains only one type of data— skillsets, applications, route numbers, route names, DNIS numbers, or DNIS names—you can add various types of data to these filters after the administrator imports them by using the filter tabs in Historical Reporting. For more information on filters, see Filter management (page 15).

You can select the elements to include in your reports by assigning filter elements to your reports. For example, in an agent performance report, you can choose the agents from which to report. You can define the selection criteria for public, private, and shared reports that you schedule or run on demand.

If you connect to an NCC server and run a network-consolidated report, you can choose from the saved configured filters. Use filters to select the sites and resources to include in a network consolidated report. For more information, see Creating a filter in Real-time Reporting (page 15).

By default, if you do not define the selection criteria, the system applies partition rules to generate the report. However, if you select a filter element, you see only that element in the report. You can select a maximum of 300 elements from the available list to run the report. For example, you choose a skillset report and see a list of 20 skillsets in the Available filter elements box. If you select no skillsets, you see all 20 skillsets in the report, whereas if you select 3 skillsets, you see only three skillsets in the report. For two table reports, for example, Skillset By Agent Performance report, you can select 300 agents and 300 skillsets to run the Skillset by Agent Performance report.

The filter elements available depend on the type of statistics included in the report. If you select multiple filter elements, only those that satisfy all filter criteria appear in the report. For example, if you choose to report on five agents and three activity codes, if one agent uses no activity code, the agent does not appear in the report.

Prerequisites
- Log on to Historical Reporting. See Logging on to Historical Reporting (page 74).

Procedure steps

Step	Action
1	In the left pane, click the server that contains the report to define.
2	Expand the folder that contains the report template to use.
3	Click the folder containing the type of report to change.
4	Select the report to use.
5	In the right pane, click the **Selection Criteria** heading.
6	In the Selection Criteria area, enter information in the following boxes:

- **Available** heading: Click this heading to view the available filter elements for this report. A table appears, listing the available elements. If multiple filters exist for this report, more than one **Available** table appears. Select the check box for each filter element to apply to the report, and then click **Update Selection Criteria**. The selected filter elements appear in the Selected table.

- **Selected** heading: Click this heading to view the filter elements selected for the report. A table appears, listing the selected elements. To remove selected filter elements, clear the check box for each filter element, and then click Update Selection Criteria. The element appears in the **Available** table.

- **Filters** heading: This heading is visible only if you connect to the NCC server and work with a network-consolidated report. Click this heading to view the available filters for this report. A table appears with a list of the available filters. To add a filter to this report, select the check box beside the filter name, and then click **Update Selection Criteria**. The selected filters appear in the **Selected** table.

7	Click **Run Now** to generate the report.
8	To save your changes, click **Report Details**, in the **Save As** box, type a name, choose a save location, and then click **Save Report**.

--End--

Opening a public, private, or shared report

Open a public, private, or shared report to view a historical report.

Prerequisites

- Ensure that you have access to public report groups in Access and Partition Management.

- Log on to Historical Reporting. See Logging on to Historical Reporting (page 74).

Procedure steps

Step	Action
1	In the left pane, select the server on which to view the list of reports.
2	Select one of the following folders:

- **Public Report Templates**: This folder contains the standard report templates in Contact Center Manager. Run public reports on demand basis, or you save them in your Group or Private Report Templates folders and schedule them. The Public Report Templates folder can contain nine template folders corresponding to the following types of reports: Agent Performance reports, Call-by-Call reports, Configuration reports, Contact Summary reports, Multimedia reports, Networking reports, Other reports, Outbound reports, and Predictive Outbound reports. The template folder displays depend on the version and features available on the server. In addition to these folders, the Network Control Center (NCC) server includes one public report templates folder, the NCC folder.

- **Private Report Templates**: This folder contains the report templates that you create by modifying an existing public, shared, or private report template, and saving your changes in your Private Report Templates folder. You can modify report information, schedule the report, and apply filters. For more information about creating private reports, see Creating a shared or private report (page 81).

- **Group**: This folder contains shared report templates. When you customize a public or private report template and save it in your Group folder, all other users who have access to your group can run, modify, and schedule the group report templates.

| 3 | From the expanded list, select a report template to modify the template, schedule it, or run the report on demand. The report properties appear in the right pane. |

--End--

Running an Ad hoc report

You can specify the amount of data to include in an Ad hoc report by choosing the data range and applying selection criteria. After you customize your report, click Run Now to generate the report immediately. In the resulting Ad-hoc Report Viewer window, you can choose to print or save the report.

You can select the data range for agent performance, call-by-call, and some networking reports before you generate them. For configuration reports and parameter reports, however, you cannot select the data range. For information about running parameter reports, see Running a parameter report Ad hoc (page 79).

Prerequisites

• Ensure that you have access to the report folder that contains the report to run.

• Log on to Historical Reporting. See Logging on to Historical Reporting (page 74).

Procedure steps

Step	Action
1	In the left pane, select the server that contains the report to run.
2	In the expanded list, select the folder that contains the report template to run.
3	Click the folder containing the report to run.
4	Select the report template to run.
5	To view the current report properties, in the right pane, click the following headings:

• **Report Details**

• **Selection Criteria**

• **Data Range**

• **Schedule**

• **Output Options**: This section appears only if you previously scheduled the report.

| 6 | To run the report with the current properties, proceed to step 9. |

Attention: If you do not define the selection criteria, the system enforces partition rules to generate the report.

| 7 | To define the selection criteria and the data range, see Defining the selection criteria (page 75). |

Attention: If you configure a parameter report, you do not see these sections of the window. For more information about parameter reports, see Running a parameter report Ad hoc (page 79).

| 8 | To save your properties, in the **Save As** box, type a report name, choose a save location, and then click **Save Report**. |
| 9 | Click **Run Now** to generate the report. |

Attention: If the report spans more than one page, the first page of the report is numbered as 1+. Until you reach the last page of the report, you do not know the number of pages. When the next page of the report appears, the numbering changes, for example, to 1 of 2+, and then to 1 of 3+, until the last page of the report appears. On the last page, the numbering changes to 1 of x, where x equals the total number of pages. For example, if the report is four pages, the numbering on the last page is 1 of 4.

--End--

Running a parameter report Ad hoc

Unlike regular reports, you cannot choose the data range or the selection criteria of parameter reports. Instead, when you select a parameter report template, the system prompts you to enter custom values in the applicable parameter fields for the report. After you enter the values for all parameters applicable to this report, click Run Now to immediately generate the report. In the resulting Ad-hoc Report Viewer window, you can print or save the report.

Because parameter reports require user input at the time of running, you can run these reports only on demand; you cannot schedule parameter reports. You also cannot save the values that you select when you run the report. Instead, each time you run the report, you must select the parameter values.

Prerequisites

- Log on to Historical Reporting. See .

Procedure steps

Step	Action
1	In the left pane, select the server that contains the parameter report to run.
2	Expand the folder that contains the parameter report template to run.
	By default, all parameter reports that you import are in your **Private Report Templates** folder.
3	Click the folder that contains the parameter report to run.
4	In the expanded list, select the report template to run.
5	To view the current report properties, such as the report title and comments, in the right pane, click the **Report Details** section.
6	Click the **Parameters** section.
7	In the **Parameter Fields** box, select the first parameter, and then enter the parameter values in the boxes provided.
8	Continue to enter values for all listed parameters in the boxes provided (the boxes vary based on the parameter that you select).

9   In the **Comment** box, type comments about the report.

10   To save the report, in the **Save As** box, enter a report name, choose a save location (your Group folder), and then click **Save Report**.

Attention: You cannot save the parameter values that you enter for parameter reports.

11   After you enter the parameter values, click **Run Now** to generate the report with the specified properties.

Attention: If the report spans more than one page, the first page of the report is numbered as 1+. Until you reach the last page of the report, you do not know how many pages the report has. When the next page of the report appears, the numbering changes, for example, to 1 of 2+, and then to 1 of 3+, until the last page of the report appears. On the last page, the numbering changes to 1 of x, where x equals the total number of pages. For example, if the report is four pages, the numbering on the last page is 1 of 4.

--End--

Exporting an Ad hoc report

Export a report to convert the visual display to a required format.

Prerequisites

- Log on to Historical Reporting. See .

Procedure steps

Step   **Action**

1   In the left pane, click the server that has the report to print.

2   Double-click the folder with the report to print.

3   From the expanded folder, select the report.

4   In the right pane, click **Run Now** to generate the report with the specified properties.

        The Ad-Hoc Report Viewer appears and displays the generated report.

Attention: If the report spans more than one page, the first page of the report is numbered as 1+. Until you reach the last page of the report, you do not know how many pages the report has. When the next page of the report appears, the numbering changes, for example, to 1 of 2+, and then to 1 of 3+, until the last page of the report appears. On the last page, the numbering changes to 1 of x, where x equals the total number of pages. For example, if the report is four pages, the numbering on the last page is 1 of 4.

5   Click the printer icon to print the report to the configured default printer on your computer.

--End--

Creating a shared or private report

You can create custom reports if you change existing public, shared, or private report templates to suit your needs. Save them in your Group or Private Report Templates folders. When you save a report in your Group folder, you save a shared report; that is, you share the report with other users who have access to your Group folder.

If you do not want to use an existing report as the basis for your custom report, you must create a new report in the Crystal Reports application and import it into the Contact Center Manager Administration Historical Reporting application. See Importing a report (page 84).

Prerequisites

- Ensure that you have access to the folder that contains the report to use.

- If you schedule the report, activate the schedule. See Activating a scheduled report (page 92).

- Log on to Historical Reporting. See Logging on to Historical Reporting (page 74).

Procedure steps

Step	Action
Step	**Action**
1	In the left pane, select the server on which to create the report.
2	Navigate to the folder that contains the report template to use.
3	Click the report to change.
4	In the right pane, click the following headings:

- **Selection criteria**.

- **Data range** (not applicable for configuration reports)

- **Schedule**

5	Click **Report Details**.
6	In the **Report Title** box, type the name to appear at the top of the generated report. If you type no new report title, the default title in this box appears at the top of the generated report.

Attention: If you save multiple copies of the same public report in your Group or Private report templates folders, change the report title to distinguish between reports when you generate them. If you do not change the report title, all copies of the same public report have the same standard title when you generate the reports.

7	In the **Save As** box, type the new report name.

Attention: If you choose a Public report template as the basis for your custom report, to save the new properties that you enter, you must type a new name in the Save As box and specify whether to save it in your Private or Group folder. If you use an existing private or shared template as the basis for your custom report, you can choose to make a copy of the report by changing the report name in the Save As box, or you can leave the report name and overwrite the existing template with your changes.

8   From the **Location** list, select the save location for your custom report. You can choose between your Private and Group folders (if you have access to a group folder).

9   In the **Comment** box, type comments about the report.

10   From the **Time Zone** list, select the time zone in which you want to define the data range for this report, or accept the default time shown (the system defaults to the Contact Center Manager Server time zone). The data range depends on Contact Center Manager Server time because the server stores the data. Therefore, the system always converts the data range times that you enter to Contact Center Manager Server time.

11   Click **Save Report** to save your changes.

The report appears in the Group or Private Report Templates folder on the server that you selected.

--End--

Defining the report output

You can specify whether to print the scheduled report when it generates, save it as a file, or both. You can also specify one or more e-mail addresses where the system can send a notification after the report generates.

If you save the report to a file, you must specify a shared folder to which the Contact Center Manager Administration server sends the output file. This folder can be on your computer, on another computer in the network, or on the application server. To send the file to a folder on a computer in the network, the network computer must be accessible from the Contact Center Manager Administration server. For more information, see the *Avaya Aura™ Contact Center Commissioning* (NN44400-312).

Prerequisites
- Log on to Historical Reporting. See Logging on to Historical Reporting (page 74).

Procedure steps

Step	Action
1	In the left pane, click the server containing the report whose output options you want to define.

The server expands to reveal a choice between Public, Private, and Group folders (if you have access to a group folder).

2   Expand the folder containing the report template to use.

3   Navigate to the report to edit.

The report properties appear in the right pane.

4   Click the **Report Details** heading.

5   In the **Report Title** box, type the name to appear at the top of the generated report.

If you type no new report title, the default title in this box appears at the top of the generated report. Do not include apostrophes (') in the report title.

Attention: If you save multiple copies of the same public report in your Group or Private report templates folders, change the report title to distinguish between reports when you generate them. If you do not change the report title, all copies of the same public report have the same standard title when you generate the reports.

6   In the **Save As** box, type the new report name.

The name appears in the system tree. This name cannot contain an apostrophe and must be unique if you save the report in the same folder.

7   From the **Location** list, select the folder in which to save your report. You can choose either **Private** or **Group** (if you have access to a group folder).

8   From the **Time zone** list, select the time zone in which to schedule your report, or accept the system default (the default time zone is the selected server time zone).

Attention: When you select the schedule time for your report, the system converts the time that you choose to the Contact Center Manager Administration server time, and gives the generated report the Contact Center Manager Administration server timestamp (if you choose a time zone other than the one in the Contact Center Manager Administration server.)

9   Click the **Schedule** heading.

The heading expands to reveal a series of boxes.

10   In the schedule area, enter the report schedule.

11   Click the **Output Options** heading.

The heading expands to reveal a series of boxes.

The Output Options heading is disabled until you schedule the report.

12   In the **Output Options** area, choose the report output type:

- **Print**: When you select this option, you can choose the printer, or accept the default printer shown. You can also select the paper size for the report from the Paper Size list.

- **Output to file**: When you select this option, you must type the location where the report is saved in the Output box in the format \\[computer name]\[shared folder name]\[file name]. You can then choose the report file format, or accept the default format, Crystal_Reports_Format (*.rpt).

- **Email Notification**: When you choose this option, you must enter an e-mail address in the box provided. When the report is generated, the system notifies you by e-mail when the report run is finished. To enable multiple users to receive notification that a report generated, you can type multiple e-mail addresses in the box, each address separated by a semicolon (;). You can type a maximum of 255 characters in the e-mail address box.

13   Click **Save Report** to save your changes.

14   To activate the schedule, in the left pane, select the **Scheduled Events** folder.

15   In the expanded folder, select the report that you just scheduled.

16   Click **Activate**.

The system activates the schedule and outputs the report to the location that you specified.

--End--

Importing a report

You can use the Template Importing Wizard to import report templates into Contact Center Manager Administration that you create using the Crystal Reports application. When you import a report template, you store it on the application server. However, you access the report template by opening your Private Report Templates folder on the same server to which you imported it.

You can also use the Contact Center Manager Template Importing Wizard to import existing, custom Contact Center Manager Server report templates, one at a time into Contact Center Manager Administration.

To share the report template with other users, you must save your private report in your Group folder (if you have access to a group folder). For more information, see Creating a shared or private report (page 81).

You can import three type of reports; Historical, Configuration, and Parameter.

Prerequisites

- Log on to Historical Reporting. See Logging on to Historical Reporting (page 74).

Procedure steps

Step   Action

1   In the left pane, click the server to which to import the new report template.

2   From the **Report** menu, select **Import**.

3 In the **Template Importing Wizard**, follow the prompts to import your report template to the server.

--End--

Importing a parameter report

You can use the Template Importing Wizard to import parameter report templates into Contact Center Manager created using the Crystal Reports application. A parameter report is a Crystal Reports template with special parameter fields that require the user to enter or select data at the time of running the report. Some parameter fields, such as date and time, require user input.

When you import a report template, you save it on the Contact Center Manager Administration server. However, you access the report template by opening your Private Report Templates folder under the same server to which you imported it. To share the report template with other users, you must save your private report in your Group folder (if you have access to a group folder). For more information, see Creating a shared or private report (page 81).

Parameter reports require user input at the time of running. Therefore, you can run these reports only on demand; you cannot schedule parameter reports. You cannot save the values that you select when you run the report. Instead, each time you run the report, you must select the parameter values.

Prerequisites

- Log on to Historical Reporting. See Logging on to Historical Reporting (page 74).

Procedure steps

Step	Action
1	In the left pane, select the server to which to import the new report template.
2	On the **Report** menu, click **Import**.
	The Template Importing Wizard appears.
3	In the **Directory and folder name** box, type the location in which to store the report.
	OR
	Click **Browse** to navigate to the location.
4	In the **Template** name box, type the name of the parameter report to import.
5	From the **Report is based on the following data** list, select **Parameters**.
6	Click **Next**, and then follow the wizard prompts to import your report template to the server.

--End--

Editing a report

You can edit the properties of private reports or shared reports that you create and save in your Group folder. You can change properties such as the data range, the selection criteria, the schedule, and the report title. You must click Save Report to save the new properties.

You can change the properties of a public report template only if you save a copy of the template as a shared or private report. See Creating a shared or private report (page 81).

Prerequisites

- Log on to Historical Reporting. See Logging on to Historical Reporting (page 74).
- Ensure that you are familiar with defining selection criteria. See Defining the selection criteria (page 75).
- Ensure that you are familiar with scheduling reports. See Scheduling a report (page 88).
- For network consolidated reports, you can choose the network sites or filters that you created and saved. See Selecting the network sites for a network consolidated report (page 93)and Applying filters to network consolidated historical reports (page 74).
- If you edit a scheduled report, you must deactivate the schedule before you can save your changes. See Deactivating a scheduled report (page 92).

Procedure steps

Step	Action
1	In the left pane, click the server containing the report to edit.
2	Navigate to the report to edit.
	The system loads the report properties, and a series of headings appears in the right pane.
3	Click the **Report Details** heading.
	The heading expands to reveal a series of boxes.
4	In this section, you can change information in the following boxes:

- **Report Title**: The title that appears at the top of the generated report. Do not include apostrophes (') in the report title.
- **Comment**: Type comments about the report.
- **Save As**: The name of the report. All reports saved in the same folder must have unique names. This name cannot include apostrophes('). You must enter a name in this box when you save the report in a different folder. If you save the report in the same folder and do not change this name, the system overwrites the existing report with your new properties.

- **Save Location**: Select the folder in which to save the custom report. If you select Group, all members of your group have access to the report. If you select Private, only you have access to the report.

- **Time Zone**: Select the time zone in which to schedule or define the data range for this report, or accept the default time shown (the system defaults to the Contact Center Manager Server time zone). The data range depends on Contact Center Manager Server time because the server stores the data. Therefore, the system always converts the data range times that you enter to Contact Center Manager Server time.

5   Click the **Selection Criteria** heading.

The heading expands to reveal a series of boxes.

6   Specify the information to include in your report by assigning filter elements (or filters if you work with a network-consolidated report).

7   Click the **Data Range** heading.

The heading expands to reveal a series of boxes.

8   Change the time range, during which the data collects, to specify the amount of data to include in your report.

If the data range is None and disabled, the report does not require a data range.

9   Click the **Schedule** heading.

10   Indicate when and how often to generate your report.

11   Click the **Output Options** heading (only if you schedule the report). The heading expands to reveal a series of boxes.

12   Specify whether to save or print the report. You can enter e-mail addresses to where the system sends a notification to indicate if the report generates successfully.

13   Click **Save Report**.

Attention: If you click Run Now to generate an on-demand report, no property changes save.

--End--

Printing an ad hoc report

You can print an on-demand report from the Ad-Hoc Report viewer.

Before you can print the report, you must run it. You can run the report with the current properties, or you can define the selection criteria and the data range, and then run the report. See .

By default, if you do not define the selection criteria, all available data is included in the report when you run it. When you define the selection criteria, you choose only the data that you want to see.

For information about printing scheduled reports, see Defining the report output (page 82).

Prerequisites

- Log on to Historical Reporting. See Logging on to Historical Reporting (page 74).

Procedure steps

Step	Action
1	In the left pane, click the server containing the report to print.
2	Double-click the folder containing the report to print.
3	From the expanded folder, select the report.
4	In the right pane, click **Run Now** to generate the report with the properties specified.
	The Ad-Hoc Report Viewer appears and displays the generated report.

Attention: If the report spans more than one page, the first page of the report is numbered as 1+. Until you reach the last page of the report, you do not know how many pages the report has. When the next page of the report appears, the numbering changes, for example, 1 of 2+, and then to 1 of 3+, until the last page of the report appears. On the last page, the numbering changes to 1 of x, where x equals the total number of pages. For example, if the report is four pages, the numbering on the last page is 1 of 4.

5	Click the printer icon to print the report to the default printer configured on your computer.

--End--

Scheduling a report

You can schedule reports in your group and private folders to send to a file or to print, or both. You can also specify one or more e-mail addresses where you can receive notification that the report generated, or if problems occurred that prevented it from generating successfully.

You can change the properties of a public report template only by saving a copy of the template as a shared or private report. See Creating a shared or private report (page 81).

If you choose to send the report to a file, you must specify a shared folder where the Contact Center Manager Administration server sends the file. This folder can be on your computer, on another computer in the network, or on the application server. To send the file to a folder on a computer on the network, the network computer must be accessible from the Contact Center Manager Administration server. For more information, see the *Avaya Aura™ Contact Center Commissioning* (NN44400-312).

The report schedule that you define cannot start in the p.m. range and end in the a.m. range. After the system converts your selected time to Contact Center Manager Administration server time, if the converted start time is in the p.m. range and the converted end time is in the a.m. range, an error message appears. In this case, you must re-enter the schedule start and end times, taking into account the time difference with the application server.

Prerequisites

- Log on to Historical Reporting. See .
- Ensure that you are familiar with defining selection criteria. See .

Procedure steps

Step	Action
1	In the left pane, click the server containing the report to schedule.
2	Expand the folder containing the report template to use.
3	Click the folder containing the report type to schedule.
4	In the expanded folder, select the report to schedule.
5	In the right pane, click the **Report Details** heading.
6	In the **Report Title** box, type the name to appear at the top of the generated report.

Attention: If you type no new report title, the default title in this box appears at the top of the generated report. Do not include apostrophes (') in the report title.

Step	Action
7	If you save multiple copies of the same public report in your Group or Private report templates folders, change the report title to distinguish between reports.

Attention: If you do not change the report title, all copies of the same public report have the same standard title when you generate the reports.

Step	Action
8	In the **Save As** box, type the new report name.
	The name appears in the system tree. This name cannot contain an apostrophe (') and must be unique if you save the report in the same folder.
9	From the **Location** list, select the folder in which to save the report.
	You can choose either Private or Group (if you have access to a group folder).

10 From the **Time zone** list, select the time zone in which to schedule your report, or accept the system default (the time zone defaults to the time zone of the selected server).

The time zone defaults to the time zone of the selected server.

11 Click the **Selection Criteria** heading.

12 In the **Selection Criteria** area, click the **Available and Selected** headings to choose the selection criteria for the report.

13 Click the **Schedule** heading.

14 In the **Schedule** area, select the report schedule criteria.

Attention: If you select dates during which the report is to generate, the report generates for the selected dates each year for as long as the report is scheduled. For this reason, you cannot select to generate the report on February 29 in a leap year, as the following year is not a leap year.

15 Click the **Output Options** heading.

16 In the **Output Options** area, choose the report output:

- **Report output**: Choose whether to print the report, send it to a file, or both.
- **Printer**: Select the printer.
- **Paper Size**: Choose the paper size.
- **Output**: Type the path to the shared network folder in which to save the report.
- **Format**: Select the report format.
- **Save the file under a different name each time**: Save each report with a unique name. If you do not choose this option, the system overwrites the existing report.
- **Email Notification**: Select this option to receive an e-mail notification after the report generates, or if the report do not generate successfully. After, type one or more e-mail addresses in the box provided; separate the addresses with a semicolon. (**;**). You can type a maximum of 255 characters in the e-mail box.

17 Click **Save Report** to save your schedule.

18 Click **Activate** to activate the schedule.

19 To verify that the report schedule is active, select the **Scheduled Events** folder, and then locate the scheduled and activated report to view the status and properties.

--End--

Procedure job aid

Variable	Definition
start time	The time in the selected range in which to generate a report. If you select the schedule time for your report, the system converts the time that you choose to the Contact Center Manager Administration server time and gives the generated report the Contact Center Manager Administration server timestamp (if you choose a time zone other than the one in the Contact Center Manager Administration server).

Printing a report schedule

If you are an administrator logged on as webadmin, you can use the Scheduled Events window to print the schedules of all reports scheduled by you and all other users. Otherwise, you can use this window to print only the reports that you schedule.

Prerequisites
- Log on to Historical Reporting. See Logging on to Historical Reporting (page 74).

Procedure steps

Step	Action
1	In the left pane, click the **Scheduled Events** folder. The list of scheduled reports appears.
2	In the right pane, select a report, and then click **Print**.
3	In the message box that appears, select one of the following options:

- **Print**: Click Print to print the entire list of scheduled reports shown in the window.

- **Page Setup**: Use the Page Setup option to select the paper size of the printed schedules. If you choose A4 or Letter size, the Schedule Type and Status columns do not appear on the print preview or the printed copy. If you choose Legal paper size, you can preview and print all the displayed grid columns.

- **Print Preview**

--End--

Activating a scheduled report

When you first schedule a report, or when you deactivate a scheduled report, you must activate it to schedule the report again. You can activate a report in one of two ways:

- Click Activate in the Report Properties window while you view a saved, scheduled, but inactive report.

- Click Activate in the Scheduled Events window. If you log on as the administrative user webadmin, you can activate reports that another user schedules; if you log on as another user, you can activate only the reports that you schedule.

Prerequisites

- Log on to Historical Reporting. See Logging on to Historical Reporting (page 74).

- Schedule at least one report. See Scheduling a report (page 88).

Procedure steps

Step	Action
1	In the left pane, click the **Scheduled Events** folder.
2	In the right pane, select the report to activate.
3	Click **Activate**.
	The scheduled report activates and runs according to the specified schedule.

--End--

Deactivating a scheduled report

To pause the report run for a active scheduled report, deactivate the report.

You must deactivate a report schedule before you change the report properties, or before you delete the scheduled report. To resume the report on schedule, you must reactivate the scheduled report after you make the changes.

You have two options to deactivate a scheduled report:

- Click Deactivate in the Report Properties window while viewing a saved, scheduled, and activated report.

- Click De-Activate in the Scheduled Events window. If you log on as the administrative user webadmin, you can deactivate reports that another user schedules; if you log on as another user, you can deactivate only those reports that you schedule.

Prerequisites

- Log on to Historical Reporting. See Logging on to Historical Reporting (page 74).

- Schedule and activate at least one report. See Scheduling a report (page 88) and Activating a scheduled report (page 92).

Procedure steps

Step	Action
1	In the left pane, click the **Scheduled Events** folder.
2	In the right pane, select the scheduled report to deactivate.
3	Click **De-Activate**.

--End--

Selecting the network sites for a network consolidated report

When you generate reports on the Network Control Center (NCC), you must specify the sites in the network to include in the report output by choosing them in the Selection Criteria area in the Report Properties window. You can define the selection criteria for public, private, and shared reports that you schedule or generate on demand.

Prerequisites

- You must select at least one network site to run a network nodal consolidated report. You see only the selected sites data in the report.

Procedure steps

Step	Action
1	In the left pane, click the NCC server that contains the report for which to define selection criteria.
2	Expand the folder that contains the report template to use.

Attention: If you click the Public Report Templates folder, you can see only the NCC folder.

Step	Action
3	In the expanded folder, select the report to use.
4	In the right pane, click the **Selection Criteria** heading.
5	Click the **Available** heading.
6	In the **Available** table, select the check box for each site to include in the report, and then click **Update Selection Criteria**.
	The sites move to the Selected table.
7	To remove sites from the report, clear the check boxes for each site to remove, and then click **Update Selection Criteria**.
	The sites move back to the Available table.
8	Click **Run Now** to generate the report.

9	To save your changes, in the **Save As** box, type a report name, choose a save location, and click **Save Report**.

--End--

Adding the euro symbol to a custom report

To generate revenue reports containing currency symbols such as the euro symbol, you must use the Crystal Reports application to modify an existing report template or create a new report template, and then import the custom report into Contact Center Manager Administration. To import the symbol into Crystal Reports, you must copy it from Microsoft Word, and then paste it into the report template as a picture. For more information, see .

Prerequisites

- Ensure that Microsoft Word is installed.

Procedure steps

Step	Action
1	Open **Microsoft Word**.
2	From the **File** menu, select **New** to open a new document.
3	From the **Insert** menu, select **Symbol**.
4	In the **Symbol** dialog box, from the **Font** list, select (normal text).
5	From the **Subset** list, select Currency Symbols. The available currency symbols appear in the box.
6	Click the euro symbol.
7	Click **Insert**. The symbol appears in the new document.
8	In the Word document, highlight the euro symbol, and then press **Ctrl + C**.
9	In Crystal Reports, open the report template in which you want the euro symbol to appear.
10	In the template, right-click where you want the symbol to appear, and then select Paste. The symbol appears as a picture in a text box in the report.
11	Adjust the size of the text box to fit the symbol.
12	After you create or modify the report, import it into Contact Center Manager Administration.

--End--

Running a report from a different time zone

You can select the time zone to run an on-demand report or schedule report. The time zone that you select applies to the data range of the report and the report schedule. The default time zone is the time zone of the selected server.

The data range refers to the stored data in Contact Center Manager Server. Therefore, the system always converts the data range times that you enter to Contact Center Manager Server time.

In a network of contact centers, some sites in the network can be in different time zones. To schedule and run reports effectively, ensure that you know the time zones for the following two servers:

- Contact Center Manager Server
- Contact Center Manager Administration server

Prerequisites

- Log on to Historical Reporting. SeeLogging on to Historical Reporting (page 74).

Procedure steps

Step	Action
1	In the left pane, select the server that contains the report to run.
2	In the expanded list, double-click the folder that contains the report to run.
3	Select the report to run.
4	In the right pane, click **Report Details.**
5	In the **Time Zone** field, select a time zone.
6	Click **Run Now** to generate the report.

--End--

Deleting a report

You can delete reports from your private report templates folder and reports in your group folder that you create. You cannot delete public reports or shared reports that other users in your group create.

Your Contact Center Manager Administration administrator can delete other user's reports from the shared report groups. Deletions appear in the in the Audit Trail log.

Prerequisites

- Log on to Historical Reporting. See Logging on to Historical Reporting (page 74).

- Deactivate the schedule. See Deactivating a scheduled report (page 92).

Procedure steps

Step	Action
1	In the left pane, click the server from which to delete the report. The server appears to reveal a choice of Public, Private, and Group folders (if you have access to a group).
2	Navigate to the report to delete.
3	Right-click the report, and then click **Delete**.
4	In the confirmation dialog box, click **Yes**.

--End--

Expert reports

You can create user-created, or expert reports in an ODBC- or SQL- compliant application. This section describes how to create reports in Crystal Reports. The section also provides general instructions to create reports in other applications.

You can import and schedule reports in Crystal Reports only into Contact Center Manager Administration. You cannot import reports created in other applications, such as Contact Center Management Information Systems (CCMIS).

Navigation

Defining a connection to the server

To access the Avaya NES Contact Center Manager Server 6.0 database from Contact Center Manager Administration of the Avaya Aura™ Contact Center database, you must define a connection to the server and the DSN.

Prerequisites

- Have the Avaya NES Contact Center Manager Server 6.0 installed
- Sybase Open Client is installed on your Contact Center system

Procedure steps

Step	Action
1	From the **Windows Start** menu, choose **Run**.
2	Type **dsedit**, and then click **OK**.
3	Select **Server Object**, **Add**.
4	In the **Server Name** box, type a <name>.
5	Click **OK**.
6	Double-click the **Server** address.
7	Click **Add**.
8	In the **Network Address** box, type <subnet IP address>, 5000.
9	In the **Input Network Address For Protocol** dialog box, click **OK**.
10	In the **Network Address Attribute** dialog box, click **OK**.
11	Select **Server Object**, **Ping Server**.
12	Click **Ping**.
13	Click **OK**.
14	Click **Done**.
15	Choose **File**, **Exit**.

--End--

Defining the Sybase DSN

To access the Avaya NES Contact Center Manager Server 6.0 database from Contact Center Manager Administration of the Avaya Aura™ Contact Center database, you must define a connection to the server and define the Sybase DSN.

Prerequisites

- Have the Avaya NES Contact Center Manager Server 6.0 installed

- Sybase Open Client is installed on your Contact Center system

Procedure steps

Step	Action
1	From the **Windows Start** menu, choose **Administrative Tools, Data Source (ODBC)**.
2	Click the **System DSN** tab.
3	Click **Add**.
4	Select **Sybase ASE ODBC Driver**.
5	Click **Finish**.
6	In the **Data Source Name** box, type the <name>.
7	In the **Description** box, type additional information about the data source.
8	In the **Network Address** box, type <IP address>,5000.
9	In the **Database Name** box, type **blue**.
10	Click **Test Connect**.
11	In the **Login ID** box, type your <login ID>.
12	In the Password box, type your password for Contact.
13	Click **OK**.
14	In the confirmation dialog box, click **OK**.
15	In the ODBC Sybase ASE, click **OK**.

--End--

Installing the Caché ODBC driver (CCMS)

To run custom reports or SQL queries from client computers you must first install an Intersystems Caché ODBC driver on the client computer. This Intersystems Caché ODBC driver is available on the Avaya Aura™ Contact Center Release 6.0/6.1 Installation DVD.

Attention: install this driver only on client computers. Do not install this driver on contact center servers.

Prerequisites

Ensure you have the most recent version of the Contact Center Release 6.0/6.1 DVD.

Procedure steps

Step	Action
1	Insert the Contact Center Release 6.0/6.1 DVD into your client computer.

2   Navigate to the **ThirdParty\Cache ODBC Driver** folder.

3   Double click Intersystems Caché ODBC driver application **ODBCDriver_2007.1_x86.exe**.

This starts the InstallShield Wizard for Intersystems ODBC driver.

4   Click **Next** on the InstallShield Wizard for Intersystems ODBC driver.

5   Click **Install** to install the driver.

6   When the driver in installed, Click **Finish**.

--End--

Defining the Caché ODBC DSN (CCMS)

To access the Contact Center Manager Server database, you must define a connection to the server and define the Caché ODBC DSN.

Prerequisites

Make sure the Intersystems Caché port 1972 is open in the client computer firewall.

Procedure steps

Step	Action
1	From the **Windows Start** menu, choose **Administrative Tools**.
2	Launch the **Data Source (ODBC)** application.
3	Click the **System DSN** tab.
4	Click **Add**.
5	Select **Intersystems ODBC**.
6	Click **Finish**.
7	In **Name**, enter the required name of the DSN.
8	In **Description**, enter a description of the DSN.
9	In **Host**, enter the IP address or computer name of the Contact Center Manager Server.
10	In **Port**, confirm the port number is 1972.
11	In **Cache Namespace**, enter **CCMS_STAT**.
12	In the **User Name** box, type sysadmin.
13	In the **Password** box, type your reporting password.
14	Click **Test Connection** to test the connection.
15	Click **OK**.

--End--

Installing the Caché JDBC Driver

Contact Center Release 6.0/6.1 also supports JDBC connectivity to the CCMS database.

Procedure steps

Step	Action
1	Logon to the CCMS server.

2   Navigate to the CCMS installation directory. If you selected the default installation options then CCMS is normally installed at: **D:\avaya\Contact Center.**

3   Navigate to the following default folder: **D:\avaya\Contact Center\Common Components\Cache\lib\.**

4   Copy the **cacheDB.jar** file from this location to the client computer.

5   The JDBC url is **jdbc:Cache://127.0.0.1:1972/CCMS_STAT** on the CCMS server. When accessing this URL from the client computer, replace **127.0.0.1** with the IP address of the CCMS server.

6   Use the ODBC user name and password to connect to the CCMS Server.

--End--

Running the Database View Definition report

Before you create a customized report, run the Database View Definitions report to display all the database views available. This report lists all of the field names available for use in your report.

The Database View Definition report does not include views from the Contact Center Multimedia database.

Procedure steps

Step   Action

1   From the Launchpad, click on **Historical Reporting.**

2   Select the Contact Center Manager Server from which to run the report.

3   Select the **Configuration** folder in **Public Report Templates**.

4   Select **Config - Database View Definitions**.

5   Click **Run Now** to generate the report.

6   Click the **Printer** icon if you require a printout, or the **Export** icon to save the report.

--End--

Installing the Caché ODBC driver (CCMM)

To access the Contact Center Multimedia database from a report writer application, you must install the Caché ODBC driver and define the DSN. The Caché ODBC driver is supplied on the DVD.

Procedure steps

Step	Action
1	Insert the DVD in your DVD drive.
2	Select the **CCMM\CacheODBCSoftware** folder.
3	Double-click the **ODBCDriver.exe** file.

--End--

Defining the DSN (CCMM)

To access the Contact Center Multimedia database from a report writer application, you must install the Caché ODBC driver and define the DSN.

Procedure steps

Step	Action
1	From the **Windows Start** menu, choose **Administrative Tools**.
2	Start the **Data Source (ODBC)** application.
3	Click the **System DSN** tab.
4	Click **Add**.
5	Select **Intersystems ODBC**.
6	Click **Finish**.
7	Enter information into the following boxes: **Name**: The name for the data source. For example, CCMM_47.10.25.3_DSN. **Description**: (Optional) Additional information about the data source. **Host**: Enter the IP address or computer name of the Contact Center Multimedia server. **Port**: Leave at the default (1972). **Cache Namespace**: MULTIMEDIA
8	In the **User Name** box, type mmExternal.
9	In the **Password** box, type mmExt.
10	Click **Test Connection**.
11	Click **OK**.

--End--

Creating a report and connecting to the database (Crystal)

You can create new reports using Crystal Reports. To report on multiple time frames using the same database view, you must create a report for each time frame.

Prerequisites

- Ensure you know how to use Crystal Reports. Avaya recommends that you direct your questions about Crystal Reports to your Crystal Reports vendor.

- You must have a user ID or password for Contact Center Manager Administration Server. Contact your system administrator for the information.

Procedure steps

Step	Action
1	From the **Start** menu, choose **All Programs**, **Crystal 11**.
2	Select **Using the Report Wizard** option, and then click **OK**.
3	If the **Crystal Reports Welcome** dialog box does not appear, select **File**, **New**.
4	Select **Standard**, and then click **OK**.
5	Expand the **Create New Connection** folder, and then select **ODBC (RDO)**.
6	Click **Next**.
7	From the **Data Source Name** box, select the <ODBC entry> for the server.
8	In the **User ID** box, type the <user ID>.
9	In the **Password** box, type the password for Contact Center Manager Server.
10	From the **Database** list, select **blue**.
11	Click **Finish**.
12	Expand **Current Connection**, **<OBDC entry>**, **blue**, **dbo**, **Views**.
13	Select each view to include in the report, and click the right arrow button (>). Ensure you use views and not tables when you create the report.
14	Click **Next**.
15	From the **Available Fields** list, select fields to display on the report and click the right arrow button (>).
16	Click **Next**.
17	From the **Available Fields** list, select the fields you want to group data by, and click the right arrow button (>).
18	Click **Next**.
19	Select the template required.
20	Click **Finish**.

--End--

Variable definitions

Variable	Value
ROD	Remote Data Object
<ODBC entry>	Server application name and IP address (for example, CCMS_47.10.25.3_DSN)
<user ID>	User ID that corresponds to a user account created in Contact Center Manager Server (not a Windows 2000 ID defined on the Contact Center Manager Server.)

Changing a database alias

A database alias is a name that represents a database view in the report definition. If you use an alias rather than a view name, you can easily change the view used by a report.

Procedure steps

Step	Action
1	From the Crystal Reports window, choose Database, Database Expert.
2	In the Selected Tables box, select the database view for which to create an alias name.
3	On your keyboard, press **F2**.
4	Enter the new alias.
5	Clear the database view to save the new name.

--End--

Example

You can create a user-defined daily report. If you want an interval report with identical fields, you can copy the daily report and change the database alias to point to an interval view.

Click on dAgentPerformanceStat under Selected Tables. In the edit box, enter iAgentPerformanceStat. Clear the database view. The view is now renamed iAgentPerformanceStat.

Setting the page orientation

The default page orientation for the report is the same as the default page orientation for the printer. You change the page orientation for the report, and the printer default orientation remains the same.

Avaya recommends that you select a page orientation for the report that differs from that of the printer. See *Performance Management Data Dictionary* (NN44400-117).

Procedure steps

Step	Action
1	In **Crystal Reports**, from the **File** menu, select **Printer Setup**.
2	Select an **Orientation** option for the report.

--End--

Creating reports using Microsoft Excel

If the application supports importing data using ODBC, use the application, such as Microsoft Excel, for report creation. After creating the report, you can format and print the imported data using features within Microsoft Excel.

Prerequisites

- A connection to the server must be defined. See Defining a connection to the server (page 98).

Attention: The steps in this procedure refer to Microsoft Excel 2002 only. The steps required can vary from different versions of this application. Refer to the application documentation for details about how to import data.

Procedure steps

Step	Action
1	Open Microsoft Excel.
2	Choose **Data**, **Import External Data**, **New Database Query**.
3	Select the <ODBC entry> defined for the server.
4	Ensure that the **Use the Query Wizard to create/edit queries** option is selected.
5	Click **OK**.
6	If required, in the **Logon to Sybase ASE** window, enter the logon ID and Password.
7	Click **OK**.
8	Select the columns to include in the report. To filter the data by a specific column, you must include that column in the query.

9	Click **Next**.
10	Select the columns and choose how to filter the data. This step is optional.
11	In the **Query Wizard-Filter Data** box, click **Next**.
12	Select the columns used to sort the data. This step is optional.
13	In the **Query Wizard-Sort Order** box, click **OK**.
14	Select the **Return data to Microsoft Excel** option.
15	Click **Finish**.
16	Select where to import the data returned from the query. The data can be imported into a new worksheet or imported into the current worksheet. When importing data into the current worksheet you can select the starting row and column for the data.
17	Click **OK**.
18	Select **File**, **Save**.

--End--

Variable definitions

Variable	Value
<ODBC entry>	Server application name and IP address (for example, CCMS_47.10.25.3_DSN)

Creating reports using Microsoft Access

If the application supports importing data using ODBC, use the application, such as Microsoft Excel, for report creation.

Prerequisites

- A connection to the server must be defined. See Defining a connection to the server (page 98).

Attention: The steps in this procedure refer to Microsoft Access 2002 only. The steps required can vary from different versions of this application. Refer to the application documentation for details about how to import data.

Procedure steps

Step	Action
1	Open Microsoft Access.
2	Open an existing database file or create a new blank database.
3	Select **File**, **Get External Data**, **Import**.

4   In the **Import** window, select **ODBC Database** from the **Files of type** dropdown list.

5   In the **Select Data Source** window, click on the **Machine Data Source** tab.

6   Select the <ODBC entry> defined for the server.

7   Click **OK**.

8   If required, in the **Logon to Sybase ASE** window, enter the Login ID and Password.

9   Click **OK**.

10   From the **Import Objects** window, select the tables to import into the Microsoft Access database.

11   Click **OK**.

              You can now use the features available in

              Microsoft Access to format the imported data and to create reports. The time to import the data depends on the amount of data stored in the selected tables.

12   For this example, select **Insert**, **Report**.

13   From the **New Report** window, select **Report Wizard**.

14   From the **Choose the table or query where the object's data comes from** the list, select the table to use for the report.

15   Click **OK**.

16   Select the fields to include on the report from the list of available fields.

17   Click **Next**.

18   To add groups to the report, click **Grouping Options** to set the options for the selected groups. Otherwise proceed to step 21.

19   Select the grouping intervals for each of the selected group-level fields.

20   Click **OK**.

21   Click **Next**.

22   If required, select the fields used to sort the data on the report.

23   If required, select the direction for sorting using the **Ascending/Descending** button.

24   Click **Summary Options** to add summaries to the report. If you add no summaries to the report, proceed to step 28.

25   Select the summary fields to include.

26   Select the data shown on the report.

27   Click **OK**.

28   Click **Next**.

29   If required, select the layout and page orientation for the report.

30   Click **Next**.

31   If required, select the report style.

32   Click **Next**.

33 Enter a name for the new report.

34 Select the **Preview the report** option.

35 Click **Finish**.

36 Use the Design View feature of Microsoft Access to edit the report created by the Report Wizard.

--End--

Variable definitions

Variable	Value
<ODBC entry>	Server application name and IP address (for example, CCMS_47.10.25.3_DSN)

Saving a report template in Crystal Reports 11

To import user-created Crystal reports 11 templates into CCMA server, you must save the templates on your local hard drive.

Prerequisites

• Install Crystal Reports 11 on your local hard drive.

Attention: Do not install Crystal Reports 11 software on the Contact Center Manager Administration Server.

Procedure steps

Step	Action

1 Copy all your custom report templates created in Crystal 8.5 or earlier versions in the <OldVersionTemplates> directory.

2 Create a new directory named Crystal11Templates.

3 Start Crystal Reports 11.

4 Select **File**, **Open**.

5 Select the <OldVersionTemplates> directory.

6 Select the required report file and click **Open**.

7 Select **File**, **Save As**.

8 Navigate to the **Crystal11Templates** folder.

9 Select **Save**. To save additional Crystal Report templates, repeat step 4 to step 9.

--End--

Variable definitions

Variable	Value
\<OldVersionTemplates\>	Name of the directory you select on your local hard drive

Importing a user-created Crystal Report

To access a user-created Crystal Report template, you must import the report template from Contact Center Manager Server into Contact Center Manager Administration.

Prerequisites

- You must create the report in Crystal Reports.

- Data sources, in Report templates, must reference to the Contact Center Manager Server database.

- You must define the parameter fields in the main report for user-created parameterized reports with subreports.

- Use the Historical Reporting Template Importing Wizard.

Attention: Risk of data loss. Do not move the template filter after you import the report. If you move the file, the server cannot find the report and you must import it again.

Procedure steps

Step	Action
1	From the Launchpad, click **Historical Reporting**.
2	Select the Contact Center Manager Server from which you require to run the report.
3	On the menu, click **Report**, **Import**.
4	On the **Template Importing Wizard** dialog box, click **Next**.
5	(Optional) Select the **Synchronize report template from the network drive** check box.
6	In the **Directory and folder name** field, type \\NetworkPCname\\\<SharedFolder\>\\ \<ReportTemplate\>
7	Enter the template name.
8	From the **Report is based on the following data** list, select a value.
9	If you select Configuration or Parameters, proceed to step 11; if you select Historical, enter the database alias.

10	In the **Timestamp** box, type **Timestamp** (ensure you type a capital T or the report does not run).
11	Select the **Report Data Range** option.
12	Click **Next**.
13	Click **Finish**.

--End--

Variable definitions

Variable	Value
<SharedFolder>	The folder name in which you save the report templates
<ReportTemplate>	The required report template

Linking subreport Timestamp fields

To import user-created reports that contain subreports, you must link the Timestamp fields in the subreports to the container report.

The position of the linked subreport on the container report is important to ensure that all subreports run for each of the Timestamps on the container report. To ensure that each Timestamp in the container report is passed into the subreports, all linked subreports appear in the details area of the container report.

Prerequisites

- Use a Historical report.
- View a container report.

Attention: Subreports generate reports for each Timestamp field, rather than for a time interval passed to the main report.

Procedure steps

Step	Action
1	In the container report, choose **Edit**, **Subreport Links**.
2	Select the first subreport from the list.
3	In the Available Fields box, select the container report Timestamp field used to import the report.
4	Select the right arrow button (>) to move the Timestamp to the **Field(s) to link** to list.

    5   In the Subreport Links window, select the **Select data in subreport based on field** checkbox.

    6   To add additional subreports, repeat step 2 to step 5. Otherwise, click **OK**.

<div align="center">

--End--

</div>

Adding customized formulas to a report (Crystal)

To a customize a Crystal Report, you can customized and special formulas in your report.

Prerequisites

- Ensure you understand the special formulas defined for use with Contact Center Manager Server.

Procedure steps

Step   **Action**

1   In Crystal Reports, open the report you want to customize.

2   In the field explorer, right-click **Formula Fields**.

3   Select **New**.

4   Type the name of the formula.

5   Click **User Editor**.

<div align="center">

--End--

</div>

Procedure job aid

Special formulas defined for use with CCM

Formula	Definition
@report_interval	The collection period for the report.
@report_title	the title of the report, as defined on the General-Report property page.
@report_user	The logon ID of the user who printed the report.
@site_id_name	The name of the site.
@report_language	The default language used by CCM to present translated files to a report (for example English United States is en-us.
	If the preferred language is not available, CCM defaults to en-us.

Special formulas defined for use with CCM

Formula	Definition
@report_datarange	The numeric value related to the data range selected in the Historical Reporting application.
	Five possible values exist:
	• 0 =Not applicable
	• 1 =Interval
	• 2 = Daily
	• 4 = Weekly
	• 8 = Monthly
@report_tablenames	The string representing table names used to generate the report.
	If more than one table is used, a comma separates the tables.
@report_interval_start	DateTime object representing the collection period end date and time for report.
@report_interval_end	DateTime object representing the collection period end date and time for report.

For more information about formulas, see the Formula Editor topic, in the Crystal Reports online Help. (This topic is available from the Help Index. Search for formula editor.)

Creating a custom report

When you send reports to Record format, some data is not exported. To export this data to Record format, create a new custom report.

Prerequisites

- You must know the name and location of the report template to update.
- You must know the name of the database table the template uses.
- Ensure a folder to store custom reports exists.

Procedure steps

Step   Action

1   Open Windows Explorer.

2   Browse to the path specified in the report folder, and then select the template file.

3   Choose **Copy**, **Edit**.

4   Select the folder containing the custom reports.

5   Choose **Edit**, **File**.

6   Rename the template file.

7   Use Crystal Reports to open the newly named template file.

8   Choose **Report**, **Expert**.

9   In the **Sections** list, select a section to include in the report.

10   If the **Suppress (No Drill-Down)** or **Hide (Drill-Down Ok)** check boxes appear as selected, clear them.

11   If the **Suppress (No Drill-Down)** or **Hide (Drill-Down Ok)** properties have a formula, click the button; otherwise proceed to step.

12   Delete the formula.

13   Click the **Save and close** icon.

14   Import the report.

15   Under report is based on the following data, select the report type. If the original name contains config, select Configuration. For other reports, select **Other Statistical data**.

16   If you select **Other Statistical data**, enter the table name (or view) in step 1, and replace the first character with the letter i (i).

--End--

Statistics configuration

The Report Creation Wizard includes a number of formulas that you can use when you create reports. In addition, you can define custom formulas. After you define a formula, you can use it in multiple reports.

Prerequisites to statistics configuration

- Ensure that you are familiar with Formula Editor.

Navigation

Creating custom formulas

Use the Formulas window to create custom real-time statistics fields by combining existing statistics fields with mathematical operators. You can then save these custom statistics fields as formulas and use the formulas in your private Real-Time Reporting displays. For example, you can create a custom formula to calculate the service level.

Procedure steps

Step	Action
1	Log on to the **Configuration** component.
2	In the left pane, click the server on which to create the formula.
3	Select the **Formulas** folder.
4	In the right pane, in **Available Formulas** box, type the name of the new formula.
5	From the **Statistics Group** list, select the statistics group that contains the statistics field to include in your formula.
6	Press **Enter** to display the **Formula Editor**.
7	In the **Comment** box, type information about the formula (optional).
8	From the **Variables** list, select the variable to use in the formula. The variable appears in the Formula box. When you select a variable, it appears in the Formula box with a percent symbol (%) preceding it. The percent symbol identifies it as a variable; it is not a mathematical operator.
9	On the numeric keypad, press a number to apply to the formula.
10	After you select a mathematical operator, you can select another variable to add to the formula.
11	To use the higher or lower of two values in your formula, click **Max** or **Min**.
12	After you create the formula, click **Save**.
13	Click **Close** to close the Formula Editor.

--End--

Variable definitions

Variable	Definition
Available Formulas	Type a name for the custom formula.
	To edit an existing formula, double-click the formula name in the Available Formulas column. The Formula Editor appears, listing the Formula components.
Statistics Group	Select the statistic group for the formula. Statistics groups are sets of related statistics defined in the database, such as agent statistics or skillset statistics.
Formula Name	The name of the formula you enter in the Available Formulas box in the Formulas window appears in the Formula Name box. You can change formula name in the Formula Editor. Click Save to save your changes.
Comment	Type additional information about your custom formula. Click Save to save your comments.
Formula	The variables and mathematical operators that you choose for your custom formula. You can add new variables and operators, or edit the existing ones. Click Save to save your changes.
Variables	The existing statistics fields that you can combine to create custom formulas. After you create a formula, you can apply it to your private Real-Time Reporting displays to control the type of data that you see.
	From the Variables list, select the variables to add to your custom formula. After you select a variable, you must choose a mathematical operator (/, *, -, or +) before you can select another variable, or before you can enter a numeric value.
	When you select a variable, it appears in the Formula box with a percent symbol (%) preceding it. The percent symbol identifies it as a variable; it is not a mathematical operator.
Numeric keypad buttons	Add mathematical operators and numeric values to your custom formulas.
	• **Back Space**: Removes the last item that you enter in your formula. To remove more items, you must click C to clear the entire formula.
	• **C**: Clears the entire formula from the Formula box.
	• **/**: Divides the variables in the formula.
	• *****: Multiplies the variables in the formula.
	• **-**: Subtracts the variables in the formula.
	• **+**: Adds the variables in the formula.
	• **,**: Separates the Max and Min variables in the formula.
	After each variable, you must select a mathematical operator before you select another variable.
(1 of 2)	

Variable	Definition
Max and Min buttons	Use the Max and Min buttons to use the higher of two values (Max), or the lower of two values (Min) in your formula.
	When you click Max or Min, brackets appear in the Formula box. In these brackets, add the two values to compare, separated by a comma.
	The format must be as follows: Max[a,b]: a can be one variable, or two variables separated by an operator, and b can be one variable, or two variables separated by an operator.
	For example, for the following formula Max[Agent_Available+Agent_Not_Ready, Agent_In_Service+Agent_On_This_Skillset_Call], the system calculates the values for Agent_Available+Agent_Not_Ready and for Agent_In_Service+Agent_On_This_Skillset_Call, and uses the higher of the two values in the formula. If you use Min in this example, the system calculates the lower of the two values.
Save button	Click Save to save changes you make in the Formula Editor.
Close button	Click Close to exit the Formula Editor.
	To save your changes, click Save before you close the Formula Editor
(2 of 2)	

Example of creating a custom formula

You can create a formula for a service level. The formula can be up to 250 characters.

Creating a custom formula

Step   Action

1   In the **Available Formulas** box, type CallsAnswered.

2   From the **Statistics Group** list, select **Application**.

3   Press **Enter**.

4   In the **Formula Editor**, from the **Variables** list, select **Calls_Answered**.

5   On the numeric keypad, click minus sign (-).

6   From the **Variables** list, select **Calls_Answd_Aft_Threshold**.

7   On the numerical keypad, press the division symbol (/).

8   From the **Variables** list, select **Calls_Answered**.

9   Click **Save**.

10   Click **Close**.

--End--

Modifying custom formulas

To update previously created custom formulas, modify custom formulas.

Procedure steps

Step	Action
1	Log on to the **Configuration** component.
2	On the system tree in the **Configuration** component, double-click the server containing the formula to delete.
3	Select the **Formulas** folder.
4	In the **Available Formulas** column, double-click the name of the formula to edit.
5	To add a new variable, in the **Formula Editor**, click an operator (/,*,$-$,+).
6	In the **Variables** list, select a new variable.
7	To delete an element from the formula, in the **Formula** box, select the element.
8	Press **Delete**.
9	Click **Save**.

--End--

Deleting a custom formula

Delete formulas you no longer require.

If you delete a formula that you use in a real-time display, the column in the display appears blank.

Procedure steps

Step	Action
1	Log on to the **Configuration** component.
2	On the system tree, in the **Configuration** component, double-click the server containing the formula to delete.
3	Select the **Formulas** folder.
4	In the table, select the formula to delete.
5	Press **Delete**.
6	In the confirmation dialog box, click **Yes**.

--End--

Configuring historical statistics data collection

You can configure the following historical statistics collection options:

- the general system parameter values, such as the number of skillsets
- the type of call flow, agent, and IVR historical statistics to collect
- the collected applications for call-by-call data
- the length of time that historical statistics remain on Contact Center Manager Server

You must calculate the amount of required disk space to run your selected configuration and specify the first business day of the week.

Procedure steps

Step	Action
1	Log on to the **Configuration** component.
2	In the left pane, click the server on which to configure historical statistics.
3	Select the **Historical Statistics** folder.
4	In the **Parameters** table, for each parameter, type the value to configure, ensuring that the value is less than or equal to the purchased value, and greater than or equal to the measured value. When you choose a value, allow for future growth.
5	In the **Collect the following statistics** table, for each statistic type, in the **Collect** column, select the check box for each statistic to collect.
6	In the **Call-by-Call** table, for each application, from the **Statistics Collection Method** list, select the type of calls for which to collect call-by-call statistics.
7	In the **Duration** table, for each type of statistic, enter the amount of time the statistic is stored on the server.
8	From the **Business week starts** list, select the day on which to accumulate weekly statistics.
9	Click **Calculate** to determine if you have sufficient disk space available for the selected historical statistics collection configuration. The disk space requirements for the selected configuration appear in the Call-by-Call Database and CSR Database and System Database Required boxes. The available disk space appears in the Call-by-Call Database and CSR Database and the System Database Actual boxes.
10	Click **Submit** to save your changes.

Attention: If the disk space required is greater than the disk space available, you must lower the number of days the data is stored, or you must change the number of estimated calls for each hour until sufficient disk space exists for your configuration.

--End--

Configuring historical statistics collection on the NCC

You can choose the length of time to store network call-by-call statistics at the Network Control Center (NCC). Your configuration determines the following items:

- the amount of data included in your network call-by-call reports
- the amount of disk space required on the NCC

Prerequisites

- Ensure that the number of days to store network call-by-call data is synchronized with the Historical Statistics Configuration for each server in the network. See .

Procedure steps

Step	Action
1	Log on to the **Configuration** component.
2	In the left pane, click the NCC server.
3	Click the **Network Historical Statistics** folder.
4	In the right pane, in the **Keep Network Call-by-Call data for** box, type the number of days to store network call-by-call data on the NCC.
5	In the **Network call rate** box, type the estimated number of calls networked out for each hour (routed from one site to another).
6	Click **Submit** to calculate the disk space that the call-by-call database requires for your configuration.

The required disk space appears in the Required text box. The available disk space appears in the Actual text box. |

Attention: If the disk space required is greater than the disk space available, you must lower the number of days the data is stored, or you must change the number of estimated calls for each hour until sufficient disk space exists for your configuration.

--End--

Configuring real-time statistics collection

To use the Real-Time Reporting feature of Contact Center Manager Administration, you must first configure Contact Center Manager Server to collect the types of statistics to see in the Real-Time Reporting displays. You can configure the following seven types of predefined real-time statistics:

- skillset statistics (mandatory)

- nodal statistics (mandatory)

- application statistics

- IVR statistics (Avaya Communication Server 1000)

- route statistics (Avaya Communication Server 1000 PABX only)

- agent statistics

- network statistics (Avaya Communication Server 1000 PABX only)

For each of these real-time statistics, you must indicate the viewing mode (moving window or interval-to-date). The interval-to-date settings that you choose start immediately and apply to all real-time displays at all sites on your network that use the interval-to-date mode.

Procedure steps

Step	Action
1	Log on to the **Configuration** component.
2	In the left pane, select the server on which to configure the real-time statistics.
3	In the right pane, select the viewing mode for the following statistics:

- **Skillset Statistics**: You must select a viewing mode value for this statistic. The system automatically collects this required statistic for Intrinsics in writing scripts.

- **Nodal**: You must select a viewing mode value for this statistic. The system automatically collects this required statistic for Intrinsics in writing scripts.

- **Application Statistics**: Optional.

- **IVR Statistics**: Optional.

- **Route Statistics**: Optional. Available on an Avaya Communication Server 1000 PABX only.

- **Agent Statistics**: Optional.

- **Network Statistics**: Optional. Available on an Avaya Communication Server 1000 PABX only.

| 4 | In the **Data Collection Interval** boxes, type the interval duration to use in the interval-to-date data collection mode. |
| 5 | In the **One of the intervals starts at** box, type the start time for statistics collection in the interval-to-date data collection mode. |

The system calculates and synchronizes the days remaining intervals based on the time that you specify. Your changes take effect immediately.

6   Click **Submit** to save your changes.

--End--

Report Creation Wizard

Report Creation Wizard is a Web-based interface in which you can create and edit reports. You can import and schedule the reports in Historical Reporting. You can access Report Creation Wizard from the Historical Reporting component of Contact Center Manager Administration.

Navigation

Starting Report Creation Wizard

To access Report Creation Wizard, start this application.

Prerequisites

- Ensure that you have a license for Report Creation Wizard.

Procedure steps

Step	Action
1	Log on to Contact Center Manager Administration.
2	From the launchpad, click **Historical Reporting**.
3	In the left pane, click the Contact Center Manager Server on which to create, edit, or view the Report Creation Wizard report.
4	From the **Report** menu, select **Report Creation Wizard**.

--End--

Opening an existing report

Select the Open Existing Report option to open an existing report. After you select this option, a navigation tree appears. Navigate to the report to open. You can choose from previously created reports or from a list of sample reports.

Prerequisites

- Start Report Creation Wizard.

Procedure steps

Step	Action
1	From the **Report Type** window, select the **Open Existing Report** option.
2	Click the folder that contains the report to open.
3	From the list of reports, select the report.
4	Click **Next**.

--End--

Creating a simplified report

Select the Create Simplified Report (via Report Definitions) option to use one of the report definitions available with Report Creation Wizard.

If you choose to create a simplified report, you can choose from a list of standard report definitions in the Data Source window. The Data Source window lists the available report definitions based on the server type selected. If the contact center is multimedia enabled, the multimedia report definitions are also available.

Prerequisites

- Start Report Creation Wizard. See Starting Report Creation Wizard (page 126).

Procedure steps

Step	Action
1	In the **Report Type** window, select the **Create Simplified Report (via Report Definitions)** option.
2	In the **Data Source** window, click the **Report Definitions** folder.
3	Navigate to the folder that contains the report definition to open.
4	Click **Next**.
5	In the **Field Selection** window, In the **Fields** list, double-click a field or formula to add to the report.

The selected field or formula is moved from the Fields list to the Fields Selected list.

By default the table name is appended to the field name after you add the field to the Fields Selected list. To remove the table name, click the **Toggle Table Name** icon.

Attention: If you remove a field from the Field Selection page, the field is removed only from the Details section, not from any other section.

6	To change the order of the selected fields, use the up and down arrows.
7	To modify the properties of a selected field, in the **Selected Fields** list, click a field, and then in the **Width** box, type a new width.

A default width of 50 pixels applies to all selected fields. The Title box is a read-only field.

8	Click **Next**.
9	To select a field to group by, in the **Grouping** window, from the **Fields** list, double-click a field or formula.

The selected field or formula moves to the Group by list.

10	To accept the default properties of the selected fields and formulas, proceed to step 23.
11	To modify the properties of a group field, from the **Group by** list, select a field.
12	From the **Sort Order** list, select a sort order.
13	From the **The section will be printed** list, select a length of time that defines when the group changes.

Attention: This option is available only for Date, Time, and DateTime fields. It determines when the group prints. For example, selecting for each hour groups records together for each hour, and calculates group summaries for each hour.

14   Click **Next**.

15   In the **Summaries** window, from the **Fields** list, select a field.

16   From the **Summation Type** list, select a summation type.

As you select the fields in the Fields list, the Summation Type list dynamically updates to show the types available for the selected field.

17   From the **Groups** list, select the check box for each report section in which the summary appears on the report.

18   Click **Add**.

The summary appears in the Summary Data list.

19   Click **Next**.

20   In the **Report Layout** window, view or modify the report.

21   On the toolbar, click the **Save Report** icon.

22   In the **Save RCW Report** dialog box, choose a folder in which to save the report.

23   In the **Report Name** box, enter a name for the report.

24   Click **Save**. You can save the report after you select at least one field.

--End--

Example of creating a sample simplified Agent by Skillset Performance report

You can create various report types, such as an Agent by Skillset Performance report.

Creating a sample Agent by Skillset Performance report

Step   Action

1   In the Report Type window, select the **Create Simplified Report (via Report Definitions)** option.

2   Click **Next**.

3   In the **Data Source** window, under the **Report Definition**s folder, expand the **CS1000** folder, and then expand the **Agent Performance** folder.

4   In the **Agent Performance** folder, select the **Agent By Skillset Performance Stats** report definition.

5   Click **Next**.

6   In the **Field Selection** window, from the **Fields** list, expand the **iAgentBySkillsetStat** heading.

7   From the **iAgentBySkilsetStat** list, double-click the following fields in the order listed:

- **Skillset**

- **Timestamp**

- **Time**

- **AgentLogin**

8   From the **Fields** list, expand the iAgentBySkillsetStat Formulas heading.

9 From the **iAgentBySkillsetStat Formulas** list, double-click **@RCW_AgentName**.

10 From the **iAgentBySkilsetStat** view, double-click **CallsAnswered**.

11 In the **iAgentBySkillsetStat Formulas** list, double-click **@RCW_TalkTime**.

Each selected field and formula moves from the Fields list to the Fields Selected list.

12 Change the width for the following selected fields:

Selected field	Width
iAgentBySkillsetStat.Skillset	200
iAgentBySkillsetStat.Timestamp	200
iAgentBySkillsetStat.AgentLogin	80
iAgentBySkillsetStat.@RCW_AgentName	120
iAgentBySkillsetStat.CallsAnswered	80
iAgentBySkillsetStat.@RCW_TalkTime	80

13 Click **Next**.

14 In the **Grouping** window, from the **Fields** list, expand the **iAgentbySkillsetStat** heading, and then double-click the following fields to group by:

- **Skillset**

- **Timestamp** (represents the date and time)

Each selected field moves from the Fields list to the Group by list.

The @RCW_TalkTime formula is not available because it is a dynamic formula.

15 From the **Group by** list, select **iAgentbySkillsetStat.Timestamp**.

16 From the **This section will be printed** list, select **for each hour**.

Attention: This option is available only for Date, Time, and DateTime fields and defines when the group changes.

17 Click **Next**.

18 In the **Summaries** window, from the **Fields** list, expand the **iAgentBySkillsetStat** heading.

19 From the **iAgentBySkillsetStat**, select **CallsAnswered**.

20 From the **Summation Type** list, select **Sum**.

21 From the **Groups** list, select the following check boxes:

- **Report Footer**

- **Group Footer #1**

- **Group Footer #2**

22 Click **Add**.

A CallsAnswered summary for the Report Footer, Group Footer #1, and Group Footer #2 appears in the Summary Data list.

Footer 1 generates a total for all data selected, Group Footer 1 generates a total for each selected skillset, and Group Footer 2 generates a total for each selected timestamp.

23   From the **Fields** list, expand the **iAgentBySkillsetStat Formulas** heading.

24   From the **iAgentBySkillsetStat Formulas** list, select **@RCW_TalkTime**.

25   From the **Groups** list, select the following check boxes:

- **Report Footer**
- **Group Footer #1**
- **Group Footer #2**

26   Click **Add**.

A@RCW_TalkTime summary for the Report Footer, Group Footer #1, and Group Footer #2 appears in the Summary Data list.

Footer 1 generates a total for all data selected, Group Footer 1 generates a total for each selected skillset, and Group Footer 2 generates a total for each selected timestamp.

27   Click **Next**.

28   In the **Report Layout** window, double-click the **Group Footer #1** section.

The section bar changes color from blue to purple and expands to reveal the summary fields in this section.

29   In the **Group Footer #1** section, click **CallsAnswered**.

The Object Properties page appears on the left.

30   On the **Object Properties** page, in the **Width** box, type **80**.

31   In the **Group Footer #1** section, click **@RCW_TalkTime**.

32   On the **Object Properties** page, in the **Width** box, type **80**.

33   Double-click the **Group Footer #2** section.

34   In the **Group Footer #2** section, modify the following **Object Properties**.

Group Footer #2 field	Width
CallsAnswered type	80
@RCW_TalkTime type	80

35   Double-click the **Report Footer** section.

36   In the **Report Footer** section, modify the following **Object Properties**.

Report Footer field	Width
CallsAnswered type	80
@RCW_TalkTime type	80

37   Click the **Group Footer #1** section.

38   Click the **Add Text Field** icon on the toolbar.

39   On the **Object Properties** page, modify the following properties:

- In the **Title** box, type **Skillset**.
- In the **Width** box, type **80**.
- In the **Height** box, type **20**.
- In the **Left** box, type **300**.
- In the **Top** box, type **3**.
- From the **Text Align** list, select **Right**.
- Select the **Bold** check box.

40   Click the **Group Footer #2** section.

41   Click the **Add Text Field** icon on the toolbar.

42   On the **Object Properties** page, modify the following properties:

- In the **Title** box, type **Timestamp**.
- In the **Width** box, type **80**.
- In the **Height** box, type **20**.
- In the **Left** box, type **300**.
- In the **Top** box, type **3**.
- From the **Text Align** list, select **Right**.
- Select the **Bold** check box.

43   Click the **Report Footer** section.

44   Click the **Add Text Field** icon on the toolbar.

45   On the **Object Properties** page, modify the following properties:

- In the **Title** box, type **Totals**.
- In the **Width** box, type **80**.
- In the **Height** box, type **20**.
- In the **Left** box, type **300**.
- In the **Top** box, type **3**.
- From the **Text Align** list, select **Right**.

- Select the **Bold** check box.

46 Double-click the **Page Header** section.

47 In the **Page Header** section, click **Time**.

48 On the **Object Properties** page, modify the following properties:

- From the **Font Color** list, select **Purple**.

- Select the **Underline** and **Bold** check boxes.

49 In the **Page Header** section, modify the following **Object Properties**.

Page Header field	Title	Width	Font Color	check boxes
AgentLogin	Agent Login	80	Purple	Bold
				Underline
@RCW_AgentName	Agent Name	120	Purple	Bold
				Underline
CallsAnswered	Calls Answered	80	Purple	Bold
				Underline
@RCW_TalkTime	Talk Time	80	Purple	Bold
				Underline

50 Double-click the **Group Header #1** section.

51 In the **Group Header #1** section, click **Skillset**.

52 On the **Object Properties** page, modify the following properties:

- From the **Font Color** list, select **Blue**.

- Select the **Bold** check box.

53 Double-click the **Group Header #2** section.

54 In the **Group Header #2** section, click **Timestamp**.

55 On the **Object Properties** page, modify the following properties:

- From the **Font Color** list, select **Blue**.

- Select the **Bold** check box.

56 On the toolbar, click **Save**.

57 In the **Save RCW Report** window, select a folder in which to save the report.

58 In the **Report Name** box, type **Agent By Skillset Performance.rpt**.

Attention: Avaya recommends that you use a name different from the standard report definitions to quickly identify that it is a custom report and to determine the type of data that the report generates.

59 Click **Save**.

--End--

Creating an advanced report

Select the Create Advanced Report (via ODBC) option to use an ODBC DSN. You can choose a combination of views from the data source. However, the views must include a common key field. This option provides the maximum flexibility, but it also requires that you understand the database structure with which you work.

Prerequisites

- Start Report Creation Wizard. See Starting Report Creation Wizard (page 126).

- Ensure that you are familiar with Report Creation Wizard.

- Configure the DSNs on the Contact Center Manager Server.

- Ensure that you understand table linking and joins.

Procedure steps

Step	Action
1	In the **Report Type** window, select the **Create Advanced Report (via ODBC)** option.
2	In the **Data Source** window, from the **DSNs Available** list, double-click a DSN.
	The selected DSN moves to the DSNs Selected list.

Attention: You can select only one DSN system type, for example, a CCMS or CCMM DSN.

Step	Action
3	The User ID and Password boxes automatically contain the values you enter during the server configuration. You can change the user ID and password, but these changes apply only if you create the report. If you generate the report in Historical Reporting, Historical Reporting uses the values you enter during the server configuration.
4	Click **Next**.
5	In the **Table Selection** window, from the **Tables Available** list, double-click a table.
	The table moves from the Tables Available list to the Tables Selected list.
6	To add another table, repeat step 5.
7	Click **Next**.
8	If you select one table only, proceed to step 14.

9 If you select more than one table, in the **Table Linking** window, from each of the left and right **Tables** lists, select a table.

10 From each of the left and right **Fields** lists, select a field to join.

Attention: The selected field in the right Fields list must contain the same data as the selected field in the left Fields list.

11 From the join list, select a join type and click **Link**.

The selected tables, field, and join type appear in the Links list.

12 To remove an item from the **Links** list, select the item and click **Remove**.

13 Click **Next**.

14 In the **Field Selection** window, In the **Fields** list, double-click a field or formula to add to the report.

The selected field or formula moves from the Fields list to the Fields Selected list.

By default the table name is appended to the field name after you add the field to the Fields Selected list. To remove the table name, click the Toggle Table Name icon.

Attention: If you remove a field from the Field Selection page, the field is removed only from the Details section, not from any other section.

15 To change the order of the selected fields, use the up and down arrows.

16 To modify the properties of a selected field, in the **Selected Fields** list, click a field, and then in the **Width** box, type a new width.

A default width of 50 pixels applies to all selected fields. The Title box is a read-only field.

17 Click **Next**.

18 To select a field to group by, in the **Grouping** window, from the **Fields** list, double-click a field or formula.

The selected field or formula moves to the Group by list.

19 To accept the default properties of the selected fields and formulas, proceed to step 23.

20 To modify the properties of a group field, from the **Group by** list, select a field.

21 From the **Sort Order** list, select a sort order.

22 From the **The section will be printed** list, select a length of time that defines when the group changes.

Attention: This option is available only for Date, Time, and DateTime fields to determine when you print the group information. For example, if you select each hour groups records together, the system calculates group summaries for each hour.

23 Click **Next**.

24 In the **Summaries** window, from the **Fields** list, select a field.

25 From the **Summation Type** list, select a summation type.

As you select the fields in the Fields list, the Summation Type list dynamically updates to show the types available for the selected field.

26   From the **Groups** list, select the check box for each report section in which the summary appears on the report.

27   Click **Add**.

The summary appears in the Summary Data list.

28   Click **Next**.

29   In the **Report Layout** window, view or modify the report.

30   On the toolbar, click the **Save Report** icon.

31   In the **Save RCW Report** dialog box, choose a folder in which to save the report.

32   In the **Report Name** box, enter a name for the report.

33   Click **Save**. You can save the report after you select at least one field.

--End--

Example of creating an advanced Skillset Threshold report

An example of creating an advanced Skillset Threshold report.

Step	Action
1	In the **Report Type** window, select the **Create Advanced Report (via ODBC)** option.
2	Click **Next**.
3	In the **Data Source** window, from the **DSNs Available** list, double-click a CCMS DSN.

The selected DSN is added to the DSNs Selected list.

4   In the **Selected DSN Properties** area, type the user ID and password to access the data source.

For configured servers on the Contact Center Manager Administration server, the user ID and password automatically appear.

5   Click **Next**.

6   In the **Table Selection** window, from the **DSNs** list, select the CCMS DSN.

Tables and views for the selected DSN appear in the Tables Available list.

7   From the **Tables Available** list, double-click **dSkillsetStat** and **Skillset**.

The selected tables move to the Tables Selected list.

8   Click **Next**.

9   In the **Table Linking** window, from the left **Tables** list, select **iSkillsetStat**.

10   From the left **Fields** list, select **SkillsetID**.

11   From the right **Tables** list, select **Skillset**.

12   From the right **Fields** list, select **SkillsetID**.

13   From the **Join** list, select **Left Outer Join**.

14   Click **Link**.

The linked SkillsetIDs appear in the Links list.

The result for the Left Outer Join includes all the records in which the skillsetID in both tables is an exact match. The Left Outer Join also includes a row for every record in the iSkillsetStat table for which the SkillsetID has no match in the Skillset table.

15   Click **Next**.

16   In the **Field Selection** window, from the **Fields** list, under the **Skillset Formulas** heading, double-click **@RCW_SkillsetNameID**.

The selected field moves to the Fields Selected list.

17   From the **Fields** list, under the **iSkillsetStat Formulas** heading, double-click **@RCW_ApplicationNameID**.

18   From the **Fields list**, under the **dSkillsetStat** heading, double-click the following fields:

- **Timestamp**
- **Time**
- **CallsAnswered**
- **CallsAnsweredAfterThreshold**

19   From the **Fields** list, under the **iSkillsetStat Formulas** heading, double-click **@RCW_CallsAnsweredBeforeThreshold**.

20   From the **Fields** list, under the **Skillset** heading, double-click **ServiceLevelThreshold**.

21   To modify the Selected Field Properties, in the **Fields Selected** list, click a field.

22   In the **Width** box, type a new width.

23   Click **Next**.

24   In the **Grouping** window, from the **Fields** list, select the following fields by which to group:

- Skillset Formulas: @RCW_SkillsetNameID
- iSkillsetStat Formulas: @RCW_ApplicationNameID
- dSkillsetStat heading: Timestamp

Each selected field moves from the Fields list to the Group by list.

25   To modify the Group Field Properties, from the **Group by** list, select a field, and then from the **Sort Order** list, select **Descending Order**.

26   Click **Next**.

27   In the **Summaries** window, from the **Fields** list, under the **dSkillsetStat** heading, select **CallsAnsweredAfterThreshold**.

28   From the **Summation Type** list, select **Sum**.

This summation type totals all calls answered after the threshold is reached.

29   From the **Groups** list, select the following check boxes:

- **Report Footer**
- **Group Footer #1**
- **Group Footer #2**
- **Group Footer #3**

30   Click **Add**.

The CallsAnsweredAfterThreshold field, Sum summation type, and the selected report sections appear in the Summary Data list.

31   From the **Fields** list, under the **iSkillsetStat Formulas** heading, select **@RCW_CallsAnsweredBeforeThreshold**.

32   From the **Summation Type** list, select **Sum**.

This summation type totals all calls answered before the threshold is reached.

33   From the **Groups** list, select the following check boxes:

- **Report Footer**
- **Group Footer #1**
- **Group Footer #2**
- **Group Footer #3**

34   Click **Add**.

The @RCW_CallsAnsweredBeforeThreshold formula, Sum summation type, and the selected report sections appear in the Summary Data list.

35   Click **Next**.

36   In the **Report Layout** window, double-click the **Page Header** section.

37   In the **Page Header** section, click **Time**.

38   On the **Object Properties** page, in the **Height** box, type **80**.

With a height of 80 pixels, the full text can print.

39   Select the **Bold** and **Underline** check boxes.

40   In the **Page Header** section, click the next field.

41   On the **Object Properties** page, in the **Title** box, change the title. For example, change **CallsAnswered** to **Calls Answered**, and change **@RCW_CallsAnsweredBeforeThreshold** to **Calls Answered Before Threshold**.

42   In the **Height** box, type **80**.

43   Select the **Bold** and **Underline** check boxes.

44   Repeat step 40 to step 43 for the remaining Page Header fields.

45   Double-click the **Group Header #1** section.

46   In the **Group Header #1** section, click **@RCW_SkillsetNameID**.

47   On the **Object Properties** page, in the **Width** box, type **300**.

48   Select the **Bold** check box.

49   Double-click the **Group Header #2** section.

50   In the **Group Header #2** section, click **@RCW_ApplicationNameID**.

51   On the **Object Properties** page, in the **Width** box, type **300**.

52   Select the **Bold** check box.

53   Double-click the **Group Header #3** section.

54   In the **Group Header #3** section, click **Timestamp**.

55   On the **Object Properties** page, click **Remove**.

56   Click the **Formulas** tab.

57   On the **Formulas** page, under the **iSkillsetStat Formulas** heading, click
      @RCW_TimestampGroupNameLabel.

      The @RCW_TimestampGroupNameLabel is a dynamic formula that displays the data
      range and timestamp that you select when you import the report to Historical Reporting.
      Because this formula requires input from Historical Reporting, the results are not exact
      in the report preview in Report Creation Wizard.

58   Click **Add**.

      The @RCW_TimestampGroupNameLabel is added to the Group Header #3 section
      and the Object Properties page appears.

59   On the **Object Properties** page, in the **Width** box, type **300**.

60   Select the **Bold** check box.

61   On the **Object Properties** page, select the **Bold** check box for all fields in the following
      report sections:

      • **Group Footer #1**

      • **Group Footer #2**

      • **Group Footer #3**

      • **Report Footer**

62   On the toolbar, click the **Save Report** icon.

63   Select the folder in which to save the report.

64   In the **Report Name** box, type **Skillset Threshold**.

65   Click **Save**.

--End--

Creating an integrated report

You must create an integrated report to run integrated Contact Summary reports.

Prerequisites
- Start Report Creation Wizard.

Procedure steps

Step	Action
1	In the **Report Type** window, select **Create Advanced Report (via ODBC)**.
2	Select the configured CCMS server ODBC DSN.
3	Select the required integrated view.
4	Select view columns and format the report.
5	On the toolbar, click **Save Report**.
6	On the toolbar, click **Import to Historical Reporting**.

--End--

Saving a report

Save a report after you modify it.

Prerequisites
- Create a report.
- Select at least one field when you create the report.

Procedure steps

Step	Action
1	On the toolbar, click the **Save Report** icon.
2	In the **Save RCW Report** dialog box, choose a folder in which to save the report.
3	In the **Report Name** box, enter a name for the report.
4	Click **Save**.

--End--

Previewing a report

Click the Preview button to start Report Viewer.

Report Viewer supports standard Crystal Report features such as export, print, and search. Report Viewer lists the first 50 records in the database.

If the report spans more than one page, the first page of the report is numbered as 1+. Until you reach the last page of the report, you do not know how many pages the report contains. After the next page of the report appears, the numbering changes, for example, to 1 of 2+, and then to 1 of 3+, until the last page of the report appears. On the last page, the numbering changes to 1 of x, where x equals the total number of pages. For example, if the report is four pages, the numbering on the last page is 1 of 4.

Prerequisites
- Select fields.
- Save the report.

Procedure steps

Step	Action
1	On the toolbar, click the **Preview**.
	Report Viewer appears.

<div align="center">

--End--

</div>

Importing a report to Historical Reporting

Before you can run and schedule a Report Creation Wizard report in Contact Center Manager Administration, you must save and import the report to Historical Reporting. You can use the Import tool to import a Report Creation Wizard report into a standard group or into your private folder. After you import a Report Creation Wizard report, the system identifies automatically the supported data ranges (Interval, Daily, Weekly, and Monthly) during the import procedure.

You can import Report Creation Wizard reports to Contact Center Manager Servers only.

Unlike user-imported reports, you need not synchronize Report Creation Wizard reports. After you import a Report Creation Wizard report, you can edit the report directly through Report Creation Wizard. After you save the report, all changes are effective immediately.

The procedure to import advanced (ODBC) reports is similar to simplified reports, except for the following:

- You must manually enter the supported data ranges for each table referenced on the report.
- You must specify the report type. Three available report types exist: Historical, Configuration, and Networking.

Procedure steps

Step	Action
1	On the toolbar, click the **Import to Historical Reporting** icon.
2	In the **Import** window, in the **Report Title** box, type the name for the report.
	The name appears in Historical Reporting.
3	Click **Browse**.
4	In the **Open RCW Report** dialog box, browse to and select the report to import.
5	Click **Open**.
	The Open RCW Report dialog box closes and the path appears in the Location box.
6	From the **Time zone** list, select the time zone the report uses as default.

Attention: Avaya recommends that you use the Client Timezone setting. This setting automatically adjusts the report interval based on the client time zone.

Step	Action
7	In the **Comment** box, type additional information about the report.
8	Click the **Report Options** header.
9	In the **Report Options** section, select a **Report Mode**. The options are Standard or Private. The Report Mode determines whether the report imports to a standard or private folder location.
10	(For advanced reports only) From the **Report Type** list, select a report type.
11	From the **Report Group** list, select the standard report folder into which you import the report. For private reports, you import the report into your private folder.
12	In the **Select Server** list, select the servers to which to import the report.
13	Click the **Data Range** header.
14	If you import a simplified report, in the **Data Range** section, select the **Interval Modes** for which this report is generated, and then proceed to
15	If you import an advanced (ODBC) report, from the **Table Alias** list, select a table.
16	In the **Table** box, for the data range that matches the selected Table Alias time period, type the table name.
17	In the **Timestamp** box, for the data range that matches the selected Table Alias time period, type the name of the field. For example, if report is based on the iSkillsetStat table alias, the entries for each data range appear in the following table.

Interval Mode	Table Name	Timestamp
Interval	iSkillsetStat	Timestamp
Daily	dSkillsetStat	Timestamp
Weekly	wSkillsetStat	Timestamp
Monthly	mSkillsetStat	Timestamp

| 18 | Click **Import**. |

--End--

Example of importing the simplified Agent By Skillset Performance report to Historical Reporting

Step	Action
1	On the toolbar, click the **Import to Historical Reporting** icon.
2	In the **Import** window, click **Browse**.
3	In the **Open RCW Report** window, click **Agent By Skillset Performance**.
4	Click **Open**.
	The Open RCW Report window closes. The information in the Location box appears.
5	In the **Report Title** box, type **Agent By Skillset**.
6	From the **Time zone** list, select the time zone of the server to which to import the report.

Attention: Avaya recommends that you use the Server Timezone default setting. This setting automatically adjusts the report interval based on the server time zone.

7	In the **Comment** box, type additional information about the report.
8	Click the **Report Options** header.
9	For the **Report Mode**, select **Private**.
	The Private Report Templates folder is automatically selected as the Report Group.
10	In the **Select Server** list, select the servers to which to import the report.
	The Report Type is automatically selected based on the report definition. This field is read-only.
11	Click the **Data Range** header.
12	In the **Data Range** section, select all **Interval Mode** check boxes to run the report for all time frames.
	The Table and Timestamp boxes auto-populate based on the report definition and are read-only.
13	Click **Import**.
	A message appears at the bottom of the import window stating "Report: Agent By Skillset imported successfully."

--End--

Example of importing the advanced Skillset Threshold report to Historical Reporting

Step	Action
1	On the toolbar, click the **Import to Historical Reporting** icon.
2	In the **Import** window, in the **Report Title** box, type **Skillset Threshold Report**.
3	Click **Browse**.
4	In the **Open RCW Report** window, browse to the report location for the Skillset Threshold report.
5	Click **Open**.
	The Open RCW Report window closes. The Location box populates.
6	From the **Time zone** list, select the time zone of the server to which to import the report.

Attention: Avaya recommends that you use the Server Timezone default setting. This setting automatically adjusts the report interval based on the server time zone.

Step	Action
7	In the **Comment** box, type additional information about the report.
8	Click the **Report Options** header.
9	From the **Report Type** list, select **HistoricalNodal**.
10	From the **Select Server** list, select the servers to which to import the report.
11	Click the **Data Range** header.
12	From the **Table Alias** list, select **iSkillsetStat**.
13	In the **Table** and **Timestamp** boxes, type the following for each Interval Mode.

Interval Mode	Table	Timestamp
Interval	iSkillsetStat	Timestamp
Daily	dSkillsetStat	Timestamp
Weekly	wSkillsetStat	Timestamp
Monthly	mSkillsetStat	Timestamp

Step	Action
14	Select all of the **Interval Mode** check boxes.
15	Click **Import**.
	A message appears at the bottom of the import window stating "Report: SkillsetThresholdReport imported successfully."

--End--

Defining configuration settings

Use the Configuration Settings window to define the default properties for the report.

Prerequisites
- Open a saved report in Report Creation Wizard.

Procedure steps

Step	Action
1	On the toolbar, click the **Configuration** icon.
2	In the **Configuration Settings** window, in the **Report Layout** section, select **Portrait** or **Landscape**.
3	From the **Default Font** list, select a default font to apply to fields, formulas, labels, or added summaries to a report section.
4	In the **Field Format** section, select **Use client settings** to format the report fields according to the client's settings. Date format, Time format, and Numeric fields appear the same as the client settings on the generated report.

--End--

Variable definitions

Variable	Definition
Report Layout	Page orientation for the report: Portrait or Landscape.
Default Font	Select a default font to apply to fields, formulas, labels, or summaries added to a report section. The fonts installed on the Contact Center Manager Administration server determine the available fonts. The previously selected default font still applies to objects added before you select the new default font. If a font installed on the Contact Center Manager Administration server does not appear in the font list, the installed font can fail to meet certain requirements. For more information, see *Avaya Aura™ Contact Center Troubleshooting* (NN44400-712).

Defining selection criteria

Define selection criteria to determine the entities to include in a report. The following options are available when you define a Report Creation Wizard report in Historical Reporting:

- Define the selection criteria.
- Schedule to print the report.
- Schedule to send the report to a file.
- Save the report.
- Run the report immediately.

You define the selection criteria for Report Creation Wizard reports differently than you do for user-defined reports.

Prerequisites

- Import a Report Creation Wizard report to Historical Reporting. See Importing a report to Historical Reporting (page 140).
- Log on to Historical Reporting.

Procedure steps

Step	Action
1	In the left pane, click the server under which the Report Creation Wizard report is stored.
2	Navigate to the Report Creation Wizard report.
3	In the **Report Properties** window, click **Selection Criteria**.
	The Selection Criteria heading expands. The fields of each selected Report Creation Wizard table appear in the fields list.
4	From the **fields** list, select a field.
	The table name and the field data type appear in the criteria list.
5	From the criteria list, select one of the following values:

- **Is equal to**: If you select Is equal to, you can filter the selected field based on only one element. You can base the filter on a field from the tables that you include on the report, including fields that you did not select on the report.
- **Is greater than**
- **Is less than**
- **Not equal to**
- **Between**
- **In**: If you select In, you can filter the selected field based on multiple elements. You can base the filter on a field from the tables that you include on the report, including fields that you did not select on the report.

- **Starts with**

- **Contains**

- **Ends with**

   The field data type determines the values available in the criteria list.

6   Click the ellipsis **(...)**.

7   From the **Select Elements** dialog box, select a field value.

   If you select In from the criteria list, you can select multiple elements.

8   To select all elements, select the **Select All** check box.

9   Click **Choose**.

   The Select Elements dialog box closes, and the selected field value appears in field value box.

10   Click **Add**.

   The selection criterion appears in the Selection Criteria list.

11   To define additional selection criteria, from the **join** list, select **AND** or **OR**, and then repeat step 4 to step 10.

--End--

Moving a field

The column headings in the Page Header section link to the fields in the Details Section; if you move a field in the Details section, the heading associated with this field moves.

Prerequisites

- Open an existing Report Creation Wizard report in Report Creation Wizard.

- Ensure that you are familiar with the Report Layout Window.

Procedure steps

Step	Action

1   To move a field, perform one of the following activities:

- Click a field, hold down the left mouse button, and drag to the object.

- Highlight the object and use the up, down, left, and right arrow keys to move the object.

2   Click **Save**.

--End--

Resizing an object

To customize an object, you can modify the object size.

Prerequisites

- Open an existing Report Creation Wizard report in Report Creation Wizard.
- Ensure that you are familiar with the Report Layout Window.

Procedure steps

Step	Action
1	To resize an object, perform one of the following activities:

- Move the mouse to the end of the object outline; after the cursor changes to a resize cursor, hold down the left mouse button, and drag to increase or decrease the size of the object.
- Highlight the object, hold down the **Ctrl** key and use the left and right arrow keys to resize the object.

| 2 | Click **Save**. |

--End--

Adding a text field

Add a text field If necessary.

Prerequisites

- Open an existing Report Creation Wizard report in Report Creation Wizard.
- Ensure that you are familiar with the Report Layout Window.

Procedure steps

Step	Action
1	Click a section in the Report View area.
2	Click the **Add Text Object** icon on the toolbar.

A new text field is added to the selected section.

--End--

Modifying object properties

Use the Object Properties tab in the Report Layout window to modify group, field, or formula properties.

Prerequisites

• Open an existing Report Creation Wizard report in Report Creation Wizard and navigate to the Report Layout Window.

• Ensure that you are familiar with the Report Layout Window.

Procedure steps

Step	Action
1	Select a report section.
	The selected report section expands to reveal fields and formulas.
2	Select a field in a section to display the field properties in the properties bar.
	The selected field appears with a yellow background.
3	Click the **Object Properties** tab.
4	Modify object properties.
5	Click **Submit** to save changes. The updated field appears in the report view area.
6	Click **Save**.

--End--

Variable definitions

Variable	Definition
Title	Type the field name. The name appears on the report.
Height	Type a numeric value for the field height in pixels.
Width	Type a numeric value for the field width in pixels.
Left	Type a numeric value for the horizontal position of the field on the report. The value you enter represents the number of pixels from the left margin that the field is placed on the report.
Top	Type a numeric value for the vertical position of the field on the report. The value you enter represents the number of pixels from the top margin that the field is placed on the report.
Format	From the Format list, select a time or number format. The Format property is available only if you select a number, currency, Date or Time data type object.
Currency	From the Currency list, select a currency type. The Currency property is available only when you select a currency data type object.
Font	From the Font list, select a font type. The font type appears on the report for the selected field. The fonts installed on the Contact Center Manager Administration server determine the available fonts.
	Attention: If an installed font on the Contact Center Manager Administration server does not appear in the font list, the installed font can fail to meet certain requirements.
Font Color	From the Font Color list, select the font color to appear on the report for the selected field.
Font Size	From the Font Size list, select the font size to appear on the report for the selected field.
Text Align	From the Text Align list, select one of the following: Right, Left, or Center. This represents the field text placement within the field.
Bold	Select the Bold check box to apply bold to the field text that appears on the report.
Italic	Select the Italic check box to italicize the field text that appears on the report.
Underline	Select the Underline check box to underline the field text that appears on the report.
Suppress	Select the Suppress check box to suppress the field from the report.

Suppressing a report section

Suppress sections to exclude the sections from the printed report.

Prerequisites

- Open an existing Report Creation Wizard report in Report Creation Wizard.
- Ensure that you are familiar with the Report Layout Window.

Procedure steps

Step	Action
1	In the **Report Layout** window, select the section header to suppress.
	The selected header appears in a color different from the others.
2	Select the **Section Properties** tab.
3	On the **Section Properties** page, select the **Suppress** check box.
	The section header color changes to light grey.
4	Click **Save**.

--End--

Adding a field to or removing a field from a report

In the Fields tab, add fields or remove fields to modify a report.

Prerequisites

- Open an existing Report Creation Wizard report in Report Creation Wizard.
- Ensure that you are familiar with the Report Layout Window.

Procedure steps

Step	Action
1	In the **Report Layout** window, select the section header to which to add a field.
2	Click the **Fields** tab.
3	On the **Fields** page, select the field.
4	To add the field, click **Add**.
	If you add a field to the Details section of the report, Report Creation Wizard adds a corresponding text heading to the Page Header section of the report. If you move that field, the heading also moves so that it remains horizontally aligned with the field.
5	To remove the field, click **Remove**.

Attention: If you remove a field from the Field Selection page, the field is removed only from the Details section, not from any other section.

Step	Action
6	Click **Save**.

--End--

Adding a formula to or removing a formula from a report

Add formulas or remove formulas to update a report. Formulas appear under the relevant headings in the Formulas list. Standard formulas appear under the Formulas heading. Formulas relating to views appear under separate headings for each view, for example, iAgentPerformanceStat formulas. Report formulas, formulas that appear on the report and have no association with a Report Creation Wizard formula, appear in the Formulas list.

If you add a formula to the Details section of the report, a corresponding text heading appears in the Page Header section of the report. If you subsequently move the formula, the heading moves so that it remains horizontally aligned with the field. If you remove the field, you automatically delete the heading from the Page Header section.

Prerequisites

• Open an existing Report Creation Wizard report in Report Creation Wizard.

• Ensure that you are familiar with the Report Layout Window.

Procedure steps

Step	Action
1	In the **Report Layout** window, select the section header to which to add a formula.
2	Click the **Formulas** tab.
3	On the **Formulas** page, select the formula.
4	To add the formula, click **Add**.
5	To remove the formula, click **Remove**.
6	Click **Save**.

--End--

Sorting the direction of a group, field or formula

Use the Sorting tab to select the sort direction of returned group, field and formula data on the report.

Prerequisites

• Open an existing Report Creation Wizard report in Report Creation Wizard.

• Ensure that you are familiar with the Report Layout Window.

Procedure steps

Step	Action
1	In the **Report Layout** window, click the **Sorting** tab.

2   To sort the direction of a group, on the **Sorting** page, click the **Groups** heading.

3   To sort the direction of a field or formula, click the **Fields** heading.

4   Select the group, field or formula for which you want to change sort direction.

5   Select one of the following sort direction options:

- **Ascending**

- **Descending**

- **Original Order (for Groups) or None (for Fields)**

6   Click **Save**.

--End--

Sorting the order of a field or formula

Use the Sorting tab in the Report Layout window to select the sort direction of field and formula data on the report.

Prerequisites

- Open an existing Report Creation Wizard report in Report Creation Wizard.

- Ensure that you are familiar with the Report Layout Window.

- Assign a sort order to the selected field or formula. See Sorting the direction of a group, field or formula (page 151).

Procedure steps

Step	Action
1	In the **Report Layout** window, click the **Sorting** tab.
2	On the **Sorting** page, click the **Fields** heading.
	The heading expands to reveal selected fields and formulas for the report.
3	Click the field or formula for which you want to change the sort order.
4	Use the up and down arrows to change the sort order for the selected field or formula.
	Group sorts always appear first, followed by field and formula sorts.
5	Click **Save**.

--End--

Editing a Report Creation Wizard report in Historical Reporting

To modify a saved Report Creation Wizard report, access Historical Reporting.

Prerequisites

- Create a report in Report Creation Wizard. See Creating a simplified report (page 126) or Creating an advanced report (page 133).
- Import the report to Historical Reporting. See Importing a report to Historical Reporting (page 140).
- Log on to Historical Reporting.

Procedure steps

Step	Action
1	In the left pane, click the server to which you want to log on.
2	Navigate to the folder in which the Report Creation Wizard report to edit is stored.
	The report icon for a Report Creation Wizard report is different from the report icon for a standard report.
3	Right-click the report, and then click **Edit**.
	The report appears in Report Creation Wizard in the Report Layout window. All buttons in the navigation bar and the toolbar are enabled.
4	Edit the report.
5	On the toolbar, click **Save**.
	All changes are effective immediately.

--End--

Viewing or modifying the object name in Crystal Reports

If you apply a report template, Report Creation Wizard uses the object name to determine if an object exists on the report. If report does not include the object name, RCW adds the object according to the specified settings and location in the report template. If the object name exists in the report, the new object replaces the previous object according to the specified settings and location in the report template.

Prerequisites

- Ensure that Crystal Reports 10 is installed.

Procedure steps

Step	Action
1	On the object, right-click, and then select **Format <Object Name>**.
2	In the **Format Editor**, select the **Common** tab.

3		In the **Object Name** box, verify or modify the value.
4		Click **OK**.

--End--

Variable definitions

Variable	Value
<Object Name>	The object name identifies an object on a template. The object name must be unique and is not case-sensitive. As an example, the object names Picture1, picture1, and PICTURE1 are the same.

Customizing the Report Creation Wizard template logo

You must update the logo on each portrait and landscape template.

Prerequisites
- Ensure that Crystal Reports 10 is installed.

Procedure steps

Step	Action
1	Open the Report Creation Wizard template.
2	In the report header section of the report, select and delete the Avaya logo.
3	To insert a new logo, from the **Insert** menu, select **Picture**.
4	Click **Browse** and select the new image to add to the template.
5	Drag the image to the desired location on the report header.
6	On the image, right-click, and then select **Format Graphic**.
7	In the **Format Editor** dialog box, select the **Common** tab.
8	Verify that the **Object Name** for the picture is **Picture1**.
	This ensures that created reports with the original templates include the latest Avaya logo.
9	Click **OK**.
10	Save the report template.

Attention: The original templates are part of the Contact Center Manager Administration installation. If your Contact Center Manager Administration installer or system administrator reinstalls the Contact Center Manager Administration software, you lose the template changes. A software update can replace the lost files. Backup a copy of these files to restore the Contact Center Manager Administration server if required. For more information, see the *Avaya Aura™ Contact Center Commissioning* (NN44400-312).

--End--

Applying template changes to existing reports

Existing reports do not automatically receive the changes you make to report templates; therefore, you must apply the template to each report.

Prerequisites

- Log on to Report Creation Wizard. See .

Procedure steps

Step	Action
1	Open the report in Report Creation Wizard.
2	Click the **Configuration** icon.
3	Change the Report Layout. If the current setting is landscape, change it to portrait. If the current setting is portrait, change it to landscape.
4	Click **Close**.
5	Click the **Configuration** icon.
6	Change the Report Layout back to the original setting.
7	Click **Close**.
8	Click the **Preview** icon to confirm that the applied changes.
9	Click **Save**.

--End--