

IP Office 8.0

IP Office Customer Call Reporter Custom Report Walkthrough

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Documentation information

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Contents

1. Custom Report Walkthrough

1.1 Downloading a Sample Report File	5
1.2 Getting Started	6
1.3 Adding a Calls Table	7
1.3.1 Grouping the Table	9
1.3.2 Filtering the Table	10
1.3.3 Summarizing the Table	11
1.4 Adding an Agents Table	12
1.4.1 Sorting the Table	14
1.5 Charting Refused Calls	15
1.5.1 Filtering the Chart	17
1.6 Charting Queue Performance	18
1.7 Gauge for System Performance	20
1.8 Adding Text and Other Data Values	22
1.9 Adding a Document Map	23
1.10 Saving the Report File	23
1.11 Uploading the Report File	24

2. Dataset Definitions

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Chapter 1. Custom Report Walkthrough

1. Custom Report Walkthrough

This document provides a simple walkthrough for creating a custom IP Office Customer Call Reporter report using Microsoft Report Builder.

The use of Report Builder to create custom reports is extensively covered in the applications own help files. This document focuses on those elements that are specific to IP Office Customer Call Reporter such as the insertion of data fields from the IP Office Customer Call Reporter database. The use of a custom report to run reports is covered by *Avaya IP Office Using IP Office Customer Call Reporter* (15-601130).

1.1 Downloading a Sample Report File

In order to start you need a sample IP Office Customer Call Reporter custom report file. A sample report is supplied with IP Office Customer Call Reporter and can be downloaded by logging in as a supervisor. The sample contains IP Office Customer Call Reporter information such as the available <u>dataset definitions</u> and the used in custom reports.

Downloading a Sample Report File

1. Log in to the Customer Call Reporting Web client as a supervisor.

- 2. Select **Reports** 🔛
- 3. Select the **Custom** tab.

4. Click on the **Download Base Custom Report** link to download the sample file.

1.2 Getting Started

The report layout can be edited in Report Builder without requiring access to IP Office Customer Call Reporter and or the SQL database. However the ability to connect to the SQL database if useful in that it allows you to run the report in order to test and check the layout results.

Starting Report Builder

1. Start Report Builder using either of the following options.

- If you have Report Builder Installed
 From the desktop, select Programs | Microsoft SQL Server 2008 R2 Report Builder 3.0 | Report Builder 3.0.
- To install and run Report Builder from IP Office Customer Call Reporter

Using the **Run Microsoft® Report Builder® 3.0** link within IP Office Customer Call Reporter. To use the link, you may need the Windows user account credentials for the IP Office Customer Call Reporter server. If you are using a non-IE browser, you also need the appropriate plug-in to be pre-installed.

- 2. From the **Getting Started** window, select **Open** and browse to the sample file that was downloaded from IP Office Customer Call Reporter. Alternatively, Cuck on the Report Designer icon top left and select Open.
- 3. If you ran Report Builder using the IP Office Customer Call Reporter link, click the **Disconnect** link at the bottom-left of the Report Builder window.
- 4. The sample report template is loading into Report Designer.

	Base Report.rdl - Microsoft SQL Server Report Builder	= x
Home Insert	View	0
	▼ ▼ ■ ■ ■ 編編 1pt ▼ And ■ ■ ■ ■ Merge	
Run Paste B I		
Views Clipboard	iont o Peragraph o Border o Number o Layout	
Report Data	 2 · · · 1 · · · 3 · · · 1 · · · 4 · · · 1 · · · 5 · · · 1 · · · 6 · · · 1 · · · 7 · · 1 · · · 8 · · · 1 · · · 9 · · · 1 · · · 10 · · · 1 · · · ·	
New - Edit X • 3	To add an item to the report: on the Insert tab, click the item and drag dataset fields to the item.	
	[&ExecutionTime]	
		>
	Row Groups	-
No current report server. Conne		-+

5. For our example walkthrough, we will now add a simple data table 7.

1.3 Adding a Calls Table

For this stage of the walkthrough, we will add a simple table that shows call data. When the report is run, the table will show the selected fields for all calls in the report's date and time range specified when the report is run.

Inserting a Table

1. Select the Table Dataset

- a. In the toolbar, select the **Insert** tab.
- b. Select **Table** and click **Table Wizard** from the drop-down menu. The system displays the **New Table or Matrix** window.

New Table or Matrix	\mathbf{X}
Choose a dataset	
Choose a dataset	
O Choose an existing dataset in this report or a shared dataset	
Agent_States (in this Report) Agent_After_Call_Work_Time, Agent_Answered_Calls, Agent_Average_Answer_Time, Agent_Busy_Not_Available_Tim	
Agents (in this Report) Agent_After_Call_Work_Time, Agent_Answered_Calls, Agent_Average_Answer_Time, Agent_Busy_Not_Available_Tim	
Alarms (in this Report) Alarm_Caution_Value, Alarm_Clear_Date_Time, Alarm_Clear_Value, Alarm_Critical_Value, Alarm_Definition_Caution	
Calls (in this Report) Agent_After_Call_Work_Time, Agent_Answered_Calls, Agent_Average_Answer_Time, Agent_Busy_Not_Available_Tim	
Queues (in this Report) Queue_After_Call_Work_Time, Queue_Answered_Calls, Queue_Average_Abandon_Time, Queue_Average_Answer_Ti	
System [in this Report] System_After_Call_Work_Time, System_Answered_Calls, System_Average_Abandon_Time, System_Average_Answer	
System_Downtimes (In this Report) Switch_Activity_Connected_Date_Time, Switch_Activity_Disconnected_Date_Time, Switch_Activity_Down_Time_Durat	
Voicemail	•
Browse	
Create a dataset	
~	
Help Cancel	

c. This menu is used to select the dataset which will be shown in the table. For our example we want call data so select the **Calls** dataset and click **Next**.

2. Select the Table Data

Having selected the dataset, we can now select the data items in that dataset that we want used. Select the fields from this data set that should be included within the table as columns and the order in which those columns should

Arrange fields to group data in rows, columns, or both, and ch	oose values to display. Data expands across the page in column groups and
Available fields	Column groups
Agent_Total_Calls Agent_Vithin_Answer_Thresho Call_Account_Code Call_Callers_Name Call_Date_Time Call_Date_Time Call_Date_Time Call_Diated_Number Call_Diated_Number Call_Direction_Description Call_Direction_Description Call_Duration Call_Date_Time Call_Date_Time Call_Date_Time Call_DAte_Time Call_DAte_Time Call_D_S_Noten Call_D_S_Noten Call_D_S_Notenent Call_D_S_Noten	Σ Values Call_Date_Time Call_Cit_Number Call_Cit_Number Call_Direction_Description Call_Duration Call_Js_Answered Call_Js_Lost Call_Js_Coverflowed Call_Js_Routed_To_Voicemail

- a. Drag and drop items from the **Available Fields** list to the **Values** list on the right. You can add multiple fields by first using Ctrl or Shift to select the items before dragging them.
- b. You can reorder the fields within the **Values** list by dragging and dropping within the fields within the list.

c. Click Next twice.

3. Select the Table Style

The wizard has a number of predefined styles that can be applied to the table layout.

a. Select an appearance style from the list

b. Click Finish. The system displays the table on the report canvas.

4. Position and Adjust the Table Size

a. To position the table on the page:

Click the table and then click on the square in the top left corner. Click and drag the 1 icon to move the whole table.

b. To size the table:

Click the table and then click on the square in the top left corner. Use the small squares on each corner and edge to size the table. However, remember that tables will expand in height to show their full set of rows when the report is run.

c. To resize individual rows and columns:

Click on the table. You can then drag the boundaries shown at the top and left of the table.

d. To change column headers:

The top row is automatically treated as a header row and shows default names for the selected values. To change any of the headers, click on the current text and enter the required text.

We have now added a simple table of selected call data. Next we must group the data 9.

1.3.1 Grouping the Table

For the simple table we have added, the system will display the first column of the table in a different style with plus and minus buttons when the report is run. The remaining columns in the table remain unchanged.

We can add a group field. When the report is run, the rows are grouped using the group field values. For this example we will group together all calls with the same DDI.

Grouping Data

- 1. Click on the table.
- 2. Right click on a table header. From the menu shown select Add Group.

3. Click on the **Parent Group** option shown under **Row Group**.



4. From the **Group by:** drop down select the data field on which you want to group the table rows. For this example we have used **Call_DDI_Number**. Click **OK**.

We now have a simple table of call data where the calls in the table are group by DDI number. However, this table will include all calls within the select time period for the report. We can <u>add filters</u> 10° to specify the particular calls that we want added or excluded from the report.

Alternate Method

The same effect could have been done when we were <u>adding the table</u> 7^{h} using the table wizard by dragging the **Call_DDI_Number** field from **Available Fields** to the **Row Groups** box.

1.3.2 Filtering the Table

The table we have added and now grouped will still include all calls that occurred in the time and date range specified when the report is run in IP Office Customer Call Reporter. However, we can use filters to specify which calls should be included or excluded.

Applying a Filter

1. Click on the table to select it. Right click the square in the top left.

- 2. Select Tablix Properties.
- 3. Select Filters.

4.	Click Add to c	reate a new filter.
	Tablix Properties	
	General Visibility	Change filters.
	Filters	Include rows where the following conditions are true.
	Sorting	Add Delete
		Value 5

5. For this example let us create a filter that includes only incoming external calls in the table.

a. From the **Expression** drop down, select **Call_Direction_Description**.

- b. For the **Operator** select =. This is selected by default but other operators such as <> (not) can be used.
- c. For the **Value** enter *External*.

6. We have now created a filter to include only data where *Call_Direction_Description = External*.

- We could add additional filters if required. If we added multiple filters, the order in which the filters are applied to the data can be adjusted. For example a filter using Queue_Name could be used to report only on a specific queue's calls.
- 7. Click OK.

We have now defined our table and filtered the data included in it. We will now add a summary row to the table 11.

1.3.3 Summarizing the Table

It is a common requirement to have a summary row in a table.

Adding a Table Summary Row

- 1. Click on the table to select it.
- 2. Right click the left side of the bottom row in the table. From the menu select **Insert Row > Outside Group – Below**. A new blank row in added to the bottom of the table.

3. In each cell of the new row, you can select what information you want displayed.

- To add a text label, double click on the cell and enter the text required.
- To add a data value or information item, right click on the cell and select **Expression**. This form can be used to add specific values or to create an expression (formula) for a required value.

Expression		×
Set expression for: Value		
=		
Category: Constants Built-in Fields Parameters Fields (Calls) Datasets Variables © Operators © Common Functions	Item: (Al)	No constants are available for this property.
Help		OK Cancel

- 4. For our example we might want a count of the number of calls to appear in a cell.
 - a. Right click on the cell and select Expression.
 - b. In the **Category** column, under **Common Functions** select **Aggregate**. In the **Item** column, double click on **Count Distinct**. The item is added to the expression value.
 - c. In the Category column, select *Fields (Calls)*. The fields of the dataset being used for the table are shown in the Item column. Locate and double click on *Call_ID*.
 - d. Add a closing) bracket to the expression. We now have an expression =*CountDistinct(Fields!Call_ID.Value)* . This will return a count of the number of unique calls included in the table.

5. Click OK.

1.4 Adding an Agents Table

In the previous example stages we have added, grouped, filtered and summarized a table of call data. The same methods can be used to create tables for queue data and for agent data.

For this example let us add a table of statistics for the agents and sort them by the number of calls answered. First we must add a table using the Agents dataset. This is similar to our previous example of adding a table for the Calls dataset.

Inserting a Table 1.Select the Table Dataset

- a. In the toolbar, select the **Insert** tab.
- b. Select **Table** and click **Table Wizard** from the drop-down menu. The system displays the **New Table or Matrix** window.

New Table or Matrix	\mathbf{X}
Choose a dataset	
Chaose a dataset	
Ochoose an existing dataset in this report or a shared dataset	_
Agent_States (in this Report) Agent_After_Call_Work_Time, Agent_Answered_Calls, Agent_Average_Answer_Time, Agent_Busy_Not_Available_Tim	^
Agents (in this Report) Agent_After_Call_Work_Time, Agent_Answered_Calls, Agent_Average_Answer_Time, Agent_Busy_Not_Available_Tim	
Alarms (in this Report) Alarm_Caution_Value, Alarm_Clear_Date_Time, Alarm_Clear_Value, Alarm_Critical_Value, Alarm_Definition_Caution	
Calls (in this Report) Agent_After_Call_Work_Time, Agent_Answered_Calls, Agent_Average_Answer_Time, Agent_Busy_Not_Available_Tim	3
Queues (in this Report) Queue_After_Call_Work_Time, Queue_Answered_Calls, Queue_Average_Abandon_Time, Queue_Average_Answer_Ti	
System (in this Report) System_After_Call_Work_Time, System_Answered_Calls, System_Average_Abandon_Time, System_Average_Answer	
System_Downtimes (in this Report) Switch_Activity_Connected_Date_Time, Switch_Activity_Disconnected_Date_Time, Switch_Activity_Down_Time_Durat	
Voicemail Finithir Deport Total Annwared Cally Total Lost Cally Browse	>
Create a dataset	
Help < Back Next > Cancel	

a. This menu is used to select the dataset which will be shown in the table. Select the *Agents* dataset and click **Next**.

2.Select the Table Data

Having selected the dataset, we can now select the fields from the dataset that we want used. Select the fields from this data set that should be included within the table as columns and the order in which those columns should appear.

lew Table or Matrix	
Arrange fields	
Arrange fields to group data in rows, columns, or both, and choose values to display. Data expands across the page in column groups and down the page in row groups. Use functions such as Sum, Avg. and Count on the fields in the Values box.	
Available fields Column groups Agent_After_Call_Work_Time Image: Column groups Agent_Answered_Calls Agent_Arrange_Answer Agent_More age_Answer Image: Column groups Agent_Arrange_Answer Image: Column groups Agent_Arrange_Answer Image: Column groups Agent_Customer_Calls Agent_Email Address Agent_Email Address Image: Column groups	
Agent_Extension_Number Agent_Full_Name Agent_Hold_Time Agent_Inbound_Talk_Time Agent_Internal_Talk_Time Agent_Lost_Calls	
Agent_Membership_List III Now groups ∑ Values	
Agent_Non_Queue_Time Agent_Off Hook_Time Agent_Presented_Calls	
Agent_Outbound_Talk_Time Agent_Answered_Calls	
Agent_Overflow_Loss_Calls_	
Agent_Presented_Calls Agent_Average_Answer_Time	
Agent_Queue_Enabled_Time	
Agent_Refused_Calls Agent_Refused_Calls Agent_Rouging_Time Agent_Rot_Total_Calls Agent_Vithin_Answer_Thresho	
Help Sack Next >	Cancel

a. Drag and drop items from the **Available Fields** list to the **Values** list on the right. You can add multiple fields by first using Ctrl or Shift to select the items before dragging them.

b. You can reorder the fields within the Values list by dragging and dropping within the fields within the list.

c. Click Next twice.

3. Select the Table Style

The wizard has a number of predefined styles that can be applied to the table layout.

- a. Select an appearance style from the list
- b. Click **Finish**. The system displays the table on the report canvas.

4. Position and Adjust the Table Size

a. To position the table on the page:

Click the table and then click on the square in the top left corner. Click and drag the 1 icon to move the whole table.

b. To size the table:

Click the table and then click on the square in the top left corner. Use the small squares on each corner and edge to size the table. However, remember that tables will expand in height to show their full set of rows when the report is run.

c. To resize individual rows and columns:

Click on the table. You can then drag the boundaries shown at the top and left of the table.

d. To change column headers:

The top row is automatically treated as a header row and shows default names for the selected values. To change any of the headers, click on the current text and enter the required text.

We now have a simple table of agent statistics. We could also group, filter, and summarize the agent data as we did for the calls table. However, for this example let us <u>sort the table</u> 14 by order of how many calls each agent has answered in order to rank the agents.

1.4.1 Sorting the Table

The data in a table can be sorted. The sort can be done on any field in the dataset selected. However, it does not have to be one of the fields actually shown in the table. In this case the field is shown, as we are reporting on how many calls each agent has handled and ranking the agents by calls answered.

Sorting a Table

1. Click on the table to select it. Right click the square in the top left.

2. Select Tablix Properties.

3. Select Sorting.

4. To add a sort option:

a. (Click Add.		
	Tablix Properties		×
	General Visibility	Change sorting options.	
	Filters	Add Delete	
	Sorting	Column Order	
		Sort by [Agent_Answered_Calls]	

- b. In the **Sort by** drop down, select the dataset field on which to sort the table. For this example we want *Agent_Answered_Calls*.
- c. In the **Order** drop down select the required sort order. We want the highest number of calls to be first so for this example select *Z* to *A*.
- 5. You can add additional sort options and adjust the order in which each sort is applied. For this example we only need the single sorting option.

6. Click OK.

1.5 Charting Refused Calls

In addition to data tables, we can use the Report Builder to chart data. For this example we want a simple pie chart of calls refused by agents. That is calls presented but not answered.

Adding a Chart

1. Select the Chart Dataset

- a. In the toolbar, select the Insert tab.
- b. Select Chart and click Chart Wizard from the drop-down menu. The system displays the New Chart window.
- c. This menu is used to select the dataset which will be shown in the chart. For our example we want agent data so select the **Agents** dataset and click **Next**.

2. Select the Chart Type

Having selected the dataset, we can now select the type of chart.

lew Chart		×
Choose a	a chart type	
Choose a cl	hart type that best displays your data.	
Chart typ	pe:	
	Column A column chart displays a series as a set of vertical bars grouped by category. Column charts are useful for illustrating comparisons amon	
,∕∕∕∕	Line A line chart displays a series as a set of points connected by a single line. Line charts are used to represent large amounts of data that occ	
۲	Pie A pie chart displays value data as percentages of a total. Consider using a pie chart after the data has been aggregated to seven data poi	
-	Bar A bar chart displays data horizontally. It is popular for categorical information, because the categories can be displayed horizontally.	
	Area The area chart displays data contiguously, so it is commonly used to represent data that occurs over a continuous period of time.	
Usea	stacked chart to display the total value of multiple series.	
Usea	100 percent stacked chart to show relative proportions between multiple series.	
Help	Sack Next > Cancel	

a. Select the type of chart to include. For this example select **Pie**. Click **Next**.

3. Select the Chart Data We must now select which fields from the dataset are used for the chart

Add data fields to the chart. For most accrediated data on the v-axis. A field	: chart : Lin the	types, a field in the Categories list is dis Series list creates a new series in the ch	splayed on the x-axis. A field in the Values list shows
Available fields	in arc	Senes interentes a new senes in and en	Series
Agent After Call Work Time	~		
Agent Answered Calls			
Agent Average Answer Time			
Agent_Busy_Not_Available_Time			
Agent_Customer_Calls			
Agent Email Address			
Agent End Date Time			
Agent_Extension_Number			
Agent_Full_Name			
Agent_Hold_Time			
Agent_ID			
Agent_Inbound_Talk_Time			
Agent_Internal_Talk_Time			
Agent_Lost_Calls			
Agent_Membership_List		Categories	Σ Values
Agent_Name		Agent Name	First(Agent Refused Calls)
Agent_Non_Queue_Time			
Agent_Off_Hook_Time			
Agent_Outbound_Talk_Time			
Agent_Overflow_Answered_Calls			
Agent_Overflow_Lost_Calls			
Agent_Presented_Calls			
Agent_Queue_Enabled_Time			
Agent_Refused_Calls			
Agent_Ringing_Time			
Agent_Routed_To_Voicemail_C			
Agent_Start_Date_Time			
Agent_Total_Calls			
Agent Within Answer Thresho	20		

- a. Click and drag **Agent_Name** from the **Available** fields list to the **Categories** list. This sets the label used for each pie segment.
- b. Click and drag **Agent_Refused_Calls** from the **Available** fields list to the **Values** list. This sets the values used to set the relative size of each pie segments.
- c. Select the arrow at the right of the entry in the **Values** list. Select **First** from the drop-down list.

d. Click Next.

3. Select the Chart Style

- The wizard has a number of predefined styles that can be applied to the chart layout.
- a. Select an appearance style from the list
- b. Click **Finish**. The system displays the chart on the report canvas.

4. Position and Adjust the Chart Size

a. To position the chart on the page:

Click the chart and then click on the square in the top left corner. Click and drag the 🕀 icon to move the whole chart.

b. To size the chart:

Click the chart and then click on the square in the top left corner. Use the small squares on each corner and edge to size the chart.

e. To change the title:

Double click the text shown for the current chart title. Enter the title required.

When you run this chart, it will have one pie segment for each agent with a non-zero number of refused calls. Since no filters have been added yet, all refused calls by all agents in the period specified when the report is run are included.

There are many other properties displayed on property sheets for the chart. You can control the formatting and presentation of the chart by using chart area, legend, and series. To access each, click on the chart and then right-click on the chart element that you want to adjust and select the required formatting option.

1.5.1 Filtering the Chart

In addition to <u>filtering tables</u> 10 you can also filter the data used for a chart. For this example, if we have a large number of agents and are reporting for a long period, the chart may be unclear if it includes all agents. So, let us apply a filter that only includes agents with 5 or more refused calls.

Adding a Filter

1. Right click on the top left corner of the chart and select **Chart Properties**.

2. Select Filters.

Chart Properties	
General Visibility	Change filters.
Filters	Include rows where the following conditions are true.
Fill	Add Delete 🛊 🔻
Border	Expression [Agent_Refused_Calls] 🖌 🔀 Text 🗸
	Operator >=
	Value 5

a. From the **Expression** drop down, select **Agent_Refused_Calls**.

- b. For the **Operator** select \geq for greater than or equal to.
- c. For the **Value** enter **5**.

6. We have now created a filter to include only data where **Agent_Refused_Calls** >= **5**. We could add additional filters if required. If we added multiple filters, the order in which the filters are applied to the data can be adjusted.

7. Click OK.

1.6 Charting Queue Performance

In this example we will add another chart. This time the chart will show the grade of service achieved by each of the queues as a bar chart.

Adding a Chart

1. Select the Chart Dataset

- a. In the toolbar, select the Insert tab.
- b. Select Chart and click Chart Wizard from the drop-down menu. The system displays the New Chart window.
- c. This menu is used to select the dataset which will be shown in the chart. For our example we want agent data so select the Queues dataset and click Next.

2. Select the Chart Type

Having selected the dataset, we can now select the type of chart.

v Chart		
Choose a	a chart type	
Choose a ch	hart type that best displays your data.	
Chart typ	ie:	
	Column A column chart displays a series as a set of vertical bars grouped by category. Column charts are useful for illustrating comparisons amon	
∞,	Line A line chart displays a series as a set of points connected by a single line. Line charts are used to represent large amounts of data that occ	
۲	Pie A pie chart displays value data as percentages of a total. Consider using a pie chart after the data has been aggregated to seven data pol	
-	Bar A bar chart displays data horizontally. It is popular for categorical information, because the categories can be displayed horizontally.	
	Area The area chart displays data contiguously, so it is commonly used to represent data that occurs over a continuous period of time.	
		_
Usea	stacked chart to display the total value of multiple series.	
Use a	100 percent stacked chart to show relative proportions between multiple series.	
Help	< Back Next > Cancel	1

a. Select the type of chart to include. For this example select **Bar**. Click **Next**.

art		
art rrange chart fields dd data fields to the chart. For most gregated data on the y-axis. A field Available fields Agent_Answered_Calls Agent_Arter_Call_Work_Time Agent_Busy_Not_Available_Time Agent_End_Date_Time Agent_End_Date_Time Agent_Full_Name Agent_Full_Name Agent_Iobound_Talk_Time Agent_Iobound_Talk_Time Agent_Iobound_Talk_Time Agent_Non_Queue_Time Agent_OrtHow_Talk_Time Agent_Or	st chart types, a field in the Categories list is di Id in the Series list creates a new series in the cl	splayed on the x-axis. A field in the Values list shows nart. Series Σ Values First[Agent_Refused_Calls]
Agent_Start_Date_Time Agent_Total_Calls Agent_Within Answer Thresho		

- b. Click and drag **Queue_Name** from the **Available** fields list to the **Categories** list. This sets the x-axis label for each bar in the chart.
- c. Click and drag **Queue_Grade_Of_Service_Percentage** from the **Available** fields list to the **Values** list. This sets the values used to set the relative size of each bar.
- d. Select the arrow at the right of the entry in the Values list. Select First from the drop-down list.

e. Click Next.

3. Select the Chart Style

- The wizard has a number of predefined styles that can be applied to the chart layout.
- a. Select an appearance style from the list
- b. Click $\ensuremath{\textit{Finish}}.$ The system displays the chart on the report canvas.

4. Position and Adjust the Chart Size

a. To position the chart on the page:

Click the chart and then click on the square in the top left corner. Click and drag the 1 icon to move the whole chart.

b. To size the chart:

Click the chart and then click on the square in the top left corner. Use the small squares on each corner and edge to size the chart.

f. To change the title:

Double click the text shown for the current chart title. Enter the title required.

When you run this chart, it contains bar per queue. The size of each bar will reflects that queues grade of service percentage.

There are many other properties displayed on property sheets for the chart. You can control the formatting and presentation of the chart by using chart area, legend, and series. To access each, click on the chart and then right click on the chart element that you want to adjust and select the required formatting option.

1.7 Gauge for System Performance

Traditional charts are useful for displaying and comparing multiple data values, for example values for each agent or each queue. For single data values such as system values gauges can be used. The Report Designer provides a range of styles of gauges such as rulers, thermometers, speedometers, etc.

In the previous example we added a bar chart to show the grade of service achieved by each queue. In this example we will add a gauge to show the overall grade of service for the whole system.

1. Select the Gauge Type

- a. In the toolbar, select the **Insert** tab.
- b. Select Gauge.
- c. Click on the report canvas. The range of possible gauges is shown.



- d. Select the type of gauge required. For this example we will use a simple dial gauge. Click OK.
- e. The gauge is added to the report canvas. Use the 🕀 control to drag the gauge to the required position. Click and drag the small squares on the sides and corners to adjust the size of the gauge.

2. Select the Gauge Data

a. Click on the gauge. The Gauge Data panel is displayed.



- b. Click on the Unspecified drop down and select Avaya_IPOCCR_Custom_Reporting > System > System_Grade_Of_Service_Percent.
 - You can also select the gauge data by right clicking on the gauge pointer and selecting Pointer Properties.

3. Adjust the Scale

The default scale is 0 to 100. However we aim to maintain a high grade of service and want the dial to have a range of 60 to 100.

a.	Right-click the	scale within th	ie gaug	e and select	Scale Pro	perties.
	General Action Layout Labels Label Font Number Major Tick Marks Minor Tick Marks Fill Border Shadow	Change the value of Reverse scale direct Value and interval optic Minimum: 60 Interval: Auto Multiply scale labels by: 1	ption for t ion ms v f. f.	he scale Maximum: 100 Interval offset: Auto	یکر ایکر ان ا	
		Logarithmic scale option	ns			
		Logarithmic scale	Log base:	10	f x ↓ fx	

- b. Change the minimum value to 60.
- c. Right-click the pointer or marker within the gauge and select Pointer Properties from the context menu.
- d. The system displays the **Pointer Properties** window.
- e. Select the field value to use for the pointer from the entries presented in the Value drop-down list. For the example, select the **System_Grade_Of_Service_Percent** field for system performance.

You can add multiple pointers with different values to the same scale. Right click the existing scale and select **Add Pointer**.

There are many other properties displayed on property sheets for the gauge. You can control the formatting and presentation of the gauge by using the gauge panel, series and pointers. You can add label captions for the gauge, series, and pointers.

1.8 Adding Text and Other Data Values

Data contained in the datasets such as Agents, Queues and Calls are added via inserting an item such as a table or a chart, as each dataset contains multiple rows of data for each field. These must be filtered, sorted, and so on.

Similarly there are a range of non-dataset values that can be added to a report using a similar method as below. For example the **Parameters** values such as **StartDate** entered when a report is run and **Built-in Fields** such as **Page Number**.

Adding and Labeling Single Data Values

1. In the Report Data panel on the left, expand the Datasets folder.

- 2. Expand the **Voicemail** dataset.
- 3. Click on Total_Answered_Calls and drag it onto the report. You will see a text box added on the report canvas. When you run the report, the text box will contain the value for the number of calls answered by voicemail during the report period.
 - a. To position the text box:

Click near the edge of the text box. Click and drag the equation 1
equatio

- b. **To size the text box:** Click near the edge of the text box. Use the small squares on each corner and edge to size the text box.
- c. To change the text formatting: Right click on the text box and select Text Properties.

4. We must add another text box to act as a label for the value.

- a. In the toolbar, select the **Insert** tab.
- b. Select **Text Box**. Click on the canvas in the rough position where the text box is required.
- c. To enter the text, double click on the text box and type the text required.
- d. To adjust the text box layout use the same options are above for the dataset value.

1.9 Adding a Document Map

A document map appears as a navigation tree on the left-side of the report when it is run. When you generate the map, the document map acts as a set of links to the different sections of the report, based on the label given to the tree node.

The presentation style of the document map depends on the viewing format of the report. PDF renders a document map as the Bookmarks pane. Excel renders a document map as a named worksheet that includes a hierarchy of links. Report sections are rendered in separate worksheets that are included with the document map in the same workbook. Word includes a document map as the table of contents.

The document map is only shown if document map labels are set on an object or objects in the report. If there are no labeled objects the document map is not shown.

To Add a Document Map Label to an Item

Items added to the report layout are only listed in the document map if they have a document map label. This is added via the properties settings of the selected object on the report canvas.

- 1. Click on the object, for example a text box, to which you wish to add a document map label.
- 2. In the Properties panel on the right, scroll down to Other.
 - If the **Properties** panel is not visible, click on the **View** tab and check that the **Properties** check box is selected.
- 3. Expand **Other** and locate the **DocumentMapLabel** property.
- 4. Enter the label that should be used for the object location in the document map.

1.10 Saving the Report File

Once the report has been setup as required, it must be saved with a new name.

Saving the Report File

- 1. Click the 🖉 icon top left and select **Save As**.
- 2. Enter a name for the report file and click **Save**.

1.11 Uploading the Report File

In order to use a custom report type, the Report Builder file must first be uploaded to the IP Office Customer Call Reporter supervisor's account.

Uploading a Report File

- 1. Login to IP Office Customer Call Reporter as a supervisor.
- 2. Click on the **Reports** \blacksquare icon.
- 3. Click on the **Custom** tab.

Status IP Office Customer Call Reporter Mark Gallagher	14:25:07 Account	Change Password	Log Off		Help	AVAYA
Generate Report Configure Report				Report	(MON) { d }	
Summary Time Card Details Summary	Trace of Voiceman a	Dashboard	Monitor	Reports	Scheduler	Customer Map
	Run Microsoft® Report Build	er® 3.0 Bookmark Micro	soft® Report	Builder® 3.	<u>0</u>	
	Download E	Base and Sample Custom I	<u>Reports</u>			
🗙 💌 🎦 test1						
		Upload				

- 4. Click **Upload**. The system displays **Report Name** and the **Select File** fields.
- 5. In the **Report Name** field, enter a name for the report.
- 6. Click **Browse** and locate the file that you want uploaded. The file path will appear in the Select File field.

7. Click OK.

8. The new custom report type is now listed on the **Custom** tab.

9. You can now use that custom report type to create saved report templates and run reports by clicking on the right arrow icon. Refer Avaya IP Office Using IP Office Customer Call Reporter (15-601130).

Chapter 2. Dataset Definitions

2. Dataset Definitions

The following table lists the fields that can be accessed for generating custom reports. Most of the types are self-explanatory. Those that are type **Condition** (Boolean values) take the value 0 or 1.

Field Name	Туре	Definition
Agent_After_Call_Work_Time	Time duration	Total time for which the agent's extension is in the After Call Work (ACW) state. It is the sum of all the items that are displayed in the ACW Time column of Agent Summary Report and correspond to the ACW times in the queues that the agent is a member of. ACW state indicates that the agent is not available to receive queue calls while they perform some other call-related activity. ACW state is independent of queue memberships and enabled state and is typically used for activities such as creating call records and data entry that need to be completed before handling another call. A number of controls are available for ACW. Agents can be configured to be net the state when required. Note: The ACW state is similar to busy wrap up of the CCC product.
Agent_Answered_Calls	Numeric	Number of queue calls that are answered by the agents. It is same as the item displayed in the Answered Calls column in Call Summary Report. It includes the calls that are displayed as routed to other in real-time. It does not include queue calls that are answered by non- queue members using methods such as call pickup, calls that go to voicemail, and direct calls answered by agents.
Agent_Average_Answer_Time_ Seconds	Time span	Average answer time for an agent calculated as a simple, non-weighted mean of the call answer times. It is same as the item displayed in the Average Answer Time column in Call Summary Report. It is the sum of the answer times in seconds for answered queue calls divided by the number of answered queue calls. The system considers the calls received by a particular agent or a queue irrespective of the answer threshold setting. The average answer time for a call is measured from it arriving at the queue or agent, but there may be a delay between the time a call is presented to a queue and the time the call arrives to the agent. It does not include direct calls to the agent. For example, if an agent has only answered one queue call in 6 seconds and then a second queue call in 8 seconds, the average answer time is 7 seconds. If the agent has answered no calls, then the value is 0.
Agent_Busy_Not_Available_Tim e	Time duration	Total time for which an agent's extension is in the Busy Not Available state. It is the sum of all the items that are displayed in the Busy Not Available Time column of Agent Summary Report and correspond to the Busy Not Available times in the queues that the agent is a member of. The Busy Not Available state indicates that an agent is not available to receive calls while performing an activity that is not call-related such as attending a meeting. It is independent of queue memberships and enabled state. This state can be selected by an agent using the Do Not Disturb (DND) or Send All Calls (SAC) button of the telephone. This also requires the agent to select one of the reason codes displayed on the telephone to indicate the reason for getting into the Busy Not Available state. If this state is enabled while a queue call is being presented, the call will go to the next available agent and cause the No Answer statistic for the agent and the queue to be incremented. An agent using the DND or SAC feature is treated as selecting the Busy Not Available state.
Agent_Customer_Calls	Numeric	Total number of unique calls handled by an agent, that is, the number of calls with unique values for the Call_ID field as displayed in the Customer Calls column in Call Summary Report.
Agent_Hold_Time	Time duration	Total time for which the agent had calls on hold or had calls parked. It is the sum of all the hold times in the queues that the agent is a member of, as displayed in the Hold Time column in Agent Summary Report. In this state the agent is not talking to a caller.
Agent_ID	Numeric	Unique identification number for an agent, as used in system configuration.
Agent_Inbound_Talk_Time	Time duration	Total time that the agent spent on incoming answered queue calls, excluding the ringing time. It is the sum of all the inbound talk times in the queues that the agent is a member of, as displayed in the Talk Inbound column in Agent Summary Report. It includes talk times for incoming external trunk calls only. It does not include the talk times for direct calls, internal calls, and outgoing external calls. It excludes the hold, parked, and ACW call times. It does not include queue calls answered by non-queue members using methods such as call pickup.
Agent_Internal_Talk_Time	Time duration	Total time that the agent spent on calls between internal parties, inbound, and outbound. It is the sum of all the internal talk times in the queues that the agent is a member of, as displayed in the Talk Internal column of Agent Summary Report. It includes the ringing time for direct calls, but not for queue calls. It does not include held, parked, and ACW call time. It does not include queue calls answered by non-queue members using methods such as call pickup.
Agent_Lost_Calls	Numeric	Number of queue calls lost by the agent, as displayed in the Lost Calls column of Call Summary Report. A lost call is one where the caller disconnects before the call is answered by the agent. The lost call threshold does not impact this statistic. Queue calls that are lost are reported as lost against both the queue and the last agent to who the call is presented. It does not include calls that are routed to voicemail.
Agent_Name	Alphanume ric	Username of the agent configured in the IP Office Telephone System, as displayed in the first column of Call Summary Report for agents.
Agent_Non_Queue_Time	Time duration	Total time for which the agent is talking on incoming direct calls, including the ringing times. It is the sum of all the non-queue times in the queues that the agent is a member of, as displayed in the Non-Queue Time column of Agent Summary Report. It is independent of queue memberships and state.

Field Name	Туре	Definition
Agent_Off_Hook_Time	Time duration	Total time for which the agent's extension is off hook but is not connected to a trunk. It is the sum of all the off hook times in the queues that the agent is a member of, as displayed in the Off Hook Time column of Agent Summary Report. It is independent of queue memberships or enabled state. Off hook is a telephony term for the state when the handset on a traditional telephone is lifted from the phone, but here it is used for any state where the agent's telephone is in use but not connected to a call. It includes the time taken to pick up handset and dial a call and the ringing time. For an external trunk, it is the time taken until the trunk is seized.
Agent_Outbound_Talk_Time	Time duration	Total time spent by an agent on direct outbound calls, including the ringing time. It is the sum of all the outbound talk times in the queues that the agent is a member of, as displayed in the Outbound Talk column of Agent Summary Report. It is independent of queue memberships or enabled state. It does not the talk times for internal calls. It excludes the hold, parked, and ACW call times. It is unlike the real-time talk outbound statistic which considers only the time from when an agent gets connected to an external call.
Agent_Presented_Calls	Numeric	Sum of answered, lost, and routed to voicemail call statistics for an agent. For agents, it includes direct calls. For queues, it does not include direct calls and enquiry calls. The same call may be presented more than once, therefore this value is different from the number of unique customer calls. This statistic has the same value as those in the Call Interactions column of Call Summary Report, but not the same as Call Interactions in the Call Details Report summary box.
Agent_Queue_Enabled_Time	Time duration	Total time for which an agent is logged in and has the membership of any queue reported enabled. It is the sum of all the enabled times in the queues that the agent is a member of, as displayed in the HG Enabled Time column of Agent Summary Report.
Agent_Refused_Calls	Numeric	Number of times a call is presented to an agent and not answered before it is presented to another agent, as displayed in the No Answer (Timeout) column of Call Summary Report. For an agent, it shows the number of queue calls presented to the agent which rang unanswered for the queue's full no answer time before it is presented elsewhere. It includes queue calls and queue calls that overflowed to the agent's queue. It does not include direct calls. If an agent enables the Busy Not Available state while being presented with a queue call, it is counted against the agent and the queue.
Agent_Ringing_Time	Time duration	Total time for which the agent's extension is ringing for incoming queue calls. It is the sum of all the ringing times in the queues that the agent is a member of, as displayed in the Ringing Time column of Agent Summary Report. Ringing time is when the agent is presented with a call targeted to a queue that the agent is a member of.
Agent_Routed_To_Voicemail	Numeric	Number of queue calls presented to an agent that were then routed to voicemail, as displayed in the Routed To Voicemail column of Call Summary Report. It does not include announcements played by the voicemail server to the caller.
Agent_Total_Calls	Numeric	Sum of answered, lost, routed to voicemail, and refused call statistics for an agent. This is the sum of the presented calls and the refused calls for an agent, as displayed in the Call Interactions and No Answer (Timeout) columns of Call Summary Report.
Agent_Within_Answer_Threshol d_Calls	Numeric	Number of answered calls for an agent that are answered within the answer threshold.
Alarm_Clear_Date_Time	Date and Time	Date and time when the alarm or warning is cleared. It is empty if the alarm is active. It is displayed after a hyphen in the Time Stamp column of Alarm Report.
Alarm_Definition_ID	Numeric	Unique identification number for the real-time alarm definition, as used in system configuration.
Alarm_Definition_State_Descrip tion	Alphanume ric	Agent or queue state to which a state based alarm is targeted. It is empty for non agent or queue state based alarms. It is displayed after a hyphen in the Statistic Name column of Alarm Report.
Alarm_Definition_State_ID	Numeric	Identification number for agent or queue state to which state based alarm is targeted. It is zero for non agent or queue state based alarms, as used in system configuration.
Alarm_Definition_Statistic_Desc ription	Alphanume ric	Name of the real-time statistic which is subject to the alarm, as displayed in the Statistic Name column of Alarm Report.
Alarm_Definition_Statistic_ID	Numeric	Identification number for real-time statistic which is subject to the alarm, as used in system configuration.
Alarm_ID	Numeric	Unique identification number for triggering of the real-time alarm warning or alarm, as
Alarm_Reason_Description	Alphanume ric	The Busy Not Available reason code associated with an agent state based alarm where the agent state is Busy Not Available. It is displayed in brackets in the Statistic Name column of Alarm Report for relevant alarms. For agents on the 1400, 1600, 2400, 5400, 4600, 5600, 9500 and 9600 Series telephones with available programmable buttons, when they select the Busy Not Available state using a button on their phone, they are prompted to select a reason code, if any has been configured on the telephone system. The codes are configured on the telephone system by the system maintainer. Up to eight custom reasons can be configured in addition to the following two fixed reasons: 1. Automatic - This reason is used if the agents are using a telephone that allows reason code selection but fail to select a reason. For example, if they enable Busy Not Available through a short code, using Phone Manager, or are forced into it by the IP Office's Agent Status on No Answer feature. 2. Unsupported - This reason code is used for agents using telephones that do not allow the selection of a reason code.
Alarm_Status_Description	Alphanume ric	Description of the alarm state, whether it is an alarm or a warning that is triggered, as displayed in the Type column of Alarm Report.
Alarm_Status_ID	Numeric	Identification number for the alarm warning or alarm state, as used in system configuration.

Field Name	Туре	Definition
Alarm_Target_Name	Alphanume ric	Name of the queue or username of the agent that triggers the warning or alarm, as displayed in the Target Name column of Alarm Report.
Alarm_Trigger_Date_Time	Date and Time	Date and time when the alarm or warning is triggered, as displayed in the Time Stamp column of Alarm Report before any hyphen and clear date and time.
Alarm_Trigger_Value	Numeric	Value of the real-time statistic when the alarm or warning trigger occurred, as displayed in the Value column of Alarm Report.
Call_Agent_Name	Alphanume ric	Username of the agent who answered the call, the overflowed call, or the transferred call, according to the call status. It is displayed in the Agent column of Call Details Report.
Call_CLI_Number	Alphanume ric	For inbound calls, this is the CLI or telephone number of the caller provided with the call. For outbound calls, this is the number dialed by the agent. For outgoing external calls, the system can partially mask the number according to privacy settings configured by the system administrator. This is displayed in the CLI column of Call Details Report. It is also known as the CLID or ICLID (Incoming Calling Line ID).
Call_Date_Time	Date and Time	Date and time of the call, the overflow, the transfer, the putting on hold or the start of the enquiry call ring, depending on the call status. It is displayed in the Date - Time column of Call Details Report.
Call_DDI_Number	Alphanume ric	For incoming calls, this is the destination number received. For outbound calls, this is the destination number used to make the call. It is displayed in the DDI column of Call Details Report.
Call_Direction_Description	Alphanume ric	Description of the call direction, Inbound or Outbound for external calls and Internal for internal calls, as displayed in the Call Direction column of Call Details Report.
Call_Direction_ID	Numeric	Identification number of the call direction, as used in system configuration.
Call_ID	Numeric	Identification number of the call, as used in system configuration. It is unique per call handled by the IP Office Telephone System, even if the system is rebooted. It is not unique within the data set since the set contains all call events for a single call such as transfers, holds, and overflows.
Call_Or_Held_Duration	Time duration	Total call duration or the hold duration depending on call status. No duration is shown for overflowed lost calls or routed to voicemail call status and the value may be empty for other call status. It is displayed in the Duration column of Call Details Report. The duration for the hold call status is the time until a transfer is completed. The duration for the transfer call status is from the transfer initiation to the end of the transfer (i.e. it includes the duration of the enquiry call). The duration for the enquiry answered call status, is from the agent answering to the transfer being completed.
Call_Or_Overflow_Queue_Time	Time duration	Time from when the call arrived until it was answered, was lost, or it overflowed. It is not displayed for calls that are routed to voicemail and may be empty for some call status. It is displayed in the Queue Timed column of Call Details Report. For the enquiry answered call status, it is the ringing time of the enquiry call and when answering a transfer, it is the time from the initial queuing at the transferee until the transfer is completed.
Call_Record_Count	Numeric	Number of rows present in the data set that have the same Call_ID as the current row.
Call_Record_Index	Numeric	Index number running from 1 to the value of the Call_Record_Count field, representing each call status event for the current call, accounting for each call hold, transfer, overflow, and voicemail event.
Call_Reference_Number	Numeric	Identification number assigned to the call by the IP Office telephone system. It is unique and automatically incrementing until the system is rebooted, remaining with the call whilst it is handled by the system. This is displayed as Reference in Trace Report. It may be empty if an agent event is not associated with a call and for the enquiry answered call status, it is the new call reference. It is not unique within the data set since the set contains all call events for a single call such as holds and overflows.
Call_Reference_Number_Format ted	Alphanume ric	Identification number assigned to the call by the IP Office telephone system. It is unique and automatically incrementing until the system is rebooted, remaining with the call whilst it is handled by the system. This value is the six character string formatted version of the Call_Reference_Number field, as displayed in the Reference column of Call Details Report. For enquiry answered call status, it is the new call reference.
Call_Status_Description	Alphanume ric	Overall description of the call status, as displayed in the Status column of Call Details Report. The status Answered is applied to all calls that go to voicemail. Possible English values are: Answered, No Answer, Overflowed Answered, Enquiry Answered, Not Answered, Lost, Overflowed Lost, Holding, Transferred and Routed to Voicemail.
Call_Status_ID	Numeric	Identification number for the call status, as used in the system configuration.
Call_Transfer_Agent_Name	Alphanume ric	Username of the agent to who the call was transferred for calls with the status Transferred. It is empty for any other call status. It is used in the Agent grouping option of Call Details Report, to show transferred calls grouped against the transfer agent.
Downtime_Connected_Date_Ti me	Date and Time	Date and time of the end of a time period of downtime when the system was unable to communicate with the IP Office telephone system. It may be empty if the communication loss is ongoing. It is displayed in the Connection Restored column of Communication Failure Report.
Downtime_Disconnected_Date_ Time	Date and Time	Date and time of the beginning of a time period of downtime when the system was unable to communicate with the IP Office telephone system. It is displayed in the Connection Lost column of Communication Failure Report.
Downtime_ID	Numeric	Unique identification number for period of downtime experienced by the IP Office telephone system.
Event_Activity_Description	Alphanume ric	Description of the agent activity, as displayed in the Event Name column of Trace Report.
Event_Activity_ID	Numeric	Identification number for the agent activity, as used in system configuration.
Event_ID	Numeric	Unique identification number for the agent event, as used in system configuration.

Field Name	Туре	Definition
Event_Number	Alphanume ric	For agent events that are related to a call, this is the CLI received with the call for incoming calls and it is the number dialed for outgoing calls. In non call related agent events, the value will be empty. For outgoing external calls, the system can partially mask the number according to privacy settings configured by the system administrator. It is displayed in the Number column of Trace Report.
Event_Start_Date_Time	Date and time	Date and time of the agent event, as displayed in the Date - Time column of Trace Report.
LIMITED	Condition	Condition that indicates if the number of rows in the data set has been limited due to the configured maximum number of rows set by the system administrator. It applies independently for each data set where the field is located. If any data set is limited, then a warning message will also be displayed when the report is manually generated.
Queue_After_Call_Work_Time	Time duration	Total time for which the agent's extension is in the ACW state, for all agents in the queue, as displayed in the ACW Time group summary box of Agent Summary Report. The ACW state indicates that an agent is not available to receive queue calls while performing some other call-related activity. It is independent of queue memberships and enabled state. Typically it is used for activities such as call records and data entry that need to be completed before handling another call. A number of controls are available for ACW. Agents can be configured to be automatically put into the ACW state after a queue call or they can manually select to enter the state when required.
Queue_Answered_Calls	Numeric	Number of queue calls that agents in the queue have answered, as displayed in the Answered Calls column of Call Summary Report. This includes calls that are shown as routed to other in real-time. It does not include queue calls answered by non-queue members using methods such as call pickup, or calls that go to voicemail, or direct calls answered by agents. Once a call has overflowed, then if it is answered, it is reported as overflowed answered against the queue.
Queue_Average_Abandon_Time	Time duration	For lost queue calls, this is the average time from when the calls were received by the IP Office system till they were lost, as displayed in the Average Abandon Time column of Call Summary Report. It is a simple mean (non-weighted average) of call abandon times for individual lost calls. For example, if an agent has lost one call after 6 seconds and lost another call after 8 seconds, this would result in an Average Abandon Time of 7 seconds. If no queue calls have been lost, then the value is 0.
Queue_Average_Answer_Time_ Seconds	Time duration	Average duration of the answer time for the queue calculated as a simple, non-weighted mean of the call answer times, as displayed in the Average Answer Time column of Call Summary Report. This is the sum of the answer times for answered queue calls divided by the number of answered queue calls, displayed in seconds. The system considers the calls received by a particular agent or a queue irrespective of the answer threshold setting. The average answer time of a call is measured from it arriving at the queue or agent, but there may be a delay between the time a call is presented to a queue and the time the call arrives to an agent. For example, if a queue has answered one call in 6 seconds. If the queue has answered no calls, then the value is 0.
Queue_Average_Speed_To_Ans wer_Percent	Numeric	Number of calls answered within the answer threshold time, divided by the total number of calls answered, expressed as a percentage, as displayed in the Average Answer Time (%) column of Call Summary Report. It shows the number of queue calls answered by the queue within the specified answer threshold time, divided by the total number of calls answered. It includes overflow answered calls. For example, with an answer threshold of 30 seconds, 35 calls into a queue were answered within the target time, 5 calls were answered after 30 seconds (no overflows). The calculation would be (Answered Within Threshold + 0verflow Answered Within Threshold) / (Answered + 0verflow Answered) = $(35 + 0) / (40 + 0) = 35 / 40 = 0.875$. The average speed to answer percentage (ASA%) therefore is 87.5%. If no calls have been answered at all then the value is 100%.
Queue_Busy_Not_Available_Tim e	Time duration	Total time for which the agent's extension is in the Busy Not Available state, for all agents in the queue, as displayed in the Busy Not Available Time column of Agent Summary Report. The Busy Not Available state indicates that the agent is not available to receive calls while performing a non call related activity such as attending a meeting. It is independent of queue memberships and enabled state. This state can be selected by an agent using the DND or SAC button on the phone. This also requires the agent to select one of the reason codes displayed on the telephone to indicate the reason for getting into the Busy Not Available state. If this state is enabled while a queue call is being presented, the call will go to the next available agent and cause the No Answer statistic for the agent and queue to be incremented. An agent using any DND or SAC feature is treated as selecting the Busy Not Available state.
Queue_Customer_Calls	Numeric	Total number of unique calls handled by the queue, that is, the number of calls with unique values for the Call_ID field, as displayed in the Customer Calls column in Call Summary Report.
Queue_Grade_Of_Service_Perce nt	Numeric	Number of queue calls answered within the answer threshold as a percentage of all calls presented, as displayed in the Grade of Service (%) column in Call Summary Report. Calls lost before the lost call threshold are not included in the calculation, measured from when the call was presented to the queue, and it does not include calls that are routed elsewhere or to voicemail. It includes calls that become lost calls and overflowed answered and lost calls. For example, with an answer threshold of 30 seconds and a lost call threshold of 5 seconds, if 20 calls into a queue are answered within the target time, 4 calls are answered after 30 seconds and 1 call is lost after 10 seconds (no overflows). The calculation would be (Answered Within Threshold + Overflow Answered Within Threshold) / (Answered + Overflow Answered + Lost Outside Threshold + Overflow Lost Outside Threshold) = $(20 + 0) / (24 + 0 + 1 + 0) = 20 / 25 = 0.8$. The Grade of Service, therefore, is 80%. If no calls are answered or lost all then the value is 100%.

Field Name	Туре	Definition
Queue_Hold_Time	Time duration	Total time that the agent had calls on hold or calls parked, for all agents in the queue, as displayed in the Hold Time group summary box in Agent Summary Report. In this state the agent is not talking to a caller.
Queue_ID	Numeric	Unique identification number of the queue, as used in system configuration.
Queue_Inbound_Talk_Time	Time duration	Total time that the agent spent on incoming answered queue calls, not including the ringing time, for all agents in the queue, as displayed in the Talk Inbound group summary box of Agent Summary Report. It includes incoming external trunk calls only, not internal and outgoing external calls. It does not include the time spent on direct calls. It excludes the hold, parked, and ACW call time. It does not include queue calls answered by non-queue members using methods such as call pickup.
Queue_Internal_Talk_Time	Time duration	Total time that the agent spent on internal calls, inbound and outbound, for all agents in the queue, as displayed in the Talk Internal group summary box of Agent Summary Report. It includes the ringing time for direct calls, but not for queue calls. It does not include held, parked, and ACW call time. It does not include queue calls answered by non-queue members using methods such as call pickup.
Queue_Lost_Calls	Numeric	Number of calls lost by the queue, as displayed in the Lost Calls column of Call Summary Report. A lost call is one where the caller disconnected before being answered by an agent in the queue. The lost call threshold does not impact this statistic. Queue calls that are lost are reported as lost against both the queue and against the last agent to which the call was presented. It does not include calls that go to voicemail. Once a call has overflowed, if lost for the queue, it is reported as overflowed lost. Note that the number of lost calls for a queue can be higher than the total of lost calls for the agents in the queue as calls can be lost before being presented to any agent.
Queue_Name	Alphanume ric	Name of the queue as configured in the IP Office telephony system, as displayed in the first column of Call Summary Report for queues.
Queue_Non_Queue_Time	Time duration	Total time for which the agent is talking on incoming direct calls, including the ringing times, for all agents in the queue, as displayed in the Non-Queue Time group summary box of Agent Summary Report. It is independent of queue memberships and state.
Queue_Off_Hook_Time	Time duration	Total time for which the agent's extension was off hook but not connected to a trunk, for all agents in the queue, as displayed in the Off Hook Time group summary box of Agent Summary Report. It is independent of queue memberships or enabled state. Off-hook is a telephony term for the state when the handset on a traditional telephone is lifted from the phone, but here it is used for any state where the agent's telephone is in use but not connected to a call. It includes all the time taken when making a call, picking up handset, dialing, and ringing. For an external trunk it is the time until the trunk is seized.
Queue_Outbound_Talk_Time	Time duration	Total time that an agent spent on direct outbound calls, including the ringing time, for all agents in the queue, as displayed in the Outbound Talk group summary box of Agent Summary Report. It is independent of queue memberships or enabled state. It does not include the time for internal calls. It excludes the held, parked, and ACW call time. It is unlike the real-time talk outbound statistic which considers only the time from when an agent gets connected to an external call.
Queue_Outside_Lost_Threshold _Calls	Numeric	Number of calls lost by a queue outside the lost call threshold, that is, the number of calls for the queue with abandon times greater than the lost call threshold. This includes lost calls that overflowed to the queue. This value is used in the calculation of the Queue_Grade_Of_Service_Percent field.
Queue_Overflow_Answered_Cal ls	Numeric	Number of overflow answered calls for a queue, as displayed in the Overflow Answered column of Call Summary Report. It shows the number of queue calls answered after overflowing to another queue. This applies even if the overflowed call is answered by an agent in the queue from which it overflowed. It does not include calls that go to voicemail. It does include queue calls answered by methods such as call pickup.
Queue_Overflow_Lost_Calls	Numeric	Number of overflowed lost calls for the queue, as displayed in the Overflow Lost column of Call Summary Report. It does not include calls that go to voicemail. Calls that are lost before the lost call threshold are not counted.
Queue_Presented_Calls	Numeric	Sum of the answered, lost, overflow answered, overflow lost, and routed to voicemail statistics for the queue. This statistic has the same value as the Call Interactions column of Call Summary Report, but not the same value as Call Interactions in the Call Details Report summary box.
Queue_Queue_Enabled_Time	Time duration	Total time for which the agents, who are members of a queue, are logged in and have the membership of the queue reported enabled, as displayed in the HG Enabled Time group summary box of Agent Summary Report.
Queue_Refused_Calls	Numeric	Number of times a call is presented to an agent in the queue and not answered before being presented to another agent, as displayed in the No Answer (Timeout) column of Call Summary Report. Therefore, for a queue, this is the total number of no answer events for the agents in the queue. If an agent enables the Busy Not Available state while being presented with a queue call, that will be counted against the agent and the queue.
Queue_Ringing_Time	Time duration	Total time that the agent's extension is ringing for incoming queue calls, for all agents in the queue, as displayed in the Ringing Time group summary box of Agent Summary Report. This is when an agent is being presented with a call targeted to a queue that the agent is a member of.
Queue_Routed_To_Voicemail_C alls	Numeric	Number of queue calls presented to a queue that are routed to voicemail, as displayed in the Routed To Voicemail column of Call Summary Report. It does not include announcements played by the voicemail server to the caller.
Queue_Total_Calls	Numeric	Sum of the answered, lost, overflow answered, overflow lost, routed to voicemail, and refused call statistics for a queue. This is the sum of the presented calls for a queue and the refused calls for the queue, as displayed in the Call Interactions and No Answer (Timeout) columns of Call Summary Report.

Field Name	Туре	Definition
Queue_Within_Answer_Thresho ld_Calls	Numeric	Number of those calls for a queue that are answered within the answer threshold time, that is, the number of calls for the queue with answer times less than the answer threshold. This includes answered calls that overflowed to the queue. This value is used in the calculation of the Queue_Average_Speed_To_Answer_Percent and Queue_Grade_Of_Service_Percent fields.
Supervisor_ID	Numeric	Unique identification number for the supervisor account who created the real-time alarm, as used in system configuration.
Switch_ID	Numeric	Unique identification number for the IP Office telephone system, as used in system configuration.
Switch_IP_Address	Alphanume ric	IP address configured for the IP Office telephone system, as displayed in the IP Address column of Communication Failure Report.
Switch_Name	Alphanume ric	Name of the IP Office telephony system, as displayed in the IP Office Name column of Communication Failure Report.
System_After_Call_Work_Time	Time duration	Total time for which the agent's extension is in the ACW state, for all agents in the system, as displayed in the ACW Time summary box of Agent Summary Report. The ACW state indicates that the agent is not available to receive queue calls while performing some other call-related activity. It is independent of queue memberships and enabled state. The ACW state is used for activities such as call records and data entry that need to be completed before handling another call. A number of controls are available for ACW. Agents can be configured to be automatically put into the ACW state after a queue call or they can manually select to enter the state when required. Note: The ACW state is similar to busy wrap up of the CCC product.
System_Answered_Calls	Numeric	Number of queue calls that agents in the system have answered, as displayed in the Answered Calls summary box of Call Summary Report. This includes calls that are shown as routed to other in real-time. It does not include queue calls answered by non-queue members using methods such as call pickup, or calls that go to voicemail, or direct calls answered by agents. Once a call has overflowed, if it is answered, it is reported as overflowed answered against the system.
System_Busy_Not_Available_Ti me	Time duration	Total time for which the agent's extension is in the Busy Not Available state, for all agents in the system, as displayed in the Busy Not Available Time summary box of Agent Summary Report. The Busy Not Available state indicates that the agent is not available to receive calls while performing a non-call related activity such as attending a meeting. It is independent of queue memberships and enabled state. This state can be selected by an agent using the DND or SAC button on the phone. This also requires the agent to select one of the reason codes displayed on the telephone to indicate the reason for getting into the Busy Not Available state. If this state is enabled while a queue call is being presented, the call will go to the next available agent and cause the No Answer statistic for the agent and the queue to be incremented. An agent using any DND or SAC feature is treated as selecting the Busy Not Available state.
System_Customer_Calls	Numeric	Total number of unique calls from a system wide point of view, as displayed in the Customer Calls summary box of Call Summary Report. It is not necessarily the sum of the per queue or per agent customer call values. For example, a call transferred between agents would show as a unique call for each agent (two calls total) but in the summary section it shows as a single system call. Another example would be where a call spans two time grouping. It would show as a unique call for each of the time group (two calls total) but in this system wide field it would show as a single system call.
System_Hold_Time	Time duration	Total time for which an agent had calls on hold or calls parked, for all agents in the system, as displayed in the Hold Time summary box of Agent Summary Report. In this state, an agent is not talking to a caller.
System_Inbound_Talk_Time	Time duration	Total time that an agent spent on incoming answered queue calls, not including the ringing time, for all agents in the system, as displayed in the Talk Inbound summary box of Agent Summary Report. It includes incoming external trunk calls only, not internal and outgoing external calls. It does not include time for direct calls. It excludes the hold, parked, and ACW call time. It does not include queue calls answered by non-queue members using methods such as call pickup.
System_Internal_Talk_Time	Time duration	Total time that the agent spent on internal calls, inbound and outbound, for all agents in the system, as displayed in the Talk Internal summary box of Agent Summary Report. It includes the ringing time for direct calls, but not for queue calls. It does not include the held, parked, and ACW call time. It does not include queue calls answered by non-queue members using methods such as call pickup.
System_Lost_Calls	Numeric	Number of calls lost by the system, as displayed in the Lost Calls summary box of Call Summary Report. A lost call is one where the caller disconnected before being answered by an agent in the queue. The lost call threshold does not impact this statistic. Queue calls that are lost are reported as lost against both the system and against the last agent to which the call is presented. It does not include calls that go to voicemail. Once a call has overflowed, if lost for the system, it is reported as overflowed lost. Note that the number of lost calls can be higher than the total of lost calls for agents in the system, as calls can be lost before being presented to any agent.
System_Non_Queue_Time	Time duration	Total time that the agent is talking on incoming direct calls, including the ringing times, for all agents in the system, as displayed in the Non-Queue Time summary box of Agent Summary Report. It is independent of queue memberships and state.
System_Off_Hook_Time	Time duration	Total time for which an agent's extension is off hook but not connected to a trunk, for all agents in the system, as displayed in the Off Hook Time summary box of Agent Summary Report. It is independent of queue memberships or enabled state. Off-hook is a telephony term for the state when the handset on a traditional telephone is lifted from the telephone, but here it is used for any state where the agent's telephone is in use but not connected to a call. It includes all the time taken when making a call, picking up handset, dialing, and ringing. For an external trunk it is the time until the trunk is seized.

Field Name	Туре	Definition
System_Outbound_Talk_Time	Time duration	Total time that the agent spent on direct outbound calls, including the ringing time, for all agents in the system. as displayed in the Outbound Talk summary box of Agent Summary Report. It is independent of queue memberships or enabled state. It does not include time for internal calls. It excludes the held, parked, and ACW call times. It is unlike the real-time talk outbound statistic which considers only the time from when an agent gets connected to an external call.
System_Overflow_Answered_Ca lls	Numeric	Number of overflow answered calls for the system, as displayed in the Overflow Answered summary box of Call Summary Report. It shows the number of queue calls answered after overflowing to another queue. This applies even if the overflowed call is answered by an agent in the queue from which the call overflowed. It does not include calls that go to voicemail. It does include queue calls answered by methods such as call pickup.
System_Overflow_Lost_Calls	Numeric	Number of overflow lost calls for the system, as displayed in the Overflow Lost summary box of Call Summary Report. It shows the number of calls which overflowed from any queue and were then lost. It does not include calls that go to voicemail. Calls lost before the lost call threshold are not counted.
System_Presented_Calls	Numeric	Sum of the answered, lost, overflow answered, overflow lost, and routed to voicemail statistics for all queues. This statistic has the same value as Call Interactions in Call Summary Report summary box, but not the same as Call Interactions in the Call Details Report summary box.
System_Queue_Enabled_Time	Time duration	Total time for which all agents of the system were logged in and had their membership of at least one queue as reported enabled, as displayed in the HG Enabled Time summary box of Agent Summary Report.
System_Refused_Calls	Numeric	Number of times that a call is presented to an agent in the system and not answered before being presented to another agent, as displayed in the No Answer (Timeout) summary box of Call Summary Report. Therefore for the system, this is the total number of no answer events for all the agents in the system. If an agent enables the Busy Not Available state while being presented with a queue call, that will be counted against the agent and the system.
System_Ringing_Time	Time duration	Total time for which the agent's extension was ringing for incoming queue calls, for all agents in the system, as displayed in the Ringing Time summary box of Agent Summary Report. This is when the agent is being presented with a call targeted to a queue of which they are a member.
System_Routed_To_Voicemail_ Calls	Numeric	Number of queue calls presented to any queue in the system that are routed to voicemail, as displayed in the Routed To Voicemail summary box of Call Summary Report. It does not include announcements played by the voicemail server to the caller.
System_Total_Calls	Numeric	Sum of the answered, lost, overflow answered, overflow lost, routed to voicemail, and refused call statistics for the system. This is the sum of presented calls for the system and refused calls for the system, as displayed in the Call Interactions and No Answer (Timeout) summary boxes of Call Summary Report.
Total_Answered_Calls	Numeric	Number of calls that have reached a named Voicemail action. These are counted as answered for that action and in total. This value is displayed in the Total Calls Answered summary box of Voicemail Report.
Total_Lost_Calls	Numeric	Number of calls that have reached a named Voicemail action where the call is disconnected by the caller or by the voicemail server before it reaches another named action. These are counted as lost for that action and in total. This value is displayed in the Total Calls Lost summary box of Voicemail Report.
View_ID	Numeric	Unique identification number for the supervisor real-time view in which the real-time alarm is defined, as used in system configuration.

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> Tel: +44 (0) 1707 392200 Fax: +44 (0) 1707 376933

Web: http://marketingtools.avaya.com/knowledgebase