



IP Office

Customer Call Reporter 6.1 User Guide

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Chapter 1.

Introduction

1. Introduction

IP Office Customer Call Reporter is a call center reporting application for use with Avaya IP Office telephone systems. IP Office Customer Call Reporter can report on both individual call center 'agents' and on the queues (hunt groups) of which those agents are members. IP Office Customer Call Reporter provides both current and historical reports.

This document covers usage of IP Office Customer Call Reporter version 6.1 with IP Office Release 6.1 telephone systems.

IP Office Customer Call Reporter is accessed through a web browser using a name and password to login. Those login details determine whether the IP Office Customer Call Reporter web client runs in agent, supervisor, administrator or wallboard mode.

[Supervisor Mode](#) ²²

This mode is used to create and manage 'views' of queue and agent statistics. Supervisors can also run reports and schedule tasks.

Queues	Agents Ringing	Answered Int Queue	Answered Calls	Average Ans %	Queue State T	Calls Waiting
HG1	1	1	3	6.10	00:00:09	8
HG2	2	2	3	6.39	00:00:03	1
TOTAL	3	3	6			9

Agents	Average Ans Time	Average Ans %	Agents Call Share
Agent1	6.41	1.18	8.51
Agent2	2.24	2.63	7.90
Agent3	8.61	4.94	1.66
Agent4	7.51	2.80	5.29
Agent5	8.98	5.43	6.79
Agent6	2.12	8.34	4.71
Agent7	4.65	1.79	8.54
Agent8	2.70	8.52	0.56
Extn872	4.13	6.39	4.52

Alarm Ticker All Views

09:33 Alarm HG1 8 Calls Waiting

[Agent Mode](#) ⁸²

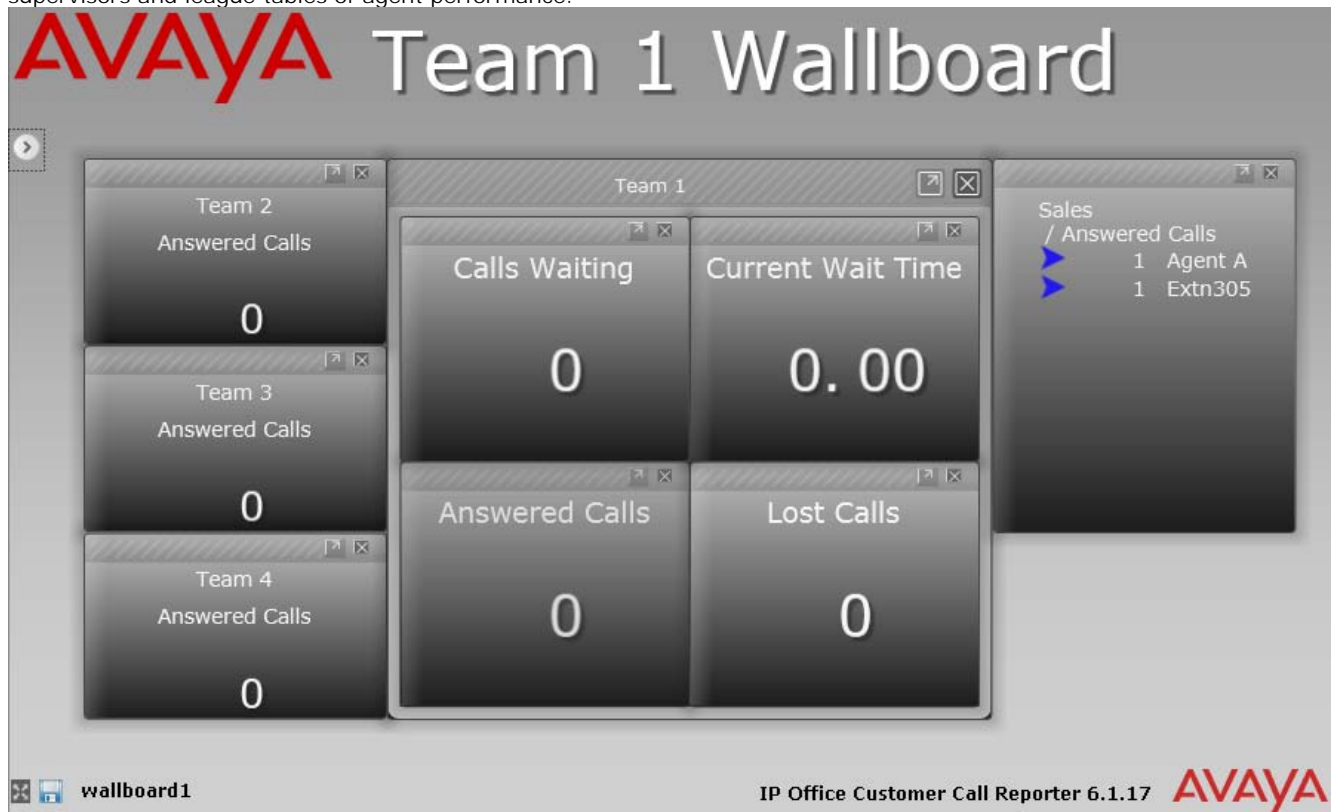
This mode is used by individual agents. It allows them to see their supervisor's view but adjusted to show only their own agent statistics.

Queues	Agents Ringing	Answered Int Queue	Answered Calls	Average Ans %	Queue State T	Calls Waiting
HG1	1	1	3	6.10	00:00:09	8
HG2	2	2	3	6.39	00:00:03	1
TOTAL	3	3	6			9

Agents	Average Ans Time	Average Ans %	Agents Call Share
Agent3	8.61	4.94	1.66

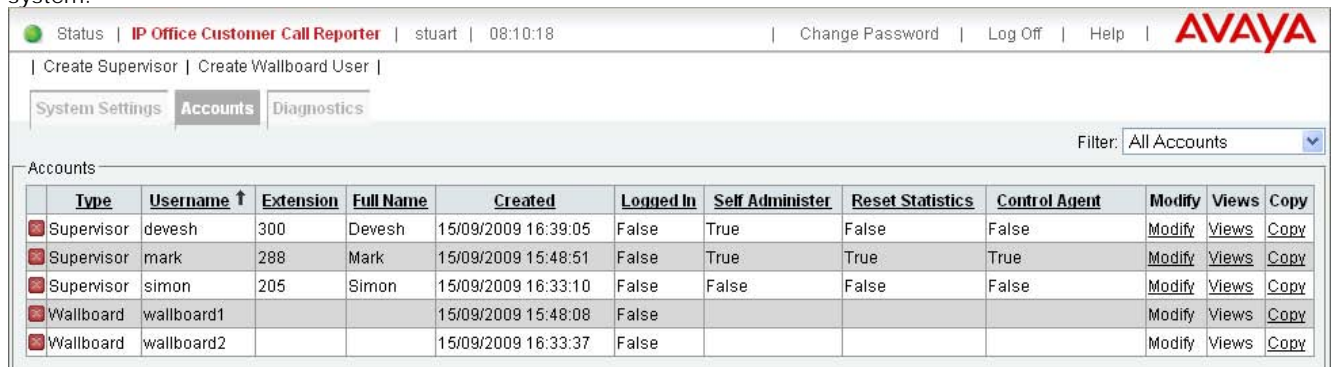
[Wallboard Mode](#) ⁹⁶

This mode is used to display queue statistics as sets of values and graphs. It can also be used to display messages sent by supervisors and league tables of agent performance.



[Administrator Mode](#) ¹³²

This mode is used by the IP Office Customer Call Reporter administrator to configure the IP Office Customer Call Reporter system.



1.1 How Do I...

General

Get Started		
<ul style="list-style-type: none"> • Log in ^[16] • Change my password ^[17] 	<ul style="list-style-type: none"> • Reset a forgotten password ^[18] • Get help ^[19] 	<ul style="list-style-type: none"> • Log off ^[20]

Supervisor Account

As a Supervisor ...		
<ul style="list-style-type: none"> • View my account details ^[78] 	<ul style="list-style-type: none"> • Use the dashboard ^[25] 	<ul style="list-style-type: none"> • Backup the Database ^[67]
Use Monitor Views		
<ul style="list-style-type: none"> • Edit my monitor views. ^[36] • Sort on a statistic ^[39] • Remove a queue from a view ^[39] • Change the column order ^[39] 	<ul style="list-style-type: none"> • Change the queue rows order ^[39] • View Agent details ^[39] • Understand the statistic colors ^[40] • Use alarms and warnings ^[41] 	<ul style="list-style-type: none"> • Change an agents status ^[42] • Reset the statistics manually ^[43] • Reset the statistics automatically ^[67] • Graph a statistic ^[44]
Running Reports		
<ul style="list-style-type: none"> • Create a report template ^[47] • Run a manual report ^[50] 	<ul style="list-style-type: none"> • Schedule a report ^[51] • Modify a report ^[52] 	<ul style="list-style-type: none"> • Delete a report ^[52]
Schedule events		
<ul style="list-style-type: none"> • Schedule a report ^[66] • Automatically reset the statistics ^[67] 	<ul style="list-style-type: none"> • Backup the database ^[67] 	<ul style="list-style-type: none"> • Send Wallboard messages ^[69]
Use the Customer Map		
<ul style="list-style-type: none"> • View the customer map ^[71] • Understand the pin colors ^[72] 	<ul style="list-style-type: none"> • Select the map type ^[75] • Map historical calls ^[76] 	<ul style="list-style-type: none"> • Add a map overlay ^[77]

Wallboard Accounts

Use a Wallboard Account		
<ul style="list-style-type: none"> • Create a Wallboard Account ^[98] • Log in a Wallboard ^[100] • Edit the wallboard ^[101] 	<ul style="list-style-type: none"> • Add a League Table ^[110] • Add a Logo ^[111] • Add a Title Bar ^[113] 	<ul style="list-style-type: none"> • Add a Graph ^[113] • Add a message bar ^[117] • Send a message ^[118]

Administrator Account

As an Administrator...		
<ul style="list-style-type: none"> • View accounts ^[135] • Create a supervisor account ^[136] 	<ul style="list-style-type: none"> • Create a wallboard account ^[139] • Edit a supervisor's views ^[140] 	<ul style="list-style-type: none"> • Restart a service ^[145] • Setup email services ^[146]

1.2 Key Terms

The following are the definitions for some of the key elements of IP Office Customer Call Reporter operation covered in this documentation. Additional definitions are included where appropriate. A full set of definitions is found in the [Glossary/Definitions](#) ^[268] section.

Administrator

The administrator can amend IP Office Customer Call Reporter system preferences plus create and administer supervisors. That includes assigning which queues a supervisor can see or granting the supervisor self-administration rights to amend their own settings including queues.

The administrator does not have any views of call statistics. However they can setup and amend the views used by supervisors and their agents.

There is only one administrator account and only one person can log in as the administrator at any time.

Supervisor

Supervisors can [create](#) ^[36] and [amend views](#) ^[39] of the agent queues assigned to them. Those views are then viewable by the supervisor and the agents. Supervisors can also [create reports](#) ^[47] that they then either run [manually](#) ^[50] or that they [schedule](#) ^[51] to run automatically at regular intervals.

IP Office Customer Call Reporter supports up to 30 supervisors. However the maximum number of supervisors that can be logged in at any time is controlled by the number of available Supervisor licenses (each license enables a simultaneous Supervisor login and Wallboard login).

Agent

An agent is a user who handles calls to queues on the IP Office telephone system. Unlike general IP Office users they have been specifically configured as agents in the IP Office configuration. IP Office Customer Call Reporter supports up to 150 agents.

- To make and receive calls, the agent must login to a phone on the IP Office telephone system. Note that T3 Series and T3 IP Series phones are not currently supported.
- The agent's phone status is recorded by IP Office Customer Call Reporter. For example when they logged in to a phone, answer a call, log off, etc.
- The agents are also configured as members of queues and are then presented with call targeted to those queues. An agent can be a member of several queues.
- Using the web client allows the agent to see the same monitor views as their supervisor. However, unlike the supervisor an agent only sees their own statistics and those for queues which they belong.

Queues

A queue is a hunt group configured for IP Office Customer Call Reporter operation. Calls to a queue are presented the first [available agent](#) ^[268] in the queue using a pattern set in the queue's configuration. If the call is not answered it is presented to the next available agent and so on until answered. The order in which the agents are used is set in it's configuration to one of the following orders: [Collective](#) ^[269], [Sequential](#) ^[275], [Rotary](#) ^[274] and [Longest Waiting](#) ^[276].

Statistics

IP Office Customer Call Reporter collects information about calls to queues and agents and stores this in its database. It also collects information about the current state of the queues and agents. Statistics based on this information are then used in web views and historical reports.

- Except where specifically indicated, usually by the term 'Non-Queue', all statistics relate to calls targeted to queues.
- Each statistic can only be added once within each view.
- Statistics are calculated values. They are affected by configurable settings on the particular view, wallboard or report such as whether to include or exclude internal calls. Those settings can be varied for each instance where a particular statistic is used.
- The statistics value in views and wallboards can be manually reset when required by any supervisor for who the [administrator](#) ^[268] has enabled the [Reset Statistics](#) ^[43] option. Resetting the statistics affects the view and wallboard statistics for all supervisors and agents. It does not affect the statistics used for historical reports.
- The statistics in views are updated approximately every 2 seconds.

Monitor View

The term view is used for the first 3 tabs displayed to supervisors and agents. Each view consists of a table of queues and queue statistics. Clicking on any of the queue names will display an additional table of agent statistics for the agents in that queue. An alarm list or ticker can also be added to each view to show alarms and warnings for that view or all the supervisor's views. The views can be amended by the supervisor and administrator.

Agents are able to see the same views as their supervisor but cannot change the queues or statistics. The agent's version of the view will only show queues to which the agent belongs and their own agent details.

Wallboard

The IP Office Customer Call Reporter administrator can create wallboard accounts. When logged in with one of these accounts, the browser can be used to display queue statistics for any queues plus other information such as messages sent or scheduled by IP Office Customer Call Reporter supervisors.

IP Office Customer Call Reporter supports up to 30 wallboards. However the maximum number of wallboards that can be logged in at any time is controlled by the number of available Supervisor licenses (each license enables a simultaneous Supervisor login and Wallboard login).

1.3 Client PC Requirements

Web Browser Requirements

IP Office Customer Call Reporter was designed and tested with the listed web browsers. If used with other any other browser a warning will be displayed but access is not prevented.

- Google Chrome
- Firefox 3.0 or higher
- Safari 3.1 or higher
- Internet Explorer 8
- Internet Explorer 7
IE7 is supported for only 100 statistics values in any section of a view. That is up to 100 statistic values for queues and up to 100 statistic values for the agents in the currently selected queue. It is also limited to 1500 calls per hour.

Required Browser Features

- JavaScript enabled.
- Pop-ups allowed. Required for report viewing, graph and help windows.
- If audio for alarms has been enabled, an audio plugin is required for user's browsers. Use Windows Media Player or Quick Time.
 - When using a browser other than Internet Explorer, Windows Media Player may be supported by the addition of the Firefox Windows Media Play plugin. This plugin is available from <http://port25.technet.com/pages/windows-media-player-firefox-plugin-download.aspx>. Currently this plugin is useable with Google Chrome, Mozilla Firefox and Windows Safari.
- Microsoft Silverlight
The IP Office Customer Call Reporter wallboard and customer map functions use Silverlight. When logging in at a computer without Silverlight installed, if the computer has access to the internet, you will be prompted to install Silverlight. If the computer does not have access to the internet, Silverlight must be installed manually for the wallboard view to run. Full details of Silverlight and the browsers on which it is supported can be obtained at <http://www.microsoft.com/silverlight>.
 - To ensure that Silverlight features operate smoothly, especially when a large number of rapidly changing statistics are being displayed, it is recommended that the PC uses a dedicated graphics card rather than integrated graphics provided on the motherboard of many computers. The recommended minimum specification is a DirectX 9.0c or above compatible graphics card for GPU hardware acceleration via DirectDraw with 1GB or greater video memory. Support for 60Hz or greater refresh rate at the chosen resolution, for both card and monitor.

1.4 Account Settings

To login to IP Office Customer Call Reporter requires a username, password and email address. The way these are assigned depends on the type of account.

Role	Username	Password	Email Address
Administrator	Created the first time IP Office Customer Call Reporter is run after installation.	Created the first time IP Office Customer Call Reporter is run after installation. You can then change it through the system settings ^[144] after logging in as administrator.	An address is entered during installation when the administrator account is first created. This address can be changed by after logging in by going to the System Settings ^[144] tab.
Supervisor	Created by the administrator when they create your supervisor account. If you also take calls on the phone system they may configure it to match your IP Office username.	Set by the administrator when they create a supervisor account. The administrator can change supervisor passwords ^[136] if required. You can change it through your account details ^[78] after logging in.	Set by the administrator when they create your supervisor account. They can also change your address. You can change it through your account details ^[78] after logging in.
Agent	Your IP Office Customer Call Reporter username matches your username on the IP Office phone system. This may differ from the name shown on your phone so consult your supervisor if unsure.	You will be requested to enter a password the first time you login. If you have an address already configured in the IP Office configuration that is shown as the default.	An address is requested by IP Office Customer Call Reporter when you first log in. If you already have an address set in the IP Office configuration, that address will be displayed by default.
Wallboard	Created by the administrator when they create the wallboard account.	Created by the administrator when they create the wallboard account.	No email address is used for wallboard accounts.

1. Email addresses must be unique. IP Office Customer Call Reporter does not support two users having the same email address. Users who have already logged in can set a new password using the [Change Password](#)^[17] function. All users can request a new password by email using the [Forgotten Password](#)^[18] function if they have an email address known to the IP Office Customer Call Reporter system.
2. Logging in multiple sessions using the same account will consume multiple licenses.
3. Usernames are not case sensitive. Passwords are case sensitive.

1.5 Logging In

This refers to logging in to the IP Office Customer Call Reporter web client, not to [logging in to a phone](#)^[87] to receive calls.

1. Using your browser, enter the path to the IP Office Customer Call Reporter web service - `http://<server_path>/CCRWebClient`. The login window should appear.



2. Enter your Username and Password.

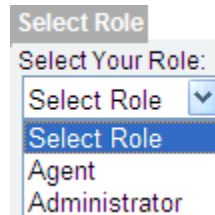
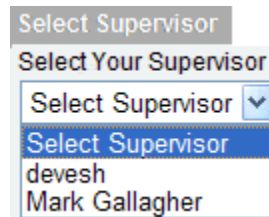
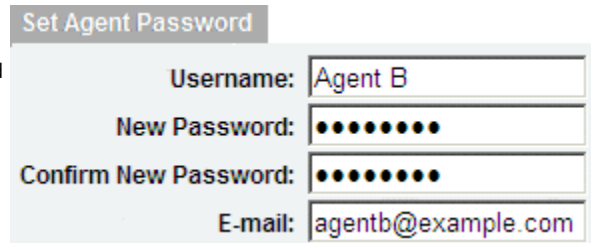
- If you have forgotten your password but have an email address set in IP Office Customer Call Reporter, click [Forgot Password](#)^[18].
- If you are an agent logging in for the first time leave the password field blank. You will be asked to set your password and email address as part of the login.

3. If you want the IP Office Customer Call Reporter web client to run in a different language, you can use the Language drop down to select a language from the list.

Supported languages are *Dutch, English (UK), English (US), French, German, Italian, Brazilian Portuguese, Russian and Spanish*. Some parts of customer call maps are third party components delivered over the internet and may run in different languages, for example the zoom and pan controls.

4. Click Logon.

- **Agent's First Time Login**
If you are an agent logging in for the first time, the Set Agent Password window will appear. Enter a password of your choice and then click OK. Your unique email address is also requested. You need to enter an address in order to use the [Forgot Password](#)^[18] feature in future.
- **All Agent Logins**
If multiple supervisors have been configured, agents need to indicate the supervisor they are working for.
- **Multiple Role Login (Optional)**
If your username is [configured for more than one role](#)^[262], the Select Role window will appear. Select the required role and click OK.



5. The web client will open in the appropriate mode: [Agent](#)^[82], [Supervisor](#)^[22] or [Administrator](#)^[132].

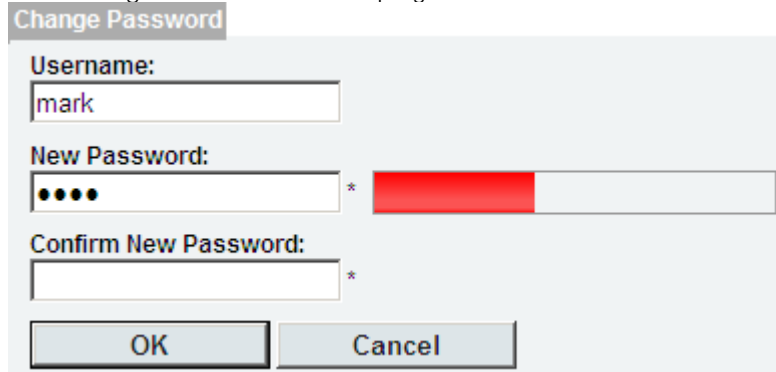
- You have three attempts to enter the correct password or username. If you fail to enter valid login details the login window will close and your account is locked for 5 minutes.
- Logged in users who are inactive for more than a set time are automatically logged off. The default time is 30 minutes but this can be adjusted by the administrator.

1.6 Changing Your Password

The administrator, supervisors and agents who have logged in can select to change their password. This option is not available for wallboards.

To change your password

1. Logon to the client application using your current password.
2. Click Change Password at the top right of the window.



The screenshot shows a 'Change Password' dialog box. It has a title bar with the text 'Change Password'. Below the title bar, there are three input fields. The first is labeled 'Username:' and contains the text 'mark'. The second is labeled 'New Password:' and contains four black dots, followed by a red bar. The third is labeled 'Confirm New Password:' and contains a red bar. There are two buttons at the bottom: 'OK' and 'Cancel'.

3. Enter your details:
 - Username
The name you use when you login to the IP Office Customer Call Reporter web client. This can not be changed.
 - New Password
Enter your new password.
 - Confirm New Password
Re-enter your new password. Remember that passwords are case sensitive.
4. Click OK. You have changed your password.
5. Click any of the tabs, including the current one, to return to normal viewing.


1.7 Forgotten Passwords

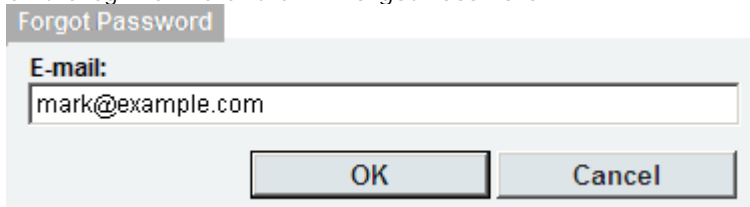
If you have forgotten your password, you can request a new password to be sent to you by email. This option is not available for wallboards.

How is my email address set for IP Office Customer Call Reporter?

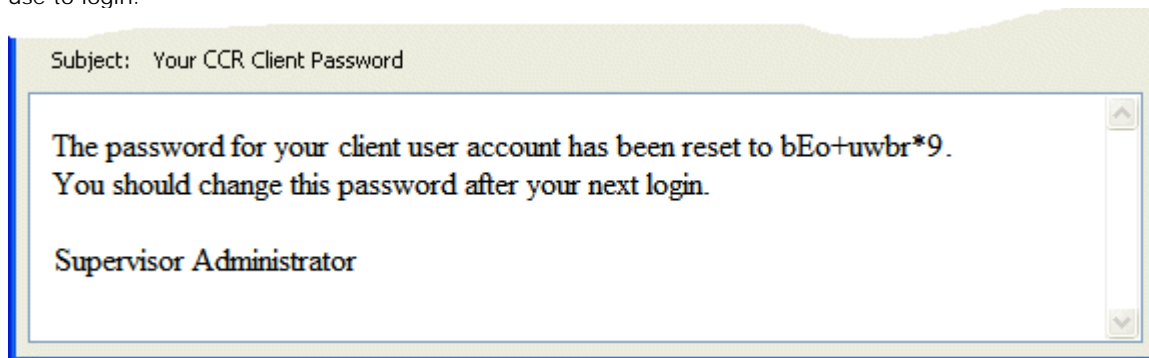
- [Agent](#) ^[266]
Your email address is requested by IP Office Customer Call Reporter the first time you log in. If you already have an email address set in the IP Office telephone system, that address is displayed by default.
- [Supervisor](#) ^[275]
When the administrator creates or amends a [supervisor account](#) ^[136] they can enter a unique email address. Supervisors can also check and change their email address when logged in by clicking on [Account](#) ^[78].
- [Administrator](#) ^[266]
The administrator's email address is entered when IP Office Customer Call Reporter is first run. When logged in as the administrator, the email address can be checked and changed through the [System Settings](#) ^[144] tab.

To request a new password

1. Using your web browser access the web address for your IP Office Customer Call Reporter system.
2. On the login form click the  Forgot Password link.



3. Enter your email address.
4. Click OK to request a new password email. You are returned to the main IP Office Customer Call Reporter web client [Logon Window](#) ^[16] and an email is sent to your email address.
5. The email subject will be Your CCR Client Password. It contains a randomly generated password that you can use to login.



Example of forgotten password email.

6. You can then use the [Change Password](#) ^[17] function after you have logged in.

1.8 Additional Help

Except for wallboard views, the following methods can be used to access help:

Viewing Help

Clicking Help allows you to access this document as embedded help from IP Office Customer Call Reporter. The help will open in a separate browser window. Help is supported in *English, French, Italian, German, Brazilian Portuguese* and *Latin Spanish*. For IP Office Customer Call Reporter running in any other languages, the help will appear in *English*.

Popup Help Tooltips

For each of the different possible statistics, popup tooltip help is provided. To access this place the cursor over the statistic name (the cursor should change to a hand icon). After a short delay the popup help will appear. Help is supported in English, French, German, Italian, Spanish and Brazilian Portuguese. For IP Office Customer Call Reporter running in any other languages, the help will appear in English.

Agents Ringing	Answered Int Queue	Answered Calls	Average Ans %	Queue State T
			6.10	00:00:09
			6.39	00:00:03

- This statistic is available for queues and agents.
- It shows the number of queue calls that are answered by an agent or agents in a queue.
- If a queue call is answered by an agent's twinned device it is included.
- Calls that overflow to the queue from another queue are included. For the previous queue they are included in that queue's **Overflowed Calls** and **Overflowed Answered** statistics.

- The use of help tooltips is enabled or disabled through the Help Tooltips Enabled within the [Supervisor account settings](#)^[78].

Statistic Help

In addition to the popup help above, more detailed help on each statistic is available. Click on the statistic name at the top of the column and select Help from the menu that appears.

Additional Information


Additional help and information on IP Office Customer Call Reporter and IP Office can also be found at the Avaya support web site (<http://support.avaya.com>) and the IP Office Knowledge Base web site (<http://marketingtools.avaya.com/knowledgebase>).

1.9 Logging Off

Once you have started the IP Office Customer Call Reporter web client you can exit at any time. It is important that you exit correctly rather than just closing the web browser. If you try to login on another machine without previously logging off, you may need to wait 5 minutes for the previous session to time out (during which time a supervisor or agent license may also continue to be consumed).

IP Office Customer Call Reporter wallboards do not have a log off option. The wallboard account is logged off by closing the browser.

To exit

1. Click Log Off to log off from IP Office Customer Call Reporter. You are returned to the [login](#) ¹⁶⁷ window.
 - If using the Customer Map, click on the  icon.
2. This action logs you off the IP Office Customer Call Reporter. For agents, it does not log you off your current phone extension. See [Logging Out](#) ¹⁸⁹.

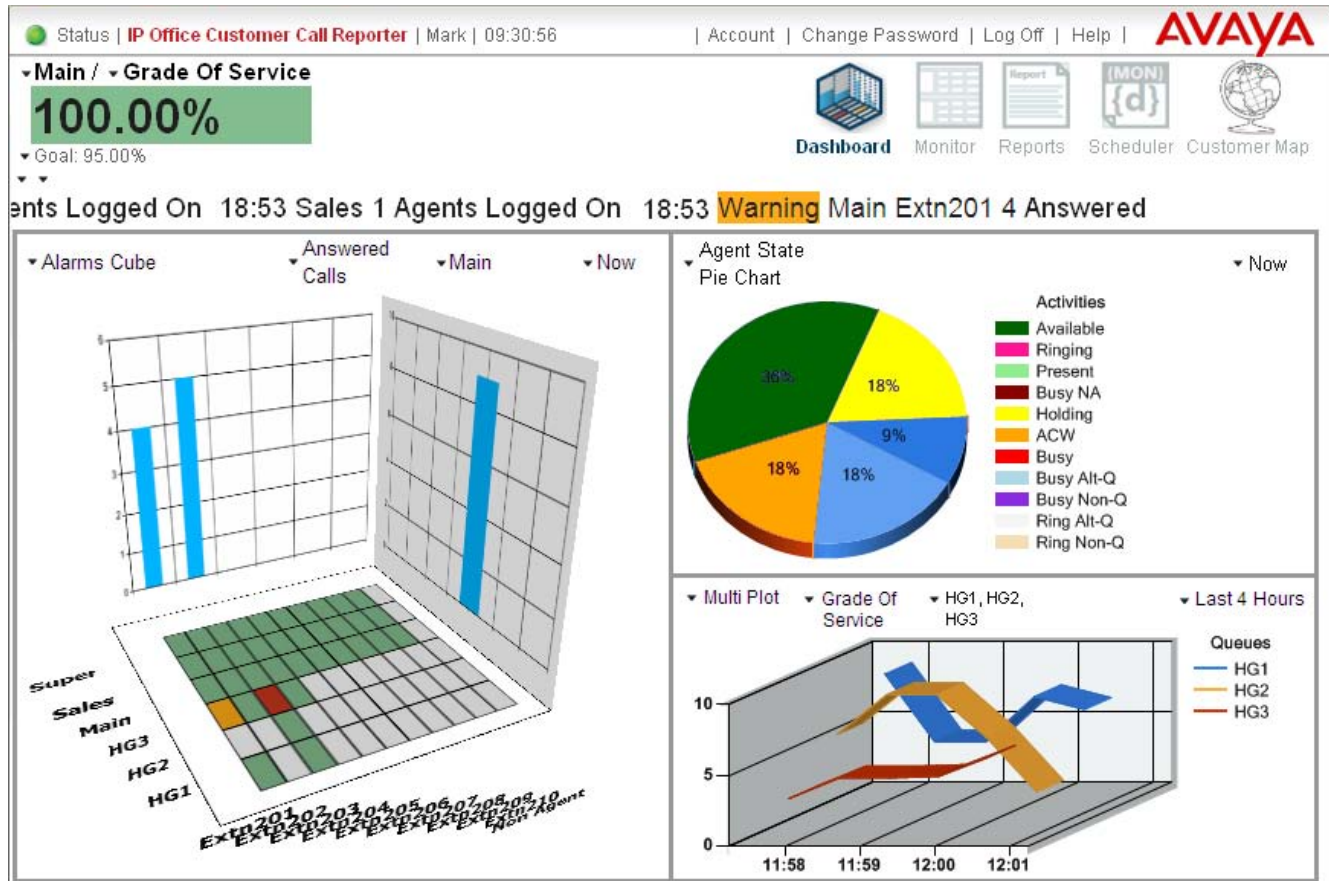
Chapter 2.

Supervisor

2. Supervisor

Supervisors can [create](#)^[36] and [amend views](#)^[39] of the agent queues assigned to them. Those views are then viewable by the supervisor and the agents. Supervisors can also [create reports](#)^[47] that they then either run [manually](#)^[50] or that they [schedule](#)^[51] to run automatically at regular intervals.

IP Office Customer Call Reporter supports up to 30 supervisors. However the maximum number of supervisors that can be logged in at any time is controlled by the number of available Supervisor licenses (each license enables a simultaneous Supervisor login and Wallboard login).



- [Dashboard](#)^[25]
This is the default page shown when a supervisor logs in. It shows information graphs for selected queues, agents and statistics.



- [Monitor](#)^[36]
Each supervisor has 3 information views, each showing a table of different of queue and agent statistics. These views are initially created by the [administrator](#)^[146] but can be adjusted by the supervisor. By default the views are called *View 1*, *View 2* and *View 3* but they can be renamed through the supervisor's [account settings](#)^[78].



- [Reports](#)^[47]
Create and save report templates for both manual and automatic reports. For manual reports the report is run from this tab after having selected the required template.






- [Scheduler](#)^[51]
Schedule events such as saved reports, wallboard messages and general housekeeping tasks.



- [Customer Map](#)^[71]
The customer displays customer calls for a selected period on a map that plots the position of customers based on calling number information.

As a Supervisor ...		
• View my account details [78]	• Use the dashboard [26]	• Backup the Database [67]
Use Monitor Views		
• Edit my monitor views [36]	• Change the queue rows order [39]	• Change an agents status [42]
• Sort on a statistic [39]	• View Agent details [39]	• Reset the statistics manually [43]
• Remove a queue from a view [39]	• Understand the statistic colors [40]	• Reset the statistics automatically [67]
• Change the column order [39]	• Use alarms and warnings [41]	• Graph a statistic [44]
Running Reports		
• Create a report template [47]	• Schedule a report [51]	• Delete a report [52]
• Run a manual report [50]	• Modify a report [52]	
Schedule events		
• Schedule a report [66]	• Backup the database [67]	• Send Wallboard messages [69]
• Automatically reset the statistics [67]		
Use the Customer Map		
• View the customer map [71]	• Select the map type [75]	• Add a map overlay [77]
• Understand the pin colors [72]	• Map historical calls [76]	

The Status Bar

Status [144]	<p>This button indicates the overall status of IP Office Customer Call Reporter. Clicking on the icon displays a System Settings [144] tab which shows the status of the individual IP Office Customer Call Reporter components.</p> <ul style="list-style-type: none"> •  Green: IP Office Customer Call Reporter is running. •  Yellow: Some parts of IP Office Customer Call Reporter are still in the process of starting. •  Red: There may be a problem in IP Office Customer Call Reporter.
Change Password [17]	While logged in to IP Office Customer Call Reporter, you can change your password.
Log Off [20]	Close the IP Office Customer Call Reporter connection. It is important to close a connection using this control rather than just closing the browser or tab within the browser. Failing to use this button will cause a 5 minute delay before you can log in again on another PC.
Help [19]	Access this documentation in online format. Where possible the appropriate page for the current IP Office Customer Call Reporter screen is displayed.
Account [78]	This tab shows details for the supervisor's account. It also allows those details to be changed including the supervisor password and email address.

2.1 Logging In

This refers to logging in to the IP Office Customer Call Reporter web client, not to [logging in to a phone](#)^[87] to receive calls.

1. Using your browser, enter the path to the IP Office Customer Call Reporter web service - `http://<server_path>/CCRWebClient`. The login window should appear.



2. Enter your Username and Password.

- If you have forgotten your password but have an email address set in IP Office Customer Call Reporter, click [Forgot Password](#)^[18].
- If you are an agent logging in for the first time leave the password field blank. You will be asked to set your password and email address as part of the login.

3. If you want the IP Office Customer Call Reporter web client to run in a different language, you can use the Language drop down to select a language from the list.

Supported languages are *Dutch, English (UK), English (US), French, German, Italian, Brazilian Portuguese, Russian and Spanish*. Some parts of customer call maps are third party components delivered over the internet and may run in different languages, for example the zoom and pan controls.

4. Click Logon.

- **Agent's First Time Login**
If you are an agent logging in for the first time, the Set Agent Password window will appear. Enter a password of your choice and then click OK. Your unique email address is also requested. You need to enter an address in order to use the [Forgot Password](#)^[18] feature in future.
- **All Agent Logins**
If multiple supervisors have been configured, agents need to indicate the supervisor they are working for.
- **Multiple Role Login (Optional)**
If your username is [configured for more than one role](#)^[26], the Select Role window will appear. Select the required role and click OK.

5. The web client will open in the appropriate mode: [Agent](#)^[82], [Supervisor](#)^[22] or [Administrator](#)^[132].

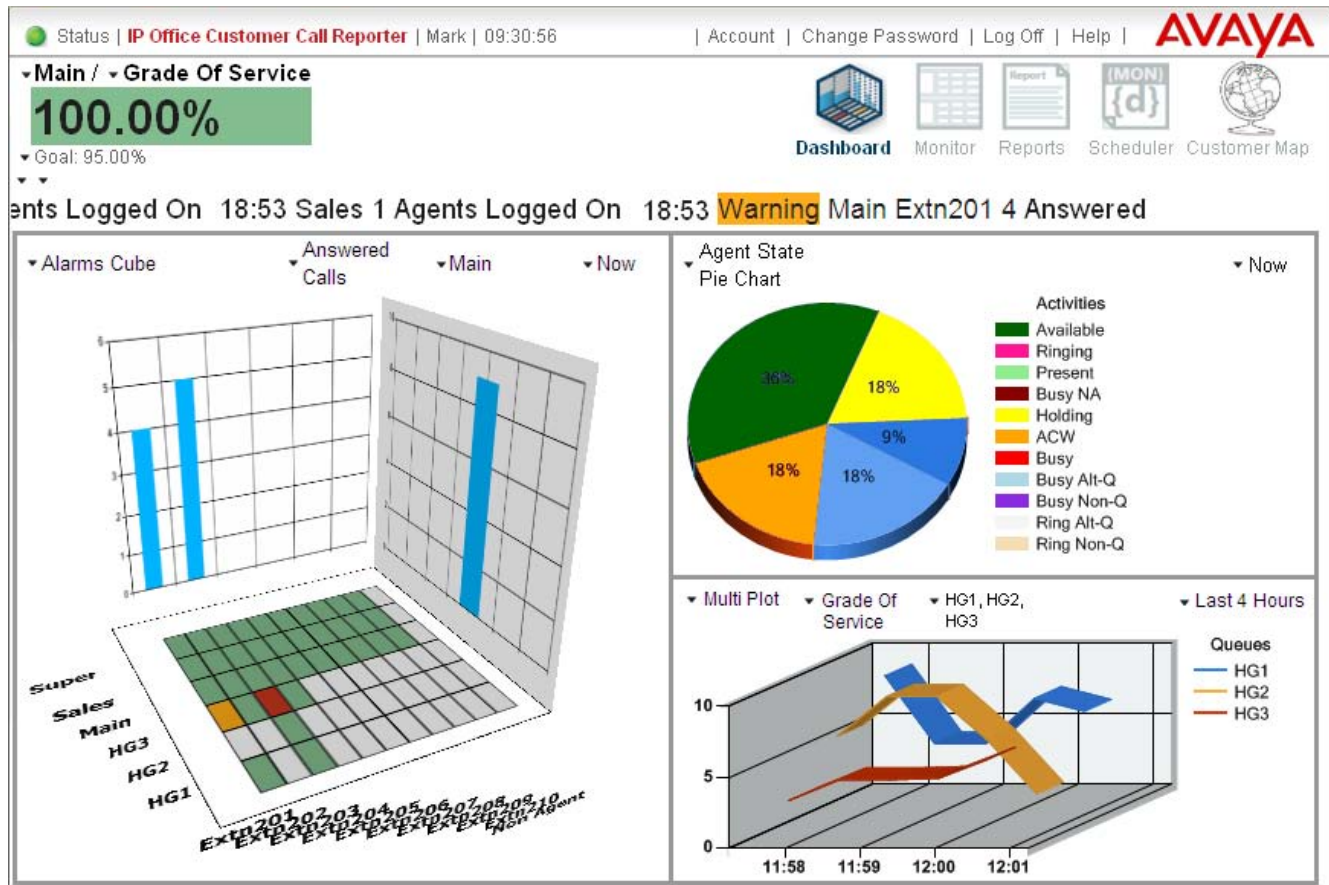
- You have three attempts to enter the correct password or username. If you fail to enter valid login details the login window will close and your account is locked for 5 minutes.
- Logged in users who are inactive for more than a set time are automatically logged off. The default time is 30 minutes but this can be adjusted by the administrator.

2.2 Dashboard

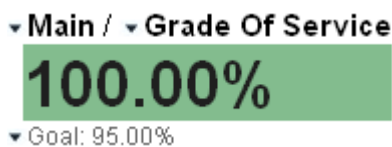


For a supervisor account, this is the default page shown after logging in. It consists of a number of adjustable information elements; a dashboard goal, a statistics information ticker and a set of graph display panels. The elements are described below.

Items in the dashboard are updated approximately every 10 seconds.



Dashboard Goal



This appears at the top left of the dashboard. The goal is based on a selected queue and either its Average Speed of Answer, Grade of Service or Agent Productivity statistic. The background color of the goal is changed from red to green when the goal target is met or exceeded.

By clicking on the ▼ icons next to each part of the dashboard goal, you can select the queue, the queue statistic and the target value.

Dashboard Warnings, Alarms and Information Ticker

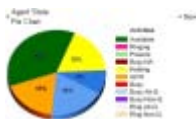
The area just above the display panels is used to show an all views alarms and warnings ticker. You can also configure it to show statistics information for selected queues and queue statistics.



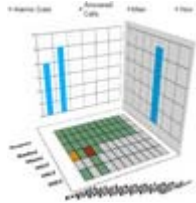
The alarms and warnings match those in the Alarms Ticker All Views used in the monitor views and is not adjustable. The general information included in the ticker can be adjusted by clicking on the ▼ icons. These allow you to select which queues and queue statistics are included.

Dashboard Plot Panels

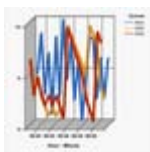
The main part of the dashboard is divided into a large display panel and two small display panels. Each panel has a header row of ▼ icons which can be clicked to select the type of item displayed in the panel and to then adjust its settings. The options are:



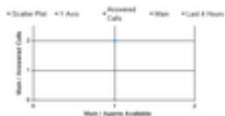
- [Agent State Pie Chart](#) ^[27]
This is a 3D effect pie chart of the agent states for all agents on the system. It can be set to show either the current states or it can summarize the time in each state for a selected historical time period.



- [Alarms Cube](#) ^[28]
This is a 3D cube that plots a selected statistic value for the supervisor's queues on one wall, for the agents in those queues on the other wall and for agent alarms and warnings on the base.



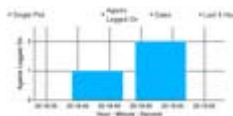
- [Multi Plot Graph](#) ^[29]
This is a 3D plot of a queue statistic over time for multiple selected queues.



- [Scatter Plot](#) ^[30]
This 2D graph plots two statistics for two queues over a period of time. Points are plotted using one statistic for the X axis value and the other statistic for the Y-axis value.



- [Single Pie](#) ^[31]
This pie chart shows each queue's share of the total for a selected queue statistic.



- [Single Plot Graph](#) ^[32]
This is a 2D graph of a single queue statistic for a selected queue over time.



- [Statistics Cube](#) ^[33]
This is a 3D plot of 3 statistics against each other. It can plot either points representing combinations of the values or a plane joining the value combinations.

- [Statistics Table](#) ^[34]
This is the queue statistics table repeating the queues and queue statistics settings from one of the monitor views. The table cannot be adjusted directly, that must be done through the matching monitor view.

Dashboard Queues

The queue available for display in the dashboard are those allocated in your [supervisor account settings](#) ^[78].

Dashboard Statistics

The panels allow selection of which statistics each item displays but do not allow adjustment of other statistic settings. For all statistics, the call scope includes both internal and external calls. This cannot be changed.

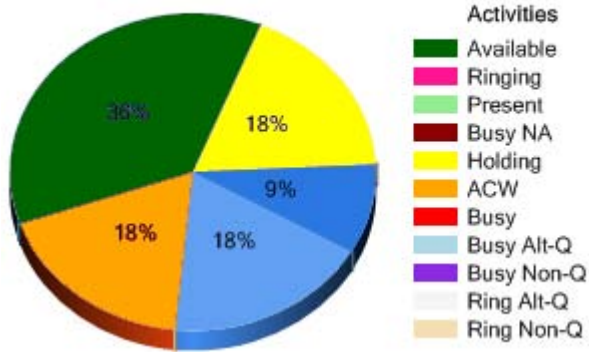
If a statistic that relies on thresholds for its calculation is selected for display ([Agent Productivity](#) ^[155], [Average Answer %](#) ^[173] or [Grade of Service](#) ^[182]), the thresholds is taken from those of the same statistic in the supervisor's first view. The thresholds cannot be changed through the dashboard.

The time period selectable for each display is *Now*, *Last 4 Hours*, *Last Day*, *Last 2 Days*, *Last 3 Days*, *Last Week*, *Last 2 Weeks*, *Last Month* or *Complete*. However, for some types of item the selectable time may be limited to *Now* or *Complete*. *Complete* show the proportion of time the agents spent in that state since the dashboard view was started.

- Note that the dashboard uses realtime statistics, so any data before the last [manual reset](#) ^[43] or [automatic reset](#) ^[67] of realtime statistics are not shown regardless of the time range setting.

2.2.1 Agent State Pie

Agent State
Pie Chart



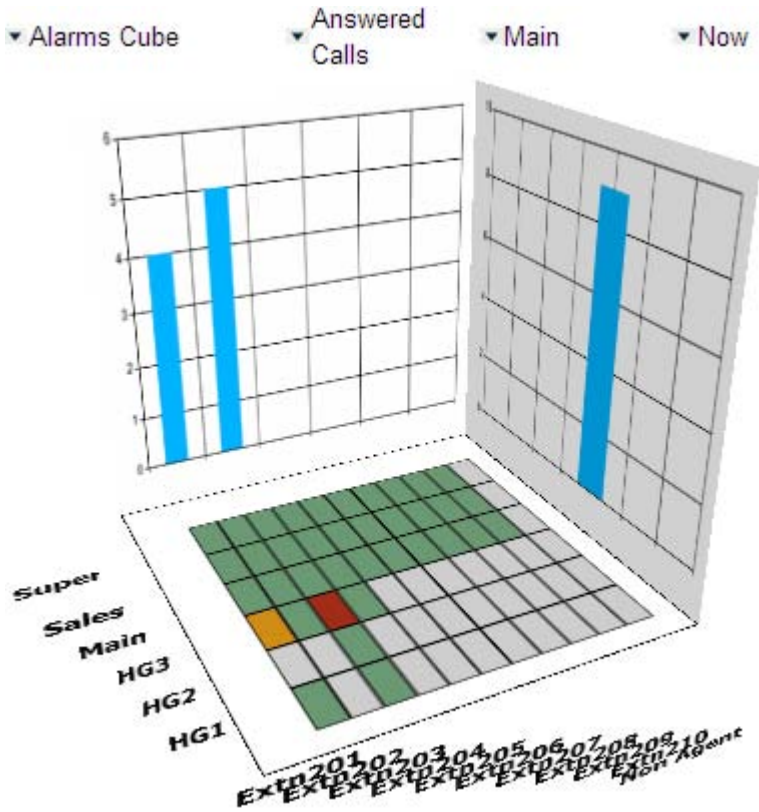
Now

This is a pie chart of the agent states for all agents (equivalent to the [Agent Stat \(System\)](#) [160] statistic). It can be set to show either the current states or it can summarize the time in each state since dashboard was displayed.

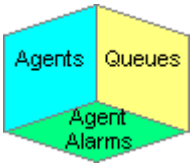
- ▼ Type: *Agent State Pie*
- ▼ Time Range
Either *Now* or *Complete*. *Complete* show the proportion of time the agents spent in that state since the dashboard view was started.

2.2.2 Alarms Cube

This is a 3D cube that plots a selected statistic value for all the supervisor's queues and agents. Only statistics supported by both queues and agents can be used.



The statistic values for the queues are shown on the right hand wall. The statistic values for the agents are shown on the left hand wall. The base is used to show agent alarms and warnings for the statistic.



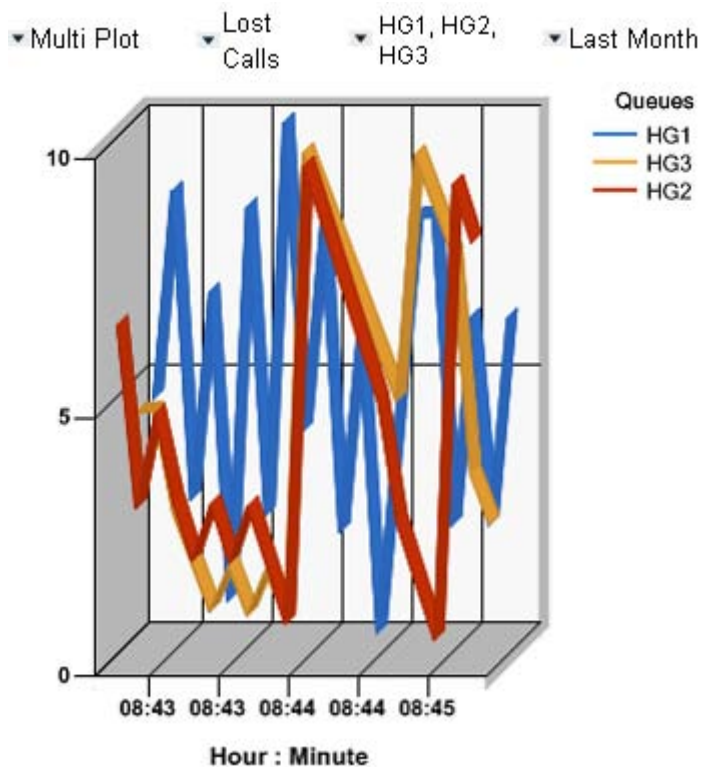
The alarms and warnings use the settings as configured through the first monitor view. They cannot be configured through the alarm cube. The colors used on the base of the alarms cube are shown below. The alarm, warning and acknowledged colors are removed when the statistic value returns to below the threshold.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

- ▼ Type: *Alarms Cube*
- ▼ Statistic
The statistic to plot. This is limited to only those statistics supported by both queues and agents.
[Agent Productivity](#) ^[153], [Answered Calls](#) ^[169], [Answered Internal \(Queue\)](#) ^[172], [Average Answer %](#) ^[173], [Average Answer Time](#) ^[175], [Lost Calls](#) ^[187], [No Answer](#) ^[190], [Routed to Other](#) ^[200], [Routed to Voicemail](#) ^[201], [Talk Average](#) ^[202], [Talk Inbound](#) ^[203], [Talk Inbound Average](#) ^[204], [Talk Internal](#) ^[205], [Talk Outbound](#) ^[206], [Talk Outbound Average](#) ^[207], [Talk Total](#) ^[208] and [Transferred](#) ^[209].
 - Note that the dashboard uses realtime statistics, so any data before the last [manual reset](#) ^[43] or [automatic reset](#) ^[67] of realtime statistics are not shown regardless of the time range setting.
- ▼ Queue
For the agents, select which queue of agents is shown on the left hand wall.
- ▼ Time Range
The time period is fixed to Now.

2.2.3 Multi Plot Graph

This is a 3D plots of a selected queue statistic over time for multiple selected queues. By default the first 2 queues are shown but you can select which queues to include. To change the type of graph, click on the current graph. The options are: straight line graph, curved line graph and and point graph.



- ▼ Type: *Multi Plot*
- ▼ Statistic

The queue statistic to plot for the selected queues.

[Agent Productivity](#)^[155], [Agents ACW](#)^[163], [Agents Available](#)^[164], [Agents Logged On](#)^[166], [Agents Present](#)^[167], [Agents Ringing](#)^[168], [Answered Calls](#)^[169], [Answered Internal \(Queue\)](#)^[172], [Average Answer %](#)^[173], [Average Answer Time](#)^[175], [Average Wait Time](#)^[177], [Busy Not Available](#)^[178], [Call Waiting](#)^[179], [Current Wait Time](#)^[181], [Grade of Service](#)^[182], [Longest Wait Time](#)^[185], [Lost Calls](#)^[187], [New Messages](#)^[189], [No Answer](#)^[190], [Overflowed Answered](#)^[193], [Overflowed Calls](#)^[194], [Overflowed Calls Waiting](#)^[195], [Overflowed Lost](#)^[197], [Routed to Other](#)^[200], [Routed to Voicemail](#)^[201], [Talk Average](#)^[202], [Talk Inbound](#)^[203], [Talk Inbound Average](#)^[204], [Talk Internal](#)^[205], [Talk Outbound](#)^[206], [Talk Outbound Average](#)^[207], [Talk Total](#)^[208] and [Transferred](#)^[209].

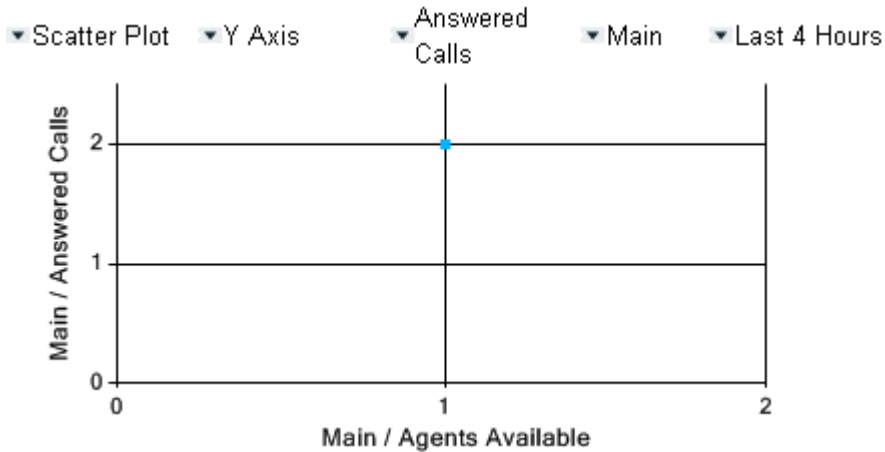
 - Note that the dashboard uses realtime statistics, so any data before the last [manual reset](#)^[43] or [automatic reset](#)^[67] of realtime statistics are not shown regardless of the time range setting.
- ▼ Queue

Allows selection of which queues to display.
- ▼ Time Range

The options are *Last 4 Hours*, *Last Day*, *Last 2 Days*, *Last 3 Days*, *Last Week*, *Last 2 Weeks* or *Last Month*. Note that the dashboard uses realtime statistics, so any data before the last [reset](#)^[43] is not shown.

2.2.4 Scatter Plot

This 2D graph plots two statistics for two queues over a period of time. Points are plotted using one statistic for the X axis value and the other statistic for the Y-axis value.



- ▼ Type: *Scatter Plot*
- ▼ Axis
Select *X Axis* or *Y Axis* to then adjust which queue and queue statistic is plotted on that axis.
- ▼ Statistic
The queue statistic to plot on the currently selected axis.
[Agent Productivity](#)^[155], [Agents ACW](#)^[163], [Agents Available](#)^[164], [Agents Logged On](#)^[166], [Agents Present](#)^[167], [Agents Ringing](#)^[168], [Answered Calls](#)^[169], [Answered Internal \(Queue\)](#)^[172], [Average Answer %](#)^[173], [Average Answer Time](#)^[175], [Average Wait Time](#)^[177], [Busy Not Available](#)^[178], [Call Waiting](#)^[179], [Current Wait Time](#)^[181], [Grade of Service](#)^[182], [Longest Wait Time](#)^[185], [Lost Calls](#)^[187], [New Messages](#)^[189], [No Answer](#)^[190], [Overflowed Answered](#)^[193], [Overflowed Calls](#)^[194], [Overflowed Calls Waiting](#)^[195], [Overflowed Lost](#)^[197], [Routed to Other](#)^[200], [Routed to Voicemail](#)^[201], [Talk Average](#)^[202], [Talk Inbound](#)^[203], [Talk Inbound Average](#)^[204], [Talk Internal](#)^[205], [Talk Outbound](#)^[206], [Talk Outbound Average](#)^[207], [Talk Total](#)^[208] and [Transferred](#)^[209].
 - Note that the dashboard uses realtime statistics, so any data before the last [manual reset](#)^[43] or [automatic reset](#)^[67] of realtime statistics are not shown regardless of the time range setting.
- ▼ Queue
The queue for which the statistic is being plotted on the currently selected axis.
- ▼ Time Range
The options are *Last 4 Hours*, *Last Day*, *Last 2 Days*, *Last 3 Days*, *Last Week*, *Last 2 Weeks* or *Last Month*. Note that the dashboard uses realtime statistics, so any data before the last [reset](#)^[43] is not shown.

2.2.5 Single Pie

This is a 3D effect pie chart which shows each queue's share of the total for a selected queue statistic.



- ▼ Type: *Single Pie*

- ▼ Statistic

The queue statistic used for the comparison.

[Agent Productivity](#)^[155], [Agents ACW](#)^[163], [Agents Available](#)^[164], [Agents Logged On](#)^[166], [Agents Present](#)^[167], [Agents Ringing](#)^[168], [Answered Calls](#)^[169], [Answered Internal \(Queue\)](#)^[172], [Average Answer %](#)^[173], [Average Answer Time](#)^[175], [Average Wait Time](#)^[177], [Busy Not Available](#)^[178], [Call Waiting](#)^[179], [Current Wait Time](#)^[181], [Grade of Service](#)^[182], [Longest Wait Time](#)^[185], [Lost Calls](#)^[187], [New Messages](#)^[189], [No Answer](#)^[190], [Overflowed Answered](#)^[193], [Overflowed Calls](#)^[194], [Overflowed Calls Waiting](#)^[195], [Overflowed Lost](#)^[197], [Routed to Other](#)^[200], [Routed to Voicemail](#)^[201], [Talk Average](#)^[202], [Talk Inbound](#)^[203], [Talk Inbound Average](#)^[204], [Talk Internal](#)^[205], [Talk Outbound](#)^[206], [Talk Outbound Average](#)^[207], [Talk Total](#)^[208] and [Transferred](#)^[209].

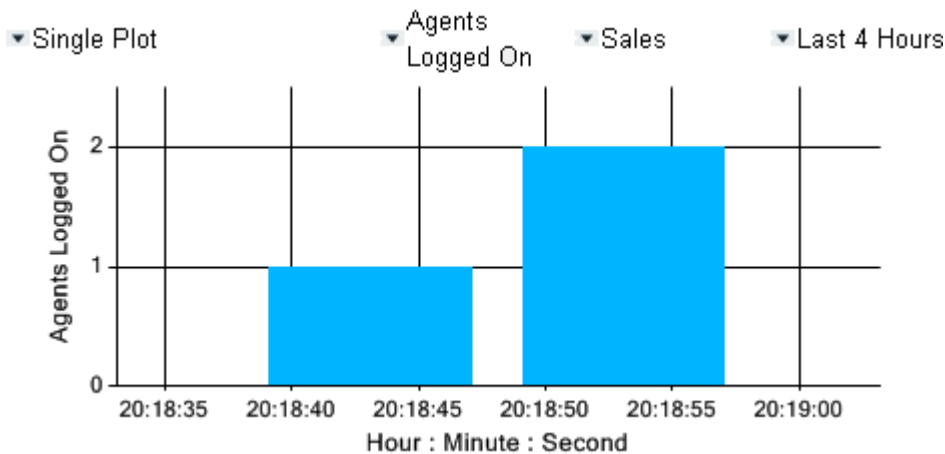
- Note that the dashboard uses realtime statistics, so any data before the last [manual reset](#)^[43] or [automatic reset](#)^[67] of realtime statistics are not shown regardless of the time range setting.

- ▼ Time Range

The time period is fixed to Now.

2.2.6 Single Plot Graph

This is a 2D graph of a single queue statistic for a selected queue over time. To change the type of graph, click on the current graph. The options are: column bar graph, row bar graph, straight line graph, area graph, curved line graph and point graph.



- ▼ Type: *Single Plot Graph*
- ▼ Statistic
The queue statistic to plot. Supported statistics are:
[Agent Productivity](#)^[155], [Agents ACW](#)^[163], [Agents Available](#)^[164], [Agents Logged On](#)^[166], [Agents Present](#)^[167], [Agents Ringing](#)^[168], [Answered Calls](#)^[169], [Answered Internal \(Queue\)](#)^[172], [Average Answer %](#)^[173], [Average Answer Time](#)^[175], [Average Wait Time](#)^[177], [Busy Not Available](#)^[178], [Call Waiting](#)^[179], [Current Wait Time](#)^[181], [Grade of Service](#)^[182], [Longest Wait Time](#)^[185], [Lost Calls](#)^[187], [New Messages](#)^[189], [No Answer](#)^[190], [Overflowed Answered](#)^[193], [Overflowed Calls](#)^[194], [Overflowed Calls Waiting](#)^[195], [Overflowed Lost](#)^[197], [Routed to Other](#)^[200], [Routed to Voicemail](#)^[201], [Talk Average](#)^[202], [Talk Inbound](#)^[203], [Talk Inbound Average](#)^[204], [Talk Internal](#)^[205], [Talk Outbound](#)^[206], [Talk Outbound Average](#)^[207], [Talk Total](#)^[208] and [Transferred](#)^[209].
 - Note that the dashboard uses realtime statistics, so any data before the last [manual reset](#)^[43] or [automatic reset](#)^[67] of realtime statistics are not shown regardless of the time range setting.
- ▼ Queue
The queue for which the statistic is plotted.
- ▼ Time Range
The options are *Last 4 Hours*, *Last Day*, *Last 2 Days*, *Last 3 Days*, *Last Week*, *Last 2 Weeks* or *Last Month*. Note that the dashboard uses realtime statistics, so any data before the last [reset](#)^[43] is not shown.

2.2.7 Statistics Cube

This is a 3D cube that plots the values of three numeric statistics, each configurable for a different queue and queue statistic. The points formed by each value pair (xy, xz, zy) are used to plots either a set of points or a plane. To switch between the two display modes click on the graph.

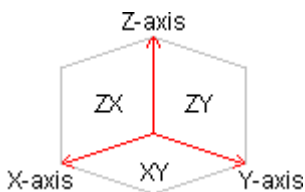
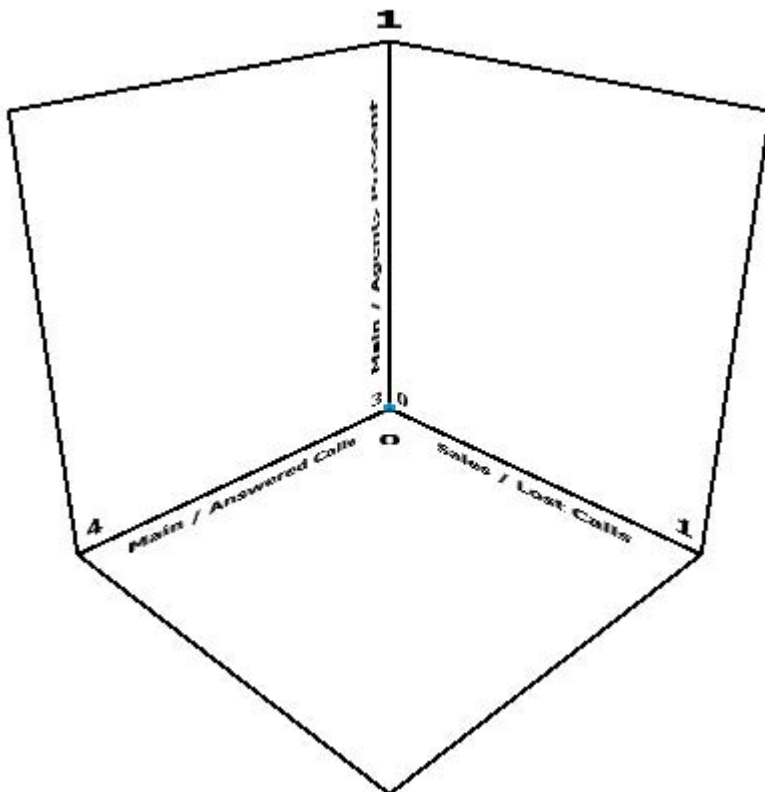
▼ Statistics
Cube

▼ Z Axis

▼ Agents
Present

▼ Main

▼ Last Month



- ▼ Type: *Statistics Cube*
- ▼ Axis
Select *X Axis*, *Y Axis* or *Z Axis* to then adjust which queue and queue statistic are plotted on that axis.
- ▼ Statistic
The queue statistic to plot on the currently selected axis.
[Agent Productivity](#)^[155], [Agents ACW](#)^[163], [Agents Available](#)^[164], [Agents Logged On](#)^[166], [Agents Present](#)^[167], [Agents Ringing](#)^[168], [Answered Calls](#)^[169], [Answered Internal \(Queue\)](#)^[172], [Average Answer %](#)^[173], [Average Answer Time](#)^[175], [Average Wait Time](#)^[177], [Busy Not Available](#)^[178], [Call Waiting](#)^[179], [Current Wait Time](#)^[181], [Grade of Service](#)^[182], [Longest Wait Time](#)^[185], [Lost Calls](#)^[187], [New Messages](#)^[189], [No Answer](#)^[190], [Overflowed Answered](#)^[193], [Overflowed Calls](#)^[194], [Overflowed Calls Waiting](#)^[195], [Overflowed Lost](#)^[197], [Routed to Other](#)^[200], [Routed to Voicemail](#)^[201], [Talk Average](#)^[202], [Talk Inbound](#)^[203], [Talk Inbound Average](#)^[204], [Talk Internal](#)^[205], [Talk Outbound](#)^[206], [Talk Outbound Average](#)^[207], [Talk Total](#)^[208] and [Transferred](#)^[209].
 - Note that the dashboard uses realtime statistics, so any data before the last [manual reset](#)^[43] or [automatic reset](#)^[67] of realtime statistics are not shown regardless of the time range setting.
- ▼ Queue
The queue for which the statistic is being plotted on the currently selected axis.
- ▼ Time Range
The options are *Last 4 Hours*, *Last Day*, *Last 2 Days*, *Last 3 Days*, *Last Week*, *Last 2 Weeks* or *Last Month*. Note that the dashboard uses realtime statistics, so any data before the last [reset](#)^[43] is not shown.

2.2.8 Statistics Table

Statistics
Table

Now

View 1

Queues	Answered Calls	Average Ans %
HG1	3	4.58
HG3	7	9.27
HG2	5	4.18

This is the queue statistics table repeating the queues and statistics settings from one of your [monitor views](#)^[35]. To switch to another view click on the view name shown above the table.

The table cannot be adjusted directly, that must be done through the [matching view](#)^[36]. However you can click on a statistic to acknowledge an alarm or warning.

Scroll bars are shown if the table does not fit the display panel. Typically up to 4 queue statistics fit horizontally without the need of the scroll bar. Vertically the display panel can show approximately 10 queues.

2.3 Monitor



The monitor facility shows tables of real time [statistics](#)^[152] about queues and the agents in those queues. Each supervisor can have up to 3 views, each configured with a different set of queues and statistics.

A supervisors views and any changes to them are also shared by their agents except the agent will only see queue statistics for queues to which they belong and agent statistics for themselves.

Status | IP Office Customer Call Reporter | Mark | 17:02:47 | Account | Change Password | Log Off | Help | **AVAYA**

Graph

View 1 | View 2 | View 3

Dashboard | **Monitor** | Reports | Scheduler | Customer Map

Queues	Agents Ringing	Answered Int Queue	Answered Calls	Average Ans %	Queue State T	Calls Waiting
HG1	1	1	3	6.10	00:00:09	8
HG2	2	2	3	6.39	00:00:03	1
TOTAL	3	3	6			9

Agents	Average Ans Time	Average Ans %	Agents Call Share
Agent1	6.41	1.18	8.51
Agent2	2.24	2.63	7.90
Agent3	8.61	4.94	1.66
Agent4	7.51	2.80	5.29
Agent5	8.98	5.43	6.79
Agent6	2.12	8.34	4.71
Agent7	4.65	1.79	8.54
Agent8	2.70	8.52	0.56
Extn872	4.13	6.39	4.52

Alarm Ticker All Views

09:33 Alarm HG1 8 Calls Waiting

Use Monitor Views

- [Edit my monitor views.](#)^[36]
- [Sort on a statistic](#)^[39]
- [Remove a queue from a view](#)^[39]
- [Change the column order](#)^[39]
- [Change the queue rows order](#)^[39]
- [View Agent details](#)^[39]
- [Understand the statistic colors](#)^[40]
- [Use alarms and warnings](#)^[41]
- [Change an agents status](#)^[42]
- [Reset the statistics manually](#)^[43]
- [Reset the statistics automatically](#)^[67]
- [Graph a statistic](#)^[44]


2.3.1 Editing a View

Each supervisor can have up to 3 views showing statistics and alarms for selected queues. Views are setup and amended by the administrator but they can then be adjusted by the supervisor.

Agents are able to see the same views as their supervisor but cannot change the queues or statistics. The agent's version of the view will only show queues to which the agent belongs and their own agent details.

To edit a monitor view

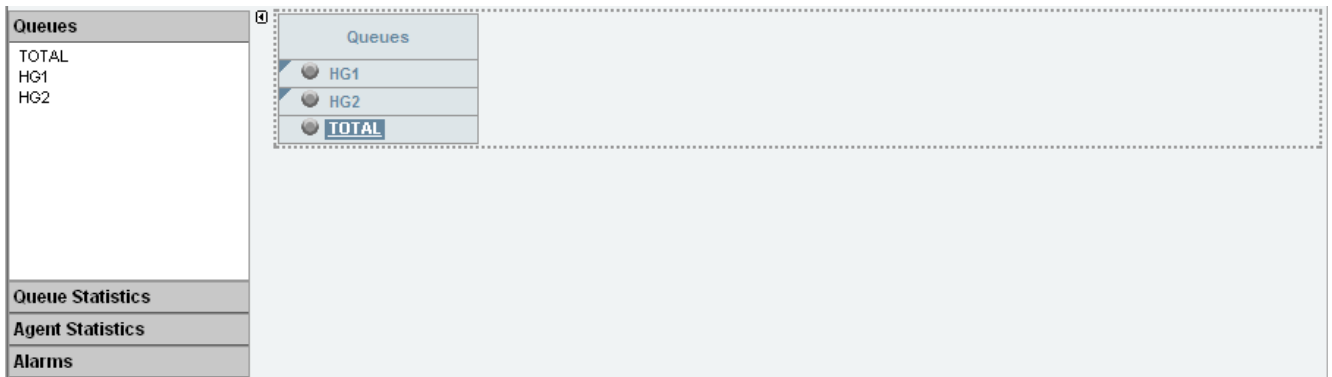
A. Select the view that you want to change.



B. Click on the  icon to display the list of elements that can be added to a view. Note that while the list of displayable elements is in view, the IP Office Customer Call Reporter does not show or update the statistics and alarms within the view.



1. Adding Queues

By default all the queues configured for the supervisor are already shown. These are the Queues that the supervisor has permission to view as specified when [creating their supervisor account](#) ^[136].



- To add a queue to the view, click Queues. Drag and drop the required queue into the view and when the hatched lines appear drop it into that area.
- TOTAL can be used to add a summary row to the view. For statistics that are averages, the total will be a [weighted average](#) ^[277]. For other statistics, it provides a simple total of the column. For the Longest Waiting Time it is blank.
- To remove a queue from the view, click on the  circle next to its name and select Hide.
- To adjust the order of the queues, click on the  corner icon and drag the queue to the required position.

2. Add Queue Statistics

You can select which statistics should be displayed for the queues. For details of the available statistics see [Statistics](#)

¹⁵²

- To add a statistic to the view, click Queue Statistics to view available statistics. Drag and drop the required statistic into the area surrounded by hatched lines in the view.
- Only one instance of each agent and queue statistic can be added to a view.
- Newly added statistic will display the appropriate values for activity since the last statistics reset rather than since the statistic was added to the view.
- To remove a statistics from the view, click on the statistic name in the view and select Hide.
- To adjust the order of the statistics, click on the corner icon and drag the statistic to the required position.
- To adjust the settings used for a statistic, click on the statistic name and select [Settings](#) ¹⁵².

3. Add Agent Statistics

Click on one of the queue names to display the list of agents in that queue. Use the same options as for queue statistics above but select statistics from the Agent Statistics list.

4. Adding an Alarm Summary

Each statistic configured provides alarms and or warnings does so by displaying different color backgrounds. However you can also add an alarm list or ticker to each view to also display the alarms and warnings.

The screenshot shows the IP Office interface. On the left is a sidebar with a tree view containing 'Queues', 'Queue Statistics', 'Agent Statistics', and 'Alarms'. Under 'Alarms', there are four sub-items: 'Alarm List Current View', 'Alarm Ticker Current View', 'Alarm List All Views', and 'Alarm Ticker All Views'. The 'Alarm Ticker All Views' item is selected. The main area displays two tables: 'Queues' and 'Agents'. The 'Queues' table has columns for 'Queues', 'Agents Ringing', and 'Answered Calls', with rows for 'HG1', 'HG2', and 'TOTAL'. The 'Agents' table has columns for 'Agents', 'Average Ans Time', and 'Average Ans %', with rows for 'Agent1' and 'Agent2'. At the bottom of the main area, there is a section titled 'Alarm Ticker All Views' which is currently empty.

- Click Alarms. Drag and drop the required type of alarm list or ticker to the area either above or below the currently displayed statistics. If required you can have two sets of alarms, one above and one below.
 - An alarm list shows the 100 most recent current alarms and warnings is a scrollable list of all the current alarms and warning. Alarms are shown first in chronological order followed by warnings in chronological order.
 - Alarms in the Alarm List All Views can also trigger an audible alarm if the [supervisor's account](#) ⁷⁸ is set as Audio Enabled. This will be played to all users looking at that supervisor's views.
 - An alarm ticker shows the 5 most recent current alarms and warnings one at a time, showing each for a few seconds before displaying the next.
 - Alarms and warnings take the form: *Time, Type (Alarm or Warning), Name (Queue name, agent name), Current value, Statistic name*. For agent and queue state alarms, the state is included in the name. For *Busy Not Available* state alarms the reason code is included. For example:
 - 12:45 Alarm Sales 15 Calls Waiting
 - 16:31 Warning Sales 120 Average Answer Time
 - 17:20 Alarm Extn2101 Agent State Q – Busy NA (paper work)
 - Alarms and warnings are updated approximately every 8 seconds.
 - Clicking on the underlined text in an alarm or warning will change the view to the one containing the alarm or warning and will also select the appropriate queue in that view.
 - Alarms and warnings are removed from the list in when the relevant statistic drops back to the threshold level. The supervisor or agent viewer can also remove an alarm or warning by clicking on the appropriate colored cell of statistic value. Acknowledging an alarm or warning only affects their view.
 - Alarms for database capacity are not shown within the alarm lists and trackers. They are shown during log in.

5. Continue to adjust the view as required.




This screenshot is similar to the previous one, but the 'Alarm Ticker All Views' section at the bottom is now populated with an alarm message: '09:33 Alarm HG1 8 Calls Waiting'. The message is displayed in a yellow background with a red 'X' icon in the top right corner of the ticker area.

C. When completed, click on again to hide list of elements. IP Office Customer Call Reporter will start updating the statistics and alarms.

2.3.2 Using a View

When a view has been [created](#)^[36] there are several controls available that allow you to further customize the screen.

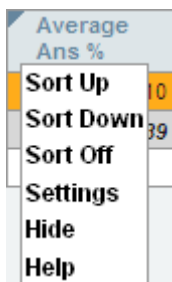
Showing/Hiding the Options Panels

1. The  icon is used to switch between [adding elements to a view](#)^[36] and running a view. To add elements to a view click on  to display the list of elements that can be added. While in this mode the statistics already in the view are go blank and are not updated. When completed click on  to hide the list and return to updating the view.


Adjusting Statistics

Once a statistic has been added to a view, its name appears at the top of the column.

1. Click the statistic name to display the statistic options:

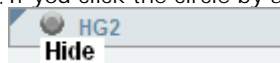


- **Sort Up**
Sort the view in ascending order using column's current values. When selected the statistic name displays an up arrow icon. Separate sorting can be applied to the agent statistics and the queue statistics. Note that while the queue section of a view is sorted, the selected queue to show in the agent section of the view cannot be changed.
- **Sort Down**
Sort the view in descending order using this column's current values. When selected the statistic name displays a down arrow icon. Separate sorting can be applied to the agent statistics and the queue statistics. Note that while the queue section of a view is sorted, the selected queue to show in the agent section of the view cannot be changed.
- **Sort Off**
Remove the sort. The queues section returns to the order in which the supervisor or administrator arranged the queues when setting up the view. The agents section returns to alphabetical order except for logged off agents who are placed at the bottom of the view.
- **Help**
Access help on the statistic.
- **Hide**
Remove the selected statistic from the view.
- **Settings**
Depending on the particular statistic you can change parameters such as which calls are used to calculate the statistic, and set warning and alarm thresholds. See [Statistics](#)^[152] for the settings options for particular statistics.




Note: The sort options are not available while editing a view, ie. while the  icon is displayed.

Removing a Queue




1. If you click the circle by a queue you can select Hide to remove the queue from the view.



Changing the Order of the Statistic Columns

1. Click on the  icon. Then click on the  corner icon and drag the column to the required position. When completed, click on the  icon to return the view to normal operation.

Changing the Order of Queues

2. Click on the  icon. Then click on the  corner icon and drag the queue to the required position. When completed, click on the  icon to return the view to normal operation.

Display Additional Information

Statistic can include additional information, indicated by a  red corner icon. Place your cursor over the  icon to display the addition information.

View/Hide the Agents in a Queue

1. To view the members of a queue, click the queue name.

Queues	Agents Ringing	Answered Int Queue	Answered Calls
● HG1	1	1	3
● HG2	2	2	3
● <u>TOTAL</u>	3	3	6

Agents	Average Ans Time	Average Ans %
Agent2	6.41	1.18

2. To hide the members of a queue, click the queue name again.

2.3.3 Statistic Colors

A number of different color backgrounds are used while displaying statistics. The following colors are used for normal statistics (these colors are not used in wallboards). The colors for changing statistic number values are optional (enabled by the [supervisor's account setting](#) ^[78] Highlighting Enabled) and are not applied to agent state and time values. They are also reset if you change view.

Normal (White)	Alternate Row (Light Gray)	Just Changed (Purple)	Recently Changed (Light Purple)
-------------------	-------------------------------	--------------------------	------------------------------------

The following additional colors are used when any statistic is configured to display warnings and alarms. These colors override the ones above. Wallboards only display the colors for warnings and alarms.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

Alarms and warnings are automatically cleared when the statistic value returns back to the threshold level of the alarm or warning. Agents and supervisors can acknowledge an alarm or warning in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarms list.

2.3.4 Alarms and Warnings

For many statistics, alarm and warning thresholds can be set by supervisors. These thresholds are then applied to the whole column. They are also applied to the views seen by agents.

If the value in any cell in the column goes past one of the thresholds, the background color of that cell is changed. The following colors are used for the cells if the statistic has been enabled for alarms and or warnings.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

Alarms and warnings are automatically cleared when the cell returns back to the threshold level of the alarm or warning. Supervisors and agents can also acknowledge an alarm or warning by clicking on the relevant cell in their view. That cell is then indicated as acknowledged until the value returns back to the threshold value and the alarm or warning is cleared.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

For a summary of which statistics can be set to give alarms and or warnings refer to the list of [Available Statistics](#)^[153] or the individual statistic description.

Alarm Views and Lists

If an alarm list or ticker has been added to the view, it also shows the alarms and warnings.

- An alarm list shows the 100 most recent current alarms and warnings is a scrollable list of all the current alarms and warning. Alarms are shown first in chronological order followed by warnings in chronological order.
 - Alarms in the Alarm List All Views can also trigger an audible alarm if the [supervisor's account](#)^[78] is set as Audio Enabled. This will be played to all users looking at that supervisor's views.
- An alarm ticker shows the 5 most recent current alarms and warnings one at a time, showing each for a few seconds before displaying the next.
- Alarms and warnings take the form: *Time, Type (Alarm or Warning), Name (Queue name, agent name), Current value, Statistic name*. For agent and queue state alarms, the state is included in the name. For *Busy Not Available* state alarms the reason code is included. For example:
 - 12:45 Alarm Sales 15 Calls Waiting
 - 16:31 Warning Sales 120 Average Answer Time
 - 17:20 Alarm Extn2101 Agent State Q – Busy NA (paper work)
- Alarms and warnings are updated approximately every 8 seconds.
- Clicking on the underlined text in an alarm or warning will change the view to the one containing the alarm or warning and will also select the appropriate queue in that view.
- Alarms and warnings are removed from the list in when the relevant statistic drops back to the threshold level. The supervisor or agent viewer can also remove an alarm or warning by clicking on the appropriate colored cell of statistic value. Acknowledging an alarm or warning only affects their view.
- Alarms for database capacity are not shown within the alarm lists and trackers. They are shown during log in.

Reporting Alarms and Warnings

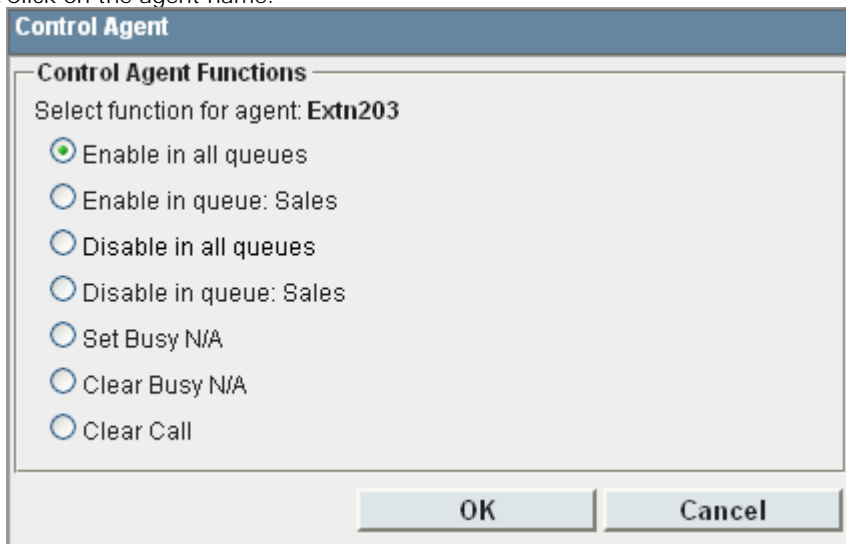
IP Office Customer Call Reporter can provide a historical report of the alarms and warnings that have occurred. This is done by running a report based on the [Alarm Report](#)^[56] template.

2.3.5 Controlling Agent Status

Within a monitor view, clicking on an agent name displays a menu for changing the status of an agent. For example, if an agent has forgotten to log out at the end of their shift, you can use this menu to log them out.

This feature requires the system to have access to an one-X Portal for IP Office server and is not available unless configured by your IP Office Customer Call Reporter administrator. The option is also not available unless your supervisor account has been configured with the option [Control Agent](#)^[78] enabled.

1. Click on a queue to which the agent belongs in order to display the list of agents.
2. Click on the agent name.



3. Select the state that you want applied to the agent.
 - **Enable in all queues**
The agent is logged in and enabled in all queues to which they belong. Agents using the SIP phones, including IP Office Video Softphone, are not logged in but are enabled in all queues when they log themselves in.
 - **Enable in this queue**
The agent is enabled in the currently selected queue. This action does not log the agent in if they are currently logged out.
 - **Disable in all queues**
The agent's membership of all queues to which they belong is disabled and the agent is logged out.
 - **Disable in queue**
The agent's membership of the currently selected queue is disabled.
 - **Set Busy N/A**
The agent's status is set to busy not available with the reason code of automatic.
 - **Clear Busy N/A**
The agent is taken out of busy not available state.
 - **Clear Call**
Clears the agent's current connected call. It does not affect calls parked or held by the agent. If the agent is in a conference call, it clears just the agent's connection to the conference.
4. If the agent was already in the state selected, the command has no effect.

2.3.6 Manually Resetting Statistics

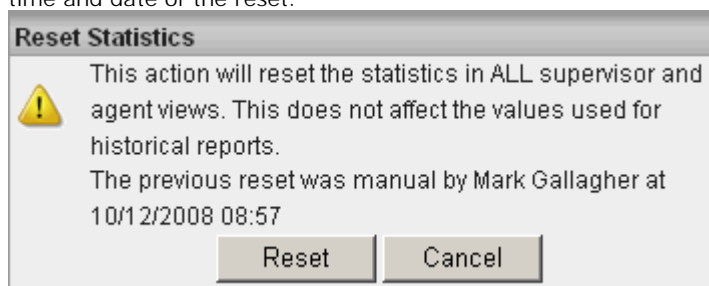
Supervisors for whom the administrator has enabled the Reset Statistics option can reset all the statistics currently being used for supervisor views, agent views and wallboards. This will affect all supervisors, agents and wallboards. It does not affect the statistics used for historical reports.

- **IMPORTANT**
Resetting statistics will reset the view statistics seen by ALL agents and supervisors.
- Note that after resetting statistics, it may take a couple of minutes for all views and wallboards to update and return to normal operation.
- View and wallboard statistics are also reset if the IP Office Customer Call Reporter server PC or the IP Office Customer Call Reporter services are restarted.
- [Automatic statistic resets can be scheduled](#)^[67].

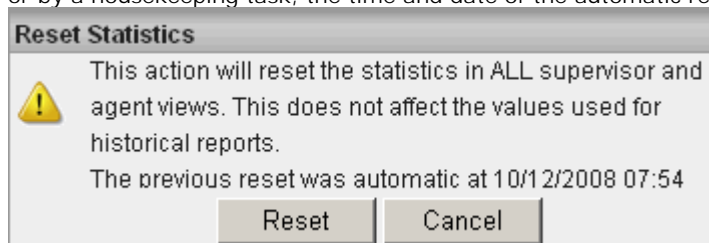
To reset the view and wallboard statistics

1. Click on Account. If the Reset Statistics check box is ticked (this is done by the administrator) then your account has permission to reset the view statistics when required.
2. Click Reset Statistics.
3. A warning box will appear advising that this will affect all supervisor and agent views. Information about the last time the statistics were reset is also displayed.

- If the view statistics were previously reset by a supervisor, the name of the supervisor is shown along with the time and date of the reset.



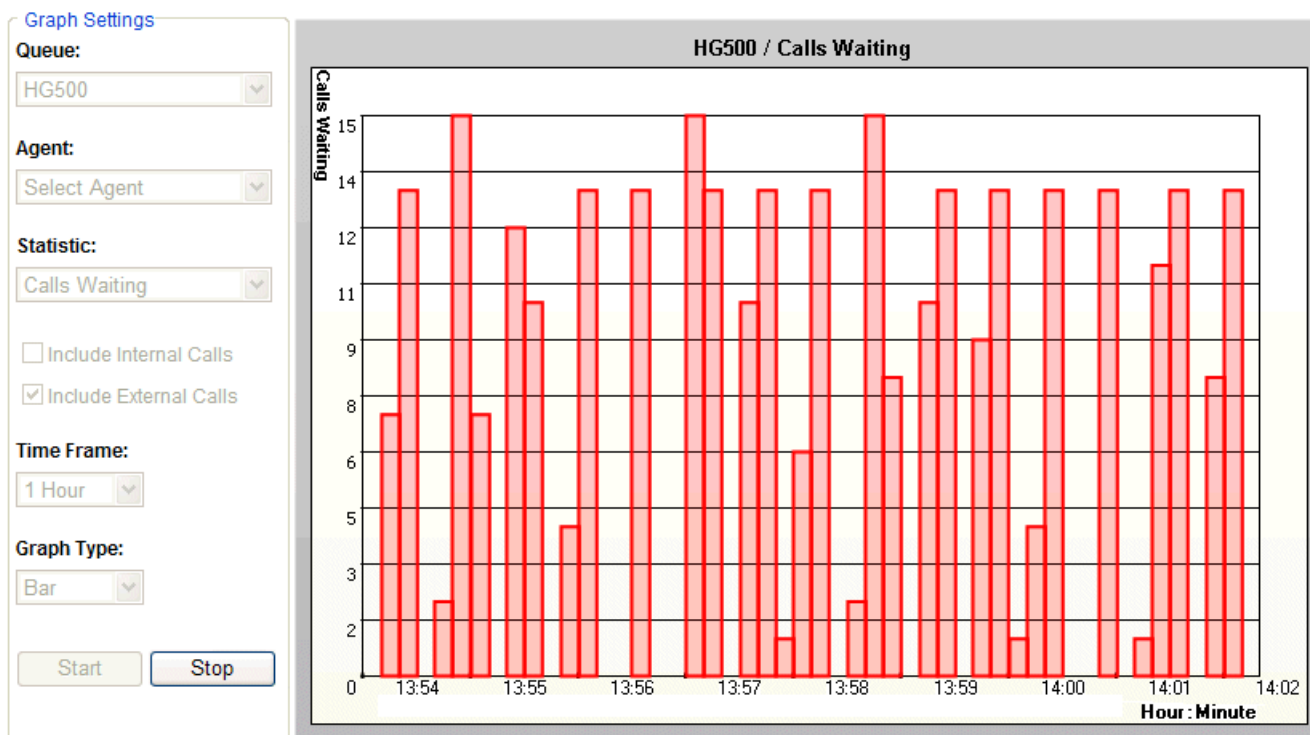
- If the view statistics were previously reset due to the IP Office Customer Call Reporter services being restarted or by a housekeeping task, the time and date of the automatic reset is shown.



4. Click Reset.

2.3.7 Graph View

Supervisors and agents can select to have a graph running showing a selected statistic for a queue or agent. The graph appears in a new window or tab depending on the browser being used. Agents are restricted to their own statistics or queues to which they belong.



Example Graph

To view a graph

1. Click on Graph. The graph appears in a new window or tab depending on the browser being used.
2. Select the queue from the Queue drop down list. Then either select an agent from the Agent drop down list or select a statistic from the Statistics drop-down list. Agents can only select themselves or a queue of which they are a member.
3. Select the statistic to monitor and whether it should include internal and or external calls.
4. Select the Time Frame for the horizontal axis. The graph will be updated approximately every 1/360th of the selected time frame, for example a time frame of 1 hour means the graph will update approximately every 10 seconds. Once the full time frame is filled, old data points are removed as new data points are added.
5. Click Start to run the graph.
6. Note that clicking Stop will halt the graph to allow changing the settings. Clicking Start again will clear the existing data from the graph.

2.4 Reports



This section describes how supervisors can configure, view and save reports using the CCR's standard report templates. Those reports can be run when required or can be scheduled to run automatically at preset intervals.

- Manually run reports are first viewed on screen in a browser window. From there they can be printed and/or exported to a range of formats including Adobe PDF, Word, Excel and Crystal Reports.
- Automatically scheduled reports are sent either to a network printer or emailed as an attachment in Adobe PDF, Word, Excel or Crystal Reports format.

Supported languages are *Dutch, English (UK), English (US), French, German, Italian, Brazilian Portuguese, Russian* and *Spanish*. Some parts of customer call maps are third party components delivered over the internet and may run in different languages, for example the zoom and pan controls.

Running Reports		
• Create a report template ^[47]	• Schedule a report ^[51]	• Delete a report ^[52]
• Run a manual report ^[50]	• Modify a report ^[52]	

Standard Report Templates

The following report templates are provided:

Report	Description
Agent Summary Report ^[54]	This report type details the <u>call activity for agents</u> in a queue or for specific agents.
Agent Time Card Report ^[55]	This report summarizes agent performance including time logged in, talk time, time in various states, calls made and answered and agent performance. It includes both queue and direct calls. However it does not include internal calls.
Alarm Report ^[56]	This report lists the warning and alarms that have occurred.
Call Details Report ^[57]	This report details the individual calls for the selected target or targets. For internal calls, the report only reflects the call data for the receiving end, not for the originator. External calls are accounted and shown for the extension making the outbound call.
Call Summary Report ^[60]	This report provides a summary for the selected target of calls presented, answered, overflowed and lost. The average answer percentage, average answer time, average abandon time and grade of service are also listed.
Trace Report ^[62]	This report lists in chronological order all the events for the selected target or targets within the selected period.
Voicemail Report ^[63]	Reports based on the CCR's Voicemail Report template can be used to track the usage of customized call flows that have been added to Voicemail Pro. The reporting is not automatic, only specific labels that have been assigned to call flow actions are reported on.

Standard Report Options

- All reports can be used as manual or automatic reports and allow specification of the Report Date Range and Working Hours.

Supported languages are *Dutch, English (UK), English (US), French, German, Italian, Brazilian Portuguese, Russian* and *Spanish*. Some parts of customer call maps are third party components delivered over the internet and may run in different languages, for example the zoom and pan controls.

Report Options\Report		Agent Summary	Agent Time Card	Alarm Report	Call Details	Call Summary	Trace Report	Voicemail Report
Targets	Agents	✓	✓	–	✓	✓	✓	–
	Queues	✓	–	–	✓	✓	–	–
	Views	✓	–	✓ ^[1]	✓	✓	–	–
	DDI s	–	–	–	✓	✓	–	–
	CLIs	–	–	–	✓	✓	✓	–
	Account Codes	–	–	–	✓	✓	–	–
	Call References	–	–	–	–	–	✓	–
	Voicemail	–	–	–	–	–	–	✓ ^[1]
Include	Include Internal	✓ ^[1]	–	✓ ^[1]	✓	✓	✓ ^[1]	✓ ^[1]
	Date Range	✓	✓	✓	✓	✓	✓	✓
	Working Hours	✓	✓	✓	✓	✓	✓	✓
	Include Saturdays	✓	✓	✓	✓	✓	✓	✓
	Include Sundays	✓	✓	✓	✓	✓	✓	✓
Group result by	Ungrouped	–	–	✓ ^[1]	✓	✓	✓ ^[1]	✓
	Hour	–	–	–	✓	✓	–	✓
	Day	–	✓	–	✓	✓	–	✓
	Week	–	✓	–	✓	✓	–	✓
	Queue	✓ ^[1]	–	–	✓	✓	–	–
	Agent	–	✓	–	–	✓	–	–
	CLI	–	–	–	✓	✓	–	✓
	DDI	–	–	–	✓	✓	–	✓
Account Code	–	–	–	✓	✓	–	–	

1. Fixed non-adjustable setting. When this is the case the control for the setting is not normally displayed in the report configuration settings.

Grouped Reports

- When a report is grouped, each set of grouped records will have its own summary except when there is only one record in the group.
- Records which do not match the grouping being used will be grouped at the start of the report. For example, in a report grouped by CLI, records that have no associated CLI will appear at the start of the report.
- The grouped records will still contain data appropriate for the selected report targets. For example, in a Call Summary Report targeted on a queue but grouped by agents, each report record will still detail how the queue handled the call even though the records will be grouped against the answering agents. This the average answer time for the call will be how long it waited to be answered by any member of the queue, not by just the agent who did answer.

Non-IP Office Customer Call Reporter Agent and Queue Reporting



Reports can include values for IP Office Customer Call Reporter calls that involved non-IP Office Customer Call Reporter hunt groups or hunt group members. These will be reported as Non Hunt Group and Non Agent. Only a single set of values is reported, not separate values for each non-IP Office Customer Call Reporter hunt group or agent.

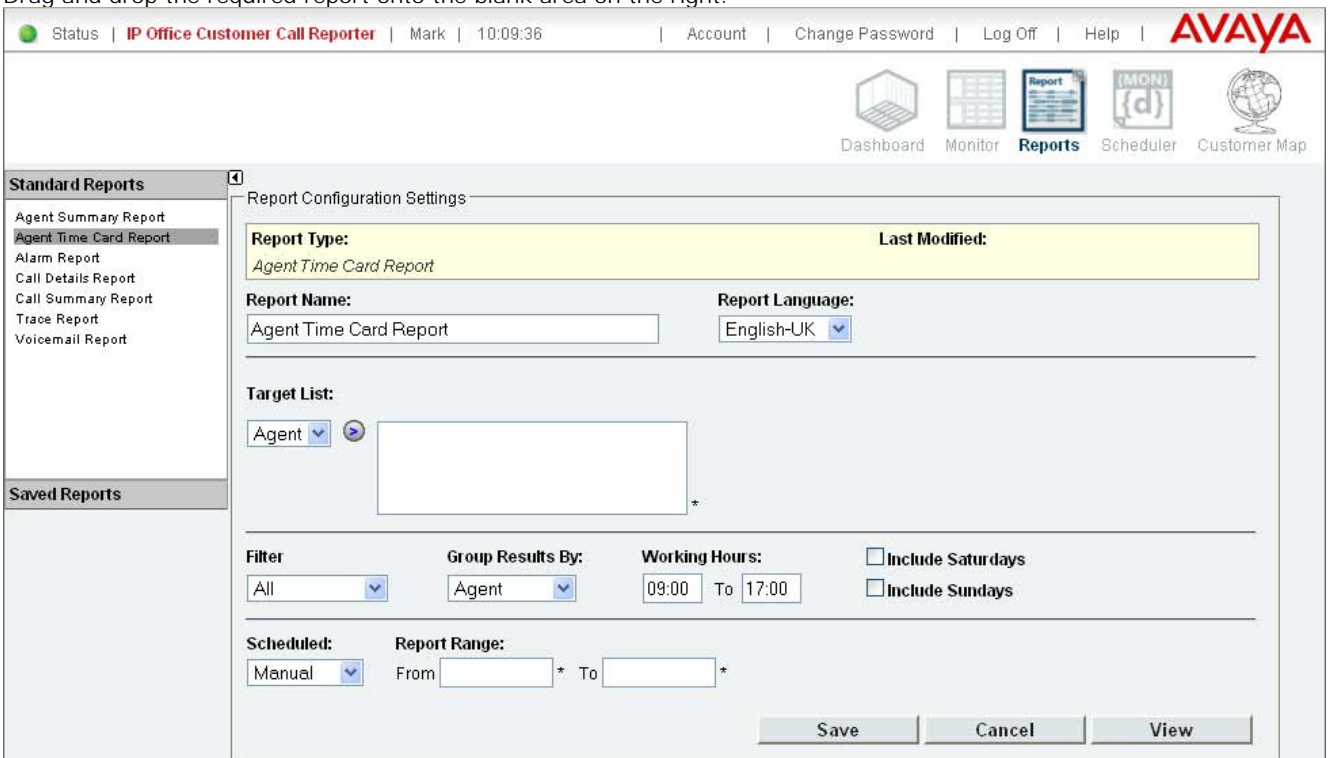
2.4.1 Creating Reports


Use the process below to create a report. The report can then be run immediately or saved for later use. Saved reports can be configured for use within automatic scheduling.

1. Click the  Reports icon.



2. The /  icons can be used to hide/show the list of standard and saved reports.
3. Click Standard Reports to view the available report templates or Saved Reports to use one of your existing saved reports as the template.
4. Drag and drop the required report onto the blank area on the right.



5. The settings for the report are displayed. The required fields are Report Name, Target List and Report Range.
6. Set a Report Name
Enter a Report Name. This will be shown at the top of the report. This is a required field.
7. Select the Report Targets
The Target List drop-down allows selection of what type of targets, for example queue or agents, are the target of the report.
 - Select the type of target required. Enter the target numbers or names, separating each by a comma.
 - For some target types (not account codes and DDI numbers), you can click on  to display a list from which you can select targets.
 - The wildcard * can be used to specify match all targets of the type selected in the Target List drop-down. When

* is used, the report may include entries for Non Hunt Group and Non Agent if some IP Office Customer Call Reporter calls have been handled by non-IP Office Customer Call Reporter parties.

8. Other Settings

The range and type of settings will vary according to the type of report selected.

• Report Language

Select the language to be used for the report. By default the same language as being used for the web client is selected.

Supported languages are *Dutch, English (UK), English (US), French, German, Italian, Brazilian Portuguese, Russian and Spanish*. Some parts of customer call maps are third party components delivered over the internet and may run in different languages, for example the zoom and pan controls.

• Include Internal

For reports based on the [Call Details Report](#)^[57] and [Call Summary Report](#)^[60] templates, select whether the report should include internal calls. Other reports include internal calls automatically.

• Group Results By

By default the records in a report are shown in alphabetic or time order (depending on the report type and target). For reports based on the [Call Details Report](#)^[57], [Call Summary Report](#)^[60] and [Voicemail Report](#)^[63] templates, the records output in the report can be grouped by a common factor such as account code.

- Reports based on the [Agent Summary Report](#)^[54] template are automatically grouped by queue. Reports based on the [Alarm Report](#)^[56] and [Trace Report](#)^[62] templates cannot be grouped, they show events in time order.
- When a report is grouped, each set of grouped records will have its own summary except when there is only one record in the group.
- Records which do not match the grouping being used will be grouped at the start of the report. For example, in a report grouped by CLI, records that have no associated CLI will appear at the start of the report.
- The grouped records will still contain data appropriate for the selected report targets. For example, in a Call Summary Report targeted on a queue but grouped by agents, each report record will still detail how the queue handled the call even though the records will be grouped against the answering agents. This the average answer time for the call will be how long it waited to be answered by any member of the queue, not by just the agent who did answer.

• Working Hours

Set the time frame for calls to be included in the report. By default the hours are set to 09:00 to 17:00.

• Include Saturdays/Include Sundays

Select whether calls occurring on these days should be included in the report.

• Filter

This option is only available for reports based on the [Call Details Report](#)^[57] or [Agent Time Card](#)^[58] templates.

• Call Details Report Filter Options

The filter allows you to select which calls are included in the report based on the end state of the calls: *All, Answered, No Answer, Overflowed Lost, Overflowed Answered, Transferred, Lost or Routed to Voicemail*. The options *Overflowed Lost* and *Overflowed Answered* are not available if the report target is an agent or agents. *Overflowed Lost* and *Overflowed Answered* are only included in reports on the queue from which the call overflowed.

• Agent Time Card Report Filter Options

The filter field is used to select which fields are included in the report: *All, Shifts, Lunch, Breaks, Calls, Talk Time and Performance*.

9. Set when the report should occur

By default Scheduled field is set to *Manual* which means that you can run the report whenever you require it.

• Manual

Use this setting for reports that are only run when you select it. The report configuration settings are displayed to allow changes if required before the report runs. The report is displayed in the browser window but can then be exported or printed. See [Running Manual Reports](#)^[50].

The screenshot shows a configuration window with two main sections. The first section is labeled 'Scheduled:' and contains a dropdown menu currently set to 'Manual'. The second section is labeled 'Report Range:' and contains two input fields: 'From' and 'To', both of which are currently empty.

- Use the Report Range to specify the period that should be covered by the report.
- If you do not want to save the report as a template for future use click View to run the report now. The report is displayed in a [browser window](#)^[50] from which you can print it or save it in a number of file formats.
- Even for reports that you are planning to schedule as Automatic, running the report manually first allows you to confirm that it contains the data and targets required.

- Automatic

Use this setting for reports that will run automatic at repeated regular intervals. When select the report settings change from those used for *Manual* (above) to those listed below. Note that these settings are separate from the [scheduling of when and how frequently the report is run](#) ⁵¹.

Scheduled:		Report Content	
Automatic ▾	Days ▾	1 ▾	
Report Format:	Printer:	Copies:	E-mail:
Crystal ▾	Select Network Printer ▾	1 ▾	

- Report Content:

These fields set the range of data to include in the report. Select *Days*, *Weeks* or *Months*.

- The number of days or weeks is counted back from the date that the report is actually run. For example *Days 1* will report on the previous day, *Weeks 2* will report on the previous 2 weeks.
- Months are for the last full month. For example if a report set to *Months 1* is run in February, the report will use the data for January.

- Report Format

Select the format that the report is to be produced in. The options are *PDF* (Adobe Acrobat .pdf), *MsWord* (Microsoft Word .doc), *MsExcel*, (Microsoft Excel .xls), *Rich Text* (Microsoft Word .rtf) or *Crystal*. (Crystal Reports .rpt). Note that if the report is [scheduled](#) ⁵¹ and sent in *Excel* format, formatting is not applied.

- Printer

Select the printer that the report should be sent to if you want it to be printed automatically. Only network printers available to the IP Office Customer Call Reporter server PC appear in this list.

- Copies

Select the number of copies of the report that should be produced. You can select between 1 and 10, the default number being 1.

- Email Address

Enter an email address if you want the report to be sent to an email account.

- When the report settings are as required click Save. The report will be saved under Saved Reports. There is no limit to the number of reports that you can save. If you try to save a report with a name that already exists you will receive an error message and a prompt to give the report a different name. When the report has been saved a message window opens stating that the report was saved successfully. Click OK to continue. If you saved an automatic report you need to schedule when the report should run. For more information, see [Scheduling Reports](#) ⁵¹.
- Reports Scheduled as *Automatic* still need to be added to the [Scheduler](#) ⁵¹ list in order to run.

2.4.2 Running Manual Reports

You can manually run a report at any time after the report has been created. The report is displayed in a browser window for viewing. You can then select to print the report or save it to a number of file formats.

- Important: Manual Reports Use Popup Windows

Manually run reports require your browser to support popups. Depending on your browser's settings you may be prompted on whether you want to allow the pop-up when you run the report. If the report does not appear you will have to enable popups for the IP Office Customer Call Reporter server website through your browser's options. Note that many security software suites also block popups unless you allow them.



1. Click the Reports icon.
2. Click on Standard Reports to select a standard report template or click on Saved Reports to view a list of your previously saved reports.
3. Drag and drop the required report on the main area of the window. All the report details are shown.
4. Adjust the [report details](#) if necessary.
5. In the Report Scheduling area select the scheduled type as *Manual*.
6. Click View. A new web browser window opens containing the report.

Trace Report		10/16/2008 - 10/16/2008	9:00 AM - 5:00 PM
Report type	Target Name	Supervisor Name	
Trace Report	Agent	Mark Gallagher	
Extn2804			
Date-Time	Event Name	Agent	Reference
17/10/2008 11:54:25	Idle	Extn2804	NULL
17/10/2008 12:09:46	LoggedIn	Extn2804	NULL
17/10/2008 12:09:46	Available	Extn2804	NULL
17/10/2008 12:09:46	Available	Extn2804	NULL
17/10/2008 12:09:46	Available	Extn2804	NULL
17/10/2008 13:02:03	Queue Disabled	Extn2804	NULL
17/10/2008 13:02:03	LoggedOff	Extn2804	NULL
17/10/2008 13:02:03	Queue Disabled	Extn2804	NULL
17/10/2008 13:02:03	Queue Disabled	Extn2804	NULL

7. When you are viewing the report you have the following options available.

- Print

Click and select the printer that the report should be sent to.

- Export

Click to export the file. The file formats available are:

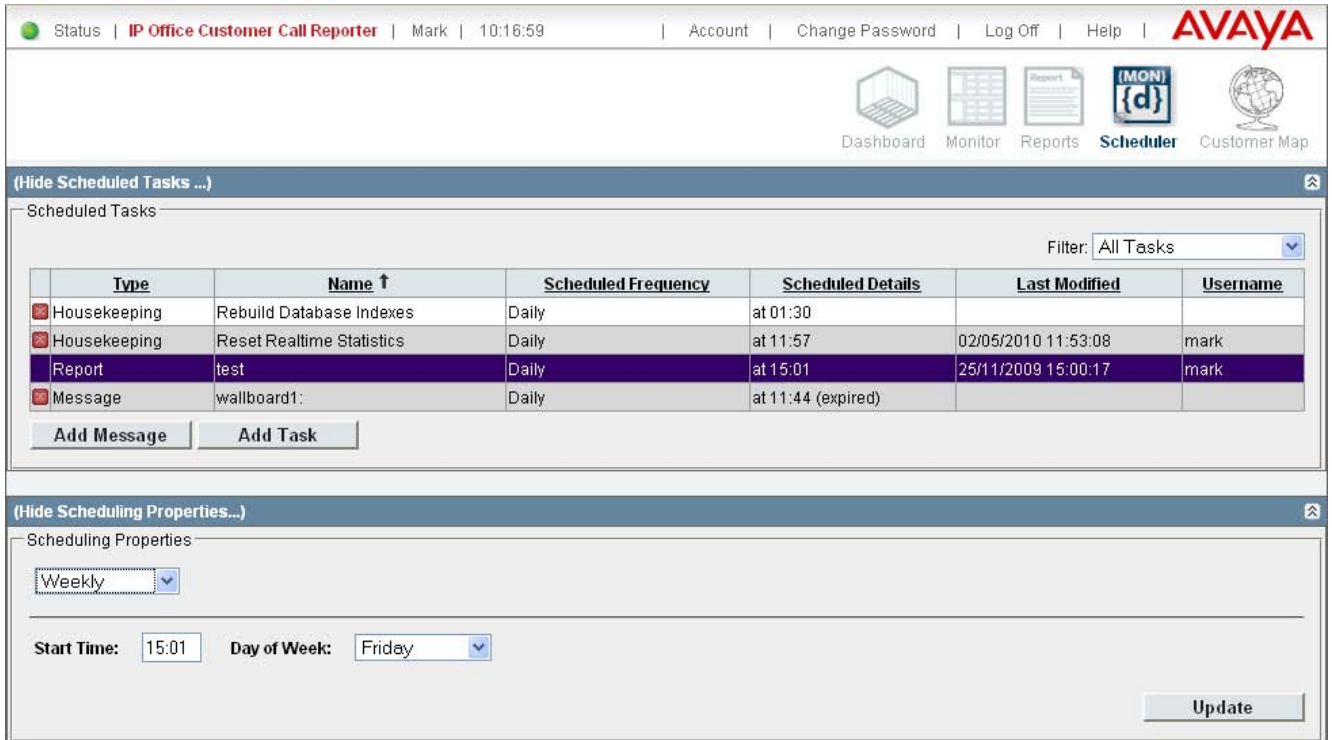
- Adobe Acrobat (PDF)
- Crystal Reports (RPT)
- Microsoft Excel 97-2000 (XLS)
- Microsoft Excel 98-2000 - Data only (XLS)
- Microsoft Word (RTF)
- Microsoft Word - Editable (RTF)
- Rich Text Format (RTF)

2.4.3 Scheduling Reports

The Scheduler tab shows tasks including any reports [you have created](#) ⁴⁷ that have been saved with their Scheduled setting set to *Automatic*.

1. Ensure you have [created a report](#) ⁴⁷ as required and set its Scheduled option as *Automatic*. The report destination, format and time range that it covers are set when creating and editing the report.

2. Click the  Scheduler icon.



(Hide Scheduled Tasks ...)

Scheduled Tasks

Filter: All Tasks

Type	Name ↑	Scheduled Frequency	Scheduled Details	Last Modified	Username
Housekeeping	Rebuild Database Indexes	Daily	at 01:30		
Housekeeping	Reset Realtime Statistics	Daily	at 11:57	02/05/2010 11:53:08	mark
Report	test	Daily	at 15:01	25/11/2009 15:00:17	mark
Message	wallboard1:	Daily	at 11:44 (expired)		

Add Message Add Task

(Hide Scheduling Properties...)

Scheduling Properties

Weekly

Start Time: 15:01 Day of Week: Friday

Update

3. To schedule a report or to change the schedule, click the report to be amended in the Scheduled Tasks section.
4. Select the required option in the Scheduling Properties. Amend the report properties as required.
 - Daily
If selected, you can then set a Start Time for when the report should be run each day. The default is *09:00*.
 - Weekly
If selected, you can then set a Start Time and Day of Week for when the report should be run each week. The default is *9:00 Sunday*.
 - Monthly
If selected, you can then choose either a day such as the last Friday of the month or a specific date within a month. If you select a date that exceeds the days in the month, the setting is considered to be the last calendar day of the month. For example, if you select the report to always be run on the 31st day of a month, the report will be run on the 30th day of a month when there are only 30 days in the month.
 - Unscheduled
Stop running the report on an automatic schedule.
5. Click Update to save your changes.


2.4.4 Modifying a Report



1. Click the Reports icon.
2. Click Saved Reports to view a list of the saved reports.
3. Drag and drop the required report on the main area of the window and amend the details in the same way as for [creating a report](#)⁴⁷.
4. Click Save to save the changes.

2.4.5 Deleting a Report



1. Click the Reports icon.
2. Click Saved Reports to view a list of all the saved reports.
3. Click  next to the report that you want to delete. A confirmation window opens. Click OK to delete the report or No to keep the report. This will also delete any scheduled reports based on the report.

2.4.6 Standard Report Templates

The following report templates are provided:

Report	Description
Agent Summary Report ⁵⁴	This report type details the <u>call activity for agents</u> in a queue or for specific agents.
Agent Time Card Report ⁵⁵	This report summarizes agent performance including time logged in, talk time, time in various states, calls made and answered and agent performance. It includes both queue and direct calls. However it does not include internal calls.
Alarm Report ⁵⁶	This report lists the warning and alarms that have occurred.
Call Details Report ⁵⁷	This report details the individual calls for the selected target or targets. For internal calls, the report only reflects the call data for the receiving end, not for the originator. External calls are accounted and shown for the extension making the outbound call.
Call Summary Report ⁶⁰	This report provides a summary for the selected target of calls presented, answered, overflowed and lost. The average answer percentage, average answer time, average abandon time and grade of service are also listed.
Trace Report ⁶²	This report lists in chronological order all the events for the selected target or targets within the selected period.
Voicemail Report ⁶³	Reports based on the CCR's Voicemail Report template can be used to track the usage of customized call flows that have been added to Voicemail Pro. The reporting is not automatic, only specific labels that have been assigned to call flow actions are reported on.

Non-IP Office Customer Call Reporter Agent and Queue Reporting

Reports can include values for IP Office Customer Call Reporter calls that involved non-IP Office Customer Call Reporter hunt groups or hunt group members. These will be reported as Non Hunt Group and Non Agent. Only a single set of values is reported, not separate values for each non-IP Office Customer Call Reporter hunt group or agent.

Communication Failure Reporting

IP Office Customer Call Reporter records details of any times when it was unable to communicate with the IP Office telephone system. If a report is run that covers a time period that includes any such events, details of the communication failure are included at the start of the report.

Note : The following IP Offices experienced communication failure with CCR for the periods stated, report data during these periods may be incomplete.

IP Office Name	IP Address	Connection Lost	Connection Restored
Simulation1	135.64.185.202	09/07/2009 12:24:44	09/07/2009 12:30:14

Example Communication Failure Report Prefix

2.4.6.1 Agent Summary Report

This report type details the call activity for agents in a queue or for specific agents.

- Target options: *Queue, View or Agent.*
Used to select which agent or set of agents are being reported.
- Group by: *Queue (Fixed)*

Agent Summary Report										
17/10/2008 - 17/10/2008 09:00 - 17:00										
Report Type	Target Name								Supervisor Name	
Agent Summary	Queue HG1SIM1								Mark Gallagher	
Queue	HGEnabled Time	Ringling Time	Talk Outbound	Talk Inbound	Talk Internal	Busy Not Available	ACW Time	Hold Time	Off Hook Time	Non-Queue Time
HG1SIM1										
Extn2101	01:50:46	00:07:24 6.68%	00:00:00 0.00%	00:00:00 0.00%	00:00:00 0.00%	00:00:00 0.00%	00:00:00 0.00%	00:00:00 0.00%	00:00:00 0.00%	00:00:00 0.00%
Extn2102	01:50:46	00:07:03 6.36%	00:00:00 0.00%	00:00:00 0.00%	00:06:00 5.42%	00:00:00 0.00%	00:00:00 0.00%	00:00:00 0.00%	00:00:00 0.00%	00:00:00 0.00%
Extn2103	01:50:46	00:07:17 6.58%	00:00:00 0.00%	00:00:00 0.00%	00:00:46 0.69%	00:00:00 0.00%	00:00:00 0.00%	00:00:00 0.00%	00:00:00 0.00%	00:00:00 0.00%
Extn2104	01:50:44	00:06:35 5.95%	00:00:00 0.00%	00:00:00 0.00%	00:06:56 6.26%	00:00:00 0.00%	00:00:00 0.00%	00:00:01 0.02%	00:00:00 0.00%	00:00:00 0.00%
Summary	07:23:02	00:28:19 6.39%	00:00:00 0.00%	00:00:00 0.00%	00:13:42 3.09%	00:00:00 0.00%	00:00:00 0.00%	00:00:01 0.00%	00:00:05 0.02%	00:00:00 0.00%

The following information is shown for each target. The actual time and the percentage of the report period are shown.

- Hunt Group Enabled Time
For the queue being reported, the total time the agent was logged in and had their membership of the queue being reported enabled.
- Busy Not Available Time
The total time that the agent was in the Busy Not Available state.
- ACW Time
The total time that the agent was in the after call work state.
- Hold Time
The total time that the agent had calls on hold or parked.
- Off Hook Time
The total time the agent's extension was off hook but not connected to a trunk. It includes picking up handset, dialing and ring time. For an external trunk it is the time until the trunk is seized.
- The other columns relate to time either ringing or connected to calls. The column used will depend on the call type as follows:

Call Type		Incoming		Outgoing	
		Internal	External	Internal	External
Direct Call	Ringling	Non-Queue Time	Non-Queue Time	Talk Internal	Talk Outbound
	Connected	Non-Queue Time	Non-Queue Time	Talk Internal	Talk Outbound
Queue Call	Ringling	Ringling Time	Ringling Time	–	–
	Connected	Talk Internal	Talk Inbound	–	–

This report is grouped by queue and for each queue a summary totaling each of the values is provided. An additional summary totaling the whole report is included at the end of the report.

2.4.6.2 Agent Time Card Report

This report summarizes agent performance including time logged in, talk time, time in various states, calls made and answered and agent performance. It includes both queue and direct calls. However it does not include internal calls.

Report Type	Target Name	Supervisor Name
Agent Time Card	Agent *	Mark
Agent A		
Shift	10:37:15	Lunch 00:00:00
		Breaks 00:00:00
Calls :	Answered 0	Outbound 0
		No Answer 0
Talk Time :	Inbound 00:00:00	Outbound 00:00:00
	Av In 00:00:00	Av Out 00:00:00
		Total 00:00:00
		Av Total 00:00:00
Performance	Av Ans. Time 00:00:00	
Group Summary :		
Calls :	Answered 0	Outbound 0
		No Answer 0
Talk Time :	Inbound 00:00:00	Outbound 00:00:00
	Av In 00:00:00	Av Out 00:00:00
		Total 00:00:00
		Av Total 00:00:00
Performance	Av Ans. Time 00:00:00	

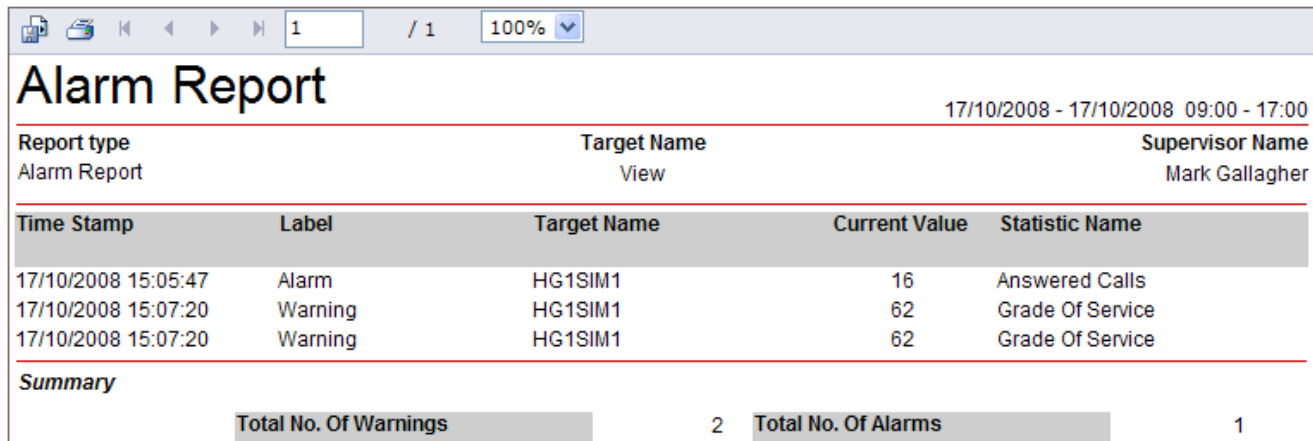
- Target options: *Agent*.
- Filter:
The report template supports a number of filters which control what information is included in the report.
 - *Shifts*
If selected, the report includes the times each agent logged in and out and total logged in time.
 - *Lunch*
If selected, the report includes the time each agent went into and came out of [Busy Not Available](#) [268] state using [reason code](#) [274] 1.
 - *Breaks*
If selected, the report includes the time each agent went into and came out of other [Busy Not Available](#) [268] states other than [reason code](#) [274] 1.
 - *Calls*
If selected, the report includes the Answered Calls, Outbound Calls and No Answer call count statistics for each agent.
 - *Talk Time*
If selected, the report includes the Talk Inbound, Talk Outbound, Talk Total, Talk Inbound Average and Talk Outbound Average statistics for each agent.
 - *Performance*
If selected, the report includes the Average Answer Time statistics for each agent.
- Group Result by: *Agent, Day or Week*.

Note: The start and end time for shifts, breaks and lunch are only displayed when the report is grouped by Agent. All groupings show total time for these fields.

2.4.6.3 Alarm Report

This report lists the warning and alarms that have occurred.

- Target options: *View (fixed)*.
- Group Result by: *Ungrouped (fixed)*.



The screenshot shows a web-based interface for an Alarm Report. At the top, there are navigation icons and a page indicator '1 / 1' with a '100%' zoom level. The main title is 'Alarm Report' with a date and time range '17/10/2008 - 17/10/2008 09:00 - 17:00'. Below the title is a table with three columns: 'Report type', 'Target Name', and 'Supervisor Name'. The 'Report type' is 'Alarm Report', 'Target Name' is 'View', and 'Supervisor Name' is 'Mark Gallagher'. Below this is a table with five columns: 'Time Stamp', 'Label', 'Target Name', 'Current Value', and 'Statistic Name'. The data rows are: 17/10/2008 15:05:47 Alarm HG1SIM1 16 Answered Calls; 17/10/2008 15:07:20 Warning HG1SIM1 62 Grade Of Service; 17/10/2008 15:07:20 Warning HG1SIM1 62 Grade Of Service. At the bottom, a 'Summary' section shows 'Total No. Of Warnings' as 2 and 'Total No. Of Alarms' as 1.

Report type	Target Name	Supervisor Name
Alarm Report	View	Mark Gallagher

Time Stamp	Label	Target Name	Current Value	Statistic Name
17/10/2008 15:05:47	Alarm	HG1SIM1	16	Answered Calls
17/10/2008 15:07:20	Warning	HG1SIM1	62	Grade Of Service
17/10/2008 15:07:20	Warning	HG1SIM1	62	Grade Of Service

Summary	
Total No. Of Warnings	2
Total No. Of Alarms	1

The following information is shown for each alarm or warning:

- Time Stamp
The date and time the alarm or warning was triggered and, for alarms that have been cleared, the date and time the alarm or warning was cleared.
- Type
Whether it was an alarm or a warning.
- Target Name
The hunt group or agent that triggered the warning. For agent and queue state alarms the state is included in the name, along with the reason code for a Busy Not Available alarm.
- Current Value
The value of the statistic when the alarm or warning occurred.
- Statistic Name
The statistic.

The summary at the end of the report details the total number of warnings and alarms included in the report period.

2.4.6.4 Call Details Report

This report details the individual calls for the selected target or targets. For internal calls, the report only reflects the call data for the receiving end, not for the originator. External calls are accounted and shown for the extension making the outbound call.

- Target options: *Agent, Queue, View, CLI, DDI* or *Account Code*.
- Filter: *All, Answered, No Answer, Overflowed Lost, Overflowed Answered, Transferred, Lost* or *Routed to Voicemail*.
 - The options *Overflowed Lost* and *Overflowed Answered* are not available if the report target is an agent or agents.
 - *Overflowed Lost* and *Overflowed Answered* are only included in reports on the queue from which the call overflowed.
- Group Result by: *Ungrouped, Hour, Day, Week, Queue, CLI, DDI* or *Account Code*.
 - When a report is grouped, each set of grouped records will have its own summary except when there is only one record in the group.
 - Records which do not match the grouping being used will be grouped at the start of the report. For example, in a report grouped by CLI, records that have no associated CLI will appear at the start of the report.
 - The grouped records will still contain data appropriate for the selected report targets. For example, in a Call Summary Report targeted on a queue but grouped by agents, each report record will still detail how the queue handled the call even though the records will be grouped against the answering agents. This the average answer time for the call will be how long it waited to be answered by any member of the queue, not by just the agent who did answer.
- Optional: Whether the report includes internal calls is an option.

My Call Details									
01/12/2008 - 22/12/2008 09:00 - 17:00									
Report Type	Target Name								Supervisor Name
Call Details Report - All	Queue								Mark Gallagher
<u>Ungrouped</u>									
Time Stamp	Call Direction	Number	DDI	Queue	Queue Time	Agent	Duration	Status	Reference
02/12/2008 13:09:37	Inbound	01707364416	200	Queue	00:00:01	Agent A	00:00:01	Answered	000140
02/12/2008 13:10:18	Inbound	01707364416	200	Queue	00:00:06	Agent A		Answered	000141
04/12/2008 12:31:28	Inbound	01707364416	200	Queue	00:00:07	Agent A		Lost	000143
04/12/2008 12:32:12	Inbound	01707364416	200	Queue	00:00:02	Agent A	00:00:04	Answered	000144
04/12/2008 12:56:14	Inbound	01707364416	200	Queue	00:00:02	Agent A	00:00:07	Answered	000145
Summary									
Customer Calls	0		Call Interactions	0		External Inbound Calls	0		
			Internal Calls	0		External Outbound Calls	0		

The following information is shown for each target:

- Time Stamp
The date and time of the call.
- Call Direction
Inbound or *Outbound* for external calls. *Internal* for internal calls.
- Number
For inbound calls this is the CLI of the caller. For outbound calls this is the number dialed by the agent.
- DDI
For incoming calls, the destination number received.
- Queue
The queue to which the call was targeted.
- Queue Time
The time from when the call arrived until it was answered, lost or overflowed. Queue time is not display for calls routed to voicemail.
- Agent
When answered, the agent who answered the call.

- Duration

The total call duration. No duration is shown for overflowed lost calls or routed to voicemail calls. A duration is only shown for overflowed answered calls when the report is run using the filter *Overflowed Answered*.

- Status

Whether the call was:

- Answered
- Enquiry Answered
- Holding
- No Answer
- Lost
- Overflowed Answered
- Overflowed Lost
- Transferred

- The status Answered is applied to all calls that go to voicemail.

- Reference

The unique [reference](#)^[274] number for a particular call. This number is also reported in reports based on the [Trace Reports](#)^[62] template and can be used as the target for a trace report.

A summary is provided for each item on which the report has been grouped. An additional summary is included at the end of the report for the whole report. The summary details:

- Customer Calls

The number of unique calls covered by the report.

- Call Interactions

The total of calls answered, lost, overflowed answered, overflowed lost and held/reconnected. Note that this is not the same as the call interactions value shown in reports based on the [Call Summary Report](#)^[60] template.

- Internal Calls

The total number of internal calls.

- External Inbound Calls

The total number of external calls received.

- External Outbound Calls

The total number of external calls made.

Call Details Report and Transferred Calls

For the agent doing the transfer:

For the queue/agent that the call is transferred from, the Call Details Report will detail the following call events:

Call Records	Details included...
Answered Call	As per a normal call.
Holding Call	<ul style="list-style-type: none"> • The Call Reference, Direction, Agent, Number and Queue are those of the answered call. • The Date/Time are when the call was held. • The Duration is the time from the call being held to the transfer being completed. • The DDI is that of the original call. • The Queue Time is blank. • The Status is <i>Holding</i>.
Transferred Call	<p>Reports the same details as the original answered call except:-</p> <ul style="list-style-type: none"> • The Date/Time are when the transfer was completed. • The Queue Time is blank. • The Duration is from the transfer initiation to the end of the transfer (ie. it includes the duration of the enquiry call).

For the queue/agent receiving the transfer:

A call detail report run against the Queue/Agent, that receives a transfer, will detail:

Call Records	Details included...
Enquiry Answered	<p>Note that this record is not present for unsupervised transfers.</p> <ul style="list-style-type: none"> • Date/Time is the point ringing is heard. • Call direction is internal. • Number is the calling parties' number. • DDI is the number dialed. • Queue is the target queue or blank if agent. • Queue Time is the ringing time of the enquiry call. • Agent is the agent answering the call. • Duration is from the agent answering to the transfer being completed. • Status is <i>Enquiry Answered</i>. • Call Reference is a new call reference.
Answered Call	<p>Reports the same details as the original transferred call except:-</p> <ul style="list-style-type: none"> • The Date/Time are when the transfer was completed. • The Queue is the target of the transfer. • The Queue Time is the time from the initial queuing at the transferee until the transfer is completed. • The Duration is from the transfer initiation to the end of the call leg (ie. it includes the duration of the enquiry call).

2.4.6.5 Call Summary Report

This report provides a summary for the selected target of calls presented, answered, overflowed and lost. The average answer percentage, average answer time, average abandon time and grade of service are also listed.

- Target options: *Agent, Queue, View, CLI, DDI* or *Account Code*.
- Group Result by: *Ungrouped, Hour, Day, Week, Queue, Agent, CLI, DDI* or *Account Code*.
 - When a report is grouped, each set of grouped records will have its own summary except when there is only one record in the group.
 - Records which do not match the grouping being used will be grouped at the start of the report. For example, in a report grouped by CLI, records that have no associated CLI will appear at the start of the report.
 - The grouped records will still contain data appropriate for the selected report targets. For example, in a Call Summary Report targeted on a queue but grouped by agents, each report record will still detail how the queue handled the call even though the records will be grouped against the answering agents. This the average answer time for the call will be how long it waited to be answered by any member of the queue, not by just the agent who did answer.
- Optional: Whether the report includes internal calls is an option.

Call Summary Report												
										01/12/2008 - 22/12/2008 9:00 - 17:00		
Report Type			Target Name				Supervisor Name					
Call Summary Report			Queue				Mark Gallagher					
Ungrouped	Customer Calls	Call Interactions	Answered Calls	Lost Calls	Overflowed Answered	Overflowed Lost	Routed To VoiceMail	No Answer (Timeout)	Avg. Answer Time (%)	Avg. Answer Time	Avg. Abandon Time	Grade Of Service (%)
MainB	1	1	1	0	0	0	0	0	0.00			0.00
Queue	23	23	14	9	0	0	0	0	52.94	00:00:01	00:00:08	37.50
Queue2	2	2	2	0	0	0	0	0	0.00	00:00:02		0.00
Customer Calls			26	Overflowed Lost			0	Average Abandon Time			00:00:08	
Call Interactions			26	Routed To VoiceMail			0	Grade of Service			36.00	
Answered Calls			17	No Answer (Timeout)			0	Answer Threshold			1	
Lost Calls			9	Average Answer Time (%)			00:00:01	Lost Call Threshold			1	
Overflowed Answered			0	Average Answer Time			-	External Outbound			0	

The following information is shown for each target selected for the report:

- Customer Calls
The total number of unique calls.
- Call Interactions
The total number of calls answered, lost, overflowed answered, overflowed lost or routed to voicemail. Depending on the report targets included and how the report is grouped, the same call may have more than one interaction within the report. Therefore this value is different from the number of unique customer calls. Note that this is not the same as the call interactions value shown in reports based on the [Call Details Report](#) template.
- Answered Calls
The number of [queue calls](#) answered. This includes calls that were Routed to Other.
- Average Answer Time
The sum of the answer time for queue calls answered divided by the number of queue calls answered.
- Lost Calls
The number of queue calls lost. The Lost Call Threshold doesn't impact this statistics (it is used for the Grade Of Service below).
- Overflowed Answered
The number of queue calls that overflowed and were then answered. This value is 0 when the report target is an agent or the report is grouped by agent.
- Overflowed Lost
The number of queue calls that overflowed and were then lost. Calls lost before the report's Lost Call Threshold are not counted. This value is 0 when the report target is an agent or the report is grouped by agent.
- Routed to Voicemail
The number of queue calls routed to voicemail. This value is not reported for agents and reports grouped by agents.
- No Answer (Timeout)
The number of times a call was presented to an agent and not answered before being presented to another agent.

The following values are shown unless the report target is an agent (for which the values are blank).

- **Average Answer Time (%)**
The number of calls answered within the report's specified answer threshold time, divided by the total number of calls answered.
- **Average Abandon Time**
For lost queue calls, this is the average time from when the calls were received by the IP Office system till they were lost. This value is 0 when the report target is an agent.
- **Grade of Service**
The number of queue calls answered within the report's answer threshold as a percentage of all calls presented. Calls lost before the report's Lost Call Threshold are not included in the calculation. This value is reported for queues but is not reported for agents.

The report summary totals the individual values for all the targets included in the report with the following differences:

- **Lost Calls Threshold:** *Default = 1, Range = 1 to 600.*
The value in seconds used by the report for calculating the Grade of Service values. Calls lost before this time are not included in the calculation.
- **Answer Threshold:** *Default = 1, Range = 1 to 600.*
The value in seconds used by the report for calculating the Grade of Service values and Average Answer % values.
- **External Outbound Calls**
Provides a count of calls made by any agents being reported on. This will be 0 if the report target is a queue.

Note

1. Routed to Voicemail, Overflowed Lost and Overflowed Answered are reported against the queue from which the call overflowed. For an agent they are reported as 0.

2.4.6.6 Trace Report

This report lists in chronological order all the events for the selected target or targets within the selected period.

- Target options: [Agent](#)^[266], [CLI](#)^[269] or [Call Reference](#)^[274].
 - The call reference for individual calls can be obtained from reports based on the [Call Details](#)^[57] report template.
- Group Result by: *Ungrouped (fixed)*.

Trace Report				
Report type Trace Report		Target Name Agent *	Supervisor Name Mark Gallagher	
Extn2804				
Date-Time	Event Name	Agent	Number	Reference
17/10/2008 11:54:25	Idle	Extn2804		NULL
17/10/2008 12:09:46	LoggedIn	Extn2804		NULL
17/10/2008 12:09:46	Available	Extn2804		NULL
17/10/2008 12:09:46	Available	Extn2804		NULL
17/10/2008 12:09:46	Available	Extn2804		NULL
17/10/2008 13:02:03	Queue Disabled	Extn2804		NULL
17/10/2008 13:02:03	LoggedOff	Extn2804		NULL
17/10/2008 13:02:03	Queue Disabled	Extn2804		NULL
17/10/2008 13:02:03	Queue Disabled	Extn2804		NULL

For each target being report on, the report will list events where one of the targets changed state.

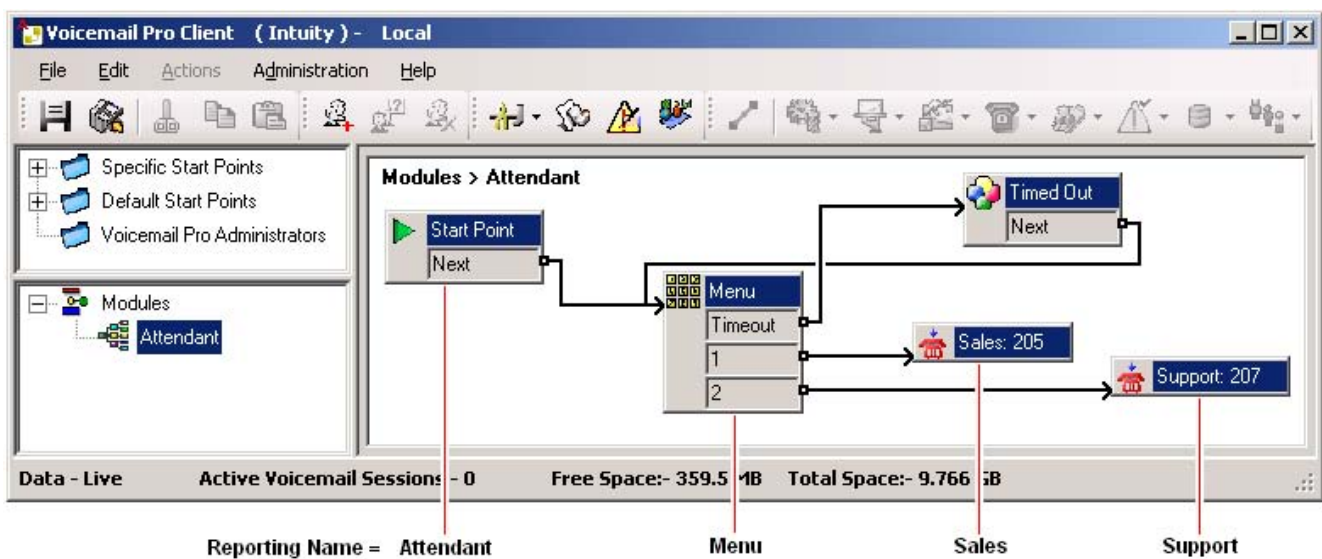
- Date - Time
The date and time of the event.
- Event Name
 - Available: The agent became available to answer calls.
 - ACW: The agent when into the After Call Work state.
 - BNA: The agent entered Busy Not Available state.
 - Busy: The agent went off hook.
 - Holding: The agent put a call on hold or parked a call.
 - Idle: The agent returned to the idle state.
 - Incoming: An incoming external call was received.
 - Internal Made: An internal call was made and connected/reconnected.
 - Internal Received: An internal call was received.
 - Logged Off: The agent logged off.
 - Lost: The caller disconnected before being answered.
 - Logged In: The agent logged in.
 - No Answer: The agent did not answer the call when it was presented to them.
 - Outgoing: An outgoing external call was made.
 - Queue Disabled: The agent's membership of a queue was disabled.
 - Ring: A call is presented.
 - Transferred: The call has been successfully transferred.
- Agent
The agent to which the event applies.
- Number
For call events, on incoming calls the CLI received with the call, on outgoing calls the number dialed.
- Reference
The unique call [reference](#)^[274] number of the call. Shown for events that involve a call, otherwise *NULL*.

2.4.6.7 Voicemail Report

Reports based on the CCR's Voicemail Report template can be used to track the usage of customized call flows that have been added to Voicemail Pro. The reporting is not automatic, only specific labels that have been assigned to call flow actions are reported on.

- Target options: *Voicemail (fixed)*.
- Report on: *All calls (fixed)*.
- Group Result by: *Ungrouped, Hour, Day, Week, CLI or DDI*.
 - When a report is grouped, each set of grouped records will have its own summary except when there is only one record in the group.
 - Records which do not match the grouping being used will be grouped at the start of the report. For example, in a report grouped by CLI, records that have no associated CLI will appear at the start of the report.
 - The grouped records will still contain data appropriate for the selected report targets. For example, in a Call Summary Report targeted on a queue but grouped by agents, each report record will still detail how the queue handled the call even though the records will be grouped against the answering agents. This the average answer time for the call will be how long it waited to be answered by any member of the queue, not by just the agent who did answer.

The example Voicemail Pro call flow below is a simple auto attendant that lets callers select to be transferred to either sales or support.



Reporting names have been assigned to some of the actions in the call flow. For example, the Start Point action has been given the name *Attendant* (see [Adding a Name to an Action](#) below). The names are used in IP Office Customer Call Reporter reports based on the Voicemail Report template.

VoicemailReport			
		14/01/2009 - 14/01/2009 07:44 - 17:00	
Report Type	Target Name	Supervisor Name	
Voicemail Report	Voicemail	Mark Gallagher	
Name	No. of Calls	No. Lost Calls	No. of Times triggered
Attendant	7	0	7
Menu	5	3	8
Sales	2	0	2
Support	2	0	2
Summary	7	3	20
Total calls Answered		7	Total calls Lost
			3

- Name
This is the text name assigned to an action or actions in Voicemail Pro customized call flows.

- The same name can be assigned to several actions and to actions in different call flows. For example, if you have several call flows with actions that transfer calls to your Sales team, you may want to name all those action "Sales". This will result in a single reporting line in the Voicemail report for calls that went to from voicemail to sales independent the actual call flow used.
- No. of Calls
When a call reaches a named action it is counted as an answered call for that name.
- No. Lost Calls
If, having reached a named action, the call is disconnected by the caller or by the voicemail server before it reaches another named action, it is counted as lost.
- No. of Times Triggered
Each time a call reaches a named action, the call is counted as having triggered that name. The same call can be counted as triggering the same action more than once if the call flow loops. Note however that the call must go via another named action rather than simply looping from one of the named actions own result.

Adding a Reporting Name to a Voicemail Action

1. Double-click on the action.
2. Select the Reporting tab.

The screenshot shows a dialog box titled "Properties for Transfer Sales" with a close button (X) in the top right corner. The dialog has five tabs: "General", "Entry Prompts", "Specific", "Reporting", and "Results". The "Reporting" tab is selected. Inside the dialog, there are three checkboxes: "Flag the current call has been answered by Voice Mail" (unchecked), "Request to call back the current caller" (unchecked), and "Send reporting information" (checked). Below these is a "Reporting" section with three text input fields: "Group name" (containing "Sales"), "Topic" (empty), and "Annotation" (empty). At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".

3. Select Send reporting information.
4. In the Group name field enter the name to associate with the action. This is the name that will be used in reports based on the Voicemail Report template. None of the other fields are used by IP Office Customer Call Reporter.
5. Click OK.

2.5 Scheduler



Supervisors can use the Scheduler options to schedule [reports](#)^[66], [wallboard messages](#)^[69] and [housekeeping tasks](#)^[67]. The results of recently run scheduled tasks are also shown.

Status | IP Office Customer Call Reporter | Mark | 17:39:00 | Account | Change Password | Log Off | Help | **AVAYA**

Dashboard Monitor Reports **Scheduler** Customer Map

(Hide Scheduled Tasks ...)

Scheduled Tasks Filter: All Tasks

Type	Name ↑	Scheduled Frequency	Scheduled Details	Last Modified	Username
Housekeeping	Rebuild Database Indexes	Daily	at 01:30		
Housekeeping	Reset Realtime Statistics	Daily	at 11:57	02/05/2010 11:53:08	mark
Report	test	Daily	at 15:01	25/11/2009 15:00:17	mark
Message	wallboard1:	Daily	at 11:44 (expired)		

Add Message Add Task

(Hide Scheduling Properties...)

Scheduling Properties

Daily Reset Realtime Statistics

Start Time: 11:57 Update

(Hide Last Run Tasks ...)

Last Run Tasks

Task Name	Last Run ↓	Type	Username	Result	Reason
test	20/05/2010 15:02:25	Automatic	mark	Failure	Sending e-mail failed.
Agent Time Card Report	04/05/2010 23:11:26	Manual	mark	Success	
Reset Realtime Statistics	03/05/2010 11:57:01	Automatic		Success	
Reset Realtime Statistics	03/05/2010 11:57:01	Automatic		Success	
Reset Web Services	03/05/2010 02:32:33	Automatic		Success	

1 2 3 4

Schedule events

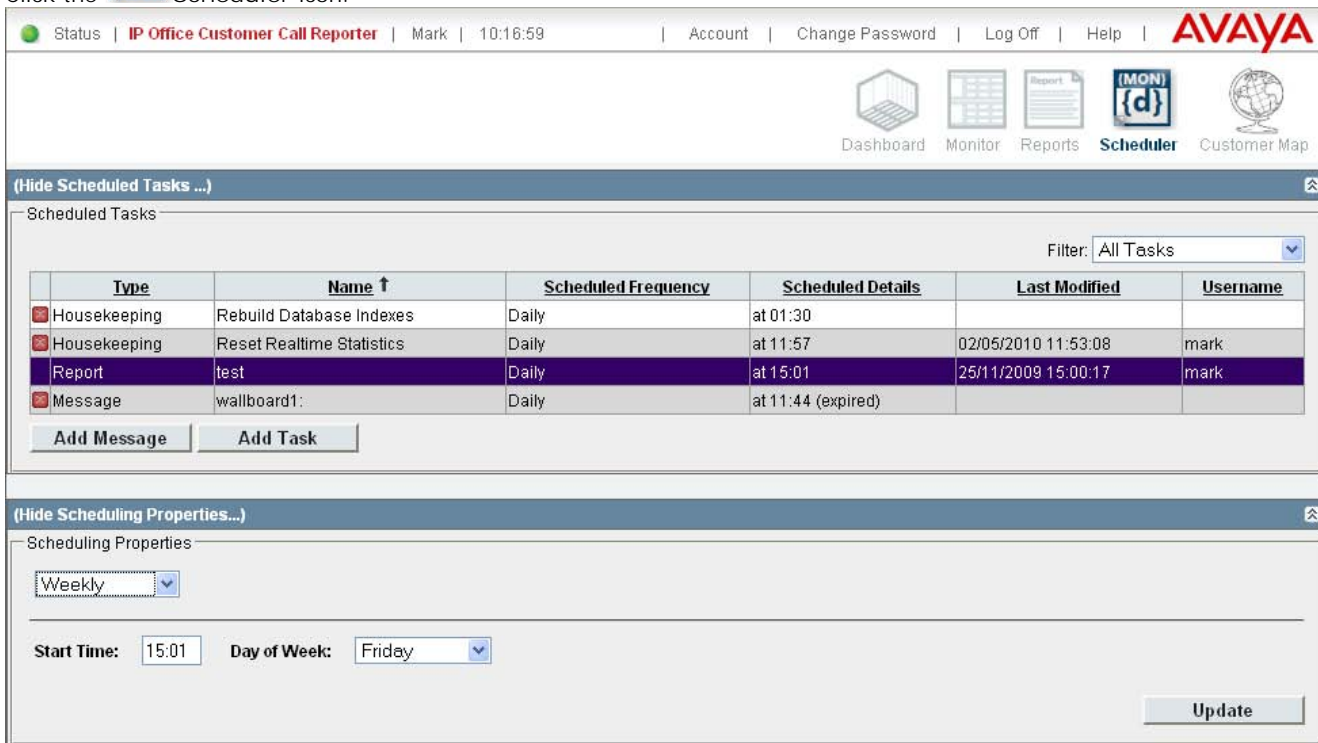
- [Schedule a report](#)^[66]
- [Automatically reset the statistics](#)^[67]
- [Backup the database](#)^[67]
- [Send Wallboard messages](#)^[69].

2.5.1 Scheduling Reports

The Scheduler tab shows tasks including any reports [you have created](#) ⁴⁷ that have been saved with their Scheduled setting set to *Automatic*.

1. Ensure you have [created a report](#) ⁴⁷ as required and set its Scheduled option as *Automatic*. The report destination, format and time range that it covers are set when creating and editing the report.

2. Click the  Scheduler icon.



(Hide Scheduled Tasks ...)

Scheduled Tasks

Filter: All Tasks

Type	Name ↑	Scheduled Frequency	Scheduled Details	Last Modified	Username
Housekeeping	Rebuild Database Indexes	Daily	at 01:30		
Housekeeping	Reset Realtime Statistics	Daily	at 11:57	02/05/2010 11:53:08	mark
Report	test	Daily	at 15:01	25/11/2009 15:00:17	mark
Message	wallboard1:	Daily	at 11:44 (expired)		

Add Message Add Task

(Hide Scheduling Properties...)

Scheduling Properties

Weekly

Start Time: 15:01 Day of Week: Friday

Update

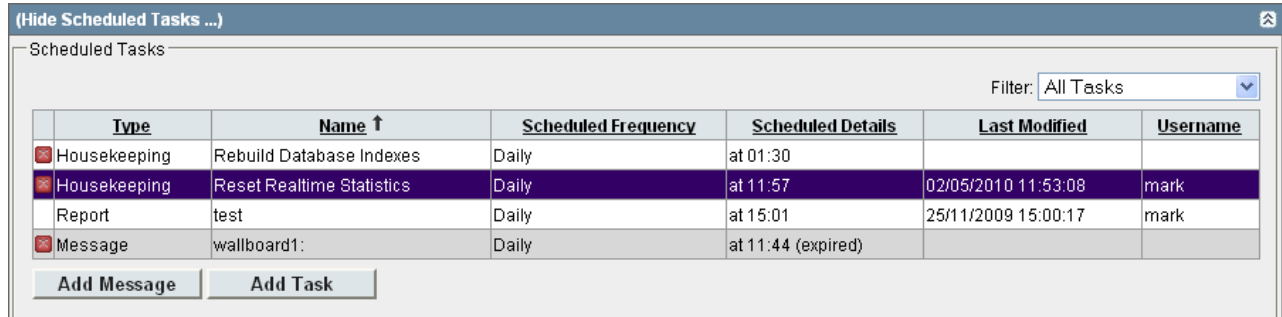
3. To schedule a report or to change the schedule, click the report to be amended in the Scheduled Tasks section.
4. Select the required option in the Scheduling Properties. Amend the report properties as required.
 - Daily
If selected, you can then set a Start Time for when the report should be run each day. The default is *09:00*.
 - Weekly
If selected, you can then set a Start Time and Day of Week for when the report should be run each week. The default is *9:00 Sunday*.
 - Monthly
If selected, you can then choose either a day such as the last Friday of the month or a specific date within a month. If you select a date that exceeds the days in the month, the setting is considered to be the last calendar day of the month. For example, if you select the report to always be run on the 31st day of a month, the report will be run on the 30th day of a month when there are only 30 days in the month.
 - Unscheduled
Stop running the report on an automatic schedule.
5. Click Update to save your changes.

2.5.2 Scheduling Housekeeping Tasks

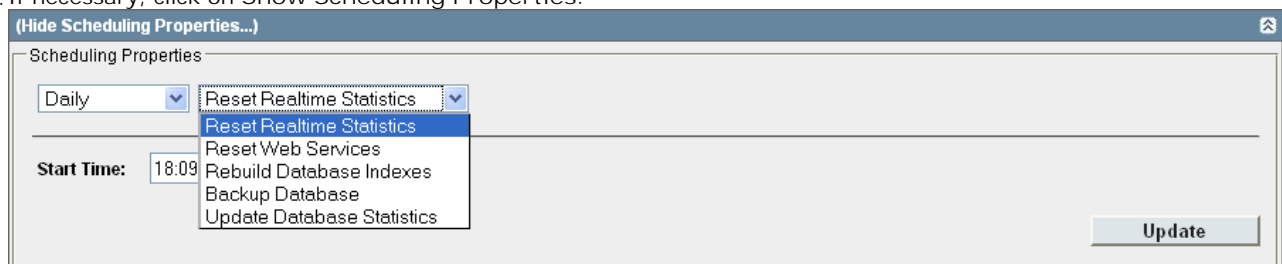
Supervisors for who the administrator has enabled the Self-Administer option can setup housekeeping tasks including tasks to reset all the statistics at specified times. This will affect all supervisor and agent views. It does not affect the statistics used for historical reports.



1. Click on Scheduler.



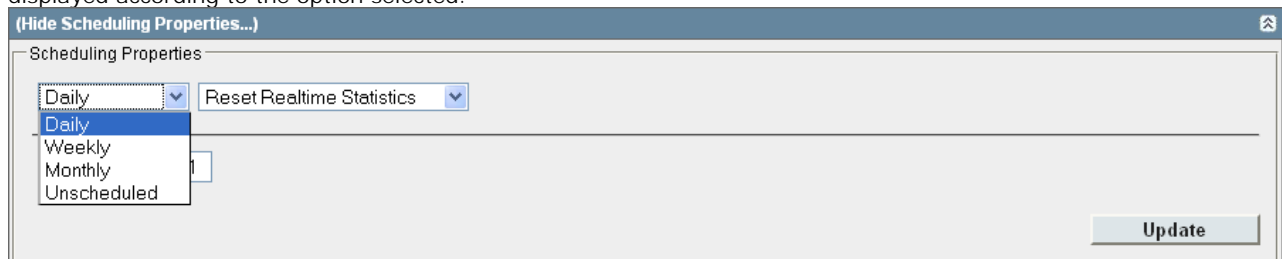
2. To add a new housekeeping task, click on Add Task. To edit an existing housekeeping task, click on it.
3. If necessary, click on Show Scheduling Properties.



4. If adding a new task, select the type of task.

- **Reset Realtime Statistics**
Reset the statistics shown in all supervisor, agent and wallboard views.
- **Reset Web Services**
By default this task is already scheduled and occurs at 02:30. Note that when this action occurs, it will interrupt any connected browser session for several minutes and reset the session timeout for those sessions once operation is restored.
- **Rebuild Database Indexes**
By default this task is already scheduled and occurs at 23:00. It updates the database statistics and re-indexes the database. Doing this allows reports on historical data to run faster, however during the actual re-indexing the response of IP Office Customer Call Reporter is slowed.
- **Update Database Statistics**
This task is similar to Rebuild Database Indexes but does not include the database re-indexing part of that action. Following this, action reports will run slightly faster, however while the action is being performed it has less of an effect on the response of IP Office Customer Call Reporter than the Rebuild Database Indexes action.
- **Backup Database**
The backup database is placed into the default MS-SQL backups folder with a date and time prefix to the file name.

5. Select the type of schedule for the task: *Daily*, *Weekly*, *Monthly* or *Unscheduled*. Additional options are displayed according to the option selected.



- *Daily*

The screenshot shows a dialog box titled '(Hide Scheduling Properties...)' with a close button in the top right corner. The main area is labeled 'Scheduling Properties'. It contains a dropdown menu set to 'Daily' and a 'Reset Realtime Statistics' dropdown menu. Below these is a 'Start Time' field with the value '18:16'. An 'Update' button is located in the bottom right corner.

- *Weekly*

The screenshot shows a dialog box titled '(Hide Scheduling Properties...)' with a close button in the top right corner. The main area is labeled 'Scheduling Properties'. It contains a dropdown menu set to 'Weekly' and a 'Reset Realtime Statistics' dropdown menu. Below these are a 'Start Time' field with the value '18:16' and a 'Day of Week' dropdown menu set to 'Friday'. An 'Update' button is located in the bottom right corner.

- *Monthly*

The screenshot shows a dialog box titled '(Hide Scheduling Properties...)' with a close button in the top right corner. The main area is labeled 'Scheduling Properties'. It contains a dropdown menu set to 'Monthly' and a 'Reset Realtime Statistics' dropdown menu. Below these are a 'Start Time' field with the value '11:57', a radio button for 'This Day' followed by a dropdown menu with '31', a radio button for 'The' followed by a dropdown menu with 'Last', and another dropdown menu with 'Friday'. An 'Update' button is located in the bottom right corner.

- *Unscheduled*

This schedule option has no other settings. It disables the task without deleting it from the task list.

6. Once the task is scheduled as required, click on Update.

7. The task settings are shown in the Scheduled Tasks list.

2.5.3 Scheduling Wallboard Messages

You can schedule messages to be sent to any wallboard. Alternatively you can send an immediate message that will be displayed for 5 minutes. When there are multiple messages scheduled for a wallboard, the messages are appended to each other as they are scrolled across the wallboard.

1. Click on the Scheduler tab.

(Hide Scheduled Tasks ...)

Scheduled Tasks

Filter: All Tasks


Type	Name ↑	Scheduled Frequency	Scheduled Details	Last Modified	Username
Housekeeping	Rebuild Database Indexes	Daily	at 01:30		
Housekeeping	Reset Realtime Statistics	Daily	at 11:57	02/05/2010 11:53:08	mark
Report	test	Daily	at 15:01	25/11/2009 15:00:17	mark
Message	wallboard1:	Daily	at 11:44 (expired)		

Add Message Add Task

2. To add a new message click on Add Message. To edit an existing message task, click on it.

3. If necessary click on Show Scheduling Properties.

4. Enter the text for the Message. This is the text that will be scrolled across the message area of the selected wallboard. Remember that this message may appear amongst other schedule messages and messages set by other supervisors. Therefore it can be useful to add spaces before and after the message text and to end the message with proper punctuation.

- By clicking on the  color palette icon you can select the colour for the text message. The currently selected color is displayed in the colored square next to the icon.

5. Also enter a short Task Name. This is displayed in the task list.

6. Use the Wallboard list to select the wallboard to which the message should be sent.



7. Use the Schedule option to select when the message should be sent.

- Instant Message

An instant message is displayed for 5 minutes.

(Hide Scheduling Properties...)

Scheduling Properties

Schedule Wallboard Task Name Message  

Instant Message All Wallboards Team Briefing Team briefing at 3 o'clock..



** Scheduled properties are not set for the selected task **

Update

- Daily

(Hide Scheduling Properties...)

Scheduling Properties

Schedule Wallboard Task Name Message  

Daily All Wallboards Team Briefing Team briefing at 3 o'clock..

Start Time: 14:50



End Time: 15:00 Expiry Date:

Update

- Weekly

(Hide Scheduling Properties...)

Scheduling Properties

Schedule Wallboard Task Name Message  

Weekly All Wallboards Team Briefing Team briefing at 3 o'clock..

Start Time: 14:50 Day of Week: Friday

End Time: 15:00 Expiry Date:

Update

- Monthly

Messages that are scheduled monthly can be set to either occur on the same date each month or on a specific day of the month.

(Hide Scheduling Properties...)

Scheduling Properties

Schedule: Monthly | Wallboard: All Wallboards | Task Name: Team Briefing | Message: Team briefing at 3 o'clock..

Start Time: 14:50 | This Day: 31 | The: Last | Friday

End Time: 15:00 | Expiry Date: | Update

- If an Expiry Date is specified, the message scheduling ends on that date. However the message remains in the task list until deleted and can be reactivated by removing or changing the expiry date.

8. When the message is set as required click on Update. The message details will be shown in the task list. If the schedule setting was Instant Message, the message will start being displayed for 5 minutes unless overridden by another scheduled message.

2.6 Customer Map



The customer map shows the location of callers based on the caller's number. When a caller's [location has been identified](#) ^[73], a pin is placed on the map at that location. The [color of the pin](#) ^[72] changes with the volume of calls that match that same location. When the caller cannot be resolved beyond just a country, a colored button is used instead of a pin. Hovering your cursor over a pin or button displays details of the location and the number of callers from that location.



The map controller in the middle is used to zoom, scroll and select the type of map detail required. The scrolling and zooming functions can also be done with a mouse (click and drag to scroll, use a scroll wheel to zoom). To show/hide the map controller click on its middle square.

Use the Customer Map

- [View the customer map](#) ^[71]
- [Understand the pin colors](#) ^[72]
- [Select the map type](#) ^[75]
- [Map historical calls](#) ^[76]
- [Add a map overlay](#) ^[77]

The icons at the bottom left can be used to access a range of functions.

- Toggle Full Screen Mode
Switch the customer map between full screen and normal view.
- Best Fit
Set the zoom to best fit the current pins on the map.
- Start / Pause Realtime Plotting
When [loading pins for historical calls](#) ^[76], the process can be paused and restarted.
- Historical Plot Range ^[76]
Specify a date and time range for pins that should be added to the map.
- Stop Historical Plotting
Stop historical plotting.
- Select Map Provider
Switch to a different map provider.
- Toggle Scale
Switch the map scale between miles or kilometres.
- Select Overlay
This button allows you to select an overlay file to combine with the map.
- Find Location
This option allows you to enter a telephone number or place name to test pin location operation.
- Delete
Clear all pins from the view.
- Load File
Load a previously saved set of pins.
- Save Current Map
Save the current set of pins as a file.
- Exit
Exit the customer map view.

2.6.1 Starting the Customer Map

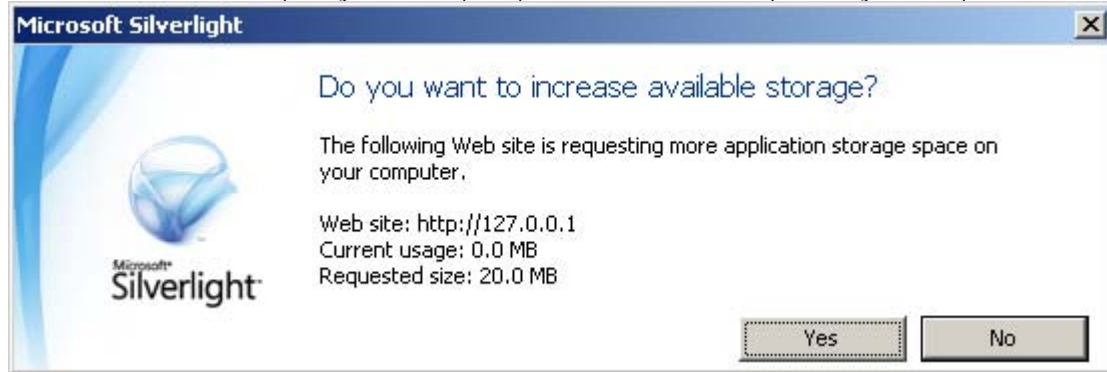
- Microsoft Silverlight



The IP Office Customer Call Reporter wallboard and customer map functions use Silverlight. When logging in at a computer without Silverlight installed, if the computer has access to the internet, you will be prompted to install Silverlight. If the computer does not have access to the internet, Silverlight must be installed manually for the wallboard view to run. Full details of Silverlight and the browsers on which it is supported can be obtained at <http://www.microsoft.com/silverlight>.

1. Login to IP Office Customer Call Reporter as a supervisor.

2. Click on the  Customer Map icon.



- While running, the Microsoft Silverlight used by the customer map needs to store data on the browser PC. If it does not have sufficient space you will be prompted to allow it to use space on your computer. Click Yes.



3. Click on the  Start icon to start plotting calls as they arrive. Click on  Pause icon to pause realtime plotting

2.6.2 Map Pins

When a caller's [location has been identified](#)⁷³, a pin is placed on the map at that location. The color of the pin changes with the volume of calls that match that same location. When the caller cannot be resolved beyond just a country, a colored button is used instead of a pin.

Pin	Color	Calls	Button
	Black	1 call	
	Dark Blue	2 - 10	
	Light Blue	11 - 100	
	Green	101 - 1,000	
	Yellow	1,001 - 10,000	
	Orange	10,001 - 100,000	
	Red	100,001+	

Hovering your cursor over a pin or button displays details of the location and the number of callers from that location.



2.6.3 How is the Caller's Location Determined

IP Office Customer Call Reporter includes files that can match the telephone country codes for all countries and area codes within most countries. Once the call is matched to a named place, a query is sent to the map provider service to identify where that place is on the geographic map.

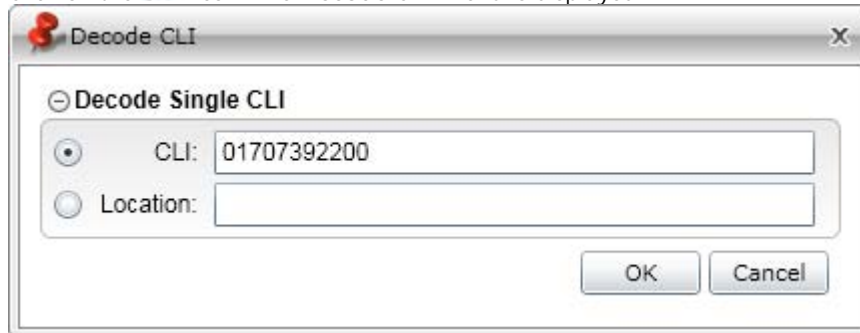
Where additional detail is required, the IP Office Customer Call Reporter maintainer can edit the set of files to add additional area and local area codes.

For India and the United States, an enquiry using the number is sent to the mapping services, so IP Office Customer Call Reporter does not need its own area code files to match numbers to country and area names.

Testing a PIN Location Match

You can use the customer map to manually place a pin at a location based on a phone number or location name.

1. Click on the  icon. The Decode CLI menu is displayed.





2. Select either CLI for a match by number or Location for a match by place name.
3. Enter either a telephone number or location. The more detail that you can add the better chances of an accurate location match.
 - Enter a CLI without any external dialing prefix even if your telephone system uses an external dialing prefix for outgoing calls. If you do not include an international dialing country code or an area code, the [default settings](#) configured by the system administrator will be assumed.
 - Enter a location in decreasing detail, for example *"town, state, country"* with each part separated by a comma.
4. Click OK.
5. If a match is obtained, a pin will be inserted at the matching location.

2.6.4 Map Control






The map controller in the middle is used to zoom, scroll and select the type of map detail required.




- To hide the map controller, click on its middle square.
- To unhide the controller, click on the  square.
- To scroll the map, click on the  arrow buttons. Alternatively you can click and drag the map.
- To change the map detail, place the cursor over the eye icon and select the type of map detail required.
- The options available will depend on the currently selected map provider.
- To change the zoom, place the cursor over the magnifying glass icon. Use the slider to change the zoom level or click on one of the preset zoom levels.
 - Alternatively:
 - You can change the zoom levels using a mouse with a scroll wheel.
 - To zoom in on a particular spot, double click on it.

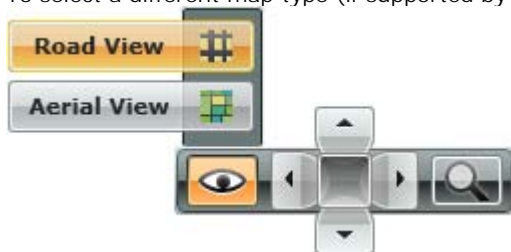
2.6.5 Map Selection

The customer map can use a number of different map backgrounds. These vary by map provider and map type.

Map Type	Map Provider		
	Open Street Maps	Yahoo Maps	Outline Map
Road View			
Aerial View			

The outline map is provided directly by IP Office Customer Call Reporter and may be useful when Internet speed for map picture updates is limited. However it is a limited country outline only map.




- To switch between the different map providers click on the  icon.
- To select a different map type (if supported by the provider) use the map controller.



2.6.6 Create an Historical Map

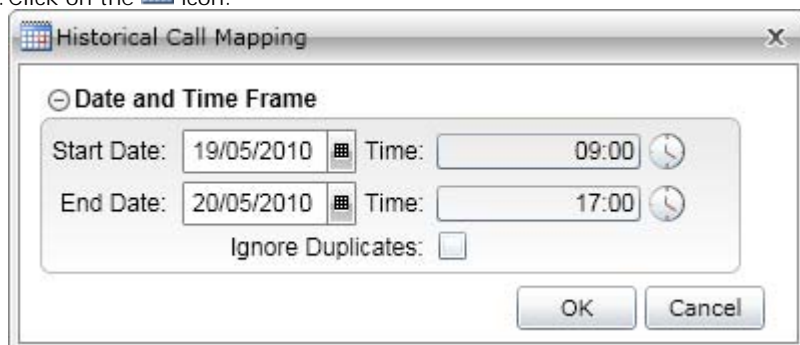
You can use the customer map to plot previous calls within a selected time range.



Stopping and Clearing Realtime Call Plotting

By default the customer map plots calls as they occur. You may not want this to occur while plotting a set of historical calls. You can use the  and  icons to pause or resume realtime call plotting. Use the  icon to remove all pins currently plotted on the map.



Plotting Historical Calls

1. Optional: To clear the existing map, click on the  icon to pause realtime call plotting and then the  icon to remove the existing pins.
2. Click on the  icon.



3. Enter the date and time range for which you want the calls plotted.
 - If Ignore Duplicates is selected, calls from the same number are only counted and plotted once. For scenarios where you have frequent calls from the same customers, this improves the speed of the map plotting. However it means that the pin count shown is for the number of unique callers rather than the total number of calls.
4. Click OK.
5. The IP Office Customer Call Reporter will begin plotting the call pins for the specified time range in roughly the order that calls occurred.
6. Clicking on the  icon stops the historical plotting. To restart it specify the range again using the  icon.

Saving a Historical Plot

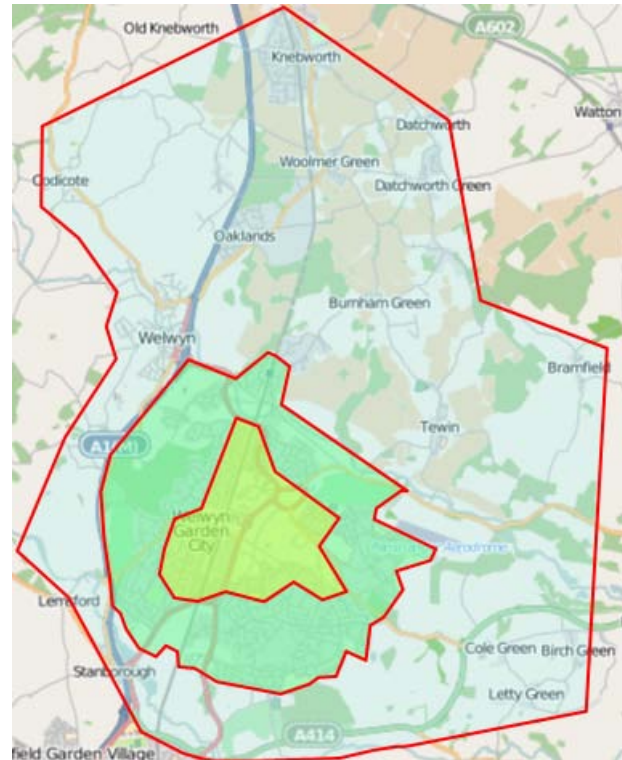
If the plot is of interest, you can save it as a file by clicking the  icon and specifying a file name. The map can then be reloaded at anytime by clicking on the  icon rather than having to replot all the calls. You can only load one historical file at any time.

2.6.7 Viewing an Overlay

You can place an overlay over the map. An overlay consists of placemaker icons, names, lines and shapes. This may be useful if you want to include additional information on the map. For example the location of your company's branches or boundaries to different sales areas.




Map with no overlay.



Map with local delivery area overlay.

Your system maintainer can set a default overlay that will be automatically added to all customer map views. If you load your own overlay, it will replace the default one for your viewing as only one overlay is supported at a time.

To add an overlay to the current display, click on the  icon and select the KML file from a location accessible by your PC.

The overlay files use a format called KML which is used by many mapping programs. You can create and save your own simple KML overlay file using tools such as Google Earth or ScribbleMaps. IP Office Customer Call Reporter supports simple placemarkers, polygons and paths. It does not support ground and screen overlays.

Additional details are contained in the IP Office Customer Call Reporter Installation manual.

2.7 Account Details

The administrator [creates supervisor accounts](#)^[136] and can amend those accounts. During that process they can specify whether you can self administer your account settings. There is a grayed out check box next to the heading Self Administer. If ticked, you are able to update your account details. If not ticked, the tab fields are grayed out and the message *"You are not permitted to administer the account"* appears.

To view/amend your account details

1. Click on Account in the top status bar to view your account details.

Account	Username: <input type="text" value="Supervisor"/>
Queues	Password: <input type="password"/>
Views	Confirm Password: <input type="password"/>
	Full Name: <input type="text" value="Charles Slack"/>
	Extension: <input type="text" value="123"/>
	E-mail: <input type="text" value="Charles@mycompany.co.uk"/>
	<input checked="" type="checkbox"/> Self Administer
	<input checked="" type="checkbox"/> Reset Statistics
	<input checked="" type="checkbox"/> Control Agent
	<input type="button" value="Next"/>

2. If the grayed out option Self Administer has a tick mark you can amend your account details.

Field	Description
Username	This is the supervisor username used for logging in to IP Office Customer Call Reporter. If the name matches the administrator name and or an agent name then the user can also login in those roles. Supervisors cannot change their username. See Multiple Roles ^[262] .
Password	This is the password used for browser access to IP Office Customer Call Reporter. All supervisors, even those without Self Administer rights, can use the Change Password ^[17] option to change their password.
Confirm Password	
Full Name	This name is shown to agents when they login and select their supervisor. It is also used in reports to indicate which supervisor created and ran the report.
Extension	The telephone extension number associated with the supervisor account.
Email	The unique email address associated with the supervisor. This is used for the forgotten password ^[18] feature.
Self Administer	If selected, the supervisor has self administration rights and is able to edit their own Account Details ^[78] . Supervisors with this option are also able to schedule housekeeping tasks ^[67] such as database backups and automatic statistic resets. Supervisors without this option are only able to edit views.
Reset Statistics	Supervisors for who the administrator has enabled the Reset Statistics option can reset all the statistics currently being used for supervisor views, agent views and wallboards. This will affect all supervisors, agents and wallboards. It does not affect the statistics used for historical reports.
Control Agent	Supervisors with this option enabled are able to click on an agent name in a view and select from a list of actions that change the state of that agent. For example to force the agent to login or logout. See Controlling Agent Status ^[42] . This option requires the IP Office Customer Call Reporter to be configured with details of the one-X Portal for IP Office ^[147] server.

3. Click Next. The Queues window opens. If required amend the queues you want to monitor.

4. Click Next. If required amend the view names.

Field	Description
Views	These fields allow you to rename the 3 views.
Audio Enabled	<p>This option is used in conjunction with any view that includes an All Views Alarm List. When enabled, if an alarm occurs, the browser's media player is used to play a sound file from the IP Office Customer Call Reporter server PC. The sound is played to all users looking at that supervisor's views.</p> <ul style="list-style-type: none"> This option is off by default. If enabled, an audio plug-in is required for all user browsers. Use either Quick Time or Windows Media Player.
Help Tooltips Enabled	If enabled, when the cursor is placed over the statistic name in a view, pop-up help for the statistic is displayed. Tooltips are on by default.
Highlighting Enabled	If enabled, when a statistic in a view changes value, its background briefly changes to purple, then light purple and then back to the normal background color. This option is not applied to agent state and time values. Highlighting is on by default.

5. Click Finish to save your changes.

Chapter 3.

Agent

3. Agent

An agent is a user who handles calls to queues on the IP Office telephone system. Unlike general IP Office users they have been specifically configured as agents in the IP Office configuration. IP Office Customer Call Reporter supports up to 150 agents.

- To make and receive calls, the agent must login to a phone on the IP Office telephone system. Note that T3 Series and T3 IP Series phones are not currently supported.
- The agent's phone status is recorded by IP Office Customer Call Reporter. For example when they logged in to a phone, answer a call, log off, etc.
- The agents are also configured as members of queues and are then presented with call targeted to those queues. An agent can be a member of several queues.
- Using the web client allows the agent to see the same monitor views as their supervisor. However, unlike the supervisor an agent only sees their own statistics and those for queues which they belong.

The screenshot shows the IP Office Customer Call Reporter interface for Agent3 at 17:02:47. It features a status bar with a green indicator, navigation links (Change Password, Log Off, Help), and the AVAYA logo. Below the status bar, there are tabs for 'Graph', 'View 1', 'View 2', and 'View 3'. The main content area displays two tables:

Queues	Agents Ringing	Answered Int Queue	Answered Calls	Average Ans %	Queue State T	Calls Waiting
HG1	1	1	3	6.10	00:00:09	3
HG2	2	2	3	6.39	00:00:03	1
TOTAL	3	3	6			9

Agents	Average Ans Time	Average Ans %	Agents Call Share
Agent3	8.61	4.94	1.66

- Blank Views! While it is possible that the supervisor has not configured any content for a particular view, if all views are blank then you may have selected a supervisor whose views do not include any queues to which you belong.

Tabs

- [View 1/2/3](#) ⁸⁴
The 3 view tabs match those of the agent's supervisor. However unlike the supervisor's version you cannot adjust the view. Also you will only see queue statistics for the queues to which you belong and agent statistics for yourself.

Status ¹⁴⁴	This button indicates the overall status of IP Office Customer Call Reporter. Clicking on the icon displays a System Settings ¹⁴⁴ tab which shows the status of the individual IP Office Customer Call Reporter components. <ul style="list-style-type: none"> • Green: IP Office Customer Call Reporter is running. • Yellow: Some parts of IP Office Customer Call Reporter are still in the process of starting. • Red: There may be a problem in IP Office Customer Call Reporter.
Change Password ¹⁷⁷	While logged in to IP Office Customer Call Reporter, you can change your password.
Log Off ²⁰⁷	Close the IP Office Customer Call Reporter connection. It is important to close a connection using this control rather than just closing the browser or tab within the browser. Failing to use this button will cause a 5 minute delay before you can log in again on another PC.
Help ¹⁹⁷	Access this documentation in online format. Where possible the appropriate page for the current IP Office Customer Call Reporter screen is displayed.
Graph ⁴⁴	Display a separate graph of a statistic for a selected queue or agent.

3.1 Logging In (Quick Start)

As an agent there are 2 main parts to using IP Office Customer Call Reporter. Logging in on a phone extension and logging in to IP Office Customer Call Reporter using a web browser.

Information Required	
• Your Extension Number	This will be different from the number of the extension at which you log in.
• Your Login Code	This is assigned by the system maintainer.
• Your Username	This is assigned by the system maintainer.
• Your Password	You initial password is blank but you will be asked to set one as part of the logging in process.
• Your Email Address	An email address is highly recommended as it allows you to use the Forgot Password function. If one has already been entered in the IP Office configuration it will be shown.
• Supervisor Name	The name of your call center supervisor is requested while logging in to IP Office Customer Call Reporter. You then share their views of the statistics.
• Web Address	IP Office Customer Call Reporter is viewed using a web browser and so you will need to know its web address.

Logging In

1. Login to an extension

You will need to know your own extension number (not that of the phone at which you are logging on) and login code to do this.

- If the phone has a Login button on the display:
 - Press the Login button.
 - Dial your extension number and select Next.
 - Dial your login code and select Done.
- The default dialing short code for logging in is *35.
 - Dial *35.
 - Dial * and then your extension number.
 - Dial * and then your login code.
 - Dial # to finish.

2. Login to IP Office Customer Call Reporter

You will need to know your username and password to do this. If this is the first time you have logged in to IP Office Customer Call Reporter you will be asked to set a password and enter an email address. For full details of the login process refer to [Logging In](#).

- Start your web browser.
- Enter the web address of the IP Office Customer Call Reporter.
- Enter your username and password. If this is the first time you have logged in to IP Office Customer Call Reporter, leave the password blank as you will be asked to enter one.
- Click OK and select your supervisor.

3. Select a View

There will be 3 tabs, each containing a view setup by your supervisor.

4. Select a Queue

Select a queue within the view to see your own statistics for that queue.

3.2 Viewing Statistics

When you open the IP Office Customer Call Reporter web client in agent mode the window will look similar to the one illustrated. The view tabs, up to 3, are views that your supervisor has created. However, unlike their version of the view, you will only see queue statistics for the queues to which you belong and agent statistics for yourself.

1. Click the name of the queue required. Your statistics for that queue are displayed beneath the queue statistics.

The screenshot shows the IP Office Customer Call Reporter web client interface. At the top, there is a status bar with 'Status | IP Office Customer Call Reporter | Agent3 | 17:02:47 | Change Password | Log Off | Help | AVAYA'. Below this, there are view tabs for 'View 1', 'View 2', and 'View 3'. The main content area displays a table of queue statistics and a smaller table of agent statistics.

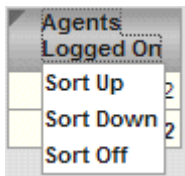
Queues	Agents Ringing	Answered Int Queue	Answered Calls	Average Ans %	Queue State T	Calls Waiting
HG1	1	1	3	6.10	00:00:09	8
HG2	2	2	3	6.39	00:00:03	1
TOTAL	3	3	6			9

Agents	Average Ans Time	Average Ans %	Agents Call Share
Agent3	8.61	4.94	1.66

2. For details of what the different statistics mean see [Statistics](#) ^[152].

Adjusted Statistics

Once a statistic has been added to a view, its name appears at the top of the column.



1. Click the statistic name to display the statistic options:

- **Sort Up**
Sort the view in ascending order using column's current values. When selected the statistic name displays an up arrow icon. Separate sorting can be applied to the agent statistics and the queue statistics. Note that while the queue section of a view is sorted, the selected queue to show in the agent section of the view cannot be changed.
- **Sort Down**
Sort the view in descending order using this column's current values. When selected the statistic name displays a down arrow icon. Separate sorting can be applied to the agent statistics and the queue statistics. Note that while the queue section of a view is sorted, the selected queue to show in the agent section of the view cannot be changed.
- **Sort Off**
Remove the sort. The queues section returns to the order in which the supervisor or administrator arranged the queues when setting up the view. The agents section returns to alphabetical order except for logged off agents who are placed at the bottom of the view.
- **Help**
Access help on the statistic.

Alarms and Warnings

For many statistics, alarm and warning thresholds can be set by supervisors. These thresholds are then applied to the whole column. They are also applied to the views seen by agents.

If the value in any cell in the column goes past one of the thresholds, the background color of that cell is changed. The following colors are used for the cells if the statistic has been enabled for alarms and or warnings.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

Alarms and warnings are automatically cleared when the cell returns back to the threshold level of the alarm or warning. Supervisors and agents can also acknowledge an alarm or warning by clicking on the relevant cell in their view. That cell is then indicated as acknowledged until the value returns back to the threshold value and the alarm or warning is cleared.

If an alarm list or ticker has been added to the view, that also shows alarms and warnings.

- An alarm list shows the 100 most recent current alarms and warnings is a scrollable list of all the current alarms and warning. Alarms are shown first in chronological order followed by warnings in chronological order.
 - Alarms in the Alarm List All Views can also trigger an audible alarm if the [supervisor's account](#)⁷⁸ is set as Audio Enabled. This will be played to all users looking at that supervisor's views.
- An alarm ticker shows the 5 most recent current alarms and warnings one at a time, showing each for a few seconds before displaying the next.
- Alarms and warnings take the form: *Time, Type (Alarm or Warning), Name (Queue name, agent name), Current value, Statistic name*. For agent and queue state alarms, the state is included in the name. For *Busy Not Available* state alarms the reason code is included. For example:
 - *12:45 Alarm Sales 15 Calls Waiting*
 - *16:31 Warning Sales 120 Average Answer Time*
 - *17:20 Alarm Extn2101 Agent State Q – Busy NA (paper work)*
- Alarms and warnings are updated approximately every 8 seconds.
- Clicking on the underlined text in an alarm or warning will change the view to the one containing the alarm or warning and will also select the appropriate queue in that view.
- Alarms and warnings are removed from the list in when the relevant statistic drops back to the threshold level. The supervisor or agent viewer can also remove an alarm or warning by clicking on the appropriate colored cell of statistic value. Acknowledging an alarm or warning only affects their view.
- Alarms for database capacity are not shown within the alarm lists and trackers. They are shown during log in.

3.3 Statistic Colors

A number of different color backgrounds are used while displaying statistics. The following colors are used for normal statistics (these colors are not used in wallboards). The colors for changing statistic number values are optional (enabled by the [supervisor's account setting](#)⁷⁸ Highlighting Enabled) and are not applied to agent state and time values. They are also reset if you change view.

Normal (White)	Alternate Row (Light Gray)	Just Changed (Purple)	Recently Changed (Light Purple)
-------------------	-------------------------------	--------------------------	------------------------------------

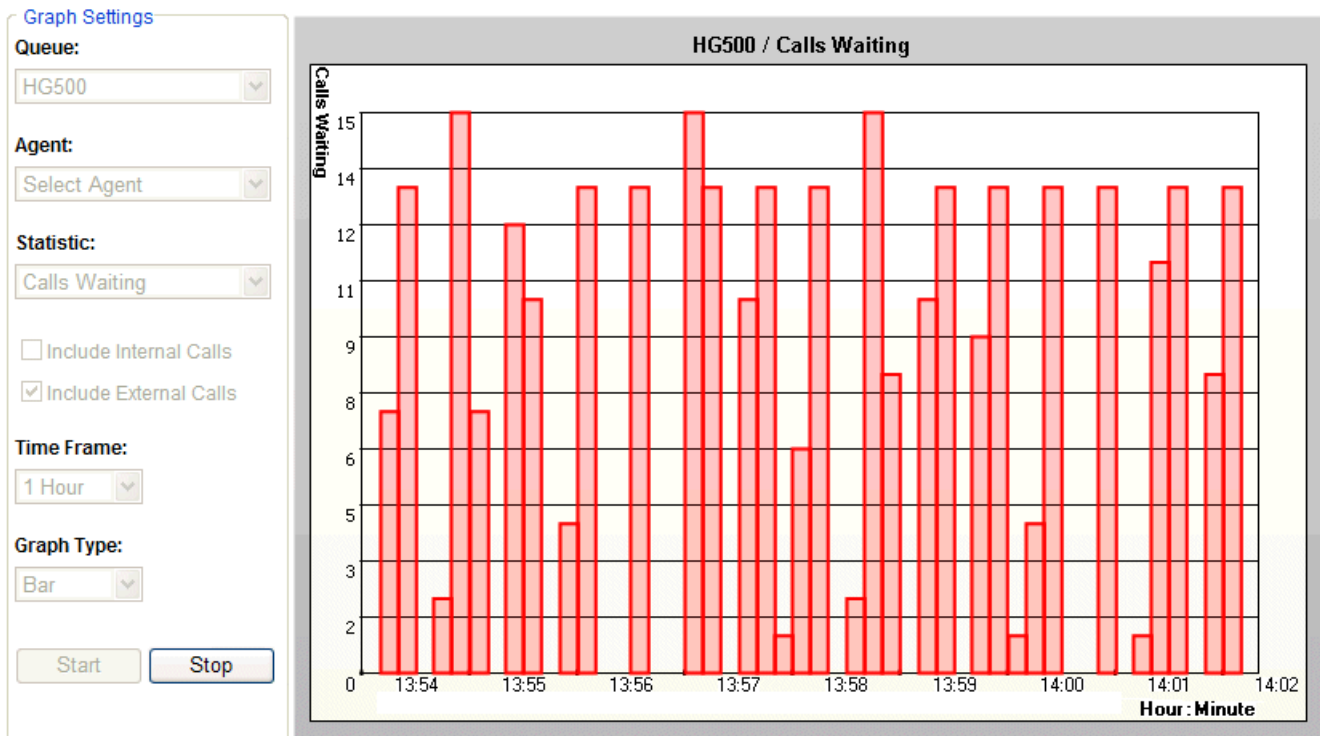
The following additional colors are used when any statistic is configured to display warnings and alarms. These colors override the ones above. Wallboards only display the colors for warnings and alarms.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

Alarms and warnings are automatically cleared when the statistic value returns back to the threshold level of the alarm or warning. Agents and supervisors can acknowledge an alarm or warning in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarms list.

3.4 Graph View

Supervisors and agents can select to have a graph running showing a selected statistic for a queue or agent. The graph appears in a new window or tab depending on the browser being used. Agents are restricted to their own statistics or queues to which they belong.



Example Graph

To view a graph

1. Click on Graph. The graph appears in a new window or tab depending on the browser being used.
2. Select the queue from the Queue drop down list. Then either select an agent from the Agent drop down list or select a statistic from the Statistics drop-down list. Agents can only select themselves or a queue of which they are a member.
3. Select the statistic to monitor and whether it should include internal and or external calls.
4. Select the Time Frame for the horizontal axis. The graph will be updated approximately every 1/360th of the selected time frame, for example a time frame of 1 hour means the graph will update approximately every 10 seconds. Once the full time frame is filled, old data points are removed as new data points are added.
5. Click Start to run the graph.
6. Note that clicking Stop will halt the graph to allow changing the settings. Clicking Start again will clear the existing data from the graph.

3.5 Agent Phone Controls

IP Office Customer Call Reporter tracks your status through your phone extension. Many of the states it reports are automatically determined by the system but you may be able to control the following key states through your phone.

Note that not all these features may be available to you and those that are may have been configured using different text labels or dialing codes.

- [Logging In](#) [88] The state 'Logged In' refers to being logged onto a phone on the telephone system and therefore able to start receiving and making calls. In order to login you need to know your extension number and your login code. When you login at an extension, your user settings are applied to that phone. If the extension has a normal user, they are logged off while you are logged in. If you were previously logged in at another extension, you are automatically logged off from that extension.
- [Logging Out](#) [89] Logging out stops you from receiving any further calls. If the log off is successful you will either see the name of the phone's normal user on the display or *NoUser*.
- [After Call Work](#) [90]
- [Busy Not Available](#) [91]
- [Queue Membership](#) [92]
- [Phone Manager](#) [93]

A range of other phone controls and their effects on statistics are discussed in the [Call Scenarios](#) [216] section. They are:

- [Bridged Call Appearances](#) [256]
- [Call Pickup](#) [256]
- [Do Not Disturb](#) [257]
- [Call Coverage](#) [257]
- [Follow Me](#) [258]
- [Forwarding Calls](#) [258]
- [Internal Twinning](#) [259]
- [Line Appearances](#) [259]
- [Mobile Twinning](#) [259]
- [Transferring Calls](#) [223]
- [Voicemail](#) [254]

Most Avaya phones have a number of programmable buttons which can be used for special functions which can include functions specific to IP Office Customer Call Reporter. Buttons can be provided by the telephone system maintainer for logging in, logging out, enabling/disabling group membership and controlling busy not available and after call work.

Various IP Office functions can be programmed against sequence of numbers that can be dialed from user phones. This includes functions used by IP Office Customer Call Reporter agents.

3.5.1 Logging In

The state 'Logged In' refers to being logged onto a phone on the telephone system and therefore able to start receiving and making calls. In order to login you need to know your extension number and your login code. When you login at an extension, your user settings are applied to that phone. If the extension has a normal user, they are logged off while you are logged in. If you were previously logged in at another extension, you are automatically logged off from that extension.

- [Programmable Button](#) ^[273]
Most Avaya feature phones supported by IP Office have [programmable buttons](#) ^[273]. The IP Office system maintainer can program each of these buttons with features for use by the phone's user.
 - If the phone has a Login button on the display:
 - Press the Login button.
 - Dial your extension number and select Next.
 - Dial your login code and select Done.
- [Dialing Short Code](#) ^[274]
The IP Office telephone system maintainer can setup dialing [short codes](#) ^[274] that allow special features to be accessed by dialing the short code number.
 - The default dialing short code for logging in is *35.
 - Dial *35.
 - Dial * and then your extension number.
 - Dial * and then your login code.
 - Dial # to finish.
- Phone Manger Agent Login/Logout
For agents who [hot desk](#) ^[269], Phone Manager can be used to [login](#) ^[270] to the required phone extension. When the user start Phone Manager, they enter the extension at which they want to login. When they close Phone Manager they are logged off.

The IP Office maintainer can setup a method for agents to change their login code themselves if required.

3.5.2 Logging Out

Logging out stops you from receiving any further calls. If the log off is successful you will either see the name of the phone's normal user on the display or *NoUser*.

- [Programmable Button](#) ^[273]
Most Avaya feature phones supported by IP Office have [programmable buttons](#) ^[273]. The IP Office system maintainer can program each of these buttons with features for use by the phone's user.
 - A Hunt Group Enable button, depending on how it is configured, can be used to enable/disable an agent's membership of a particular group or all groups to which of which they are a member. The button indicates the current state of the membership.
- [Dialing Short Code](#) ^[274]
The IP Office telephone system maintainer can setup dialing [short codes](#) ^[274] that allow special features to be accessed by dialing the short code number.
 - If the phone does not have a Logof button, you may be able to dial a short code. The default for most IP Office telephone systems is **36*.
- Phone Manger Agent Login/Logout
For agents who [hot desk](#) ^[269], Phone Manager can be used to [login](#) ^[270] to the required phone extension. When the user start Phone Manager, they enter the extension at which they want to login. When they close Phone Manager they are logged off.

3.5.3 After Call Work

After Call Work indicates that the agent is not available to receive [queue calls](#) ^[273] while they perform some other call related activity. Typically this 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 [After Call Work](#) ^[90]. Agents can be configured to be automatically put into ACW state after a queue call or else they can manually select to enter the state when required.

Note: The [Wrap-Up](#) ^[277] feature briefly applied to the end of all calls including queue calls is also reported as After Call Work state.

- [Programmable Button](#) ^[273]
Most Avaya feature phones supported by IP Office have [programmable buttons](#) ^[273]. The IP Office system maintainer can program each of these buttons with features for use by the phone's user.
 - **After Call Work Button**
You press the ACW button on your phone. The button will indicate when you are in After Call Work state (manual or automatic). You can press the ACW button on your phone to manually exit After Call Work state.
 - 1400 Series, 1600 Series, 2400 Series, 5400 Series, 4600 Series, 5600 Series and 9600 Series phones with available programmable buttons.
 - **Dialing Short Codes**
The short code features *Start ACW* and *Clear ACW* can be used to manually start and clear After Call Work.
 - **Phone Manager**
There are no Phone Manager controls for this feature.

Automatic After Call Work

The IP Office telephone system maintainer can configure individual agents to be automatically put into After Call Work state when they end a queue call. This option is only supported for agents when using a phone with an ACW button as detailed about.

Disabling After Call Work

The IP Office system maintainer can disable the use of After Call Work by all agents or an individual agent. When this is done, buttons and dialing short codes for After Call Work will not operate.

Wrap Up

For all phone users, the IP Office phone system normally applies a short delay, by default 2 seconds, during which the user is indicated as still being busy to further calls. The main function of wrap up is to allow analog phone users who have just finished a call the opportunity to start dialing a short code or to start making a call before another incoming call is presented to them.

For users set as agents, the period of wrap up applied to their phone is reported as their being in [After Call Work](#) ^[268] state. If the agent is also set for automatic after call work, the wrap up period is applied first and then the automatic after call work period is begun.

3.5.4 Busy Not Available

This agent state indicates that the agent is not available to receive calls while they perform a non-call related activity such as attending a meeting. This state can be selected by an agent using the DND or SAC button on their phone, see [Agent Phone Controls](#)^[273]. This also requires the agent to select one of the [reason codes](#)^[274] displayed on their phone to indicate the reason they are going 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.

For agent on the following phones, when they select Busy NA (Not Available) state using a button on their phone they will be prompted to select a reason code if any have been configured on the telephone system.

- 1400 Series, 1600 Series, 2400 Series, 5400 Series, 4600 Series, 5600 Series and 9600 Series phones with available programmable buttons.

The codes are configured on the telephone system by the system maintainer. The reason code is displayed as part of Agent State (Queue) statistic information.


Up to 8 custom reasons can be configured plus the following two fixed reasons:

- **Automatic**
This reason is used if the agent is using a phone that allows reason code selection but fails to select a reason. For example if they enabled Busy NA through a short code, using Phone Manager or were forced into it by the IP Office's Agent Status on No Answer feature.
- **Unsupported**
This reason code is used for agents using phones that do not allow the selection of a reason code.
- **[Programmable Button](#)**^[273]
Most Avaya feature phones supported by IP Office have [programmable buttons](#)^[273]. The IP Office system maintainer can program each of these buttons with features for use by the phone's user.
 - You can select Busy Not Available state by pressing a DND (Do Not Disturb) or SAC (Send All Calls) button on your phone. You will then be requested to select a reason code from a list displayed on the phone. The available reason codes are configured by the IP Office system maintainer.
- **[Dialing Short Code](#)**^[274]
The IP Office telephone system maintainer can setup dialing [short codes](#)^[274] that allow special features to be accessed by dialing the short code number.
 - Dial a Do Not Disturb On short code. The default short code is **08*. This method does not allow the entry of a reason code and so is reported just Busy NA.
 - Dial a Do Not Disturb Off short code. The default short code is **09*.
- **Phone Manager Agent Mode**
Phone Manager Pro users can select *Agent Mode* within the applications preferences. This enables a number of additional icons. Note that selection of this mode can be disabled by the IP Office maintainer. Note: In this mode, the F1 and F3 functions are swapped. F1 becomes 'account call' and F3 becomes 'make call'.

	Busy Not Available An agent can use this icon to select Busy Not Available ^[268] state with the default reason code ^[274] <i>Busy NA</i> . The icon can also be used to exit the state.
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3.5.5 Enable/Disable Membership

- The hunt group queues of which an agent is a member are configured by the IP Office telephone system maintainer. They cannot be changed by the agent or supervisor. However an agent's membership of a hunt group queue can be disabled.
 - When an agent's membership of a queue is disabled, the agent's state for that queue will be reported as *Present* when it would normally have been *Available*.
 - On many Avaya display phones, a G on the display indicates that the user currently has their membership of at least one group enabled.
- [Programmable Button](#)^[273]
Most Avaya feature phones supported by IP Office have [programmable buttons](#)^[273]. The IP Office system maintainer can program each of these buttons with features for use by the phone's user.
 - A Hunt Group Enable button, depending on how it is configured, can be used to enable/disable an agent's membership of a particular group or all groups to which they are a member. The button indicates the current state of the membership.
- [Dialing Short Code](#)^[274]
The IP Office telephone system maintainer can setup dialing [short codes](#)^[274] that allow special features to be accessed by dialing the short code number.
 - Short codes using the Hunt Group Enable function can be used to enable the agent's membership of the queues to which they belong.
 - Short codes using the Hunt Group Disable function can be used to enable the agent's membership of the queues to which they belong.
- Phone Manager Agent Mode
Phone Manager Pro users can select *Agent Mode* within the applications preferences. This enables a number of additional icons. Note that selection of this mode can be disabled by the IP Office maintainer. Note: In this mode, the F1 and F3 functions are swapped. F1 becomes 'account call' and F3 becomes 'make call'.

	Select Group
This icon will display a list of the queues of which the agent is a member. The tick box next to each indicates whether their membership of that queue is currently enabled.	

3.5.6 Phone Manager Controls

Phone Manager is an IP Office application that can be used by phone users to display call information, control their phone extension and to change many phone settings.

- IP Office Customer Call Reporter does not support the Blind Transfer option provided by IP Office Phone Manager. Agent's using Phone Manager should use the Transfer and Transfer Complete controls instead.

Full details of Phone Manager operation are provided within that application's help. However there are a number of Phone Manager features specifically for call center agents.

- Phone Manger Agent Login/Logout**
 For agents who [hot desk](#) ^[269], Phone Manager can be used to [login](#) ^[270] to the required phone extension. When the user start Phone Manager, they enter the extension at which they want to login. When they close Phone Manager they are logged off.
- Phone Manager Agent Mode**
 Phone Manager Pro users can select *Agent Mode* within the applications preferences. This enables a number of additional icons. Note that selection of this mode can be disabled by the IP Office maintainer. Note: In this mode, the F1 and F3 functions are swapped. F1 becomes 'account call' and F3 becomes 'make call'.

	Busy Not Available An agent can use this icon to select Busy Not Available ^[268] state with the default reason code ^[274] <i>Busy NA</i> . The icon can also be used to exit the state.
	Busy Wrap Up <i>Busy Wrap Up</i> is an agent state used by the IP Office CCC ^[269] application. It is not supported by IP Office Customer Call Reporter. The equivalent state for IP Office Customer Call Reporter is to report the agent as <i>Present</i> when their memberships of all the groups to which they belong are all disabled. This is different from Wrap Up ^[277] .
	Select Group This icon will display a list of the queues of which the agent is a member. The tick box next to each indicates whether their membership of that queue is currently enabled.

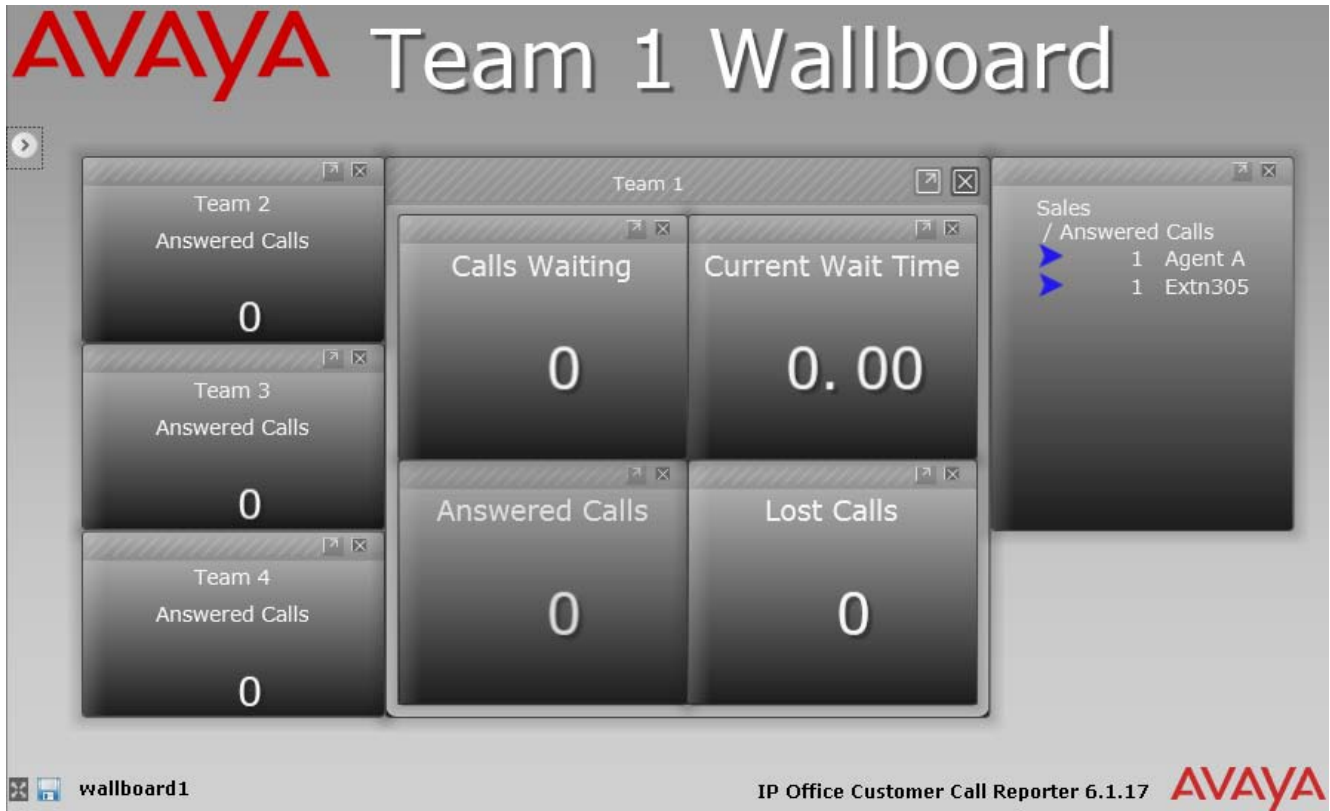
Chapter 4.

Wallboard

4. Wallboard

The IP Office Customer Call Reporter administrator can create wallboard accounts. When logged in with one of these accounts, the browser can be used to display queue statistics for any queues plus other information such as messages sent or scheduled by IP Office Customer Call Reporter supervisors.

IP Office Customer Call Reporter supports up to 30 wallboards. However the maximum number of wallboards that can be logged in at any time is controlled by the number of available Supervisor licenses (each license enables a simultaneous Supervisor login and Wallboard login).



Example web client when logged in as a wallboard.

Use a Wallboard Account		
<ul style="list-style-type: none"> • Create a Wallboard Account ⁹⁸ • Log in a Wallboard ¹⁰⁶ • Edit the wallboard ¹⁰⁷ 	<ul style="list-style-type: none"> • Add a League Table ¹¹⁰ • Add a Logo ¹¹¹ • Add a Title Bar ¹¹³ 	<ul style="list-style-type: none"> • Add a Graph ¹¹⁵ • Add a message bar ¹¹⁷ • Send a message ¹¹⁸

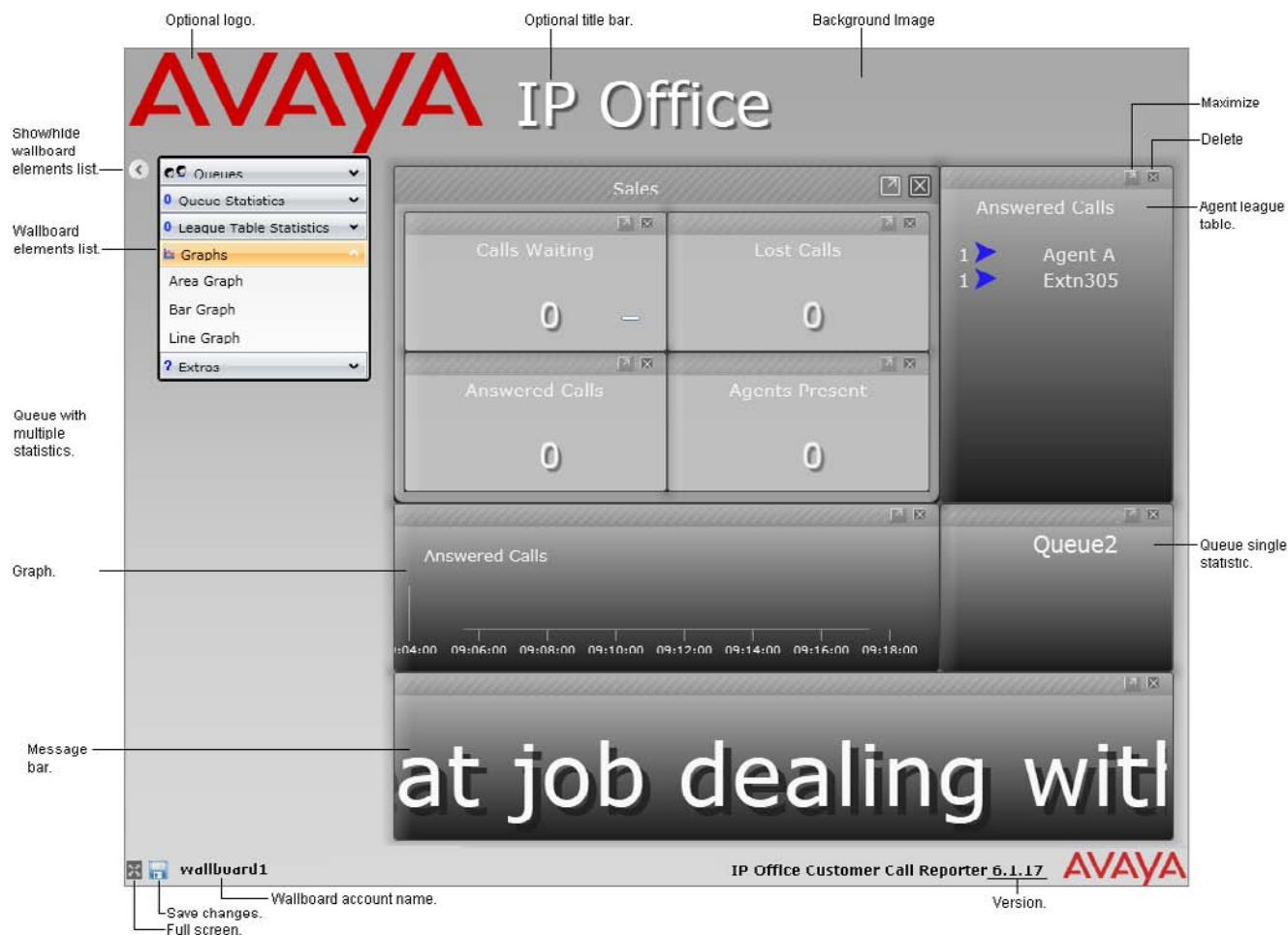
- Microsoft Silverlight

The IP Office Customer Call Reporter wallboard and customer map functions use Silverlight. When logging in at a computer without Silverlight installed, if the computer has access to the internet, you will be prompted to install Silverlight. If the computer does not have access to the internet, Silverlight must be installed manually for the wallboard view to run. Full details of Silverlight and the browsers on which it is supported can be obtained at <http://www.microsoft.com/silverlight>.

- To ensure that Silverlight features operate smoothly, especially when a large number of rapidly changing statistics are being displayed, it is recommended that the PC uses a dedicated graphics card rather than integrated graphics provided on the motherboard of many computers. The recommended minimum specification is a DirectX 9.0c or above compatible graphics card for GPU hardware acceleration via DirectDraw with 1GB or greater video memory. Support for 60Hz or greater refresh rate at the chosen resolution, for both card and monitor.

4.1 Wallboard Elements and Controls

The wallboard display is edited directly through the browser in order to add or remove the elements required.



Each wallboard can contain the following different types of elements:

- [Logo](#) ^[117]
You can display a logo image at the top of the wallboard.
- [Title](#) ^[118]
You can display a title at the top of the wallboard.
- [Queue Statistics](#) ^[102]
Statistics for any IP Office Customer Call Reporter queues can be added to a wallboard. These can be grouped in sets or added individually. Individual warning and alarm settings can be applied to each statistic added.
- [Message Bar](#) ^[117]
Message bars can be added to scroll messages across the wallboard display. The messages are [scheduled and sent to the wallboard](#) ^[118] by IP Office Customer Call Reporter supervisors.
- [League Table](#) ^[116]
League tables of the top and bottom performing agents in a queue can be added to the wallboard.
- [Graphs](#) ^[115]
Selected queue statistics can be displayed in graphs.
- [Background Image](#) ^[104]
The image shown in the wallboard background can be customized.

4.2 Creating Wallboard Accounts

To create a wallboard account you must [login as the IP Office Customer Call Reporter administrator](#)^[134].

1. Login as the IP Office Customer Call Reporter administrator and select the Accounts tab.

Type	Username ↑	Extension	Full Name	Created	Logged In	Self Administer	Reset Statistics	Control Agent	Modify	Views	Copy
Supervisor	devesh	300	Devesh	15/09/2009 16:39:05	False	True	False	False	Modify	Views	Copy
Supervisor	mark	288	Mark	15/09/2009 15:48:51	False	True	True	True	Modify	Views	Copy
Supervisor	simon	205	Simon	15/09/2009 16:33:10	False	False	False	False	Modify	Views	Copy
Wallboard	wallboard1			15/09/2009 15:48:08	False				Modify	Views	Copy
Wallboard	wallboard2			15/09/2009 16:33:37	False				Modify	Views	Copy

2. Click on Create Wallboard User. A Create Wallboard User tab is displayed.

Username: *

Password: *

Confirm Password: *


3. Enter the details for the account and click Create. Note that * indicates a mandatory field that must be completed.
4. Log off and then [login using the wallboard account](#)^[106] details to verify account operation.
5. Once logged in using the wallboard account you can [edit the wallboard view](#)^[107].

4.3 Changing a Wallboard Account

To edit a wallboard account you must [login as the IP Office Customer Call Reporter administrator](#)¹³⁴.

1. Login as the IP Office Customer Call Reporter administrator and select the Accounts tab.

Type	Username ↑	Extension	Full Name	Created	Logged In	Self Administer	Reset Statistics	Control Agent	Modify	Views	Copy
Supervisor	devesh	300	Devesh	15/09/2009 16:39:05	False	True	False	False	Modify	Views	Copy
Supervisor	mark	288	Mark	15/09/2009 15:48:51	False	True	True	True	Modify	Views	Copy
Supervisor	simon	205	Simon	15/09/2009 16:33:10	False	False	False	False	Modify	Views	Copy
Wallboard	wallboard1			15/09/2009 15:48:08	False				Modify	Views	Copy
Wallboard	wallboard2			15/09/2009 16:33:37	False				Modify	Views	Copy

- To delete an account click on the  icon on the left of the account name.
- To change the account settings, click on Modify. When completed click on Update.

Username: *
 Password: *
 Confirm Password: *

4.4 Logging In

An IP Office Customer Call Reporter wallboard account is accessed by web browser in the same way as other IP Office Customer Call Reporter roles.

Computer/Browser Requirements

In addition to the normal [IP Office Customer Call Reporter browser and computer requirements](#)^[14], the following apply for accessing an IP Office Customer Call Reporter wallboard.

- **Microsoft Silverlight**
The IP Office Customer Call Reporter wallboard and customer map functions use Silverlight. When logging in at a computer without Silverlight installed, if the computer has access to the internet, you will be prompted to install Silverlight. If the computer does not have access to the internet, Silverlight must be installed manually for the wallboard view to run. Full details of Silverlight and the browsers on which it is supported can be obtained at <http://www.microsoft.com/silverlight>.
 - To ensure that Silverlight features operate smoothly, especially when a large number of rapidly changing statistics are being displayed, it is recommended that the PC uses a dedicated graphics card rather than integrated graphics provided on the motherboard of many computers. The recommended minimum specification is a DirectX 9.0c or above compatible graphics card for GPU hardware acceleration via DirectDraw with 1GB or greater video memory. Support for 60Hz or greater refresh rate at the chosen resolution, for both card and monitor.
- Before running a wallboard on a computer, it is recommended to switch off the computer's screen saver and any monitor power saving modes. Unlike other IP Office Customer Call Reporter login account, a wallboard login does not automatically expire after the Session Expiration Minutes set by the IP Office Customer Call Reporter administrator.

Logging In to a Wallboard

1. Using a browser, enter the path to the IP Office Customer Call Reporter web service - `http://<server_path>/CCRWebClient`. The login window should appear.




2. Enter the Username and Password for a wallboard account.
3. If you want the IP Office Customer Call Reporter web client to run in a different language, you can use the Language drop down to select a language from the list.


Supported languages are *Dutch, English (UK), English (US), French, German, Italian, Brazilian Portuguese, Russian* and *Spanish*. Some parts of customer call maps are third party components delivered over the internet and may run in different languages, for example the zoom and pan controls.

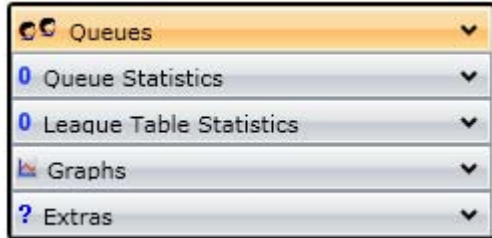
4. Click Logon.



4.5 Editing a Wallboard View

The  icon on the left is used to show and hide a list of items that can be added to a wallboard.



Adding Elements to a Wallboard

1. Log in using the wallboard account.
2. Click on the  icon near the top left to display the list of items that can be added to a wallboard.



3. Click and drag the items required to the view area. As items are added, the existing items will automatically reposition and resize themselves.
 - [Logo](#)^[117]
You can display a logo image at the top of the wallboard.
 - [Title](#)^[113]
You can display a title at the top of the wallboard.
 - [Queue Statistics](#)^[102]
Statistics for any IP Office Customer Call Reporter queues can be added to a wallboard. These can be grouped in sets or added individually. Individual warning and alarm settings can be applied to each statistic added.
 - [Message Bar](#)^[117]
Message bars can be added to scroll messages across the wallboard display. The messages are [scheduled and sent to the wallboard](#)^[118] by IP Office Customer Call Reporter supervisors.
 - [League Table](#)^[116]
League tables of the top and bottom performing agents in a queue can be added to the wallboard.
 - [Graphs](#)^[115]
Selected queue statistics can be displayed in graphs.
4. To change the settings of an item click on it and select Settings.
5. To hide the list of items click on the  icon.
6. To save the wallboard settings click on the  icon at the bottom left of the wallboard.


Editing Settings

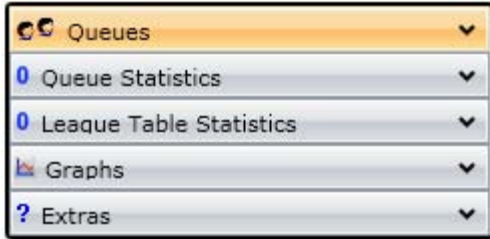
1. Click on the area or element of the graph you want to edit. In the menu that is displayed click on Settings. and edit the settings as required.
2. To hide the settings, close the settings menu by clicking on the  icon.
3. Click on the  icon to save the wallboard settings.

Deleting Elements from a Wallboard

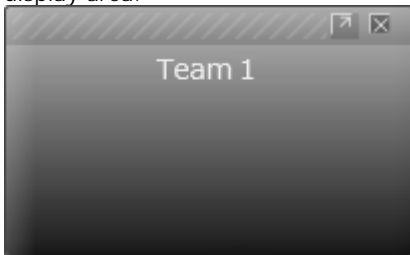
To delete an element from the wallboard click on the X icon at its top-right. For some elements the X icon is not shown until you first click on the element.

4.6 Adding Queues and Queue Statistics

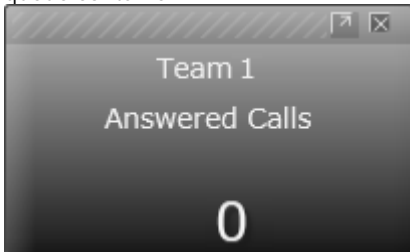
1. Click on the  icon near the top left to display the list of items that can be added to a wallboard.



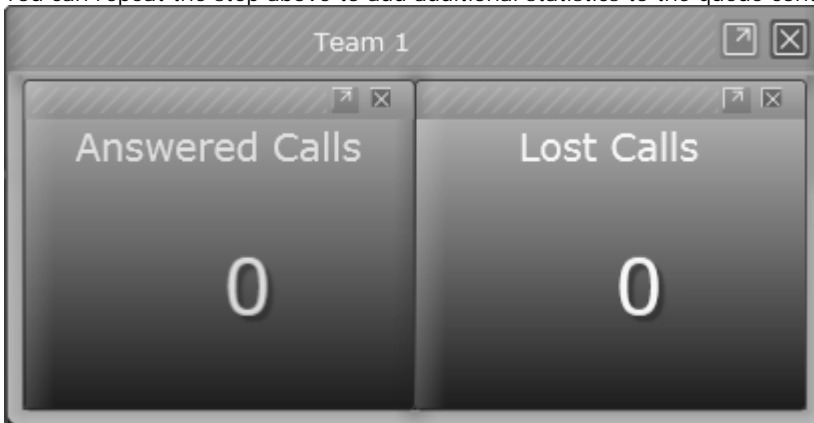
2. Click on Queues to display a list of the available queues. Click and drag the required queue over to the wallboard display area.



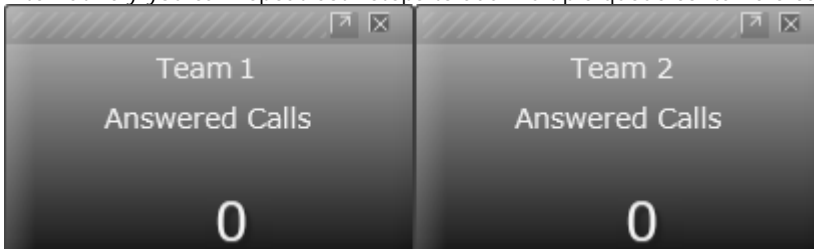
3. Click on Queue Statistics to display a list of available statistics. Click and drag the required statistic over onto the queue container.





4. You can repeat the step above to add additional statistics to the queue container.



5. Alternatively you can repeat both steps to add multiple queue containers each with a single statistic.



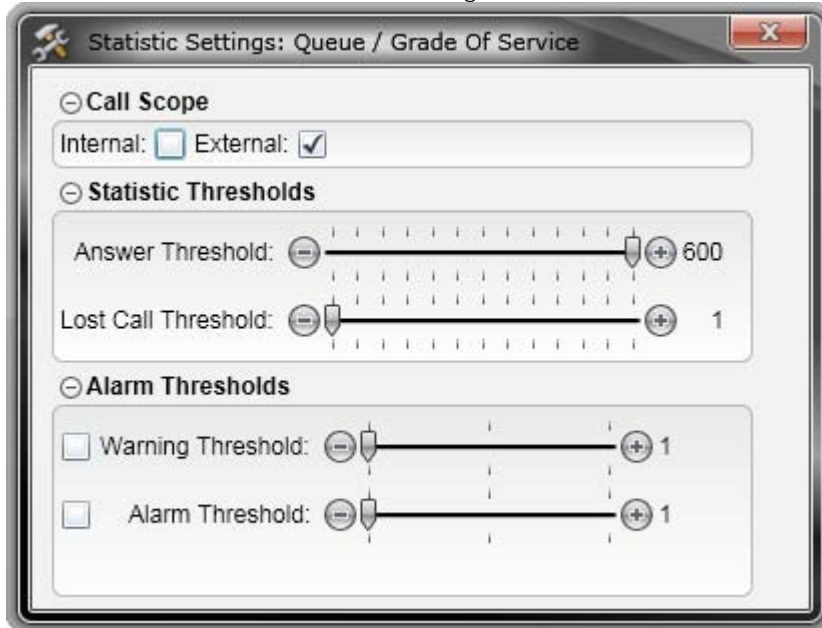
6. To hide the list of items again click on the  icon.
7. To save the wallboard settings click on the  icon at the bottom left of the wallboard.

4.7 Editing Statistic Settings

For many statistics you can select what types of calls should be included in the statistic. You may also be able to set whether the statistic should indicate warnings and or alarms when its value passes the thresholds that you set.

Statistic Settings

1. Click on the statistic box and select Settings.



- The options available will vary according to the type of statistic. For details of the individual statistics refer to the [Statistics](#) ^[152] section. Some statistics have no settings in which case the menu will be blank.
- In the Call Scope section, if available, select the type of calls that should be included in the statistic.
- In the Statistics Thresholds section, if available, set the thresholds for calls included in the statistic.

Answer Threshold: *Default = 600 seconds, Range = 1 to 600 seconds.*


Used for statistics calculated as a percentage of calls answered within the set time out of all calls presented. Sets the target time for calls to be answered from when they are first presented to the queue or agent. Note that for agents, calls are only presented for the queue's no answer time before being presented to the next agent. Note that this setting is shared between the [Agent Productivity](#) ^[155], [Average Answer %](#) ^[173] and [Grade of Service](#) ^[182] statistics in the same monitor or wallboard view.

• **Lost Calls Threshold:** *Default = 1 second, Range = 1 to 600 seconds.*

Lost calls are calls where the caller disconnects before the call is answered. This threshold sets the minimum time in seconds for a call to be available to be answered before it will be counted as lost. Lost calls are not included in the calculation of this statistic. Note that this setting is shared between the [Agent Productivity](#) ^[155] and [Grade of Service](#) ^[182] statistics in the same monitor or wallboard view.

- In the Alarm Thresholds section, select whether you want the statistic to include a warnings and or alarms. If either is selected, use the slider to adjust the threshold levels at which it occurs.
 - Warnings are shown by the statistic background color changing to yellow.
 - Alarms are show by the statistic background color changing to red.

2. To hide the settings, close the settings menu by clicking on the  icon.

3. Click on the  icon to save the wallboard settings.

Changing the Displayed Name

The queue and statistic names displayed can be edited without affecting the operation of the element. Click on the existing text and enter the required name.

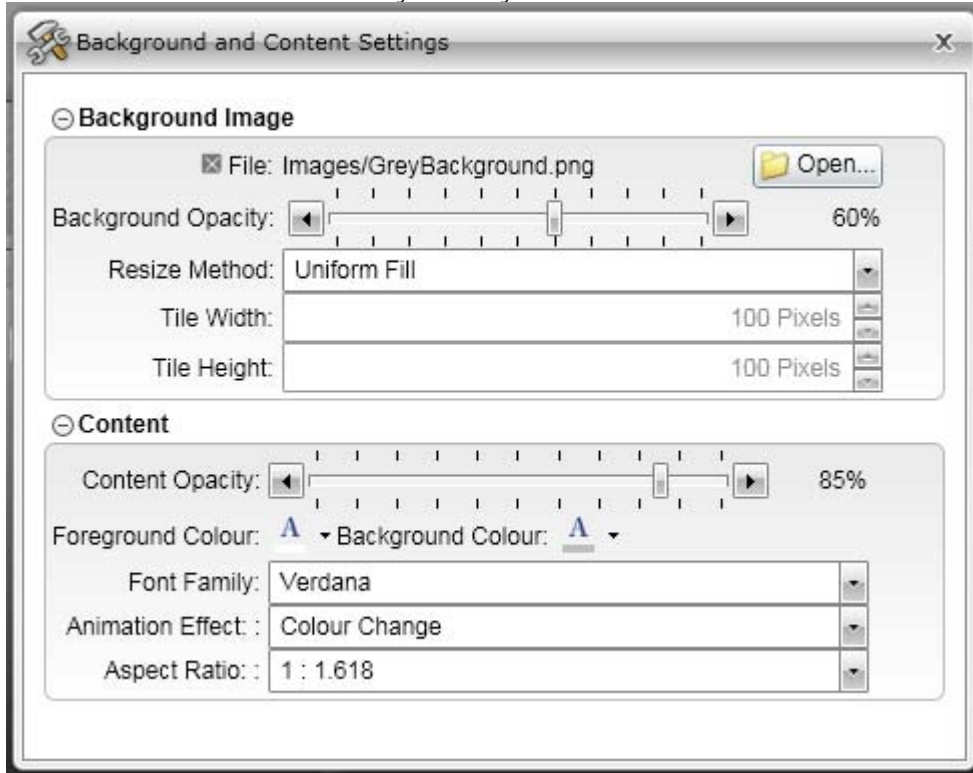
4.8 Changing the Background Image

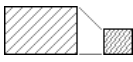
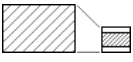


The background of the wallboard is an image file which can be replaced with a file of your choice.


Tip


- While it may be boring, the default uniform grey background does not distract from the information displayed. If you select a different background image ensure that it is not distracting.

1. Click on an area of the wallboard way from any of the other visible wallboard elements and then click on Settings.



- The Background Image section contains the settings for the image file.
 - To load an image file click on Open and browse to the image that you want to use. The selected file is copied from its location to the IP Office Customer Call Reporter server.
 - To change how the image is resized when the wallboard is resized select the required Resize Method.
 - **Fill** 
If this method is selected, the image size is changed so that both its height and width fit the space provided for it on the wallboard. This means that the image's original ratio between height and width is not maintained but the image fits the full display area.
 - **Uniform** 
If this method is selected, the image size is changed, maintaining its original ratio between height and width, until both fit within the space provided for it on the wallboard. This method means that there may be some blank space left along either the horizontal or vertical edges.
 - **Uniform Fill** 
If this method is selected, the image size is changed, maintaining its original ratio between height and width, until one of them fits the space provided for it on the wallboard. This means that some part of the image (at the bottom or the right) may be cropped.
 - **Tiled** 
If this method is selected, the image is resized using the Tile Width and Tile Height settings. The space provided for the image on the wallboard is then filled with multiple copies of the image at that size.
 - The Background Opacity slider allows you to change the transparency applied to the image.
 - To delete the existing image click on the X icon. When there is no image loaded the general background of the wallboard is white.

2. To hide the settings, close the settings menu by clicking on the  icon.

3. Click on the  icon to save the wallboard settings.

4.9 Changing the General Colors and Font

The background and font colors used for the elements added to the wallboard can be changed. The same colors are used for all elements added to the wallboard. The exception is the general background which uses an [image file or is white](#)^[104].

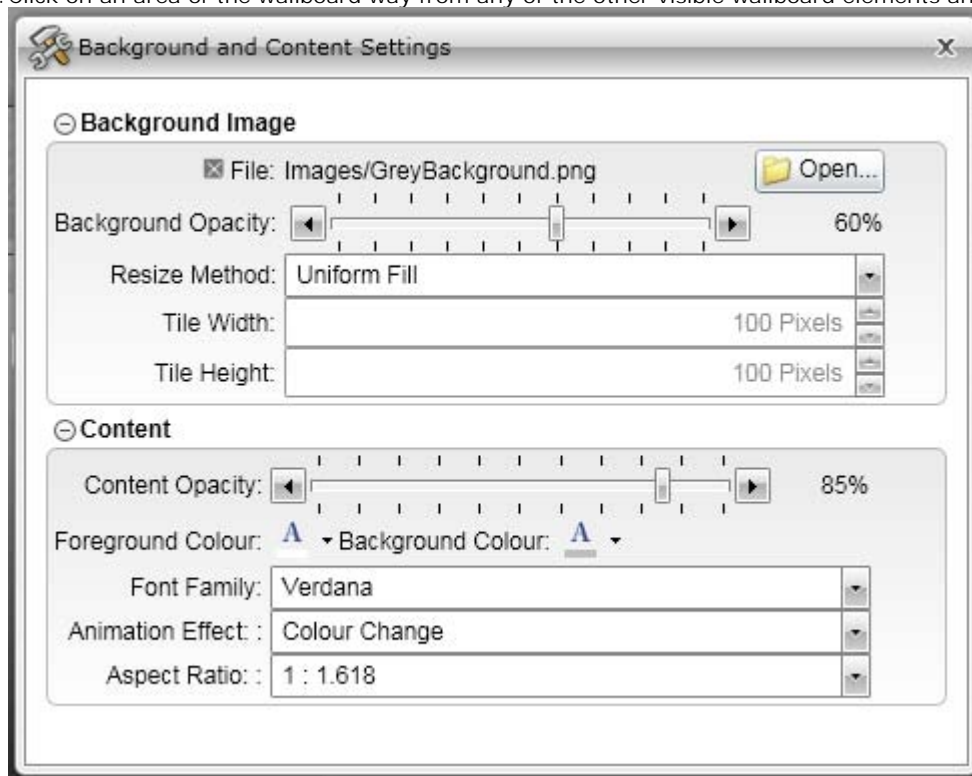
These settings are for the general font and colors used. Some wallboard elements, for example the [title bar](#)^[113], have their own specific settings for fonts and colors that can be set to differ from the general settings.

Tip

- The choice of font and contrast colors between the foreground and background content are important. A fatter font and vivid color provide high visibility at distance. For example use Verdana, neon green (#FF00FF00) foreground and charcoal grey (#FF595959) background.
- Warnings and alarms cause statistics shown in the wallboard to turn orange or red respectively. Ensure that the colors used for the background and foreground content do not make it difficult to read when a warning or alarm occur.
- A high opacity, for example greater than 90% improves the readability of the wallboard. However a low value, for example 60%, makes it easier to see the highlighted element while editing a wallboard. Therefore it is useful to select a low opacity while editing and return it to a high value when finished.
- If the wallboard doesn't show an opacity change, save it and then refresh or restart the browser.


General Font and Color Settings


1. Click on an area of the wallboard way from any of the other visible wallboard elements and then click on Settings.



- The Content section contains the general color and font settings for the wallboard elements:
 - The Content Opacity slider allows you to change the transparency applied the wallboard elements.
 - To change the font color, click on the down arrow shown after Foreground Color and select the color required.
 - To change the background color used for the element shading click on the down arrow shown after Background Color and select the color required.
 - To select the font used for most wallboard elements can be selected in the Font Family drop down. The font size is adjusted automatically.
 - The fonts available for use are restricted to those widely supported by web browsers. These are: *Arial*, *Arial Black*, *Comic Sans MS*, *Courier New*, *Lucida Grande*, *Times New Roman*, *Trebuchet MS* and *Verdana*.
 - The Animation Effect is applied to statistic values while it changes. If no animation effect is required select *None*.

- You can use the Aspect Ratio setting to control the ratio between the height and width used to display the wallboard elements (excluding the logo and title bar which always occupy the top of the display).

2. To hide the settings, close the settings menu by clicking on the  icon.

3. Click on the  icon to save the wallboard settings.

4.10 Changing the Background Style of Elements

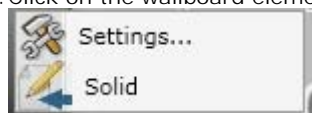
By default each element uses a shading style based on the background color selected above. This can be changed to a solid background if required.



Tip

- Depending on the colours selected for the content foreground and background, using a solid background instead of a shaded background may make it easier to read the data from a distance.

1. Click on the wallboard element.



2. From the menu click on Solid to change the setting between a solid or a shaded background. The option is ticked if it is currently enabled.

4.11 Moving and Arranging Elements

As you add or delete elements from the wallboard, the existing elements are automatically moved and resized. Except for the logo and title bar elements which have fixed positions, you can also grab and move existing elements.

To move an element, click on the element's title bar and drag it to the required position. The position of other elements will be adjusted also.

Maximizing Elements

Within a set of elements, one of the elements can be set to be maximized by clicking on the up arrow at the top right of the element. When you do this, the element is enlarged and any element that is already maximized returned to its normal size. You can also return an element to its normal size by clicking on the down arrow at its top right.



A set of elements with none maximized.




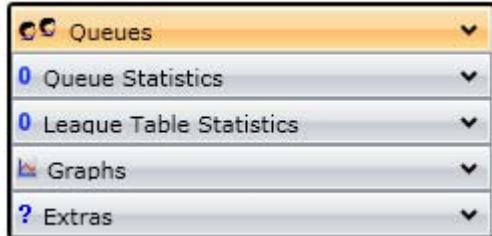
A set of elements with an element maximized.



4.12 Adding a League Table

For a selected queue, the performance of the agents in that queue against a selected agent statistic can be displayed as a league table. Either the top, the bottom or a combination of the top and bottom performers can be displayed. The actual number of agents included in the display may vary depending on the wallboard display area available.

Adding the League Table to the Wallboard

1. Click on the  icon near the top left to display the list of items that can be added to a wallboard.

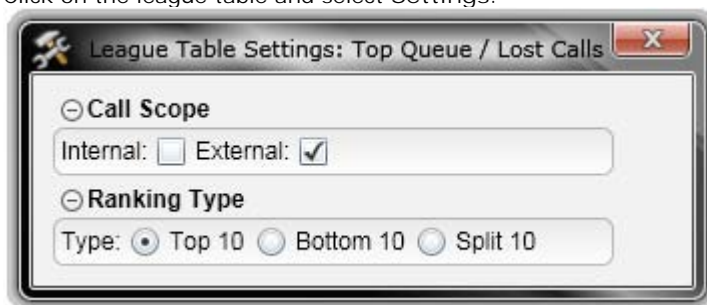




2. Click on League Table Statistics to display the list of agent statistics that can be used in a league table. Click and drag the required statistic to the wallboard display area. A box for the league table will be added to the display.
3. Click on Queues to display the list of queues. Click and drag the queue whose agents you want show over onto the league table.
4. To hide the list of items again click on the  icon.
5. To save the wallboard settings click on the  icon at the bottom left of the wallboard.

Editing the League Table Settings

You can select whether the league table should display the top, bottom or a combination of the top and bottom performers in the queue.

1. Click on the league table and select Settings.




- Depending on the agent statistic being tracked by the league table, the Call Scope section may be available. If it is, the settings allow you to select what types of calls should be included in the statistic.
 - The Ranking Type section allows you to select the type of league table.
 - Top 10
Show the top 10 agents for the selected statistic.
 - Bottom 10
Show the bottom 10 agents for the selected statistic.
 - Split 10
Show the top 5 and the bottom 5 agents for the selected statistic.
2. To hide the settings, close the settings menu by clicking on the  icon.
 3. Click on the  icon to save the wallboard settings.

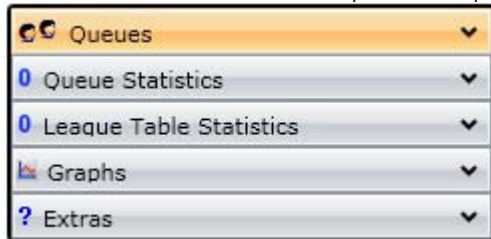
4.13 Adding and Editing the Logo



You can add a logo image to the top right of the wallboard. If the wallboard includes a title, the logo and title are positioned adjacent to each other across the top of the wallboard.

Adding the Logo to the Wallboard

Each wallboard can include only one title bar. The title bar is always positioned above any other elements added to the wallboard and to the right of the logo if also added.

1. Click on the  icon near the top left to display the list of items that can be added to a wallboard.

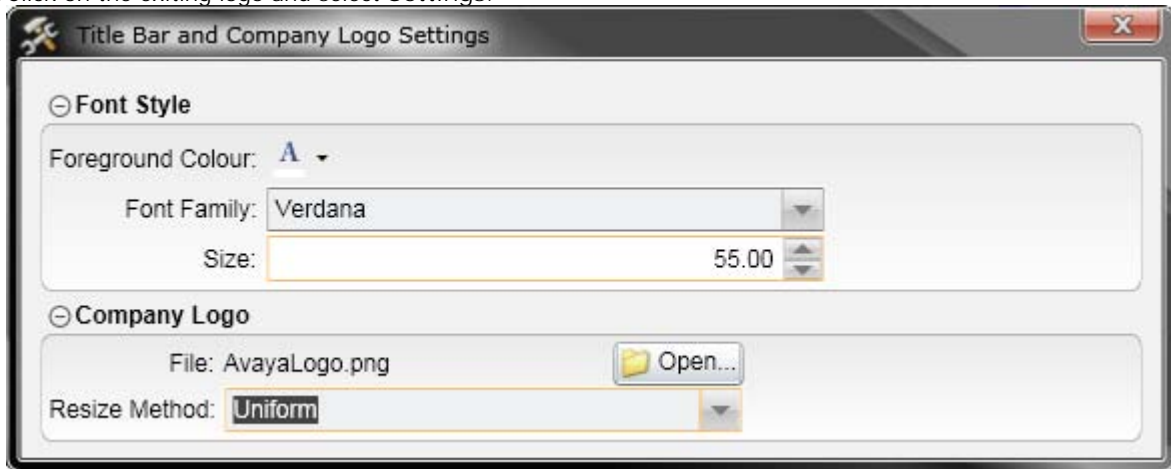


2. Click on Extras to display the list of items which includes the Company Logo element.
3. Click and drag the Company Logo element to the display area.
4. To hide the list of items again click on the  icon.
5. To save the wallboard settings click on the  icon at the bottom left of the wallboard.

Editing the Logo Image Settings

You can change the image used for the logo and how it is resized when the wallboard size is changed.

1. Click on the existing logo and select Settings.




- In the Company Logo section:
 - To load an image file click on Open and browse to the image that you want to use. The selected file is copied from its location to the IP Office Customer Call Reporter server.
 - To change how the image is resized when the wallboard is resized select the required Resize Method.




- **Fill**
If this method is selected, the image size is changed so that both its height and width fit the space provided for it on the wallboard. This means that the image's original ratio between height and width is not maintained but the image fits the full display area.





- **Uniform**
If this method is selected, the image size is changed, maintaining its original ratio between height and width, until both fit within the space provided for it on the wallboard. This method means that there may be some blank space left along either the horizontal or vertical edges.

-
- Uniform Fill 

If this method is selected, the image size is changed, maintaining its original ratio between height and width, until one of them fits the space provided for it on the wallboard. This means that some part of the image (at the bottom or the right) may be cropped.
 - Fixed 


If this method is selected, the image size is not changed. Instead the display area provided for it on the wallboard is changed.

2. To hide the settings, close the settings menu by clicking on the  icon.

3. Click on the  icon to save the wallboard settings.

Removing the Logo

1. Click on the existing logo image. It will become outlined by a box. Click on the X icon at the top-right of the outline.

2. Click on the  icon to save the wallboard settings.

4.14 Adding and Editing the Title Bar


A title can be added to the top of the wallboard. You can then adjust the font style, size and color used for the title. If the wallboard includes a logo, the logo and title are positioned adjacent to each other across the top of the wallboard.

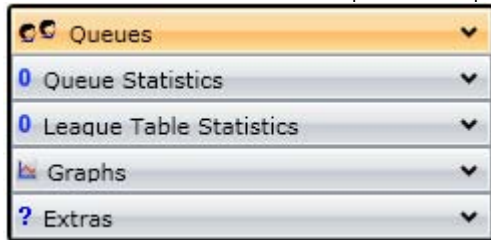
Tip



- The title bars height is determined automatically, based partially on the selected font size. There is a point at which reducing the font size will have no further effect on the title bar height. At this point, there is no need to use a smaller font.

Adding the Title to the Wallboard


Each wallboard can include only one title bar. The title bar is always positioned above any other elements added to the wallboard and to the right of the logo if also added.

- Click on the  icon near the top left to display the list of items that can be added to a wallboard.



- Click on Extras to display the list of items which includes the Title Bar element.
- Click and drag the Title Bar element to the display area.
- To hide the list of items again click on the  icon.
- To save the wallboard settings click on the  icon at the bottom left of the wallboard.

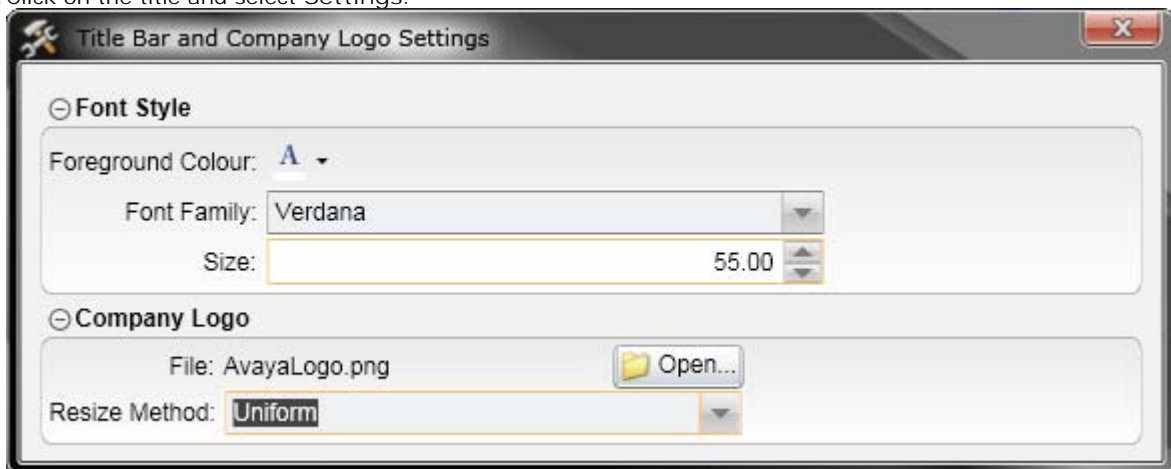
Editing the Wallboard Title

- Click on the existing title area. It will become outlined by a box.
- Click on the existing text to display a cursor. Edit or enter the title text required.
- Click elsewhere on the wallboard.
- To save the wallboard settings click on the  icon at the bottom left of the wallboard.

Editing the Title Bar Settings


You can adjust the speed and direction of scrolling applied to the messages that the wallboard displays. You can also select the font and limit the font sizes.


- Click on the title and select Settings.



- In the Font Style section, select the font, font color and font size. The size of the title is automatically adjusted to fit the wallboard.


-
- The fonts available for use are restricted to those widely supported by web browsers. These are: *Arial, Arial Black, Comic Sans MS, Courier New, Lucida Grande, Times New Roman, Trebuchet MS* and *Verdana*.

2. To hide the settings, close the settings menu by clicking on the  icon.

3. Click on the  icon to save the wallboard settings.

Removing the Title Bar


1. Click on the existing title. It will become outlined by a box. Click on the X icon at the top-right of the outline.

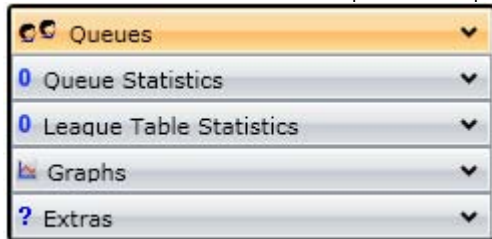
2. Click on the  icon to save the wallboard settings.



4.15 Adding and Editing Graphs

Queue statistics can be displayed as graphs showing the statistic value changing over time. Each graph only shows one statistics for one queue, however you can add multiple graphs.

Adding a Graph

1. Click on the  icon near the top left to display the list of items that can be added to a wallboard.



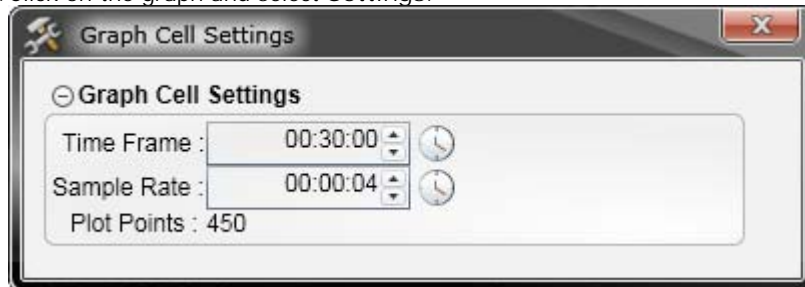
2. Click on Graphs to display the list of the different types of graphs available. Current options are *Area Graph*, *Bar Graph* and *Line Graph*. Click and drag the required type of graph onto the wallboard display area.
3. Click on Queues to display the list of queues. Click and drag the queue for which you want to plot a statistic over onto the graph.
4. Click on Queue Statistics to display the list of queue statistics. Click and drag the required statistic over onto the graph.
5. To hide the list of items again click on the  icon.
6. To save the wallboard settings click on the  icon at the bottom left of the wallboard.



Changing a Graphs Contents

1. Using the same method as for adding a graph, simply drag a different queue or queue statistic onto an existing graph in order to change its contents.

Editing the Graph Settings

1. Click on the graph and select Settings.

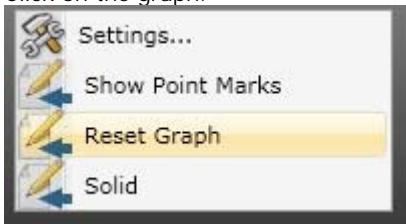


- The Time Frame setting sets the maximum length of time (hours:minutes:seconds) that should be included in the graph as data is added.
 - The Sample Rate sets how often (hours:minutes:seconds) the graph should be updated.
 - The Plot Points value indicates how many points will be used to plot the complete graph using the two settings above. The maximum allowed is 500 plot points or for bar graphs 30 bars. The range of selectable values for Time Frame and Sample Rate above will adjust according to the current value of the other and vice versa.
2. To hide the settings, close the settings menu by clicking on the  icon.
 3. Click on the  icon to save the wallboard settings.

Resetting a Graph

The current data in a graph can be cleared without having to remove the graph or restart the wallboard.

1. Click on the graph.

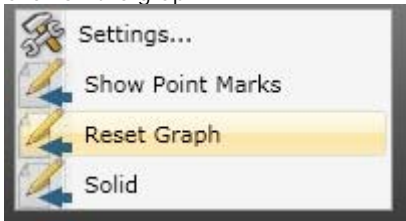


2. From the menu displayed select Reset Graph.

Show/Hide Plot Points


In addition to plotting a line or solid area, the individual data points can be shown on the graph or hidden.

1. Click on the graph.



2. From the menu displayed select Show Point Marks. The option is ticked if it is currently enabled.

4.16 Running the Wallboard Full Screen

To run the wallboard full screen click on the  icon at the bottom left of the wallboard. While running in full screen mode, press *Esc* to return the wallboard to its previous size.


4.17 Adding and Editing a Message Bar

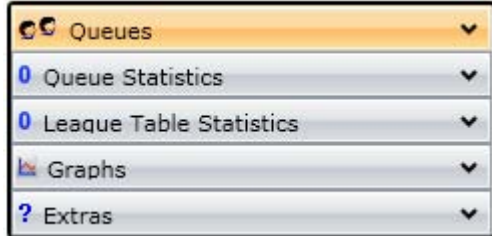
When a wallboard includes a message bar, IP Office Customer Call Reporter supervisors can send messages to it or [schedule messages](#) to be sent in the future.



Tip

- The message bar is always as wide as the width of the entire queues shown on the wallboard. If only one or two queues are needed, the message bar will be more useful if the queues and their stats are added as rows.

Adding the Message Bar to the Wallboard

1. Click on the  icon near the top left to display the list of items that can be added to a wallboard.

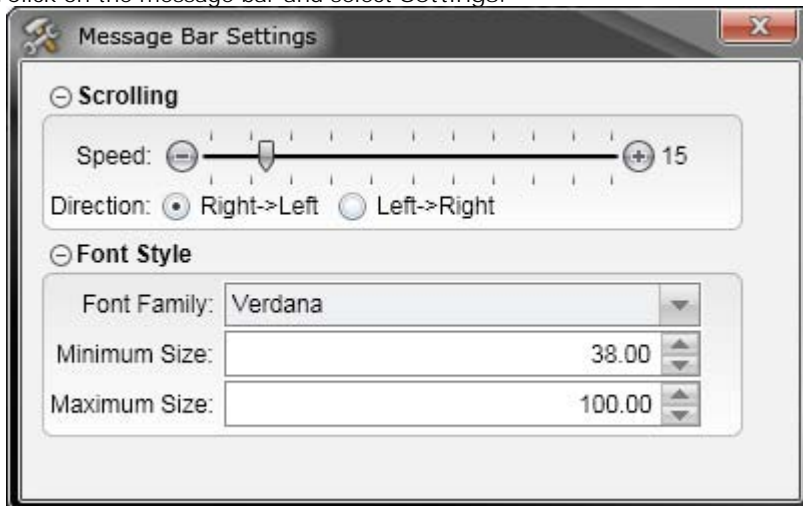


2. Click on Extras to display the list of items which includes the Message Bar element.
3. Click and drag the Message Bar element to the display area.
4. To hide the list of items again click on the  icon.
5. To save the wallboard settings click on the  icon at the bottom left of the wallboard.



Editing the Message Bar Settings

You can adjust the speed and direction of scrolling applied to the messages that the wallboard displays. You can also select the font and limit the font sizes.

1. Click on the message bar and select Settings.



- In the Scrolling section select the direction of scrolling required and use the slider to adjust the speed.
- In the Font Style section select the font to use and the size limits. The size of the message bar is automatically adjusted to fit the wallboard and the font size within the message bar is also automatically adjusted unless it reaches one of the limits set here.
 - The fonts available for use are restricted to those widely supported by web browsers. These are: *Arial*, *Arial Black*, *Comic Sans MS*, *Courier New*, *Lucida Grande*, *Times New Roman*, *Trebuchet MS* and *Verdana*.

2. To hide the settings, close the settings menu by clicking on the  icon.
3. Click on the  icon to save the wallboard settings.

4.18 Sending Wallboard Messages

You can schedule messages to be sent to any wallboard. Alternatively you can send an immediate message that will be displayed for 5 minutes. When there are multiple messages scheduled for a wallboard, the messages are appended to each other as they are scrolled across the wallboard.

1. Click on the Scheduler tab.


(Hide Scheduled Tasks ...)

Scheduled Tasks

Filter: All Tasks

Type	Name ↑	Scheduled Frequency	Scheduled Details	Last Modified	Username
Housekeeping	Rebuild Database Indexes	Daily	at 01:30		
Housekeeping	Reset Realtime Statistics	Daily	at 11:57	02/05/2010 11:53:08	mark
Report	test	Daily	at 15:01	25/11/2009 15:00:17	mark
Message	wallboard1:	Daily	at 11:44 (expired)		

Add Message Add Task


2. To add a new message click on Add Message. To edit an existing message task, click on it.
3. If necessary click on Show Scheduling Properties.
4. Enter the text for the Message. This is the text that will be scrolled across the message area of the selected wallboard. Remember that this message may appear amongst other schedule messages and messages set by other supervisors. Therefore it can be useful to add spaces before and after the message text and to end the message with proper punctuation.
 - By clicking on the  color palette icon you can select the colour for the text message. The currently selected color is displayed in the colored square next to the icon.
5. Also enter a short Task Name. This is displayed in the task list.
6. Use the Wallboard list to select the wallboard to which the message should be sent.
7. Use the Schedule option to select when the message should be sent.

- Instant Message

An instant message is displayed for 5 minutes.

(Hide Scheduling Properties...)

Scheduling Properties

Schedule Wallboard Task Name Message  

Instant Message All Wallboards Team Briefing Team briefing at 3 o'clock..

** Scheduled properties are not set for the selected task **

Update

- Daily

(Hide Scheduling Properties...)

Scheduling Properties

Schedule Wallboard Task Name Message  

Daily All Wallboards Team Briefing Team briefing at 3 o'clock..

Start Time: 14:50


End Time: 15:00 Expiry Date:

Update

- Weekly

(Hide Scheduling Properties...)

Scheduling Properties

Schedule Wallboard Task Name Message  

Weekly All Wallboards Team Briefing Team briefing at 3 o'clock..

Start Time: 14:50 Day of Week: Friday

End Time: 15:00 Expiry Date:

Update

- Monthly

Messages that are scheduled monthly can be set to either occur on the same date each month or on a specific day of the month.

The screenshot shows a dialog box titled '(Hide Scheduling Properties...)' with a close button in the top right corner. The dialog is titled 'Scheduling Properties' and contains the following fields and controls:

- Schedule:** A dropdown menu set to 'Monthly'.
- Wallboard:** A dropdown menu set to 'All Wallboards'.
- Task Name:** A text input field containing 'Team Briefing'.
- Message:** A text input field containing 'Team briefing at 3 o'clock..', with a small icon of a calendar and a red square to its right.
- Start Time:** A time input field set to '14:50'.
- Frequency:** Radio buttons for 'This Day' (unselected) and 'The' (selected). The 'This Day' option has a dropdown set to '31'. The 'The' option has a dropdown set to 'Last'.
- Day:** A dropdown menu set to 'Friday'.
- End Time:** A time input field set to '15:00'.
- Expiry Date:** An empty date input field.
- Update:** A button in the bottom right corner.

- If an Expiry Date is specified, the message scheduling ends on that date. However the message remains in the task list until deleted and can be reactivated by removing or changing the expiry date.

8. When the message is set as required click on Update. The message details will be shown in the task list. If the schedule setting was Instant Message, the message will start being displayed for 5 minutes unless overridden by another scheduled message.

4.19 Wallboard Hints and Tips

Wallboards can be used to show a community of agents some statistics that are important to the way they operate. A wallboard can also be used:

- by supervisors to monitor the activity on specific statistics for specific queues.
- to improve customer satisfaction by highlighting areas that need immediate attention.
- to increase agent's productivity.

Because a wallboard can provide so much functionality, it is important to figure out what is the goal that the Contact Centre Manager is trying to achieve and try to design one or multiple wallboards to reach that goal.

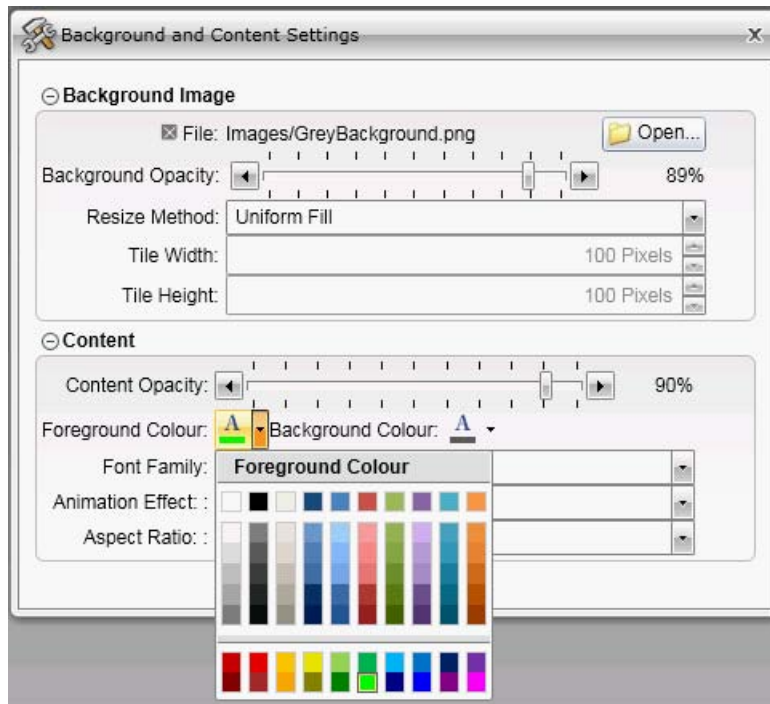
This document is meant to provide some tips when designing a wallboard when the goal is to maximize the amount of different statistics that can be displayed.

- Always wait until the wallboard has rearranged the screen before adding the next item to it.
- The choice of font and contrast colors between the foreground and background content are important. A fatter font and vivid color provide high visibility at distance. For example use Verdana, neon green (#FF00FF00) foreground and charcoal grey (#FF595959) background.
- Warnings and alarms cause statistics shown in the wallboard to turn orange or red respectively. Ensure that the colors used for the background and foreground content do not make it difficult to read when a warning or alarm occur.
- While it may be boring, the default uniform grey background does not distract from the information displayed. If you select a different background image ensure that it is not distracting.
- The message bar is always as wide as the width of the entire queues shown on the wallboard. If only one or two queues are needed, the message bar will be more useful if the queues and their stats are added as rows.
- A high opacity, for example greater than 90% improves the readability of the wallboard. However a low value, for example 60%, makes it easier to see the highlighted element while editing a wallboard. Therefore it is useful to select a low opacity while editing and return it to a high value when finished.
- If the wallboard doesn't show an opacity change, save it and then refresh or restart the browser.
- The title bars height is determined automatically, based partially on the selected font size. There is a point at which reducing the font size will have no further effect on the title bar height. At this point, there is no need to use a smaller font.
- Depending on the colours selected for the content foreground and background, using a solid background instead of a shaded background may make it easier to read the data from a distance.
- When the goal of the wallboard design is to provide as many statistics as possible, the Company Logo and Message Bar are of fixed size and if not needed should not be added. Changing the font size of the Message Bar has no impact on the real estate it uses.

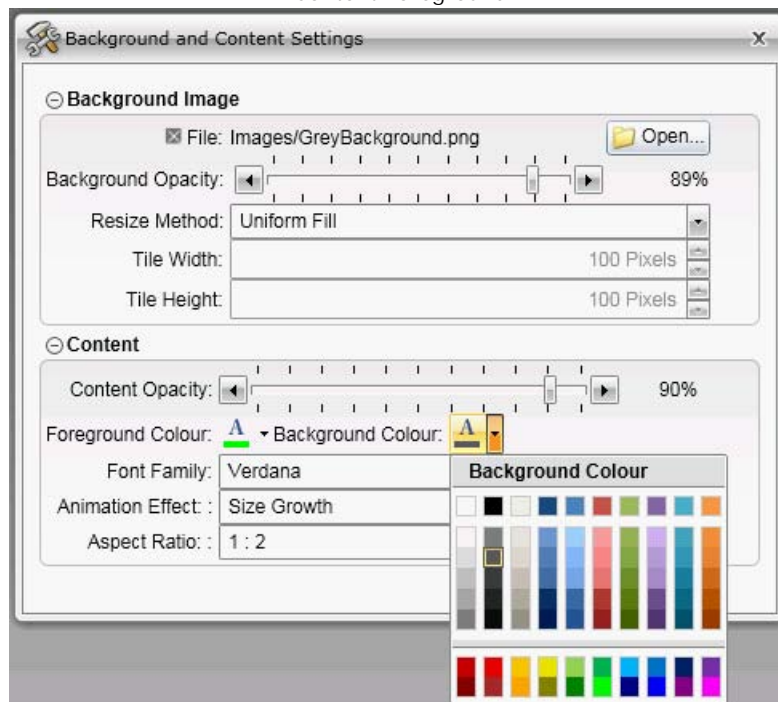
4.19.1 Maximizing Content

When designing a wallboard where a lot of information needs to be made available, there are a couple of factors to take into account: the size of the wallboard display itself and the distance between the wallboard and the furthest person that needs to read that information.

The choice of font and contrast colors between the foreground and background content is extremely important. A fatter font is preferable. This example will use the Verdana font, neon green (#FF00FF00) content foreground and charcoal grey (#FF595959) content background in its examples:



Content Foreground



Content Background

Warnings and alarms will cause the statistics boxes to turn yellow or red respectively when the conditions occur. Make sure that the colors used for the background or foreground content don't make it difficult to read when a warning or alarm occur.

Also, not to create "visual noise", it is also important that the wallboard background be of a uniform scheme, like the *GreyBackground* provided by default.

4.19.2 Maximizing Real Estate

When the goal of the wallboard design is to provide as many statistics as possible on one screen, it is important to realize that the Company Logo and Message Bar wallboard elements are of fixed size and if not needed they should not be used. Changing the font size of the Message Bar has no impact on the real estate it uses.

League Tables and Graphs are also using real estate that effectively provides duplicate information and therefore breaks the goal of the design.

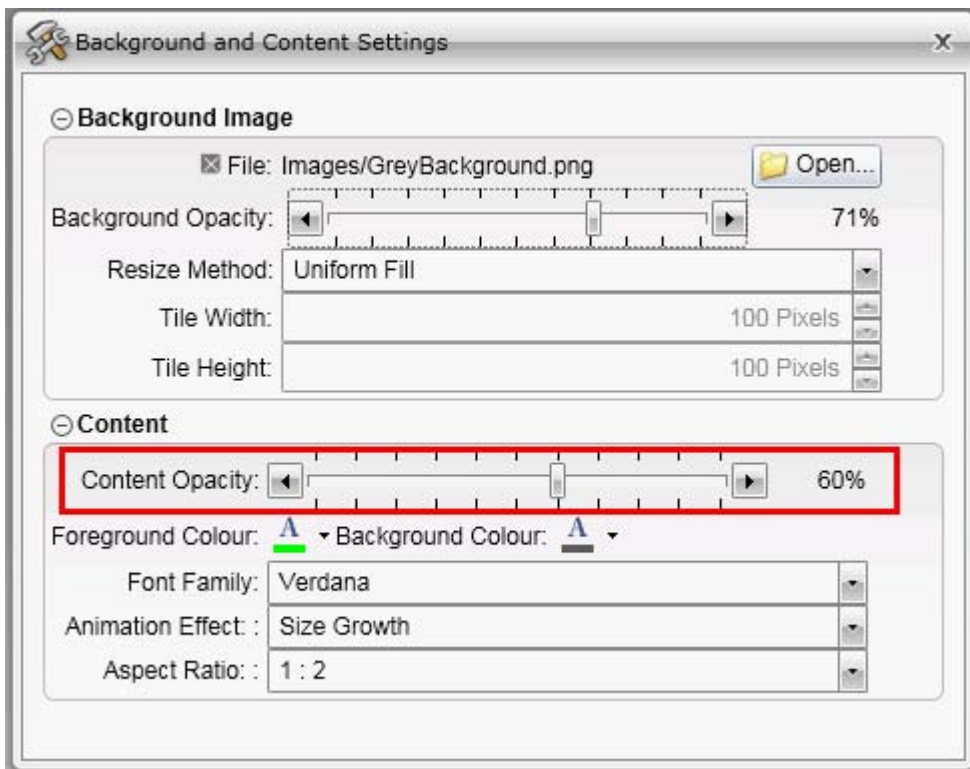
The Title bar can be sized to a smaller font and therefore does not really impede with the design.

4.19.3 Design Consideration

Better results are achieved if the statistics for queues are presented in columns instead of rows. Depending on the size of the wallboard and the distance to the furthest individual needing to read it, up to five (5) statistics for five (5) Hung Groups can be displayed.

If a Message Bar is needed, it will take up the equivalent of 1 row of statistics. The Message Bar will always be as wide as the width of the entire queues shown on the wallboard. If only one or two queues are needed, the Message Bar will be more useful if the queues are added as rows. However the amount of statistics that can be added is significantly less before they become unreadable.

Because it is easier to see the highlights of a border when the opacity is set to a smaller number, it is recommended to lower the content opacity when designing the wallboard (60%). When the wallboard is ready for operation, the opacity can be set to a high number (>90%). That will increase the contrast between the content background and foreground and therefore it will increase readability.



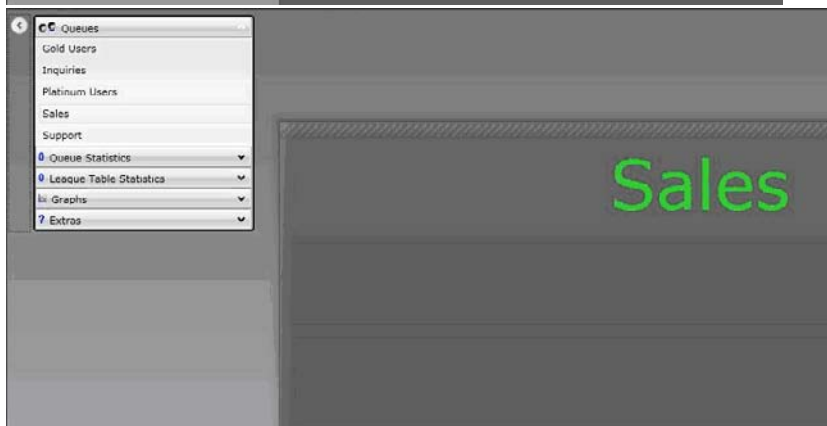
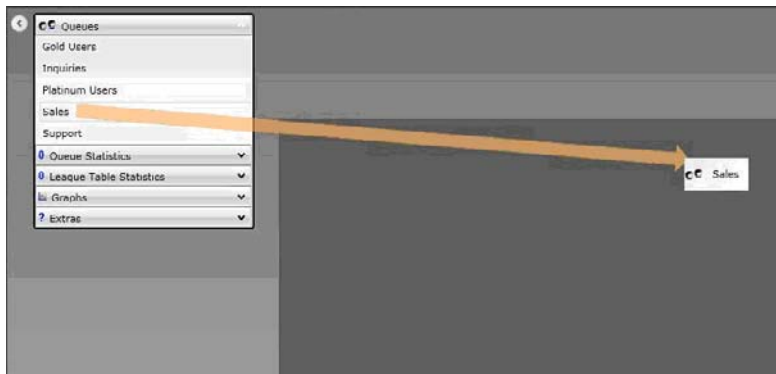
Content Opacity

Always wait until the wallboard rearranged the screen before adding the next item to it.

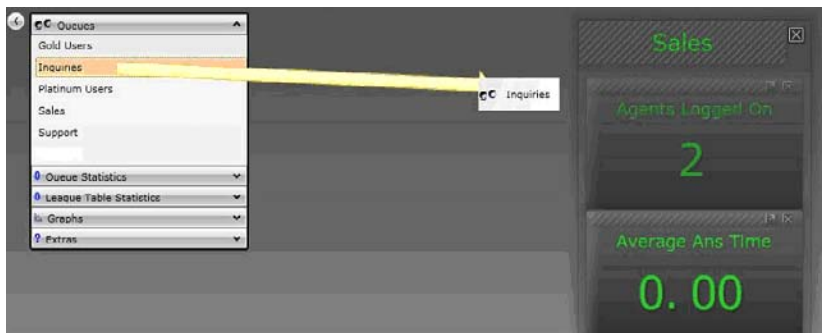
4.19.4 Adding Queues

Because it will be easier to add items from right to left, a queue will be added and all the statistics associated with it before the next queue is added. When adding a queue, pull it from the element list and drop it to the left of the header of the already added queue. It does not matter where the first queue is dropped on a blank palette.

First Queue

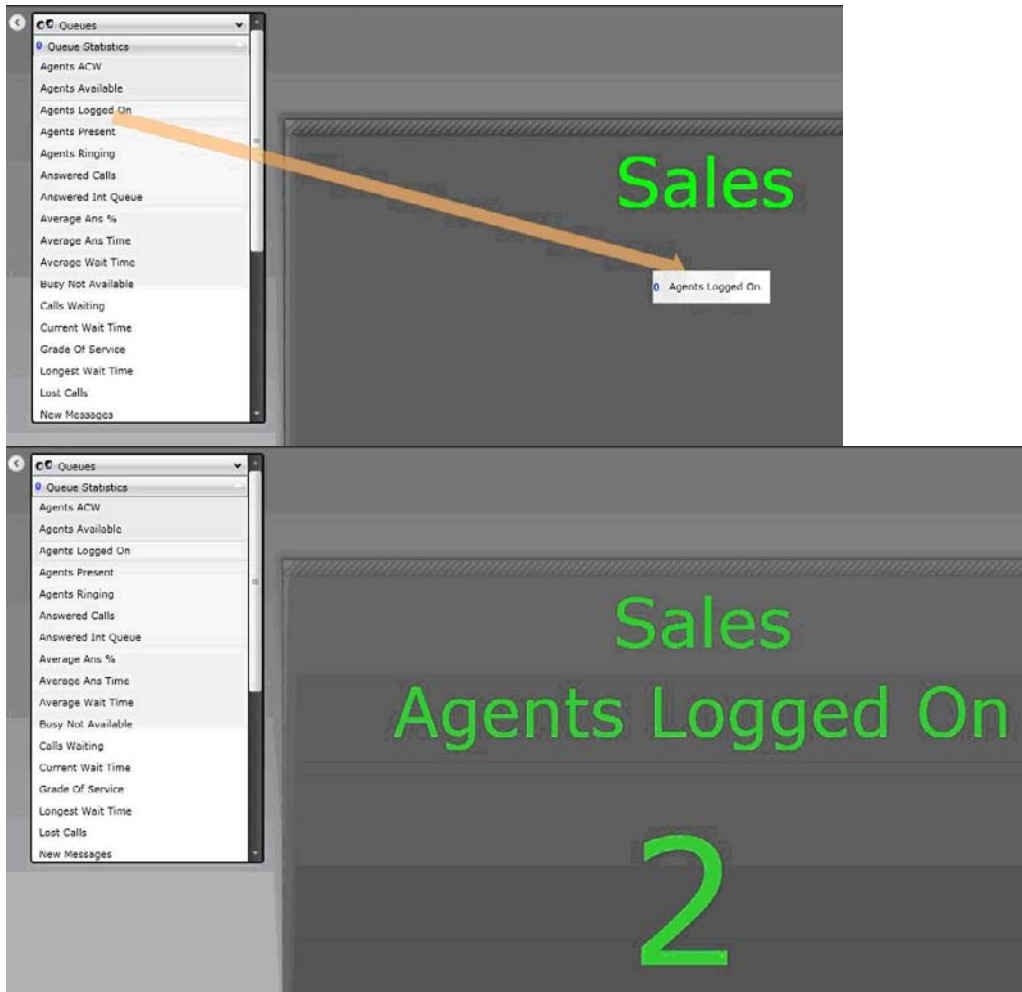


Second Queue

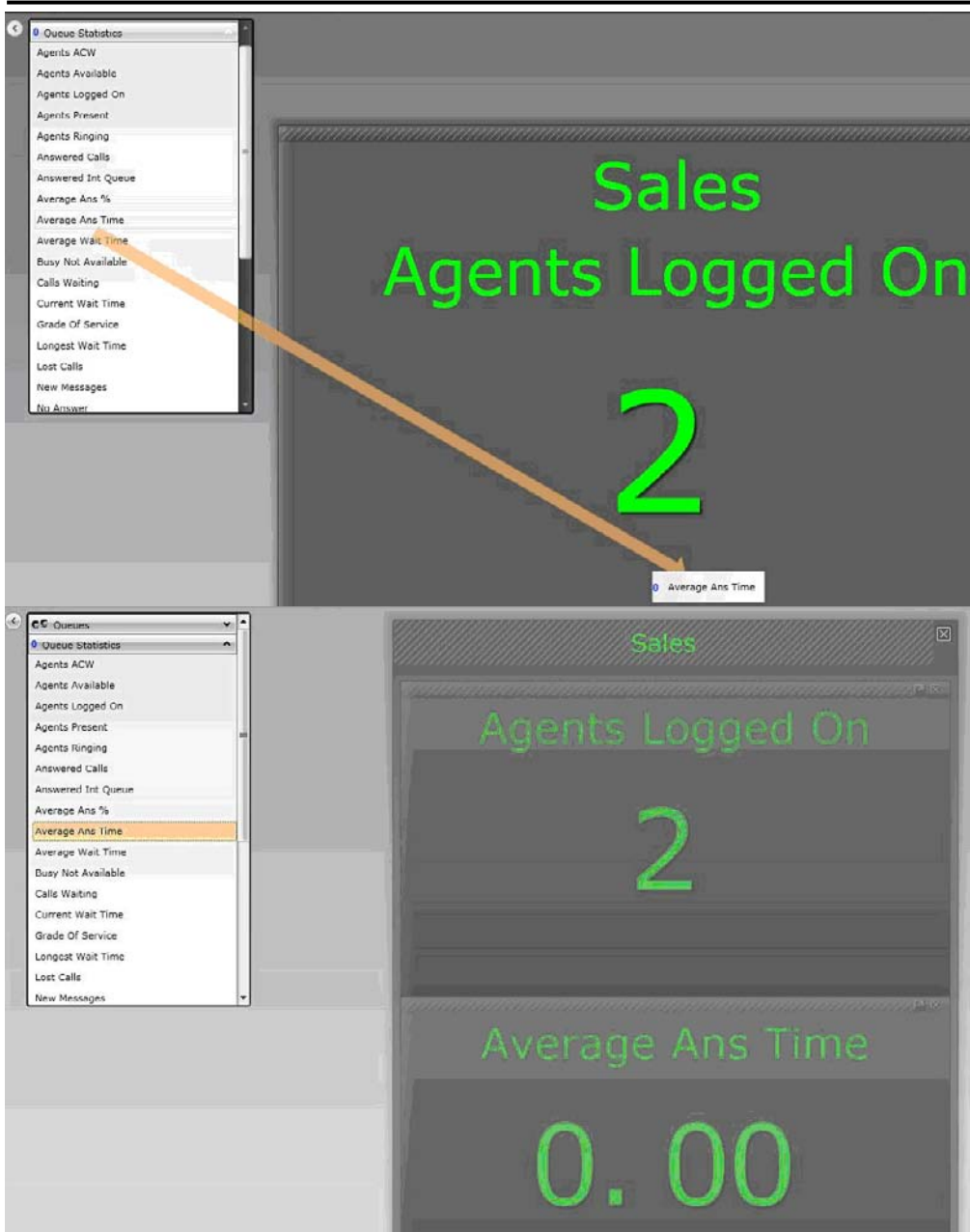


4.19.5 Adding Statistics

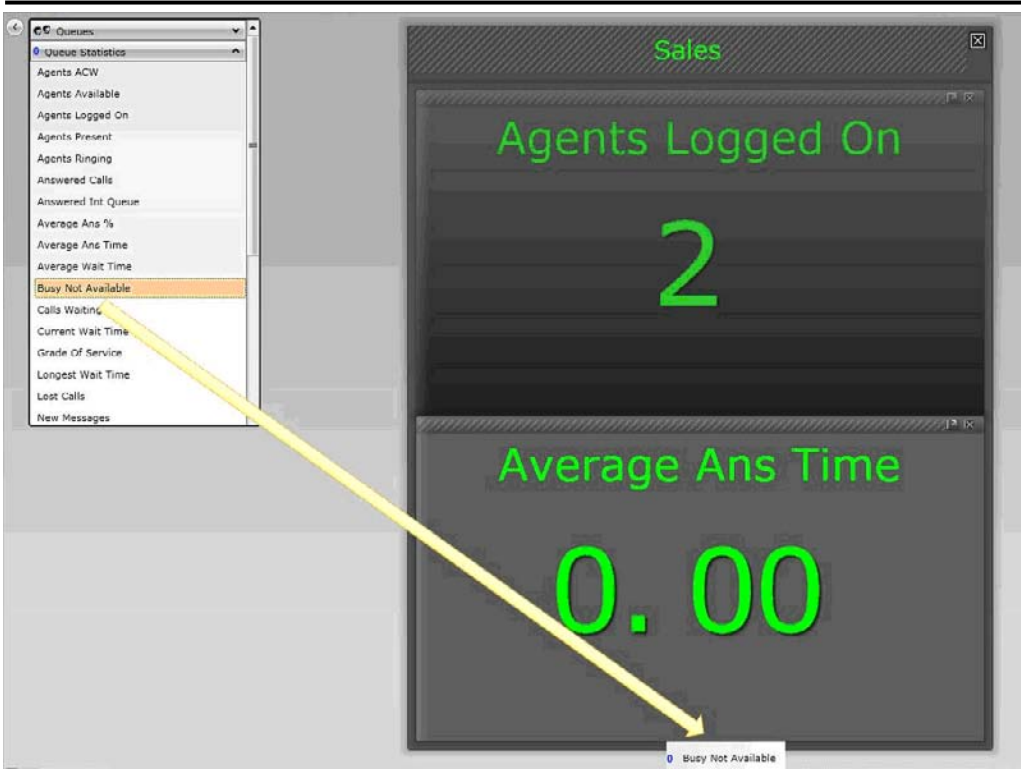
The first statistic is added to the queue by pulling it from the element list and dropping it inside the queue box. The box will become highlighted when the cursor is inside the box.



The second statistic can be added by pulling it from the element list and dropping inside the first statistic box, at the bottom near the middle. The box will be highlighted when the cursor is located within it.

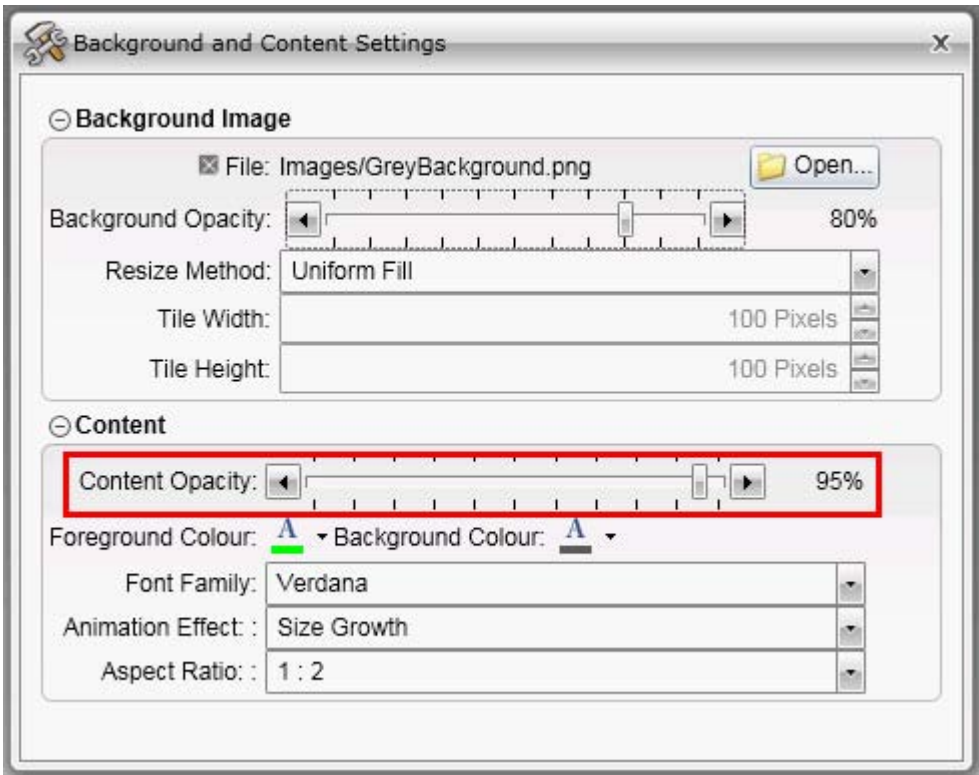


The rest of the statistics are added by pulling the statistic from the element list and dropping it on the bottom border of the queue column. The whole queue associated items will be highlighted when the cursor is properly located at a border. It is possible that the dropping will not properly work. In this case, just remove it if it was added incorrectly and try again.



Content Opacity

Change the Content Opacity to at least 90%. In some cases, it is possible that the wallboard will not react properly to the new opacity settings; refreshing the screen or restarting the browser will correct this.



4.19.6 Statistics Box Background

Consider changing each statistic box to use solid background instead of the default shaded background. Depending on the colors selected for the content foreground and background, it could be easier to read the data from a distance without the shaded background.



Solid Background Setting



Solid Background Shown

4.19.7 Title Bar Font

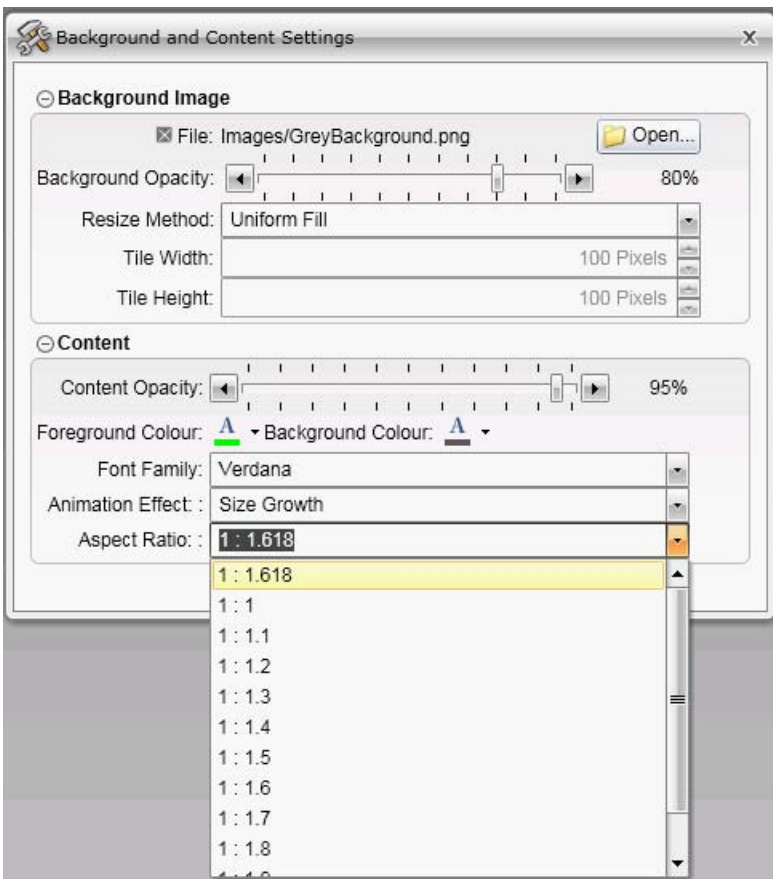
Add the Title Bar and resize the font to a value as small as possible. At one point, reducing the size of the font will no longer have an impact on the real estate used by the statistics. Experiment with the font size until that value is found. At this point, there is no need to use a smaller font.



Title Bar Settings

4.19.8 Aspect Ratio settings

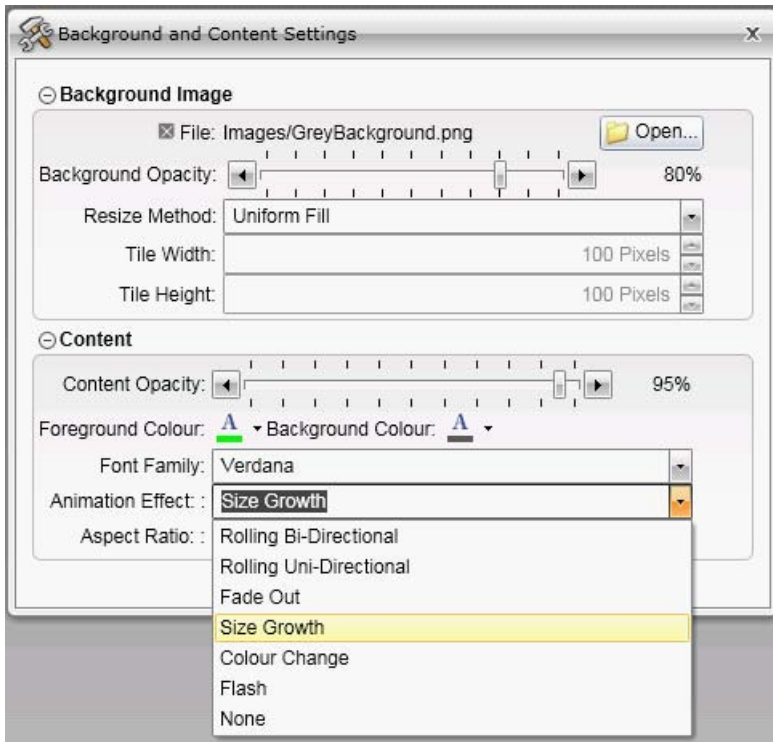
Change the Aspect Ratio to try to use more of the screen real-estate. Experiment with the different ratios until the desired result is achieved.



Aspect Ratio Settings

4.19.9 Animation Effect settings

To help bring attention to changing statistics, the animation effect can be used. Experiment with the different type of effects until the desired result is achieved.



Animation Effect Setting

Save your wallboard design by selecting the  icon at the bottom left corner of the screen.

Change to Full Screen Mode by selecting the  icon at the bottom left corner of the screen.

4.19.10 Final Result



Chapter 5.

Administrator

5. Administrator

The administrator can amend IP Office Customer Call Reporter system preferences plus create and administer supervisors. That includes assigning which queues a supervisor can see or granting the supervisor self-administration rights to amend their own settings including queues.

The administrator does not have any views of call statistics. However they can setup and amend the views used by supervisors and their agents.

There is only one administrator account and only one person can log in as the administrator at any time.

When you [login](#)^[16] as the administrator you view a listing of all the supervisor accounts. You can then [create and modify supervisor accounts](#)^[136]. In the [System Settings](#)^[144] window you can see all the monitored IP Office switches together with the name and address of all discovered IP Offices and their connection state. You can also modify the [system preferences](#)^[144].

Type	Username ↑	Extension	Full Name	Created	Logged In	Self Administer	Reset Statistics	Control Agent	Modify	Views	Copy
Supervisor	devesh	300	Devesh	15/09/2009 16:39:05	False	True	False	False	Modify	Views	Copy
Supervisor	mark	288	Mark	15/09/2009 15:48:51	False	True	True	True	Modify	Views	Copy
Supervisor	simon	205	Simon	15/09/2009 16:33:10	False	False	False	False	Modify	Views	Copy
Wallboard	wallboard1			15/09/2009 15:48:08	False				Modify	Views	Copy
Wallboard	wallboard2			15/09/2009 16:33:37	False				Modify	Views	Copy




Example web client when logged in as an administrator.

- **! Important**

The first time you log in as the administrator, it is recommended that you select the [System Settings](#)^[144] tab and confirm the information in the Preference Details section, especially your unique email address.

As an Administrator...		
• View accounts ^[135]	• Create a wallboard account ^[139]	• Restart a service ^[145]
• Create a supervisor account ^[136]	• Edit a supervisor's views ^[146]	• Setup email services ^[146]

The Status Bar

Status ^[144]	<p>This button indicates the overall status of IP Office Customer Call Reporter. Clicking on the icon displays a System Settings ^[144] tab which shows the status of the individual IP Office Customer Call Reporter components.</p> <ul style="list-style-type: none"> •  Green: IP Office Customer Call Reporter is running. •  Yellow: Some parts of IP Office Customer Call Reporter are still in the process of starting. •  Red: There may be a problem in IP Office Customer Call Reporter.
Change Password ^[17]	While logged in to IP Office Customer Call Reporter, you can change your password.
Log Off ^[20]	Close the IP Office Customer Call Reporter connection. It is important to close a connection using this control rather than just closing the browser or tab within the browser. Failing to use this button will cause a 5 minute delay before you can log in again on another PC.
Help ^[19]	Access this documentation in online format. Where possible the appropriate page for the current IP Office Customer Call Reporter screen is displayed.

Tabs

- [Accounts](#) ^[135]
This tab displays the existing supervisor accounts created by the administrator. It can be used to create and modify accounts.
- [System Settings](#) ^[144]
This tab allows adjustment of system wide IP Office Customer Call Reporter settings such as the email server.
- [Diagnostics](#) ^[149]
This tab should only be used under guidance of an Avaya support engineer when requested.

5.1 Logging In

This refers to logging in to the IP Office Customer Call Reporter web client, not to [logging in to a phone](#)^[87] to receive calls.

1. Using your browser, enter the path to the IP Office Customer Call Reporter web service - `http://<server_path>/CCRWebClient`. The login window should appear.



2. Enter your Username and Password.

- If you have forgotten your password but have an email address set in IP Office Customer Call Reporter, click [Forgot Password](#)^[18].
- If you are an agent logging in for the first time leave the password field blank. You will be asked to set your password and email address as part of the login.

3. If you want the IP Office Customer Call Reporter web client to run in a different language, you can use the Language drop down to select a language from the list.

Supported languages are *Dutch, English (UK), English (US), French, German, Italian, Brazilian Portuguese, Russian and Spanish*. Some parts of customer call maps are third party components delivered over the internet and may run in different languages, for example the zoom and pan controls.

4. Click Logon.

- **Agent's First Time Login**
If you are an agent logging in for the first time, the Set Agent Password window will appear. Enter a password of your choice and then click OK. Your unique email address is also requested. You need to enter an address in order to use the [Forgot Password](#)^[18] feature in future.
- **All Agent Logins**
If multiple supervisors have been configured, agents need to indicate the supervisor they are working for.
- **Multiple Role Login (Optional)**
If your username is [configured for more than one role](#)^[26], the Select Role window will appear. Select the required role and click OK.

5. The web client will open in the appropriate mode: [Agent](#)^[82], [Supervisor](#)^[22] or [Administrator](#)^[132].

- You have three attempts to enter the correct password or username. If you fail to enter valid login details the login window will close and your account is locked for 5 minutes.
- Logged in users who are inactive for more than a set time are automatically logged off. The default time is 30 minutes but this can be adjusted by the administrator.

5.2 Viewing Accounts

As administrator you are able to create, edit and delete login account for IP Office Customer Call Reporter supervisors and wallboards. The details of existing accounts can be viewed on the Accounts tab. The two additional commands in the menu bar, [Create Supervisor](#)^[136] and [Create Wallboard User](#)^[139] allow you to create new accounts.

Type	Username ↑	Extension	Full Name	Created	Logged In	Self Administer	Reset Statistics	Control Agent	Modify	Views	Copy
Supervisor	devesh	300	Devesh	15/09/2009 16:39:05	False	True	False	False	Modify	Views	Copy
Supervisor	mark	288	Mark	15/09/2009 15:48:51	False	True	True	True	Modify	Views	Copy
Supervisor	simon	205	Simon	15/09/2009 16:33:10	False	False	False	False	Modify	Views	Copy
Wallboard	wallboard1			15/09/2009 15:48:08	False				Modify	Views	Copy
Wallboard	wallboard2			15/09/2009 16:33:37	False				Modify	Views	Copy

Field	Description
	Click this icon to delete an account.
Type	Indicates whether the account is a supervisor account or a wallboard account. The Filter selection at the top-right of the menu can be used to select which types of accounts are displayed.
Username	This is the supervisor username used for logging in to IP Office Customer Call Reporter. If the name matches the administrator name and or an agent name then the user can also login in those roles. Supervisors cannot change their username. See Multiple Roles ^[262] .
Extension	The telephone extension number associated with the supervisor account.
Full Name	This name is shown to agents when they login and select their supervisor. It is also used in reports to indicate which supervisor created and ran the report.
Created	Details when the account was added to the IP Office Customer Call Reporter configuration.
Logged In	Details whether the account is currently logged in or not.
Self Administer	If selected, the supervisor has self administration rights and is able to edit their own Account Details ^[78] . Supervisors with this option are also able to schedule housekeeping tasks ^[67] such as database backups and automatic statistic resets. Supervisors without this option are only able to edit views.
Reset Statistics	Supervisors for who the administrator has enabled the Reset Statistics option can reset all the statistics currently being used for supervisor views, agent views and wallboards. This will affect all supervisors, agents and wallboards. It does not affect the statistics used for historical reports.
Control Agent	Supervisors with this option enabled are able to click on an agent name in a view and select from a list of actions that change the state of that agent. For example to force the agent to login or logout. See Controlling Agent Status ^[42] . This option requires the IP Office Customer Call Reporter to be configured with details of the one-X Portal for IP Office ^[147] server.
Modify	Click this option to modify the supervisor account ^[136] or wallboard account ^[139] settings.
Views	Click this option to edit the supervisor's views ^[140] . This option is not available for wallboard accounts.
Copy	Click this option to copy the supervisor account ^[143] . This option is not available for wallboard accounts.

5.3 Creating/Editing Supervisor Accounts

Before any supervisors can use the application they need to have an account created for them. You can create up to 30 supervisor accounts. However the maximum number of supervisors that can be logged in at any time is restricted by the number of supervisor licenses.

To create a supervisor account

1. Click the Accounts tab. All the existing supervisor and wallboard accounts are listed together with their current status.

Type	Username ↑	Extension	Full Name	Created	Logged In	Self Administer	Reset Statistics	Control Agent	Modify	Views	Copy
Supervisor	devesh	300	Devesh	15/09/2009 16:39:05	False	True	False	False	Modify	Views	Copy
Supervisor	mark	288	Mark	15/09/2009 15:48:51	False	True	True	True	Modify	Views	Copy
Supervisor	simon	205	Simon	15/09/2009 16:33:10	False	False	False	False	Modify	Views	Copy
Wallboard	wallboard1			15/09/2009 15:48:08	False				Modify	Views	Copy
Wallboard	wallboard2			15/09/2009 16:33:37	False				Modify	Views	Copy

2. Click the Create Supervisor link. A Create Supervisor tab is displayed. Alternatively, to modify an existing account click on Modify.

3. Complete each field with the relevant details. Note that * indicates a mandatory field that must be completed.

Field	Description
Username	This is the supervisor username used for logging in to IP Office Customer Call Reporter. If the name matches the administrator name and or an agent name then the user can also login in those roles. Supervisors cannot change their username. See Multiple Roles ²⁶² .
Password	This is the password used for browser access to IP Office Customer Call Reporter. All supervisors, even those without Self Administer rights, can use the Change Password ¹⁷¹ option to change their password.
Confirm Password	
Full Name	This name is shown to agents when they login and select their supervisor. It is also used in reports to indicate which supervisor created and ran the report.
Extension	The telephone extension number associated with the supervisor account.
Email	The unique email address associated with the supervisor. This is used for the forgotten password ¹⁸¹ feature.
Self Administer	If selected, the supervisor has self administration rights and is able to edit their own Account Details ¹⁷⁸ . Supervisors with this option are also able to schedule housekeeping tasks ¹⁶⁷ such as database backups and automatic statistic resets. Supervisors without this option are only able to edit views.
Reset Statistics	Supervisors for who the administrator has enabled the Reset Statistics option can reset all the statistics currently being used for supervisor views, agent views and wallboards. This will affect all supervisors, agents and wallboards. It does not affect the statistics used for historical reports.

Field	Description
Control Agent	Supervisors with this option enabled are able to click on an agent name in a view and select from a list of actions that change the state of that agent. For example to force the agent to login or logout. See Controlling Agent Status ^[42] . This option requires the IP Office Customer Call Reporter to be configured with details of the one-X Portal for IP Office ^[147] server.

4. Click Next. The Queues window opens. Select the queues that the supervisor will be able to view. By default all of the queues are selected. Supervisors with self administration rights can amend the selection through their [Account Details](#)^[78] tab.

5. Click Next. The Views window opens.

Field	Description
Views	These fields allow you to rename the 3 views.
Audio Enabled	This option is used in conjunction with any view that includes an All Views Alarm List. When enabled, if an alarm occurs, the browser's media player is used to play a sound file from the IP Office Customer Call Reporter server PC. The sound is played to all users looking at that supervisor's views. <ul style="list-style-type: none"> This option is off by default. If enabled, an audio plug-in is required for all user browsers. Use either Quick Time or Windows Media Player.
Help Tooltips Enabled	If enabled, when the cursor is placed over the statistic name in a view, pop-up help for the statistic is displayed. Tooltips are on by default.
Highlighting Enabled	If enabled, when a statistic in a view changes value, its background briefly changes to purple, then light purple and then back to the normal background color. This option is not applied to agent state and time values. Highlighting is on by default.

6. Click Finish to create the new supervisor account. The new account will be listed in the Supervisors Accounts tab.

7. Once the account has been created you can [create views](#)^[140] for the supervisor account. All supervisors can also amend and create their own views.

To change the details of a supervisor account

1. Display the list of current supervisor accounts.
2. Click Modify for the account that you want to change.
3. Click through each window and amend the details as necessary.
4. Click Finish in the last window. The details are updated.
5. Click on Accounts to return to the list of accounts.

To delete a supervisor account

1. Display the list of current supervisor accounts.
2. Click Delete for the account that you want to remove.
3. Confirm that you want to delete the account by clicking OK. The supervisor account is deleted.

To copy a supervisor Account

- See [Copying a Supervisor Account](#) ¹⁴³.

5.4 Creating a Wallboard Account

To create a wallboard account you must [login as the IP Office Customer Call Reporter administrator](#)^[134].

1. Login as the IP Office Customer Call Reporter administrator and select the Accounts tab.

Type	Username ↑	Extension	Full Name	Created	Logged In	Self Administer	Reset Statistics	Control Agent	Modify	Views	Copy
Supervisor	devesh	300	Devesh	15/09/2009 16:39:05	False	True	False	False	Modify	Views	Copy
Supervisor	mark	288	Mark	15/09/2009 15:48:51	False	True	True	True	Modify	Views	Copy
Supervisor	simon	205	Simon	15/09/2009 16:33:10	False	False	False	False	Modify	Views	Copy
Wallboard	wallboard1			15/09/2009 15:48:08	False				Modify	Views	Copy
Wallboard	wallboard2			15/09/2009 16:33:37	False				Modify	Views	Copy

2. Click on Create Wallboard User. A Create Wallboard User tab is displayed.

Username: *

Password: *

Confirm Password: *

3. Enter the details for the account and click Create. Note that * indicates a mandatory field that must be completed.
4. Log off and then [login using the wallboard account](#)^[106] details to verify account operation.
5. Once logged in using the wallboard account you can [edit the wallboard view](#)^[107].

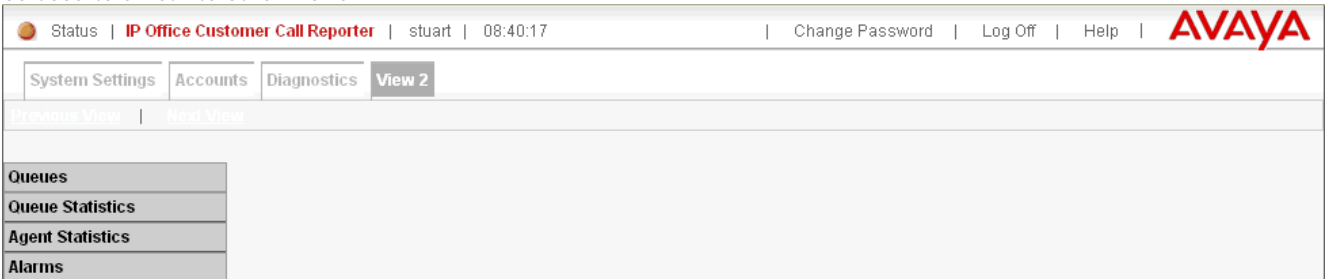
5.5 Amending Supervisor Views

Each supervisor has 3 views which appear as their first 3 tabs. Each view can be configured to show different queues and statistics. The queues usable are those selected for the [supervisor account](#) ^[136].

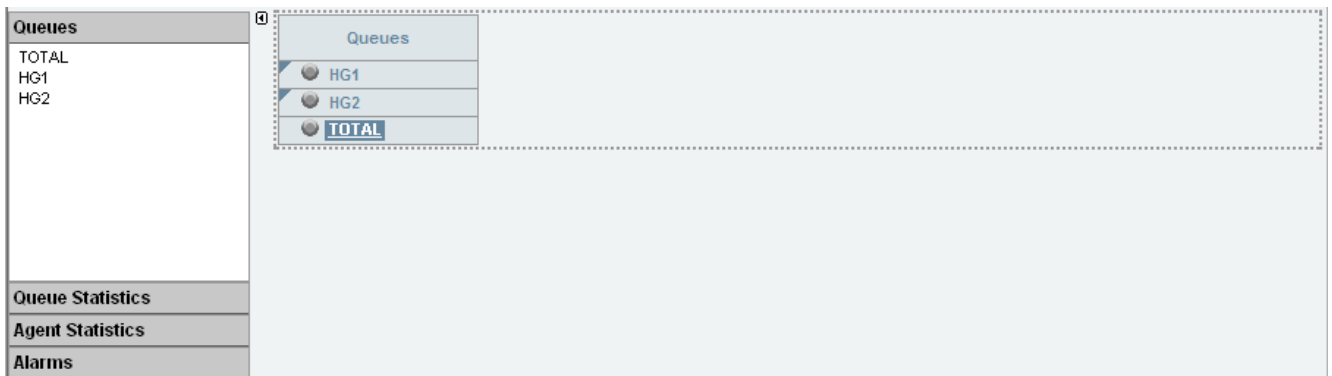
All supervisors, even those without self administration rights, can also [adjust their own views](#) ^[36]. Supervisors can also rename their 3 views.


To create a view

- A. Select the Accounts tab and locate the supervisor in the list of supervisor accounts.
- B. Click the Views link. The settings for the supervisor's first view are shown. The Next View and Previous View links can be used to switch to other views.



1. Adding Queues
By default all the queues configured for the supervisor are already shown. These are the Queues that the supervisor has permission to view as specified when [creating their supervisor account](#) ^[136].



- To add a queue to the view, click Queues. Drag and drop the required queue into the view and when the hatched lines appear drop it into that area.
- TOTAL can be used to add a summary row to the view. For statistics that are averages, the total will be a [weighted average](#) ^[27]. For other statistics, it provides a simple total of the column. For the Longest Waiting Time it is blank.
- To remove a queue from the view, click on the circle next to its name and select Hide.
- To adjust the order of the queues, click on the  corner icon and drag the queue to the required position.

2. Add Queue Statistics

You can select which statistics should be displayed for the queues. For details of the available statistics see [Statistics](#)

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Queues	Agents Ringing	
HG1		Answered Int Queue
HG2		
TOTAL		

Queue Statistics:

- Agent Productivity
- Agents ACW
- Agents Available
- Agents Logged On
- Agents Present
- Agents Ringing
- Answered Calls
- Answered Int Queue**
- Average Ans %
- Average Ans Time

Agent Statistics

Alarms

- To add a statistic to the view, click Queue Statistics to view available statistics. Drag and drop the required statistic into the area surrounded by hatched lines in the view.
- Only one instance of each agent and queue statistic can be added to a view.
- Newly added statistic will display the appropriate values for activity since the last statistics reset rather than since the statistic was added to the view.
- To remove a statistics from the view, click on the statistic name in the view and select Hide.
- To adjust the order of the statistics, click on the  corner icon and drag the statistic to the required position.
- To adjust the settings used for a statistic, click on the statistic name and select [Settings](#) 152.

3. Add Agent Statistics

Click on one of the queue names to display the list of agents in that queue. Use the same options as for queue statistics above but select statistics from the Agent Statistics list.

Queues	Agents Ringing	Answered Calls
HG1		
HG2		
TOTAL		

Agents	Average Ans Time	
Agent1		Average Ans %
Agent2		

Agent Statistics:

- Answered Int Non-Q
- Answered Int Queue
- Average Ans %**
- Average Ans Time
- Internal Made
- Lost Calls
- No Answer
- Outbound Calls (Ext)
- Routed To Other
- Routed To Voicemail
- Talk In Average

Alarms

4. Adding an Alarm Summary

Each statistic configured to provides alarms and or warnings does so by displaying different color backgrounds. However you can also add an alarm list or ticker to each view to also display the alarms and warnings.

- Click Alarms. Drag and drop the required type of alarm list or ticker to the area either above or below the currently displayed statistics. If required you can have two sets of alarms, one above and one below.
 - An alarm list shows the 100 most recent current alarms and warnings in a scrollable list of all the current alarms and warning. Alarms are shown first in chronological order followed by warnings in chronological order.
 - Alarms in the Alarm List All Views can also trigger an audible alarm if the [supervisor's account](#) ⁷⁸ is set as Audio Enabled. This will be played to all users looking at that supervisor's views.
 - An alarm ticker shows the 5 most recent current alarms and warnings one at a time, showing each for a few seconds before displaying the next.
 - Alarms and warnings take the form: *Time, Type (Alarm or Warning), Name (Queue name, agent name), Current value, Statistic name*. For agent and queue state alarms, the state is included in the name. For *Busy Not Available* state alarms the reason code is included. For example:
 - 12:45 Alarm Sales 15 Calls Waiting
 - 16:31 Warning Sales 120 Average Answer Time
 - 17:20 Alarm Extn2101 Agent State Q – Busy NA (paper work)
 - Alarms and warnings are updated approximately every 8 seconds.
 - Clicking on the underlined text in an alarm or warning will change the view to the one containing the alarm or warning and will also select the appropriate queue in that view.
 - Alarms and warnings are removed from the list in when the relevant statistic drops back to the threshold level. The supervisor or agent viewer can also remove an alarm or warning by clicking on the appropriate colored cell of statistic value. Acknowledging an alarm or warning only affects their view.
 - Alarms for database capacity are not shown within the alarm lists and trackers. They are shown during log in.

5. Continue to adjust the view as required.

C. When completed, click on the Accounts tab again.

5.6 Copying a Supervisor Account

You can create a new supervisor account based on an existing one.

- All the queues that have been selected to be monitored are copied.
- The following settings of the existing supervisor are not copied: name, password, full name, email address and views.

To copy an existing account

1. Click on the Accounts tab to view the list of supervisor accounts that have been created.
2. Click the Copy link next to the existing supervisor account which you want to use as the basis for the new supervisor account.



3. Enter the new supervisor's name in the Username field.
4. Enter a Password and confirm the password.
5. Enter the supervisor's Full Name.
6. Enter the supervisor's unique Email address. This is used for functions such as [Forgotten Password](#)^[138].
7. Click OK to create the account.
8. You can now [amend the supervisor account](#)^[138] and [create views](#)^[140] for the account.

5.7 System Settings

The System Settings tab contains several sections. The information in each section is shown or hidden by clicking on the section name. This tab can also be accessed by supervisors and agents clicking on the Status option. However they will not see the Preferences section and cannot restart services.

The information sections are:

- [Switches](#) ^[144]
This section displays information about the telephone systems (switches) that the IP Office Customer Call Reporter is aware of and which one it is connected to.
- [Services](#) ^[145]
This section displays information about the different IP Office Customer Call Reporter services and their status.
- [Preferences](#) ^[146]
This section is only available to the administrator.

5.7.1 Switches

This section displays information about the telephone systems (switches) that the IP Office Customer Call Reporter is aware of and which one it is connected to.

1. Click on the System Settings tab. If necessary, click on Show Switches. The details of the IP Office system to which the IP Office Customer Call Reporter is configured to work are shown and the current status of the connection is indicated in the State column.

Name ↑	IP Address	Created	Version	Data Analyzer IP Address	Username	Password	State	Restart	Modify
IP500v2	192.168.0.210	15/09/2009 15:13:36		192.168.0.203	Administrator	*****	Connected	Restart	Modify

2. Click on a column name to sort the list using that column. The arrow icon indicates the column that the list is sorted by and if it is in ascending ↑ or descending ↓ order.
3. The information displayed cannot be changed here. Refer to the IP Office Customer Call Reporter Installation Manual for details on changing this information:
 - Name
The name of the [IP Office](#) ^[276] telephone system.
 - IP Address
The IP address of the IP Office telephone system.
 - Created
When the connection was configured for use by IP Office Customer Call Reporter.
 - Version
The IP Office core software version of the IP Office telephone system.
 - Data Analyzer IP Address
The data analyzer is an IP Office Customer Call Reporter component which collects information from the IP Office telephone system and passes it to the other IP Office Customer Call Reporter components.
 - Username
The IP Office service user name that has been used for the connection to the IP Office.
 - Password
This field is normally masked except when being modified.
 - State
This column shows the state of the connection from the IP Office Customer Call Reporter server to the data analyzer and IP Office. The required state for normal operation is *Connected*.
 - Restart
This option is disabled for non-administrators.
 - Modify
This option can be used by the IP Office Customer Call Reporter administrator to change to *IP Address*, *Username* and or *Password* that is being used for the connection to the IP Office. Refer to the IP Office Customer Call Reporter installation manual for full details as changing the IP Address has implications for the existing queue and agent data already collected in the IP Office Customer Call Reporter database.

5.7.2 Services

This section displays information about the separate software services used by IP Office Customer Call Reporter.

1. Select the System Settings tab.
2. Select Show Services.

(Hide Services...)

Name ↑	IP Address	Version	State	
Database Monitor Service	TECHPUBSERVER	6.1.0.24	Running	<u>Restart</u>
Historical Reporting Service	TECHPUBSERVER	6.1.0.24	Running	<u>Restart</u>
Management Service	TECHPUBSERVER	6.1.0.24	Running	<u>Restart</u>
Printer Discovery Service	TECHPUBSERVER	6.1.0.24	Running	<u>Restart</u>
Realtime Calculation Service	TECHPUBSERVER	6.1.0.24	Running	<u>Restart</u>
SQL Database	(LOCAL)	6.1.0.0	Running	<u>Restart</u>
Web Client	TECHPUBSERVER	6.1.0.24	Running	<u>Restart</u>

3. Click on a column name to sort the list using that column. The arrow icon indicates the column that the list is sorted by and if it is in ascending ↑ or descending ↓ order.
4. The information displayed is:

- **Name**
The name of the service.
- **IP Address**
The address or host name of the server PC on which the service is running.
- **Software Version**
The version of the service. .
- **State**
The current state of the service.
- **Restart**
This option is disabled for non-administrators. If underlined, the option can be used to restart the related service. Note that restarting any services may reset the statistics seen in views.

5.7.3 Preferences

This section is only available to the administrator. It allows various IP Office Customer Call Reporter settings to be set and changed.

1. Select the System Settings tab.
2. Select Show Preference Details.

(Hide Preference Details...)

Administrator Settings

Administrator Full Name: stuart Administrator E-mail: stuart@example.com Administrator Password:

Administrator Extension: 299 Administrator Confirm Password:

SMTP Server Settings

Server Hostname: Enter the hostname Originator E-mail: Enter e-mail address Originator Name: Enter the name Server Port: 25

Optional server username: Optional server password:

Customer Map Settings

Initial Centre Latitude: 55 Initial Centre Longitude: -5 Initial Zoom Level: 6

Home Country Code: 44 Home Area Code: 20

one-X for IP Office Settings

one-X Server Hostname: 192.168.0.203 Server Port: 8080 one-X Username: Administrator one-X Password:

Logon Policy Settings

Session Timeout Minutes: 1440

Diagnostic Trace Settings

Viewer Account:

** Warning: This setting is for Avaya use only **

Database Size

Database Maximum Size (MB): 4096

Update

3. Adjust the settings to match the requirements of the system. Refer to the following sections for details of the individual controls and settings.
4. Click Update. Anyone who is using the client application will be logged off as soon as you update the settings.

Administrator Settings

The following parameters are used to configure the administrator account.

- Administrator Full Name
This field is for general information only.
- Administrator E-mail
This field is used in conjunction with the [forgotten password](#) function.
- Administrator Extension
This field is for general information only.
- Administrator Password and Administrator Confirm Password
These fields allow you to change your administrator password.

SMTP Server Settings

Access to an SMTP server is required for the emailing of reports and for the forgotten password function.

- Server Hostname
This should be the full name of the SMTP server including its domain name.
- Originator Email
The sender's email address to be used for emails from IP Office Customer Call Reporter. Note that most SMTP servers will require this to match the email address of an account configured on the SMTP server or to be an address configured as one that the SMTP server will relay.
- Originator Name
The name to use on emails sent from IP Office Customer Call Reporter.

- **Server Port**
The port of the SMTP server on which it receives emails. The default for most SMTP servers is 25.
- **Optional Server Username and Optional Server Password**
If the SMTP server uses authentication, enter a username and password that matches the security details of an email account for IP Office Customer Call Reporter configured on the SMTP server.

Customer Map Settings

These settings control the default customer map operation.

- **Initial Centre Latitude: *Default = 55, Range = -90 to 90***
Sets the default map centre for a customer map view when started.
- **Initial Centre Longitude: *Default = -5, Range = -180 to 180***
Sets the default map centre for a customer map view when started.
- **Initial Zoom Level: *Default = 6, Range = 1 (Neighbourhood) to 20 (World)***
Sets the default zoom level for a customer map view when started.
- **Home Country Code: *Default = 44 (United Kingdom)***
For calls that do not include a country code, this value will be used as the assumed country code.
- **Home Area Code: *Default = 20 (London)***
For calls that do not include an area code, this value will be used as the assumed area code.

one-X Portal for IP Office Settings

A connection to the one-X Portal for IP Office server is used to by IP Office Customer Call Reporter for the [control agent state](#)^[42] function. These settings are used to set the location of the one-X Portal for IP Office server and the details of the one-X Portal for IP Office user configured as a *User Manager* (refer to the IP Office Customer Call Reporter Installation Manual). For supervisors to use the function, their account must be [configured](#)^[136] with the Control Agent setting enabled.

- **one-X Server Hostname**
Enter the address of the one-X Portal for IP Office server.
- **Server Port**
By default the one-X Portal for IP Office server uses port 8080.
- **one-X Username and one-X Password**
Enter the name and password of the one-X Portal for IP Office *User Manager* account.

Logon Policy Settings

- **Session Timeout Minutes: *Default = 30 minutes.***
This setting controls how long users logged in to an IP Office Customer Call Reporter web client can be inactive. When this timeout is exceeded, the user is required to login again. The timeout setting can be set for between 1 minute and 1440 minutes (1 day). The default setting is 30 minutes. This setting is not applied to wallboard logins.
 - Note that other events, for example manually restarting the IP Office Customer Call Reporter services, can also cause users to be required to login again.
 - Setting the timeout to a large value may not work as intended if the time period is likely to include a [scheduled reset of the web services](#)^[67]. During a scheduled reset any connected sessions are temporarily interrupted while the reset occurs but then allowed allowed to continue with the timeout period restarted.
 - The session timeout for a particular supervisor may not occur if they have a dashboard or graph setup for a longer period. For example, if they have a dashboard graph set for 4 hours and the session timeout is set to a smaller value, their session will not timeout until the 4 hours have expired. This allows supervisors to be able to get all the requested data without being interrupted by a session timeout.

Diagnostic Trace Settings

- **Viewer Account**
This option will only be used when advised by Avaya when they require additional information to diagnose a possible problem.

Database Size

- **Database Maximum Size: *Default = 4096MB***
Once the database has reached 75% of its maximum size, an alarm will be generated and displayed whenever users log in to IP Office Customer Call Reporter. At 80% an alarm will be generated and the IP Office Customer Call Reporter application will begin to take actions necessary to allow it to continue recording new data. The action taken is to automatically erase the oldest 10% of data.



5.8 Diagnostics

The options available on the Diagnostic tab should only be used under guidance by an Avaya authorized engineer.

When run the diagnostics traces are written into the IP Office Customer Call Reporter database and so consume space. Therefore diagnostics trace should only be run when absolutely required for fault resolution.

Status | IP Office Customer Call Reporter | stuart | 09:25:30
Change Password | Log Off | Help | **AVAYA**

Settings | Archive |

System Settings | Accounts | **Diagnostics**

Print Page | Options

Instructions For Use

Select from various options below to filter levels of diagnostic trace output from the IPOCCR components, or trace sources. Note that this does not control the level of output, only the trace visible in this client. Click on the column headers to sort diagnostic output according to your needs. For a more detailed view on a diagnostic entry, click the "Details..." link, and for more advanced options, click the "Show Advanced Options" link above.

Diagnostic Trace Configuration

Critical Errors
 All Errors
 Warnings
 Information
 Verbose Information

Source: Quantity:

Any 1000

Machine: Activity Name: Search:

Any Any

Diagnostic Trace Entries

No diagnostic trace entries found

Chapter 6.

Statistics

6. Statistics

This section provides details on the statistic used in the supervisor views, agent views and wallboards.

IP Office Customer Call Reporter collects information about calls to queues and agents and stores this in its database. It also collects information about the current state of the queues and agents. Statistics based on this information are then used in web views and historical reports.

- Except where specifically indicated, usually by the term 'Non-Queue', all statistics relate to calls targeted to queues.
- Each statistic can only be added once within each view.
- Statistics are calculated values. They are affected by configurable settings on the particular view, wallboard or report such as whether to include or exclude internal calls. Those settings can be varied for each instance where a particular statistic is used.
- The statistics value in views and wallboards can be manually reset when required by any supervisor for who the [administrator](#)^[268] has enabled the [Reset Statistics](#)^[43] option. Resetting the statistics affects the view and wallboard statistics for all supervisors and agents. It does not affect the statistics used for historical reports.
- The statistics in views are updated approximately every 2 seconds.

Statistic Types

The statistics kept by IP Office Customer Call Reporter can be categorized into the following types:

Statistic Type	Description
State Statistics	<p>These statistics show the current state of a queue or agent. Each of these statistics also has a complementary statistic that shows how long the queue or agent has been in its current state. The total time agents have spent in different states is available through historical reports based on the Agent Summary Report^[54] template. Examples:</p> <ul style="list-style-type: none"> • Agent State (Queue) shows the current state (<i>logged off, available, busy, etc</i>) of each agent in a queue. • Agent State (Queue) Time shows the time each agent in a queue has been in their current state.
Calls/Agents	<p>These statistics show the current number of agents or calls in particular states. The value of these statistics can go up and down and are not available as historical report values. Examples:</p> <ul style="list-style-type: none"> • Agents ACW shows the number of agents in a queue who are currently in the after call work (ACW) state. • Calls Waiting shows the number of calls ringing or queued waiting to be answered.
Call Counts	<p>Depending on the statistic, these statistics increment each time the queue or agent makes, loses, refuses or answers a call. Examples:</p> <ul style="list-style-type: none"> • Answered Calls shows the number of queue calls answered by an agent or all the agents in a queue. • Internal Made shows the number of internal calls made by an agent.
Performance Measures	<p>These statistics combine call counts and target values set by Supervisors to provide a measure of queue or agent performance. Examples:</p> <ul style="list-style-type: none"> • Agent Call Share shows an agents share of queue calls answered out of all queue calls answered for a particular queue. • Average Answer % shows the percentage of calls answered that were answered within the target time set by the supervisor.

Statistic Colors

A number of different color backgrounds are used while displaying statistics. The following colors are used for normal statistics (these colors are not used in wallboards). The colors for changing statistic number values are optional (enabled by the [supervisor's account setting](#)^[78] Highlighting Enabled) and are not applied to agent state and time values. They are also reset if you change view.

Normal (White)	Alternate Row (Light Gray)	Just Changed (Purple)	Recently Changed (Light Purple)
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The following additional colors are used when any statistic is configured to display warnings and alarms. These colors override the ones above. Wallboards only display the colors for warnings and alarms.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
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Alarms and warnings are automatically cleared when the statistic value returns back to the threshold level of the alarm or warning. Agents and supervisors can acknowledge an alarm or warning in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarms list.

6.1 Available Statistics

Statistic Full Name	Available for ...	Call Type ^[1]		Warning/ Alarm Type	Include Overflow		Statistic Type
		Queue/Agent	Ext'		Int'	From	
Agent Productivity ^[155]	✓/✓	✓	✗	>1-99%	✓	✗	Performance
Agent State (Queue) ^[157]	-/✓	-	-	-	-	-	State
Agent State (Queue) Time ^[159]	-/✓	-	-	>1-999 ^[2]	-	-	State
Agent State (System) ^[160]	-/✓	-	-	-	-	-	State
Agent State (System) Time ^[162]	-/✓	-	-	-	-	-	State
Agents ACW ^[163]	✓/-	-	-	>1-150	-	-	Current
Agents Available ^[164]	✓/-	-	-	<1-150	-	-	Current
Agents Call Share ^[165]	-/✓	-	-	-	-	✓	Performance
Agents Logged On ^[166]	✓/-	-	-	<1-150	-	-	Current
Agents Present ^[167]	✓/-	-	-	-	-	-	Current
Agents Ringing ^[168]	✓/-	✓	✓	-	-	✗	Current
Answered Calls ^[169]	✓/✓	✓	✓	>1-999	✗	✗/✓ ^[3]	Call Count
Answered External (Non-Queue) ^[170]	-/✓	✓	-	>1-999	-	-	Call Count
Answered Internal (Non-Queue) ^[171]	-/✓	-	✓	>1-999	-	-	Call Count
Answered Internal (Queue) ^[172]	✓/✓	-	✓	>1-999	✗	✗	Call Count
Average Answer % ^[173]	✓/✓	✓	✓	<1-100%	✓	✗	Performance
Average Answer Time ^[173]	✓/✓	✓	✓	>1-600	✓	✗	Performance
Average Wait Time ^[177]	✓/-	✓	✓	>1-600	✓	✗	Performance
Busy Not Available ^[178]	✓/-	-	-	>1-150	-	-	Current
Calls Waiting ^[179]	✓/-	✓	✓	>1-999	✗	✓	Current
Current Wait Time ^[181]	✓/-	✓	✓	>1-600	✓	✓	Performance
Grade of Service ^[182]	✓/-	✓	✓	<1-100%	✓	✗	Performance
Internal Made ^[184]	-/✓	-	✓	>1-999	-	-	Call Count
Longest Wait Time ^[185]	✓/-	✓	✓	>1-600	✓	✗	Performance
Lost Calls ^[187]	✓/✓	✓	✓	>1-999	✗	✗/✓ ^[3]	Call Count
New Messages ^[188]	✓/-	-	-	>1-999	-	-	Call Count
No Answer ^[190]	✓/✓	✓	✓	>1-999	✗	✗/✓ ^[3]	Call Count
Outbound Calls (External) ^[192]	-/✓	✓	-	>1-999	-	-	Call Count
Overflowed Answered ^[193]	✓/-	✓	✓	>1- 999	✓	✗	Call Count
Overflowed Calls ^[194]	✓/-	✓	✓	>1-999	✓	✗	Call Count
Overflowed Calls Waiting ^[195]	✓/-	✓	✓	>1-999	✓	✗	Call Count
Overflowed Lost ^[197]	✓/-	✓	✓	>1-999	✓	✗	Call Count
Queue State ^[198]	✓/-	-	-	-	-	-	State
Queue State Time ^[199]	✓/-	-	-	>1-600 ^[2]	-	-	State
Routed to Other ^[200]	✓/✓	✓	✓	>1-999	✓	✗	Call Count
Routed to Voicemail ^[201]	✓/✓	✓	✓	>1-999	✓	✗	Call Count
Talk Average ^[202]	✓/✓	✓	✗	>1-600	✓	✗	Performance
Talk Inbound ^[203]	✓/✓	✓	✗	-	✓	✗	Performance
Talk Inbound Average ^[204]	✓/✓	✓	✗	-	✓	✗	Performance
Talk Internal ^[205]	✓/✓	✗	✓	-	✓	✗	Performance
Talk Outbound ^[206]	✓/✓	✓	✗	-	✓	✗	Performance
Talk Outbound Average ^[207]	✓/✓	✓	✗	>1-600	✓	✗	Performance
Talk Total ^[208]	✓/✓	✓	✗	-	✓	✗	Performance
Transferred ^[209]	✓/✓	✓	✓	>1-999	✓	✗	Call Count

1. With statistics that support both internal and or external calls, the selection of which call types are reported is selectable through the statistic's settings.
2. For Agent State (Queue) Time and Queue State Time, separate time thresholds can be set for each state that has been selected to alarm.
3. ✗/✓* For Answered Calls, Lost Calls and No Answer, queue calls that overflowed to a queue are included in agent statistics but not in queue statistics.
4. This documentation uses the full name for IP Office Customer Call Reporter statistics and states. However, for the display in browser screens, the IP Office Customer Call Reporter may use abbreviated names. The statistics however remain the same.



6.2 Agent Productivity

- This statistic is available for queues and agents.
- It only includes incoming external trunk calls. Outbound external calls are not included.
- It shows the percentage of calls an agent handled within a set of service criteria over all calls except lost calls.
- The service criteria includes calls answered in the target answer time and for between the minimum and maximum talk times.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	—	✗	✓	✓/✗
Agent	✓	✓	✗	✓	✓/✗

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- **Answer Threshold:** *Default = 600 seconds, Range = 1 to 600 seconds.*
Used for statistics calculated as a percentage of calls answered within the set time out of all calls presented. Sets the target time for calls to be answered from when they are first presented to the queue or agent. Note that for agents, calls are only presented for the queue's no answer time before being presented to the next agent. Note that this setting is shared between the [Agent Productivity](#)^[15b], [Average Answer %](#)^[17b] and [Grade of Service](#)^[18b] statistics in the same monitor or wallboard view.
- **Lost Calls Threshold:** *Default = 1 second, Range = 1 to 600 seconds.*
Lost calls are calls where the caller disconnects before the call is answered. This threshold sets the minimum time in seconds for a call to be available to be answered before it will be counted as lost. Lost calls are not included in the calculation of this statistic. Note that this setting is shared between the [Agent Productivity](#)^[15b] and [Grade of Service](#)^[18b] statistics in the same monitor or wallboard view.
- **Talk Time**
These settings define the minimum and maximum talk time targets for a call to be counted towards improving the agent's productivity. Talk time includes hold and after call work.
 - **Minimum:** *Default = 60 seconds, Range 1 to 600 seconds.*
The minimum target for call talk time.
 - **Maximum:** *Default = 600 seconds, Range 1 to 3600 seconds.*
The maximum target for call talk time.
- **Alarms**
These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

-
- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
 - The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
 - Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
 - Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
 - Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- **Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
 - **Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

Notes:

- The answer time is measured from the point call is presented to the agent. It does not include any previous ring time for the call.
- When calculated for a queue, the calculation is a [weighted average](#)^[27] of the agents performance for that Queue.
- For the purposes of this statistic, calls presented to the agent and then answered by voicemail or presented to another agent due to the no answer timeout are included in the call count. Calls taken from the agent and answered by another user, for example by call pickup, are not included.
- Each time the same call is presented to an agent it is counted in their Agent Productivity.

6.3 Agent State (Queue)

- This statistic is only available for agents.
- It shows the current state of each agent in the selected queue.
- The related statistic [Agent State \(Queue\) Time](#)^[159] can be used to show how long each agent has been in their current state.

Possible agent states are:

State	Meaning	State	Meaning
Available	Logged in but not on a call.	Logged Out	The agent has logged out.
Ringing	Alerting with a queue call.	Busy	On a call presented to the queue.
Ring Alt-Queue	Alerting with a call for another queue of which they are a member or that has overflowed.	Busy Alt-Queue	On a call from another queue of which they are a member or that has overflowed.
Ring Non-Queue	Alerting with a non-queue call.	Busy Non-Queue	On a direct call ^[269] or a picked up call.
Present	Logged in but not enabled for this queue.	ACW	In the After Call Work state.
Holding	With a call on hold.	Busy NA	In Busy Not Available state.

Additional Information

Statistic can include additional information, indicated by a ▼ red corner icon. Place your cursor over the ▼ icon to display the addition information. This type of information is updated approximately every 5 seconds.

Information	Shown for:
Number	Displayed for ringing, busy and hold states.
Internal or External	
Inbound or Outbound	
Busy NA Reason	Displayed for the Busy NA state. The individual reasons are configured by the IP Office phone system maintainer. A reason is selected by the agent when going they go into Busy NA state.

Statistic Settings

This statistic has no customizable settings.



Description of Agent States

The following agent states can be reported for a queue:

Available	This agent state is reported when an agent is logged in and is not in any other state. That is, when the agent is available to receive and answer queue calls.
Busy	This agent state is reported when the agent answers and is connected to a call to a queue of which they are a member.
ACW	<p>After Call Work indicates that the agent is not available to receive queue calls ^[273] while they perform some other call related activity. Typically this 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 After Call Work ^[90]. Agents can be configured to be automatically put into ACW state after a queue call or else they can manually select to enter the state when required.</p> <p>Note: The Wrap-Up ^[277] feature briefly applied to the end of all calls including queue calls is also reported as After Call Work state.</p>
Busy Alt-Queue	This agent state is reported when, while viewing the agent's status in one queue of which they are a member, the agent is connected to a call belonging to another queue of which they are a member. It is also used when the agent is connected to a call that has overflowed from a queue.
Busy NA	<p>This agent state indicates that the agent is not available to receive calls while they perform a non-call related activity such as attending a meeting. This state can be selected by an agent using the DND or SAC button on their phone, see Agent Phone Controls ^[87]. This also requires the agent to select one of the reason codes ^[274] displayed on their phone to indicate the reason they are going into the Busy Not Available state.</p> <p>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.</p>
Busy Non-Queue	This agent state is reported when the agent answers a call that was not targeted to the queue to which they belong. It is also reported when an agent makes a call.
Holding	This agent state is reported when an agent has a call on hold.
Logged Out	This agent state is reported when an agent has logged out ^[89] from the phone system. Note that this is the default state assumed by IP Office Customer Call Reporter when it cannot determine the exact state, for example when restarting.
Present	This agent state is reported when an agent is logged in but their membership of the particular queue has been disabled. In this state they will not be presented with calls targeted to that queue. The agent's state for other queues may still be available ^[268] .
Ringling Queue	This agent state is reported when the agent is being presented with a call targeted to a queue of which they are a member. If they answer the call their state will change to Busy ^[268] .
Ringling Alt-Queue	This agent state is reported when the agent is being presented with a call from another queue of which they are a member. If they answer the call their state will change to Busy Alt-Queue ^[268] . It is also used when the agent is being presented a call that has overflowed from a queue.
Ringling Non-Queue	This agent state is reported when the agent is being presented with a call that is not targeted to any queue of which they are a member. If answered the call their state will change to Busy Non-Queue ^[268] .

6.4 Agent State (Queue) Time

- This statistic is only available for agents.
- It shows how long the agent has been in their current state for the selected queue.
- The agent's current state can be shown by the related statistic [Agent State \(Queue\)](#)^[157].

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Alarms

These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given. Different thresholds times can be set for each of the states selectable in the drop down list.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- Alarm Threshold
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.5 Agent State (System)

- This statistic is only available for agents.
- It shows the agent activity across all queues to which the agent belongs, ie. the whole system.
- The related statistic [Agent State \(System\) Time](#) ^[162] can be used to show how long each agent has been in their current state.

The possible agent states on the system are listed below. They are listed in order of priority, from the highest priority downwards. The priority is important if the agent belongs to several queues and has a different state in each of those queues.

State	Meaning
Busy	This agent state is reported when the agent answers and is connected to a call to a queue of which they are a member.
Busy Non-Queue	This agent state is reported when the agent answers a call that was not targeted to the queue to which they belong. It is also reported when an agent makes a call.
Holding	This agent state is reported when an agent has a call on hold.
Ringing	This agent state is reported when the agent is being presented with a call targeted to a queue of which they are a member. If they answer the call their state will change to Busy ^[268] .
Ring Non-Queue	This agent state is reported when the agent is being presented with a call that is not targeted to any queue of which they are a member. If answered the call their state will change to Busy Non-Queue ^[268] .
Busy NA	<p>This agent state indicates that the agent is not available to receive calls while they perform a non-call related activity such as attending a meeting. This state can be selected by an agent using the DND or SAC button on their phone, see Agent Phone Controls ^[87]. This also requires the agent to select one of the reason codes ^[274] displayed on their phone to indicate the reason they are going into the Busy Not Available state.</p> <p>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.</p>
Available	This agent state is reported when an agent is logged in and is not in any other state. That is, when the agent is available to receive and answer queue calls.
ACW	<p>After Call Work indicates that the agent is not available to receive queue calls ^[273] while they perform some other call related activity. Typically this 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 After Call Work ^[90]. Agents can be configured to be automatically put into ACW state after a queue call or else they can manually select to enter the state when required.</p> <p>Note: The Wrap-Up ^[277] feature briefly applied to the end of all calls including queue calls is also reported as After Call Work state.</p>
Present	This agent state is reported when an agent is logged in but their membership of the particular queue has been disabled. In this state they will not be presented with calls targeted to that queue. The agent's state for other queues may still be available ^[268] .
Logged Out	This agent state is reported when an agent has logged out ^[89] from the phone system. Note that this is the default state assumed by IP Office Customer Call Reporter when it cannot determine the exact state, for example when restarting.

Additional Information

Statistic can include additional information, indicated by a  red corner icon. Place your cursor over the  icon to display the addition information. This type of information is updated approximately every 5 seconds.

Information	Shown for:
Number	Displayed for ringing, busy and hold states.
Internal or External	
Inbound or Outbound	
Busy NA Reason	Displayed for the Busy NA state. The individual reasons are configured by the IP Office phone system maintainer. A reason is selected by the agent when going they go into Busy NA state.

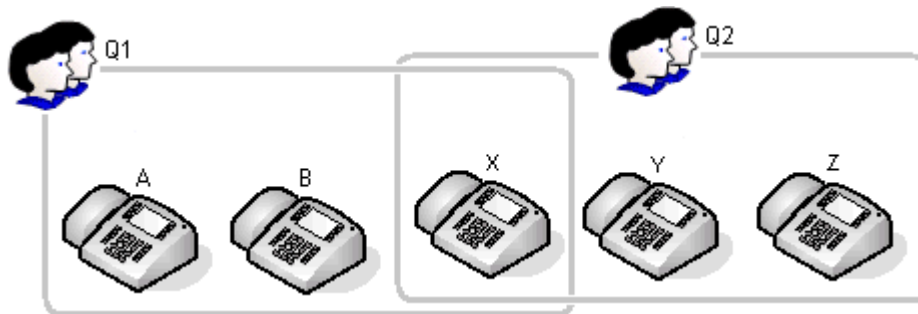
Statistic Settings

This statistic has no customizable settings.

Example of How Agent State Queue is Determined

When an agent is a member of more than one queue, their state for each queue may differ. The example below shows how the different state for different queues is resolved into a single system state.

Agent X is a member of 2 queues; Q1 and Q2. In the following scenarios we see how Agent X's state is reported for each of those queues using the Agent State (Queue) statistic and for the systems as a whole using the Agent State (System) statistic.



Scenarios	Agent State (Queue)		Agent State (System)	
	Q1	Q2		
Starting Work	• Agent X is not logged in at an extension.	<i>Logged Out</i>	<i>Logged Out</i>	<i>Logged Out</i>
	• Agent X logs in to an extension.	<i>Available</i>	<i>Available</i>	<i>Available</i>
Answering a Queue Call	• A call to the queue Q1 is presented to Agent X.	<i>Ringing</i>	<i>Ring Alt-Queue</i>	<i>Ringing</i>
	• Agent X answers the call.	<i>Busy</i>	<i>Busy Alt-Queue</i>	<i>Busy</i>
	• Agent X puts the call on hold.	<i>Holding</i>	<i>Busy Alt-Queue</i>	<i>Busy</i>
	• Agent X reconnects the call.	<i>Busy</i>	<i>Busy Alt-Queue</i>	<i>Busy</i>
	• The call ends. The system automatically applies a short period of wrap up [277], usually 2 seconds.	<i>After Call Work</i>	<i>After Call Work</i>	<i>After Call Work</i>
	• Since it was a queue call the system may then apply automatically After Call Work [266].	<i>After Call Work</i>	<i>After Call Work</i>	<i>After Call Work</i>
	• The system automatically ends After Call Work (by default after 10 seconds).	<i>Available</i>	<i>Available</i>	<i>Available</i>
Answering a Direct Call	• A call is targeted directly to Agent X rather than a queue.	<i>Ring Non-Queue</i>	<i>Ring Non-Queue</i>	<i>Ring Non-Queue</i>
	• Agent X answers the call.	<i>Busy Non-Queue</i>	<i>Busy Non-Queue</i>	<i>Busy Non-Queue</i>
	• The call ends. The system automatically applies a short period of wrap up [277], usually 2 seconds.	<i>After Call Work</i>	<i>After Call Work</i>	<i>After Call Work</i>
	• The system automatically ends wrap up.	<i>Available</i>	<i>Available</i>	<i>Available</i>
Making a Call	• Agent X makes a call.	<i>Busy Non-Queue</i>	<i>Busy Non-Queue</i>	<i>Busy Non-Queue</i>
	• The call ends. The system automatically applies a short period of wrap up [277], usually 2 seconds.	<i>After Call Work</i>	<i>After Call Work</i>	<i>After Call Work</i>
	• The system automatically ends wrap up.	<i>Available</i>	<i>Available</i>	<i>Available</i>
Doing Other Work	• Agent X selects Busy Not Available.	<i>Busy NA</i>	<i>Busy NA</i>	<i>Busy NA</i>
	• When completed, Agent X ends Busy Not Available.	<i>Available</i>	<i>Available</i>	<i>Available</i>
Enabling/Disabling Queue Membership	• Agent X disables their membership of the Q1 queue.	<i>Present</i>	<i>Available</i>	<i>Available</i>
	• Agent X disables their membership of the Q2 queue. They are now disabled from all queues.	<i>Present</i>	<i>Present</i>	<i>Present</i>
	• Agent X re-enables their membership of both queues.	<i>Available</i>	<i>Available</i>	<i>Available</i>
Ending Work	• Agent X logs out from the extension.	<i>Logged out</i>	<i>Logged out</i>	<i>Logged out</i>

6.6 Agent State (System) Time

- This statistic is only available for agents.
- It shows how long the agent has been in their current system state.
- The agent's current state can be shown by the related statistic [Agent State \(System\)](#)^[160].

Statistic Settings

This statistic has no customizable settings.



6.7 Agents ACW

- This statistic is only available for queues.

Its shows the number of agents who are currently in the After Call Work (ACW) state.

- For users who previously used CCC, the ACW state is similar to Busy Wrap Up.

After Call Work indicates that the agent is not available to receive [queue calls](#)^[273] while they perform some other call related activity. Typically this 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 [After Call Work](#)^[90]. Agents can be configured to be automatically put into ACW state after a queue call or else they can manually select to enter the state when required.

Note: The [Wrap-Up](#)^[277] feature briefly applied to the end of all calls including queue calls is also reported as After Call Work state.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Alarms

These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.8 Agents Available

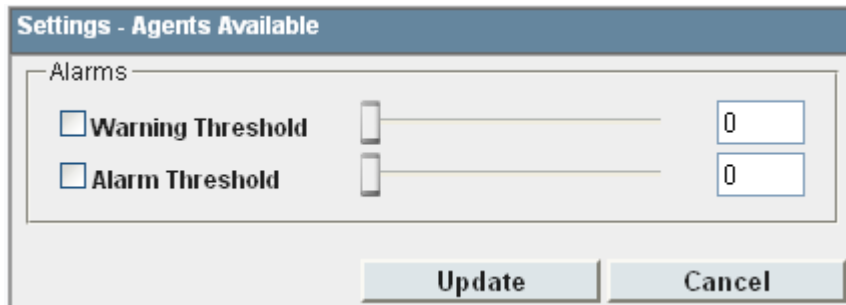
- This statistic is only available for queues.

It shows the number of agents in the queue who are currently available to answer calls.

This agent state is reported when an agent is logged in and is not in any other state. That is, when the agent is available to receive and answer queue calls.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.



- Alarms

These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold levels below which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
 - The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
 - Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
 - Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
 - Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold
Select to enable a warning threshold and to set that threshold. The warning threshold must be higher than the alarm threshold.
 - Alarm Threshold
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be lower than the warning threshold.

6.9 Agents Call Share

- This statistic is only available for agents.
- It shows the percentage of [queue calls](#) answered by the agent out of all queue calls answered by the agents in the queue.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	-	-	-	-	-/-
Agent	✓	✗	✓	✓	-/✓

Example

There are 4 agents in a Sales group. Together they answer 200 calls. The number of calls answered by each agent can be shown as a percentage of the total calls answered.

- Agent 1 answers 62 calls = Call Share 31%.
- Agent 2 answers 56 calls = Call Share 28%.
- Agent 3 answers 58 calls = Call Share 29%.
- Agent 4 answers 24 calls = Call Share 12%.

Statistic Settings

This statistic has no customizable settings.



6.10 Agents Logged On

- This statistic is only available for queues.

It shows the number of agents who are members of the queue and are currently logged in.

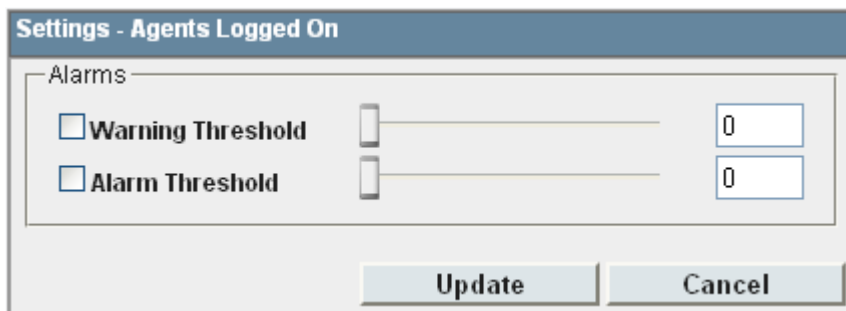
- When logged in an agent can also be in other states.

An agent is "logged in" when they use an extension on the telephone system to enter their extension number and login code. Their telephone settings are then applied to that extension and they are then able to make and receive calls including calls targeted to queue of which they are members.

Agents can log in to an extension either by pressing the Login button if displayed or dialing a login short code. The default short code is *35* <agent extension number> * <agent login code> #.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.



Alarms

These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold levels below which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
 - The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
 - Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
 - Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
 - Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- **Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be higher than the alarm threshold.
 - **Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be lower than the warning threshold.

6.11 Agents Present

- This statistic is only available for queues.

It shows the number of agents who are logged in but whose membership of the queue is currently disabled.

This agent state is reported when an agent is logged in but their membership of the particular queue has been disabled. In this state they will not be presented with calls targeted to that queue. The agent's state for other queues may still be [available](#).

Statistic Settings

This statistic has no customizable settings.



6.12 Agents Ringing

- This statistic is only available for queues.

It shows the number of agents with [queue calls](#) ringing but not yet answered.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	✓	✓	✗✗
Agent	-	-	-	-	-/-

Statistic Settings

This statistic has no customizable settings.

Settings - Agents Ringing

This statistic has no settings.

6.13 Answered Calls

- This statistic is available for queues and agents.
- It shows the number of [queue calls](#)^[273] that answered by the agents in the queue or the agent being reported on.
- It does not include direct calls to agents.
- Once a call has overflowed, if answered, for the queue it is reported as Overflowed Answered.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include calls that go to voicemail.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✗/✗
Agent	✓	✗	Optional	Optional	✓/✓

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- **Scope**
Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- **Alarms**
These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
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- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- **Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- **Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.14 Answered External (Non-Queue)

- This statistic is only available for agents.
- It shows the number of external inbound calls that are targeted directly to an agent and answered by that agent.
- It does not includes queue calls to a queue of which the agent is a member.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	-	-	-	-	-/-
Agent	✗	✓	✗	✓	-/-

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Alarms

These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
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- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- Alarm Threshold
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.15 Answered Internal (Non-Queue)

- This statistic is only available for agents.
- It shows the number of internal inbound calls that are targeted directly to an agent and answered by that agent.
- It does not includes queue calls to a queue of which the agent is a member.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	-	-	-	-	-/-
Agent	✗	✓	✓	✗	✗/✗

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Alarms

These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
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- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- Alarm Threshold
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.16 Answered Internal (Queue)

- This statistic is available for queues and agents.

It shows the number of internal calls to the queue that were then answered by the agents in the queue or the agent being reported on.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	✓	✗	✗/✗
Agent	✓	✗	✓	✗	-/✓

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)⁴³. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Alarms

These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
---------------------------	------------------	-------------	---------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.17 Average Answer %

- This statistic is available for queues and agents.

It shows the number of [queue calls](#)^[273] answered by the queue within the specified answer threshold time, divided by the total number of calls answered.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✓/✗
Agent	✓	✗	Optional	Optional	✓/✗

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Scope**
 Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- Answer Threshold:** *Default = 600 seconds; Range = 1 to 600 seconds.*
 Used for statistics calculated as a percentage of calls answered within the set time out of all calls presented. Sets the target time for calls to be answered from when they are first presented to the queue or agent. Note that for agents, calls are only presented for the queue's no answer time before being presented to the next agent. Note that this setting is shared between the [Agent Productivity](#)^[155], [Average Answer %](#)^[173] and [Grade of Service](#)^[182] statistics in the same monitor or wallboard view.
- Alarms**
 These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold levels below which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
---------------------------	------------------	-------------	---------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.

-
- **Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be higher than the alarm threshold.
 - **Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be lower than the warning threshold.

Transferred Call and Performance Statistics

For performance statistics, Average Answer Time, Average Answer % and Grade of Service, transferred calls are treated as follows:

- For supervised transfers, the duration of the enquiry call is treated as the ringing time of the transferred call. Note also that the ring time of the enquiry call is included a separate answered call value.
- For unsupervised transfers, the transferred call is treated the same as a call targeted directly to the queue or agent.

6.18 Average Answer Time

- This statistic is available for queues and agents.

It shows the sum of answer times divided by the number of queue calls answered by the queue or by the agent being reported.

- The average answer time is measured from the call arriving at the target (queue or agent).
- When calculated for an agent, the statistic is only based on the calls that the agent handled on behalf of the hunt group selected in the view.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✓/✗
Agent	✓	✗	Optional	Optional	✓/✗

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)⁴³. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Scope**
Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- Alarms**
These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
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- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

Transferred Call and Performance Statistics

For performance statistics, Average Answer Time, Average Answer % and Grade of Service, transferred calls are treated as follows:

- For supervised transfers, the duration of the enquiry call is treated as the ringing time of the transferred call. Note also that the ring time of the enquiry call is included a separate answered call value.
- For unsupervised transfers, the transferred call is treated the same as a call targeted directly to the queue or agent.

6.19 Average Wait Time

- This statistic is only available for queues.
- Average waiting time of calls.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✓/✗
Agent	✗	✗	-	-	-/-

- For supervised transfers (including transfers using [park](#) ^[259]), the duration the call is held or parked is included in the [Average Wait Time](#) ^[175] and [Longest Wait Time](#) ^[185] calculations for the queue to which the call is transferred.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#) ^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Scope**
 Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- Alarms**
 These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.
 - When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
---------------------------	------------------	-------------	---------------------

 - Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
 - The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
 - Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
 - Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
 - Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold**
 Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- Alarm Threshold**
 Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.20 Busy Not Available

- This statistic is only available for queues.

It shows the total number of agents in the queue who have currently indicated they are [Busy Not Available](#) ^[268].

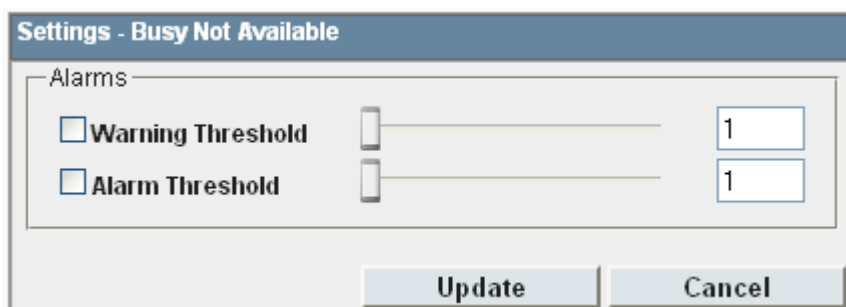
- Busy Not Available is a state selected by an agent when they need to stop receiving queue calls in order to do some non-call related activity.

This agent state indicates that the agent is not available to receive calls while they perform a non-call related activity such as attending a meeting. This state can be selected by an agent using the DND or SAC button on their phone, see [Agent Phone Controls](#) ^[87]. This also requires the agent to select one of the [reason codes](#) ^[274] displayed on their phone to indicate the reason they are going 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.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#) ^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.



- Alarms

These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
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- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
 - The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
 - Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
 - Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
 - Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
 - Alarm Threshold
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.21 Calls Waiting

- This statistic is only available for queues.

It shows the number of calls targeted to the queue that are waiting to be answered by the agents in the queue or the agent being reported on.

- It includes calls currently ringing at agent phones.
- Calls that overflow from the queue and are still waiting to be answered are reported using [Overflowed Calls Waiting](#)^[195]

Call types	Queue Calls	Direct Call	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✗✓
Agent	-	-	-	-	-/-

Additional Information

Statistic can include additional information, indicated by a ▼ red corner icon. Place your cursor over the ▼ icon to display the addition information. This type of information is updated approximately every 5 seconds.

- The additional information provided by this statistic is the peak waiting time, the average waiting time and the current longest waiting time.
- The information is shown for internal and or external calls depending on the statistic settings.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- **Scope**
Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- **Alarms**
These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
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- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.

-
- **Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
 - **Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.22 Current Wait Time

- This statistic is only available for queues.
Time of the longest currently waiting call.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✓ / ✓
Agent	✗	✗	Optional	Optional	— / —

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)⁴³. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Scope**
Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- Alarms**
These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
---------------------------	------------------	-------------	---------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.23 Grade of Service

- This statistic is only available for queues.

It shows the number of queue calls answered within the defined answer threshold as a percentage of all queue calls presented.

- It excludes calls where the caller disconnects before the statistic's Lost Calls Threshold setting, measured from when the call was presented to the queue.
- It includes calls that become lost calls.
- It does not include calls that were routed elsewhere (Routed to Other) or to voicemail (Routed to Voicemail).

Call types	Queue Calls	Direct Call	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✓/✗
Agent	-	-	-	-	-/-

Example

A supervisor has specified that calls should be answered within 30 seconds. 20 calls into a queue were answered within the target time, 4 calls were answered after 30 seconds and 1 call was lost. The calculation would be $20 / 25 = 0.8$. The Grade of Service therefore is 80%.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

Settings - Grade Of Service

Scope

Include Internal Calls Include External Calls

Average Answer

Answer Threshold: Seconds
Warning: This setting may affect other statistics in the view

Lost Calls

Lost Call Threshold: Seconds
Warning: This setting may affect other statistics in the view

Alarms

Warning Threshold %

Alarm Threshold %

- Scope
Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- Answer Threshold: *Default = 600 seconds, Range = 1 to 600 seconds.*
Used for statistics calculated as a percentage of calls answered within the set time out of all calls presented. Sets the target time for calls to be answered from when they are first presented to the queue or agent. Note that for agents, calls are only presented for the queue's no answer time before being presented to the next agent. Note that this setting is shared between the [Agent Productivity](#)^[153], [Average Answer %](#)^[173] and [Grade of Service](#)^[182] statistics in the same monitor or wallboard view.

- Lost Calls Threshold: *Default = 1 second, Range = 1 to 600 seconds.*
Lost calls are calls where the caller disconnects before the call is answered. This threshold sets the minimum time in seconds for a call to be available to be answered before it will be counted as lost. Lost calls are not included in the calculation of this statistic. Note that this setting is shared between the [Agent Productivity](#)^[155] and [Grade of Service](#)^[182] statistics in the same monitor or wallboard view.

- Alarms
These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold levels below which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
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- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold
Select to enable a warning threshold and to set that threshold. The warning threshold must be higher than the alarm threshold.
- Alarm Threshold
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be lower than the warning threshold.

Transferred Call and Performance Statistics

For performance statistics, Average Answer Time, Average Answer % and Grade of Service, transferred calls are treated as follows:

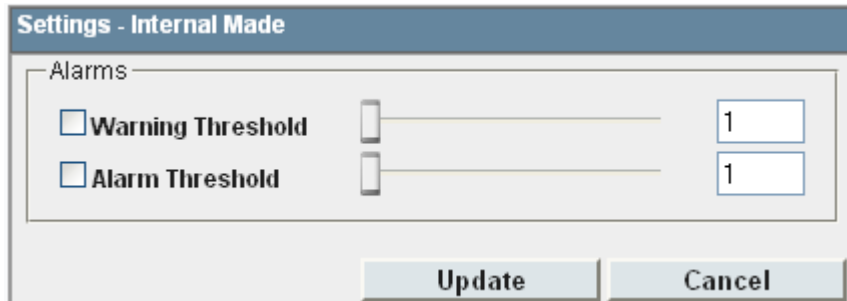
- For supervised transfers, the duration of the enquiry call is treated as the ringing time of the transferred call. Note also that the ring time of the enquiry call is included a separate answered call value.
- For unsupervised transfers, the transferred call is treated the same as a call targeted directly to the queue or agent.

6.24 Internal Made

- This statistic is only available for agents.
- It shows the number of internal calls made by an agent. Only internal calls that are answered are included.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)⁴³. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.



- Alarms

These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
 - The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
 - Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
 - Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
 - Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
 - Alarm Threshold
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.25 Longest Wait Time

- This statistic is only available for queues.
- Waiting time of the longest waiting call.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✓/✗
Agent	✗	✗	Optional	Optional	-/-

- For supervised transfers (including transfers using [park](#)^[259]), the duration the call is held or parked is included in the [Average Wait Time](#)^[175] and [Longest Wait Time](#)^[185] calculations for the queue to which the call is transferred.
- No value is displayed for the TOTAL of a Longest Wait Time column.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Scope**
Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- Alarms**
These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
---------------------------	------------------	-------------	---------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.



6.26 Lost Calls

- This statistic is available for queues and agents.
- It shows the number of queue calls where the caller disconnected before they were answered by an agent in the queue or the agent being reported on.
- Queue calls that are lost are reported as lost against both the queue and against the last agent to which the call was presented.
- Once a call has overflowed, if lost, for the queue it is reported as Overflowed Lost.
- It does not include calls that go to voicemail.
- A lost call is one where the caller disconnects before being answered.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✗✗
Agent	✓	✗	Optional	Optional	✗✓

- Note that for a queue, the number of lost calls can be higher than the total of lost calls for agent in the queue as calls can be lost before being presented to any agent.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- **Scope**
Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- **Alarms**
These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
---------------------------	------------------	-------------	---------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.

-
- **Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
 - **Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.27 New Messages

- This statistic is only available for queues.

It shows the current number of unread messages in the mailbox of the selected queue.

- This is not an IP Office Customer Call Reporter statistic that can be reset, it is a value reported by the voicemail server providing the mailbox.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)⁴³. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Alarms

These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- **Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- **Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.28 No Answer

- This statistic is available for queues and agents.
- 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 be presented elsewhere.
- For a queue it shows the total number of no answer events for the agents in the queue.
- For an agent it includes queue calls and queue calls that overflowed to the agent's queue. It does not include non-queue calls.
- If an agent enables Busy Not Available while being presented with a queue call, that will be counted against the agent and queue.

Call types	Queue Calls	Direct Call	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✗✗
Agent	✓	✗	Optional	Optional	✗✓

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- **Scope**
Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- **Alarms**
These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.
 - When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
---------------------------	------------------	-------------	---------------------

 - Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
 - The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
 - Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
 - Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
 - Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- **Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.

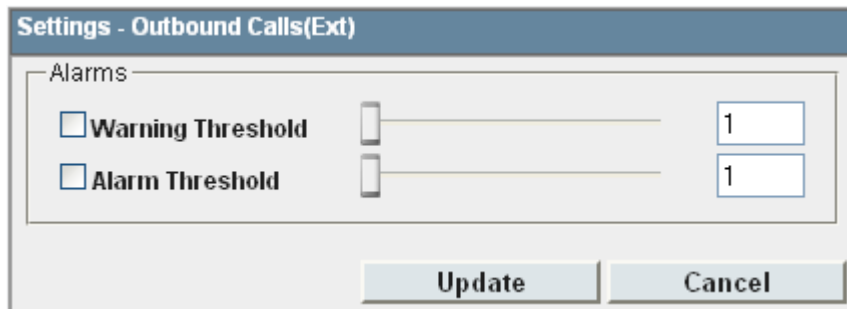
- **Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.29 Outbound Calls (External)

- This statistic is only available for agents.
- It shows the number of outbound external calls made by the agent.
- If the outgoing call attempts to seize an external trunk but is unsuccessful, for example getting busy tone, it is still included.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)⁴³. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.



- Alarms
 - These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.
 - When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
---------------------------	------------------	-------------	---------------------
 - Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
 - The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
 - Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
 - Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
 - Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
 - Warning Threshold
 - Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
 - Alarm Threshold
 - Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.30 Overflowed Answered

- This statistic is only available for queues.

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 queue calls answered by methods such as call pickup (use [Routed to Other](#) ^[200b]).
- It does not include calls that go to voicemail.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✓/✗
Agent	-	-	-	-	-/-

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#) ^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- **Scope**
Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- **Alarms**
These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- **Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- **Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.31 Overflowed Calls

- This statistic is only available for queues.

It shows the number of calls that have overflowed from the queue to its overflow destination.

- Once a call has overflowed, it may also appear in the queue's [Overflowed Calls Waiting](#)^[272], [Overflowed Answered](#)^[272] and [Overflowed Lost](#)^[273] statistics.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✓/✗
Agent	-	-	-	-	-/-

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Scope**
 Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- Alarms**
 These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold**
 Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- Alarm Threshold**
 Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.



6.32 Overflowed Calls Waiting

- This statistic is only available for queues.

It shows the number of calls overflowed from the queue and still waiting to be answered.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✓/✗
Agent	-	-	-	-	-/✓

Additional Information

Statistic can include additional information, indicated by a  red corner icon. Place your cursor over the  icon to display the addition information. This type of information is updated approximately every 5 seconds.

- The additional information provided by this statistic is the peak waiting time, the average waiting time and the current longest waiting time.
- The information is shown for internal and or external calls depending on the statistic settings.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Scope**
 Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- Alarms**
 These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
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- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold**
 Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.

-
- **Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.33 Overflowed Lost

- This statistic is only available for queues.
- It shows the number of calls which overflowed from the queue and were then lost.
- It does not include calls that go to voicemail.
- A lost call is one where the caller disconnects before being answered.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✓/✗
Agent	-	-	-	-	-/-

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- **Scope**
Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- **Alarms**
These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
---------------------------	------------------	-------------	---------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- **Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- **Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.34 Queue State

- This statistic is only available for queues.
- It shows the current state of the queue as one of the following: In Service, Agents Busy, No Agents, Night Service or Out of Service.
- The related statistic [Queue State Time](#)^[198] can be used to show the time that the queue has been in its current state.

Statistic Settings

This statistic has no customizable settings.



Possible queue states are:

Night Service	<p>A queue can be set in 'night service' state either manually or as the result of an automatic time schedule.</p> <p>Agents in the queue will no longer be presented with calls targeted to that queue. Depending on how the queue has been configured by the telephone system maintainer, the calls will either overflow to another queue or to voicemail.</p> <p>This queue state is reported by the Queue State^[198] statistic. The time the queue has been in a particular state is reported by the Queue State Time^[199] statistic.</p>
Out of Service	<p>A queue can be set as 'out of service'.</p> <p>Agents in the queue will no longer be presented with calls targeted to that queue. Depending on how the queue has been configured by the telephone system maintainer, the calls will either overflow to another queue or to voicemail.</p> <p>This queue state is reported by the Queue State^[198] statistic. The time the queue has been in a particular state is reported by the Queue State Time^[199] statistic.</p>
In Service	<p>This queue state is reported for a queue in normal operation, ie. with some agents logged in and available to answer calls.</p> <p>Agents in the queue will no longer be presented with calls targeted to that queue. Depending on how the queue has been configured by the telephone system maintainer, the calls will either overflow to another queue or to voicemail.</p> <p>This queue state is reported by the Queue State^[198] statistic. The time the queue has been in a particular state is reported by the Queue State Time^[199] statistic.</p>
Agents Busy	<p>This queue state is reported for a queue when all the logged in agents are in a busy state.</p> <p>This queue state is reported by the Queue State^[198] statistic. The time the queue has been in a particular state is reported by the Queue State Time^[199] statistic.</p>
No Agents	<p>This queue state is reported for a queue where no agents are logged in.</p> <p>This queue state is reported by the Queue State^[198] statistic. The time the queue has been in a particular state is reported by the Queue State Time^[199] statistic.</p>

6.35 Queue State Time

- This statistic is only available for queues.
- It shows the time the queue has been in its current state.
- The related statistic [Queue State](#)^[198] can be used to show the current state.

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Alarms
These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
------------------------------	---------------------	----------------	------------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- Alarm Threshold
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.36 Routed to Other

- This statistic is available for queues and agents.

Sum of calls targeted at the queue or agent that are subsequently answered by a party, other than a member of the original queue, the overflow or voicemail. Only direct calls to agents will affect the Routed to Other for agents. Queued calls to agents will affect the Queue statistic.

Call types	Queue Calls	Direct Call	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✓/✗
Agent	✗	✓	Optional	Optional	✓/✗

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)⁴³. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Alarms

These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
---------------------------	------------------	-------------	---------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.37 Routed to Voicemail

- This statistic is available for queues and agents.
- For a queue it shows the number of queue calls presented and then routed to voicemail.
- For an agent it shows the number of direct calls to the agent that were then routed to voicemail.
- It does not include announcements played by voicemail to the caller.

Call types	Queue Calls	Direct Call	Internal Calls	External Calls	Overflowed from/to
Queue	✓	✗	Optional	Optional	✓/✗
Agent	✗	✓	Optional	Optional	✓/✗

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- **Scope**
Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- **Alarms**
These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
---------------------------	------------------	-------------	---------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
- The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
- Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
- Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
- Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- **Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- **Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.38 Talk Average

- This statistic is available for queues and agents.
- Total talk time divided by the total number of inbound (queue calls)/outbound (Trunk) calls, relative to the include/exclude internal settings.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	—	✗	✓	✓/✗
Agent	✓	✓	✗	✓	✓/✗

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)^[43]. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Alarms

These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
---------------------------	------------------	-------------	---------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
 - The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
 - Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
 - Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
 - Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
 - Alarm Threshold
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.39 Talk Inbound

- This statistic is available for queues and agents.
- It only includes incoming external trunk calls. Outbound external calls are not included.
- It shows the time the agent has spent handling incoming queue calls.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	—	✗	✓	✓/✗
Agent	✓	✓	✗	✓	✓/✗

Statistic Settings

This statistic has no customizable settings.



6.40 Talk Inbound Average

- This statistic is available for queues and agents.
- It only includes incoming external trunk calls. Outbound external calls are not included.
- It shows the average time the agent has spent on incoming calls for the queue. Calculated as: Talk Inbound divided by calls answered by the agent or queue.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	-	✗	✓	✓/✗
Agent	✓	✓	✗	✓	✓/✗

Statistic Settings

This statistic has no customizable settings.



6.41 Talk Internal

- This statistic is available for queues and agents.
- It shows the time the agent has spent on internal calls (inbound and outbound).
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	—	✓	✗	✓/✗
Agent	✓	✓	✓	✗	✓/✗

Statistic Settings

This statistic has no customizable settings.



6.42 Talk Outbound

- This statistic is available for queues and agents.
- It shows the time the agent has spent on outgoing external calls. Only includes time of call from successful trunk seizure .
- Since outbound calls are not queue related; when calculated for a queue, it is the sum of agents outbound talk time.
- It does not include held, parked and ACW call time.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	—	✗	✓	✓/✗
Agent	✓	✓	✗	✓	✓/✗

Statistic Settings

This statistic has no customizable settings.



6.43 Talk Outbound Average

- This statistic is available for queues and agents.
- It shows the average time the agent has spent on outbound external calls. Calculated as: Talk outbound divided by the number of outbound calls.
- It does not include held, parked and ACW call time.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	—	✗	✓	✓/✗
Agent	✓	✓	✗	✓	✓/✗

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#)⁴³. Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- Alarms

These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.

- When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
---------------------------	------------------	-------------	---------------------

- Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
 - The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
 - Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
 - Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
 - Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- Warning Threshold
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
 - Alarm Threshold
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.44 Talk Total

- This statistic is available for queues and agents.
- Total talk time divided by the total number of inbound (queue calls)/outbound (Trunk) calls, relative to the include/exclude internal settings.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

Call types	Queue Calls	Direct Calls	Internal Calls	External Calls	Overflowed from/to
Queue	✓	—	✗	✓	✓/✗
Agent	✓	✓	✗	✓	✓/✗

Statistic Settings

This statistic has no customizable settings.



6.45 Transferred

- This statistic is available for queues and agents.
- For a queue it is the number of calls originally targeted at the queue and then successfully transferred by the queue's agents.
- For an agent it is the number of the queue's calls that they have transferred.
- It includes both supervised and unsupervised transfers.
- It does not include [direct calls](#) to agents that they then transfer.

Call types	Queue Calls	Direct Call	Internal Calls	External Calls	Calls Overflowed from/to
Queue	✓	✗	Optional	Optional	↔
Agent	✓	✗	Optional	Optional	↔

Statistic Settings

All supervisors can customize the settings of each statistic column included in a view. The changes are applied to the existing data since the last [view statistics reset](#). Click on the statistic name at the top of the column and select Settings. Customize the statistics settings as required and then click Update.

- **Scope**
Supervisors can select which types of calls are included in the calculation of this statistic. By default external calls are included.
 - Include Internal Calls: Select to include internal calls in the statistic.
 - Include External Calls: Select to include external calls in the statistic.
- **Alarms**
These controls allow you to select whether a warning and or an alarm is given for the statistic. You can also set the threshold level above which the warning or alarm is given.
 - When enabled, the background color of the cells is used to indicate their current alarm state.

Enabled / Cleared (Green)	Warning (Orange)	Alarm (Red)	Acknowledged (Blue)
---------------------------	------------------	-------------	---------------------

 - Alarms and warning are updated approximately every 8 seconds. An alarm when it occurs, overrides a warning.
 - The alarms or warning is automatically cleared when the cell value goes back past the threshold level.
 - Agents and supervisors can acknowledge alarms and warnings in their views by clicking on the colored cell. This only affects their view. Acknowledging an alarm also removes it from the alarm list.
 - Within views, the alarm and warning settings are applied to all cells in the statistic column. When applied to an agent statistic, the same setting is applied to the whole column, even when you change which queue's agents are being viewed.
 - Note that when enabling or disabling alarms and warnings, the new settings may only get used at the next change in the value of the relevant cells.
- **Warning Threshold**
Select to enable a warning threshold and to set that threshold. The warning threshold must be lower than the alarm threshold.
- **Alarm Threshold**
Select to enable an alarm threshold and to set that threshold. The alarm threshold must be higher than the warning threshold.

6.46 Statistic Summary

[Agent Productivity](#)^[155]

- This statistic is available for queues and agents.
- It only includes incoming external trunk calls. Outbound external calls are not included.
- It shows the percentage of calls an agent handled within a set of service criteria over all calls except lost calls.
- The service criteria includes calls answered in the target answer time and for between the minimum and maximum talk times.

[Agent State \(Queue\)](#)^[157]

- This statistic is only available for agents.
- It shows the current state of each agent in the selected queue.
- The related statistic [Agent State \(Queue\) Time](#)^[159] can be used to show how long each agent has been in their current state.

[Agent State \(Queue\) Time](#)^[159]

- This statistic is only available for agents.
- It shows how long the agent has been in their current state for the selected queue.
- The agent's current state can be shown by the related statistic [Agent State \(Queue\)](#)^[157].

[Agent State \(System\)](#)^[160]

- This statistic is only available for agents.
- It shows the agent activity across all queues to which the agent belongs, ie. the whole system.
- The related statistic [Agent State \(System\) Time](#)^[162] can be used to show how long each agent has been in their current state.

[Agent State \(System\) Time](#)^[162]

- This statistic is only available for agents.
- It shows how long the agent has been in their current system state.
- The agent's current state can be shown by the related statistic [Agent State \(System\)](#)^[160].

[Agents ACW](#)^[163]

- This statistic is only available for queues.
- Its shows the number of agents who are currently in the After Call Work (ACW) state.
- For users who previously used CCC, the ACW state is similar to Busy Wrap Up.

[Agents Available](#)^[164]

- This statistic is only available for queues.
- It shows the number of agents in the queue who are currently available to answer calls.

[Agents Call Share](#)^[165]

- This statistic is only available for agents.
- It shows the percentage of [queue calls](#)^[273] answered by the agent out of all queue calls answered by the agents in the queue.

[Agents Logged On](#)^[166]

- This statistic is only available for queues.
- It shows the number of agents who are members of the queue and are currently logged in.
- When logged in an agent can also be in other states.

[Agents Present](#)^[167]

- This statistic is only available for queues.
- It shows the number of agents who are logged in but whose membership of the queue is currently disabled.

[Agents Ringing](#)^[168]

- This statistic is only available for queues.
- It shows the number of agents with [queue calls](#)^[273] ringing but not yet answered.

[Answered Calls](#) ^[169]

- This statistic is available for queues and agents.
- It shows the number of [queue calls](#) ^[273] that answered by the agents in the queue or the agent being reported on.
- It does not include direct calls to agents.
- Once a call has overflowed, if answered, for the queue it is reported as Overflowed Answered.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include calls that go to voicemail.

[Answered External Non-Queue](#) ^[170]

- This statistic is only available for agents.
- It shows the number of external inbound calls that are targeted directly to an agent and answered by that agent.
- It does not includes queue calls to a queue of which the agent is a member.

[Answered Internal Non-Queue](#) ^[171]

- This statistic is only available for agents.
- It shows the number of internal inbound calls that are targeted directly to an agent and answered by that agent.
- It does not includes queue calls to a queue of which the agent is a member.

[Answered Internal \(Queue\)](#) ^[172]

- This statistic is available for queues and agents.

It shows the number of internal calls to the queue that were then answered by the agents in the queue or the agent being reported on.

[Average Answer %](#) ^[173]

- This statistic is available for queues and agents.

It shows the number of [queue calls](#) ^[273] answered by the queue within the specified answer threshold time, divided by the total number of calls answered.

[Average Answer Time](#) ^[175]

- This statistic is available for queues and agents.

It shows the sum of answer times divided by the number of queue calls answered by the queue or by the agent being reported.

- The average answer time is measured from the call arriving at the target (queue or agent).
- When calculated for an agent, the statistic is only based on the calls that the agent handled on behalf of the hunt group selected in the view.

[Average Wait Time](#) ^[175]

- This statistic is only available for queues.

Average waiting time of calls.

[Busy Not Available](#) ^[178]

- This statistic is only available for queues.

It shows the total number of agents in the queue who have currently indicated they are [Busy Not Available](#) ^[268].

- Busy Not Available is a state selected by an agent when they need to stop receiving queue calls in order to do some non-call related activity.

[Calls Waiting](#) ^[179]

- This statistic is only available for queues.

It shows the number of calls targeted to the queue that are waiting to be answered by the agents in the queue or the agent being reported on.

- It includes calls currently ringing at agent phones.
- Calls that overflow from the queue and are still waiting to be answered are reported using [Overflowed Calls Waiting](#) ^[198]

[Current Wait Time](#) ^[181]

- This statistic is only available for queues.

Time of the longest currently waiting call.

[Grade of Service](#) ^[182]

- This statistic is only available for queues.

It shows the number of queue calls answered within the defined answer threshold as a percentage of all queue calls presented.

- It excludes calls where the caller disconnects before the statistic's Lost Calls Threshold setting, measured from when the call was presented to the queue.
- It includes calls that become lost calls.
- It does not include calls that were routed elsewhere (Routed to Other) or to voicemail (Routed to Voicemail).

[Internal Made](#) ^[184]

- This statistic is only available for agents.
- It shows the number of internal calls made by an agent. Only internal calls that are answered are included.

[Longest Wait Time](#) ^[185]

- This statistic is only available for queues.

Waiting time of the longest waiting call.

[Lost Calls](#) ^[187]

- This statistic is available for queues and agents.
- It shows the number of queue calls where the caller disconnected before they were answered by an agent in the queue or the agent being reported on.
- Queue calls that are lost are reported as lost against both the queue and against the last agent to which the call was presented.
- Once a call has overflowed, if lost, for the queue it is reported as Overflowed Lost.
- It does not include calls that go to voicemail.

[New Messages](#) ^[189]

- This statistic is only available for queues.

It shows the current number of unread messages in the mailbox of the selected queue.

- This is not an IP Office Customer Call Reporter statistic that can be reset, it is a value reported by the voicemail server providing the mailbox.

[Outbound Calls \(External\)](#) ^[192]

- This statistic is only available for agents.
- It shows the number of outbound external calls made by the agent.
- If the outgoing call attempts to seize an external trunk but is unsuccessful, for example getting busy tone, it is still included.

[Overflowed Answered](#) ^[193]

- This statistic is only available for queues.

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 queue calls answered by methods such as call pickup (use [Routed to Other](#) ^[206]).
- It does not include calls that go to voicemail.

[Overflowed Calls](#) ^[194]

- This statistic is only available for queues.

It shows the number of calls that have overflowed from the queue to its overflow destination.

- Once a call has overflowed, it may also appear in the queue's [Overflowed Calls Waiting](#) ^[272], [Overflowed Answered](#) ^[272] and [Overflowed Lost](#) ^[273] statistics.

[Overflowed Calls Waiting](#) ^[195]

- This statistic is only available for queues.

It shows the number of calls overflowed from the queue and still waiting to be answered.

[Overflowed Lost](#) ^[197]

- This statistic is only available for queues.

It shows the number of calls which overflowed from the queue and were then lost.

- It does not include calls that go to voicemail.

[Queue State](#)^[198]

- This statistic is only available for queues.
- It shows the current state of the queue as one of the following: In Service, Agents Busy, No Agents, Night Service or Out of Service.
- The related statistic [Queue State Time](#)^[199] can be used to show the time that the queue has been in its current state.

[Queue State Time](#)^[199]

- This statistic is only available for queues.
- It shows the time the queue has been in its current state.
- The related statistic [Queue State](#)^[198] can be used to show current state.

[Routed to Other](#)^[200]

- This statistic is available for queues and agents.
- Sum of calls targeted at the queue or agent that are subsequently answered by a party, other than a member of the original queue, the overflow or voicemail. Only direct calls to agents will affect the Routed to Other for agents. Queued calls to agents will affect the Queue statistic.

[Routed to Voicemail](#)^[201]

- This statistic is available for queues and agents.
- For a queue it shows the number of queue calls presented and then routed to voicemail.
- For an agent it shows the number of direct calls to the agent that were then routed to voicemail.
 - It does not include announcements played by voicemail to the caller.

[Talk Average](#)^[202]

- This statistic is available for queues and agents.
- Total talk time divided by the total number of inbound (queue calls)/outbound (Trunk) calls, relative to the include/exclude internal settings.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

[Talk Inbound](#)^[203]

- This statistic is available for queues and agents.
- It only includes incoming external trunk calls. Outbound external calls are not included.
- It shows the time the agent has spent handling incoming queue calls.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

[Talk Inbound Average](#)^[204]

- This statistic is available for queues and agents.
- It only includes incoming external trunk calls. Outbound external calls are not included.
- It shows the average time the agent has spent on incoming calls for the queue. Calculated as: Talk Inbound divided by calls answered by the agent or queue.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

[Talk Internal](#)^[205]

- This statistic is available for queues and agents.
- It shows the time the agent has spent on internal calls (inbound and outbound).
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

[Talk Outbound](#)^[206]

- This statistic is available for queues and agents.
- It shows the time the agent has spent on outgoing external calls. Only includes time of call from successful trunk seizure.
- Since outbound calls are not queue related; when calculated for a queue, it is the sum of agents outbound talk time.
- It does not include held, parked and ACW call time.

[Talk Outbound Average](#) ^[207]

- This statistic is available for queues and agents.
- It shows the average time the agent has spent on outbound external calls. Calculated as: Talk outbound divided by the number of outbound calls.
- It does not include held, parked and ACW call time.

[Talk Total](#) ^[208]

- This statistic is available for queues and agents.
- It only includes incoming external trunk calls. Outbound external calls are not included.
- It shows the time the agent has spent on outgoing calls (any) and incoming calls (for this queue). It only includes time of outbound calls from successful trunk seizure.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

[Transferred](#) ^[209]

- This statistic is available for queues and agents.
For a queue it is the number of calls originally targeted at the queue and then successfully transferred by the queue's agents.
- For an agent it is the number of the queue's calls that they have transferred.
- It includes both supervised and unsupervised transfers.
- It does not include [direct calls](#) ^[269] to agents that they then transfer.

Chapter 7.

Call Scenarios

7. Call Scenarios

This section provides a number of examples of the statistics collected by the IP Office Customer Call Reporter for different call scenarios. It also explains some of the features of call handling provided by the telephone system and how those are interpreted by the IP Office Customer Call Reporter.

[Queue Calls](#) ^[217]

- [Queue Call Answered by 1st Agent](#) ^[217]
- [Queue Call Answered by 2nd Agent](#) ^[218]
- [Queue Call Which is Lost](#) ^[219]
- [Queue Call Picked Up by Another Agent](#) ^[220]
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[Transferring Calls](#) ^[223]

- [Queue Call Supervised Transfer to Queue](#) ^[223]
- [Queue Call Supervised Transfer to Agent](#) ^[227]
- [Queue Call Supervised Transfer to Non-Agent](#) ^[228]
- [Queue Call Supervised Transfer to Agent in Same Queue](#) ^[229]
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- [Direct Call Supervised Transfer to Non-Agent](#) ^[237]
- [Direct Call Unsupervised Transfer to Queue](#) ^[238]
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[Overflow Calls](#) ^[241]

- [Unanswered Call Overflows and is Answered](#) ^[243]
- [Overflowed and Answered by 1st Agent](#) ^[245]
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- [Queue Call Timed Out to Voicemail](#) ^[254]
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[Non-Queue Calls \(Direct Calls\)](#) ^[250]

- [Internal Call to an Agent \(Unanswered\)](#) ^[253]
- [Internal Call to an Agent \(Answered\)](#) ^[252]
- [External Call to an Agent \(Unanswered\)](#) ^[251]
- [External Call to an Agent \(Answered\)](#) ^[250]

Other Call Features

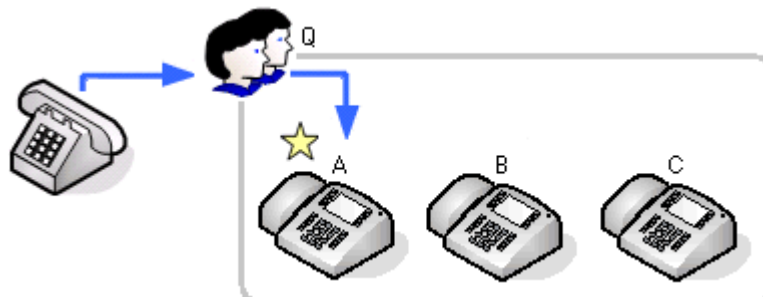
- [After Call Work](#) ^[90]
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- [Parking Calls](#) ^[259]
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7.1 Queue Calls

This term is used for calls targeted to a queue, either by the telephone system or by the caller dialing the queue's extension number. Unless otherwise specifically stated, most statistics shown by IP Office Customer Call Reporter are only for queue calls. Calls direct to an agent ([non-queue calls](#) ^[269]) rather than to the queue to which they belong are not normally included.

7.1.1 Queue Call Answered by 1st Agent

An external call is targeted to a queue. The call is answered by the first available agent.



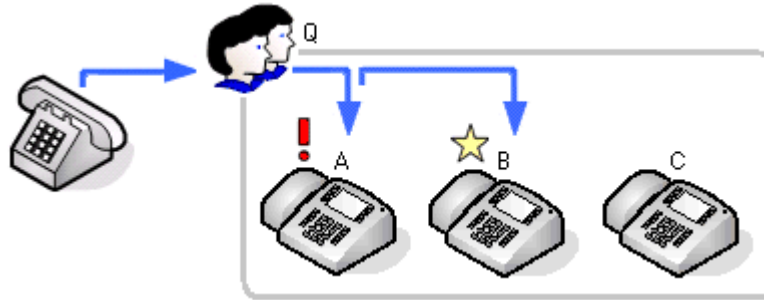
Events	Queue Q	Agent A
• A call is routed to the queue.	Calls Waiting 1	–
• The call is presented to the first available agent.	Agents Ringing 1	–
• The call is answered.	Answered Calls 1	Answered Calls 1
Historical	Answered Calls 1	Answered Calls 1

Queues	Answered Calls	No Answer	Lost Calls
Queue Q	1	0	0
<i>TOTAL</i>	1	0	0

Agents	Answered Calls	No Answer	Lost Calls
Agent A	1	0	0
Agent B	0	0	0
Agent C	0	0	0

7.1.2 Queue Call Answered by 2nd Agent

An external call is targeted to a queue. The call is not answered by the first available agent. The call is answered by the second available agent.



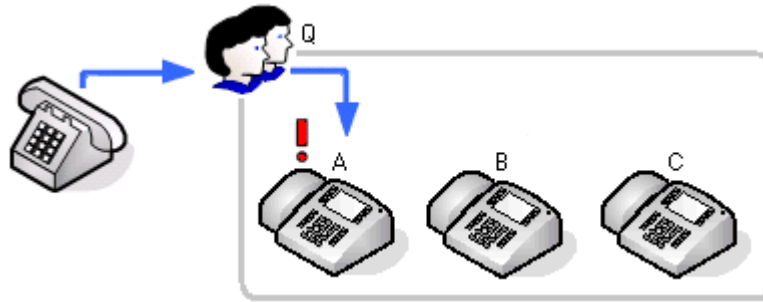
Events	Queue	Agent A	Agent B
• A call is routed to the queue.	Calls Waiting 1	–	–
• The call is presented to the first available agent.	Agents Ringing 1	–	–
• The call is not answered.	No Answer 1	No Answer 1	–
• The call is presented to the next available agent.	Agents Ringing 1	–	–
• The call is answered.	Answered Calls 1	–	Answered Calls 1
Historical	No Answer 1 Answered Calls 1	No Answer 1	Answered Calls 1

Queues	Answered Calls	No Answer	Lost Calls
Queue Q	1	1	0
<i>TOTAL</i>	1	1	0

Agents	Answered Calls	No Answer	Lost Calls
Agent A	0	1	0
Agent B	1	0	0
Agent C	0	0	0

7.1.3 Queue Call Which is Lost

An external call is targeted to a queue. The call is not answered before the caller hangs up.



Events	Queue Q	Agent A
• A call is routed to the queue.	Calls Waiting 1	–
• The call is presented to the first available agent.	Agents Ringing 1	–
• The caller hangs up.	Lost Calls 1	Lost Calls 1
Historical	Lost Calls 1	Lost Calls 1

Queues	Answered Calls	No Answer	Lost Calls
Queue Q	0	0	1
<i>TOTAL</i>	0	0	1

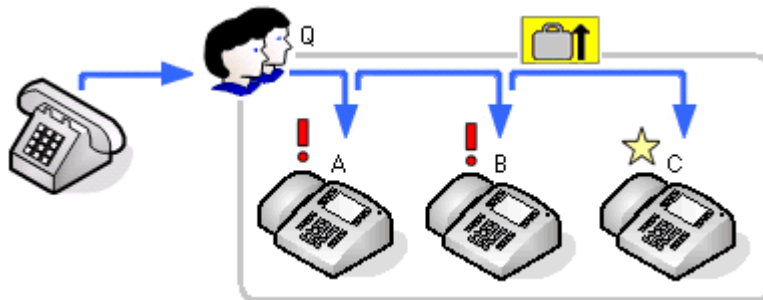
Agents	Answered Calls	No Answer	Lost Calls
Agent A	0	0	1
Agent B	0	0	0
Agent C	0	0	0

Notes:

- When a queue call is lost, it is recorded as lost against the queue and against the last agent to which is was presented.

7.1.4 Queue Call Picked Up by Another Agent

This scenario shows a queue call being picked up by another agent in the queue.



Events	Queue Q	Agent A	Agent B	Agent C
• A call is routed to the queue.	Calls Waiting 1	–	–	–
• The call is presented to the first available agent.	Agents Ringing 1	–	–	–
• The call is not answered.	No Answer 1	No Answer 1	–	–
• The call is presented to the next available agent.	Agents Ringing 1	–	–	–
• Another agent in the queue picks up the ringing call.	Answered 1	–	–	Answered 1
Historical	No Answer 1 Answered 1	No Answer 1	–	Answered 1

Queues	Answered Calls	No Answer	Lost Calls
Queue Q	1	0	0
<i>TOTAL</i>	0	0	0

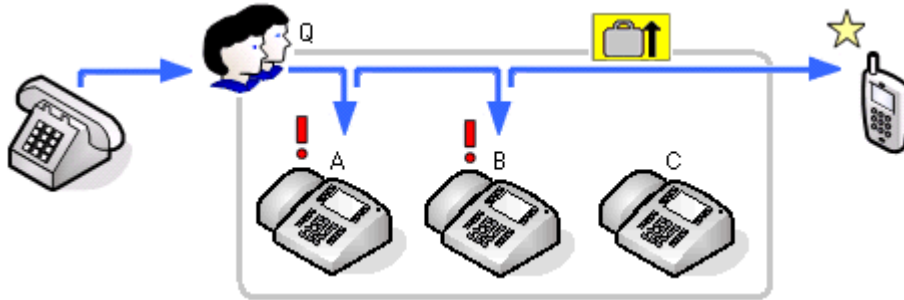
Agents	Answered Calls	No Answer	Lost Calls
Agent A	0	1	0
Agent B	0	0	0
Agent C	1	0	0

Notes:

- The call presented to the first agent but not answered by them is counted as a No Answer call for both the agent and the queue as it rang them for the queue's full no answer time before being automatically presented to the next available agent.
- The agent to which the call was being presented when it was picked up does not have the call counted as a No Answer call as it was not presented for the queue's full no answer time before it was picked up.
- For the agent who picked up the calls it is recorded as Answered External (Non-Queue).

7.1.5 Queue Call Pickup by Non Agent

This scenario shows a queue call being picked up by someone who is not a member of the queue, in this case a normal extension.



Events	Queue Q	Agent A	Agent B	Agent C
• A call is routed to the queue.	Calls Waiting 1	–	–	–
• The call is presented to the first available agent.	Agents Ringing 1	–	–	–
• The call is not answered.	No Answer 1	No Answer 1	–	–
• The call is presented to the next available agent.	Agents Ringing 1	–	–	–
• A non-agent in the queue picks up the ringing call.	Routed to Other 1	–	–	–
Historical	No Answer 1 Routed to Other 1	No Answer 1	–	–

Queues	Answered Calls	No Answer	Lost Calls	Routed to Other
Queue Q	0	0	0	1
<i>TOTAL</i>	0	0	0	1

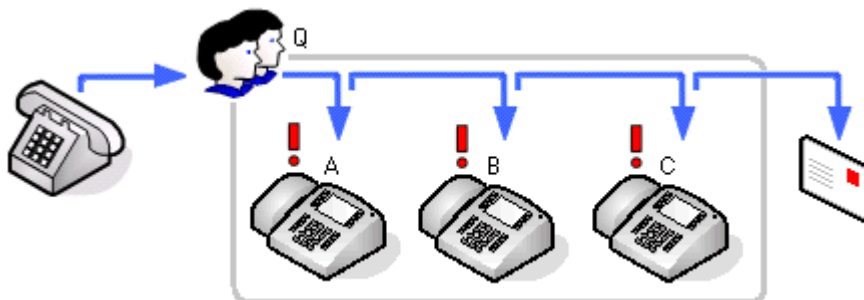
Agents	Answered Calls	No Answer	Lost Calls	Routed to Other
Agent A	0	1	0	0
Agent B	0	0	0	0
Agent C	0	0	0	0

Notes:

- The call presented to the first agent but not answered by them is counted as a No Answer call for both the agent and the queue as it rang them for the queue's full no answer time before being automatically presented to the next available agent.
- The agent to which the call was being presented when it was picked up does not have the call counted as a No Answer call as it was not presented for the queue's full no answer time before it was picked up.
- The picked up call is not recorded as an answered call for the queue. Instead the call is recorded as Routed to Other.

7.1.6 Queue Call Timed Out to Voicemail

An external call is targeted to a queue. The call is presented to each available agent in turn but remains unanswered. When the queue's voicemail timeout occurs the call goes to the queue's voicemail mailbox immediately.



Events	Queue Q	Agent A	Agent B	Agent C
• A call is routed to the queue.	Calls Waiting 1	–	–	–
• The call is presented to the first available agent.	Agents Ringing 1	–	–	–
• The call is not answered.	No Answer 1	No Answer 1	–	–
• The call is presented to the next available agent.	Agents Ringing 1	–	–	–
• The call is not answered.	No Answer 1	–	No Answer 1	–
• The call is presented to the next available agent.	Agents Ringing 1	–	–	–
• The call is not answered.		–	–	No Answer 1
• While being presented the call times out to voicemail.	Routed to VM 1	–	–	–
• The caller leaves a message.	New Messages 1			
Historical	No Answer 2 Routed to VM 1 New Messages 1	No Answer 1	No Answer 1	No Answer 1

Queues	Answered Calls	No Answer	Lost Calls	Routed to Other	Routed to Voicemail
Queue Q	0	3	0	0	1
<i>TOTAL</i>	0	3	0	0	1

Agents	Answered Calls	No Answer	Lost Calls	Routed to Other
Agent A	0	1	0	0
Agent B	0	1	0	0
Agent C	0	1	0	0

7.2 Transferring Calls

Transferred calls consist of a number of stages:

1. The current call is put on hold pending transfer.
2. An enquiry call is made to the transfer target.
 - For an unsupervised transfer, the transfer process is completed while the enquiry call is still ringing.
 - For a supervised transfer the transfer process is only completed after the enquiry call is answered.

IP Office Customer Call Reporter reports transferred calls in the following way depending on whether the transfer is supervised or unsupervised and on whether the transfer target is a queue, an agent or any other target.

Supervised Transfer to...	Queue	Agent	Other
Enquiry Call	<ul style="list-style-type: none"> • Increments the transferring agent's Internal Made statistic. • The enquiry call is treated as an internal call by IP Office Customer Call Reporter, however the IP Office will present it to the target as internal or external as appropriate for the call that has been put on hold pending transfer. 		<ul style="list-style-type: none"> • The enquiry call is not recorded in any agent statistic.
Enquiry Answered	<ul style="list-style-type: none"> • Increments Answered Calls for the targeted queue and agent answering. 	<ul style="list-style-type: none"> • Increments Answered Internal Non-Queue for the targeted agent. 	<ul style="list-style-type: none"> • Increments the Answered Calls statistic for the transferring queue.
Successful Transfer	<ul style="list-style-type: none"> • If the call transferred is a queue call, transfer completion increments Transferred for the queue and agent transferring. 		
	<ul style="list-style-type: none"> • Increments Answered Calls for the targeted queue and agent answering with an internal or external call as appropriate for the call transferred. 	<ul style="list-style-type: none"> • Increments the answering agent's Answered Internal Non-Queue or Answered External Non-Queue as appropriate for the type of call being transferred. 	<ul style="list-style-type: none"> • No further statistics are incremented.
Unsupervised Transfer to...	Queue	Agent	Other
Enquiry Call	<ul style="list-style-type: none"> • The enquiry call is not recorded in any queue or agent statistic. 		
Successful Transfer	<ul style="list-style-type: none"> • If the call being transferred was a queue call, it increments the transferring queue and agent's Transferred statistics. 		
	<ul style="list-style-type: none"> • Increments Answered Calls for the targeted queue and answering agent. 	<ul style="list-style-type: none"> • Increments the answering agent's Answered Internal Non-Queue or Answered External Non-Queue as appropriate for the call being transferred. 	<ul style="list-style-type: none"> • No further statistics are incremented.

Transferred Call and Performance Statistics

For performance statistics, Average Answer Time, Average Answer % and Grade of Service, transferred calls are treated as follows:

- For supervised transfers, the duration of the enquiry call is treated as the ringing time of the transferred call. Note also that the ring time of the enquiry call is included a separate answered call value.
- For unsupervised transfers, the transferred call is treated the same as a call targeted directly to the queue or agent.

Transferred Calls and Wait Time

- For supervised transfers (including transfers using [park](#)^[259]), the duration the call is held or parked is included in the [Average Wait Time](#)^[175] and [Longest Wait Time](#)^[185] calculations for the queue to which the call is transferred.

Call Details Report and Transferred Calls

For the agent doing the transfer:

For the queue/agent that the call is transferred from, the Call Details Report will detail the following call events:

Call Records	Details included...
Answered Call	As per a normal call.
Holding Call	<ul style="list-style-type: none"> • The Call Reference, Direction, Agent, Number and Queue are those of the answered call. • The Date/Time are when the call was held. • The Duration is the time from the call being held to the transfer being completed. • The DDI is that of the original call. • The Queue Time is blank. • The Status is <i>Holding</i>.
Transferred Call	<p>Reports the same details as the original answered call except:-</p> <ul style="list-style-type: none"> • The Date/Time are when the transfer was completed. • The Queue Time is blank. • The Duration is from the transfer initiation to the end of the transfer (ie. it includes the duration of the enquiry call).

For the queue/agent receiving the transfer:

A call detail report run against the Queue/Agent, that receives a transfer, will detail:

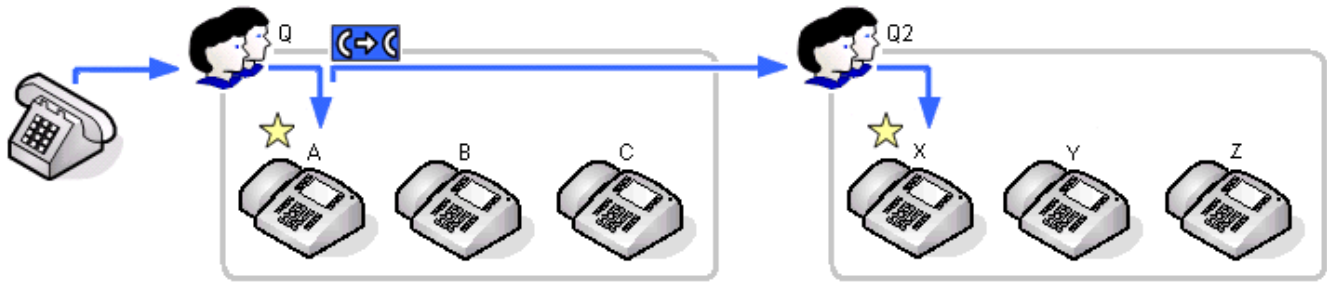
Call Records	Details included...
Enquiry Answered	<p>Note that this record is not present for unsupervised transfers.</p> <ul style="list-style-type: none"> • Date/Time is the point ringing is heard. • Call direction is internal. • Number is the calling parties' number. • DDI is the number dialed. • Queue is the target queue or blank if agent. • Queue Time is the ringing time of the enquiry call. • Agent is the agent answering the call. • Duration is from the agent answering to the transfer being completed. • Status is <i>Enquiry Answered</i>. • Call Reference is a new call reference.
Answered Call	<p>Reports the same details as the original transferred call except:-</p> <ul style="list-style-type: none"> • The Date/Time are when the transfer was completed. • The Queue is the target of the transfer. • The Queue Time is the time from the initial queuing at the transferee until the transfer is completed. • The Duration is from the transfer initiation to the end of the call leg (ie. it includes the duration of the enquiry call).

Within reports there is a difference in where the transferred calls ringing time is reported. In an Agent Summary Report, the ringing time is included in the Hold time. In a Call Details Report it is part of the Queue Time values.

- IP Office Customer Call Reporter does not support the Blind Transfer option provided by IP Office Phone Manager. Agent's using Phone Manager should use the Transfer and Transfer Complete controls instead.

7.2.1 Queue Call Supervised Transfer to Queue

In this scenario the agent who answered an external call to the queue transfers it to another queue.



Events	Queue Q	Agent A	Queue Q2	Agent X
• A call is routed to the queue.	Calls Waiting 1	–	–	–
• The call is presented to the first available agent.	Agents Ringing 1	–	–	–
• The call is answered.	Answered Calls 1	Answered Calls 1	–	–
• The call is put on hold pending transfer.	–	–	–	–
• The agent dials the transfer target.	–	Internal Made 1	–	–
• The call is answered.	–	–	Answered Calls 1	Answered Calls 1
• The agent completes the transfer.	Transferred 1	Transferred 1	Answered Calls 1	Answered Calls 1
Historical	Answered Calls 1 Transferred 1	Answered Calls 1 Internal Made 1 Transferred 1	Answered Calls 2	Answered Calls 2

Queues	Answered Calls	No Answer	Transferred	Answered Int Queue
Queue Q	1	0	1	0
Queue Q2	2	0	0	1
TOTAL	3	0	1	1

Agents	Answered Calls	Internal Made	Transferred	Answered Int Queue
Agent A	1	1	1	0
Agent B	0	0	0	0
Agent C	0	0	0	0

Queues	Answered Calls	No Answer	Transferred	Answered Int Queue
Queue Q	1	0	1	0
Queue Q2	2	0	0	1
TOTAL	3	0	1	1

Agents	Answered Calls	Internal Made	Transferred	Answered Int Queue
Agent X	2	0	0	1
Agent Y	0	0	0	0
Agent Z	0	0	0	0

The following is an example report, using the [Call Details Report](#) ⁽⁵⁷⁾ template, for a supervised transfer from queue to queue. It shows the initial call being answered, put on hold, an enquiry call being made and answered and then the initial call being transferred.

CDR

From 02/12/2008 - 02/12/2008 07:35 - 17:00

Report type Call Details Report - All Target Name Queue Supervisor Name Mark Gallagher

Ungrouped

Date - Time	Call Direction	Number	DDI	Queue	Queue Time	Agent	Duration	Status	Reference
02/12/2008 07:36:53	Inbound	01707364416	200	Queue	00:00:07	Agent A	00:00:38	Answered	000129
02/12/2008 07:37:23	Inbound	01707364416		Queue		Agent A	00:00:08	Holding	000129
02/12/2008 07:37:27	Internal	288	300	Queue2		Agent X	00:00:04	Enquiry Answered	000130
02/12/2008 07:37:31	Inbound	01707364416	200	Queue		Agent X	00:00:17	Transferred	000129
02/12/2008 07:37:31	Inbound	01707364416	200	Queue2		Agent X	00:00:17	Answered	000129

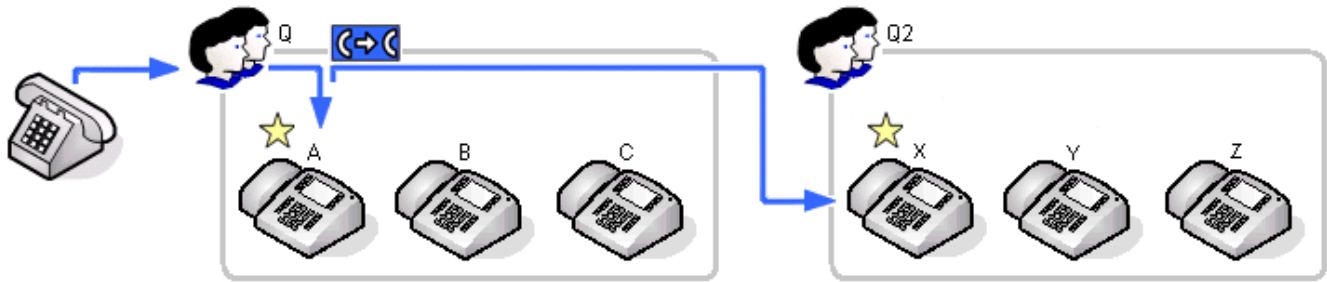
Summary

Customer Calls	2	Call Interactions	2	External Inbound Calls	1
		Internal Calls	1	External Outbound Calls	0

The report shows the initial call being answered after 7 seconds. That call is then put on hold for 8 seconds as shown by the second line. An internal enquiry call is made and 4 seconds after that is answered the transfer is completed. Note that the transfer completion cause two lines to appear for a supervised transfer, one with the status Transferred for the queue from which the call was transferred and one with the status Answered for the queue to which the call was transferred.

7.2.2 Queue Call Supervised Transfer to Agent

In this scenario the agent who answered an external call to the queue transfers it to an agent in another queue.



Events	Queue Q	Agent A	Queue Q2	Agent X
• A call is routed to the queue.	Calls Waiting 1	–	–	–
• The call is presented to the first available agent.	Agents Ringing 1	–	–	–
• The call is answered.	Answered Calls 1	Answered Calls 1	–	–
• The call is put on hold pending transfer.	–	–	–	–
• The agent dials the transfer target.	–	Internal Made 1	–	–
• The call is answered.	–	–	–	Answered Internal Non-Queue 1
• The agent completes the transfer.	Transferred 1	Transferred 1	–	Answered External Non-Queue 1
Historical	Answered Calls 1 Transferred 1	Answered Calls 1 Internal Made 1 Transferred 1	–	Answered Internal Non-Queue 1 Answered External Non-Queue 1

Queues	Answered Calls	No Answer	Transferred	Answered Int Queue
Queue Q	1	0	1	0
Queue Q2	0	0	0	0
TOTAL	1	0	1	0

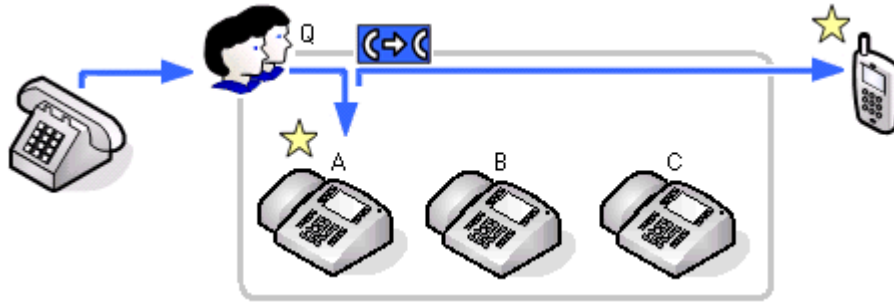
Agents	Answered Calls	Internal Made	Transferred	Answered Int Non-Q	Answered Ext Non-Q
Agent A	1	1	1	0	0
Agent B	0	0	0	0	0
Agent C	0	0	0	0	0

Queues	Answered Calls	No Answer	Transferred	Answered Int Queue
Queue Q	1	0	1	0
Queue Q2	0	0	0	0
TOTAL	1	0	1	0

Agents	Answered Calls	Internal Made	Transferred	Answered Int Non-Q	Answered Ext Non-Q
Agent X	0	0	0	1	1
Agent Y	0	0	0	0	0
Agent Z	0	0	0	0	0

7.2.3 Queue Call Supervised Transfer to Non-Agent

In this scenario the agent who answered an external call to the queue transfers it to a non-agent.



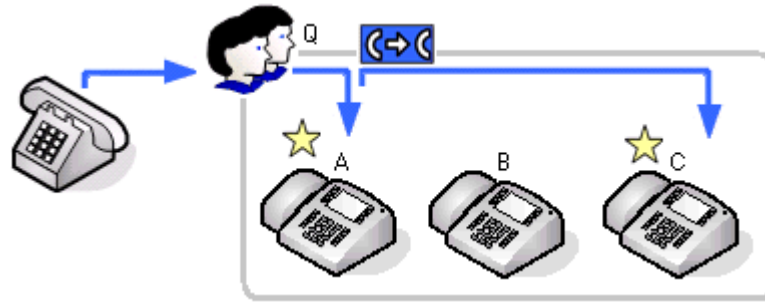
Events	Queue Q	Agent A
• A call is routed to the queue.	Calls Waiting 1	–
• The call is presented to the first available agent.	Agents Ringing 1	–
• The call is answered.	Answered Calls 1	Answered Calls 1
• The call is put on hold pending transfer.	–	–
• The agent dials the transfer target.	–	–
• The call is answered.	Answered Call 1	–
• The agent completes the transfer.	Transferred 1	Transferred 1
Historical	Answered Calls 2 Transferred 1	Answered Calls 1 Transferred 1

Queues	Answered Calls	No Answer	Transferred
Queue Q	2	0	1
Queue Q2	0	0	0
<i>TOTAL</i>	2	0	1

Agents	Answered Calls	Internal Made	Transferred
Agent A	1	0	1
Agent B	0	0	0
Agent C	0	0	0

7.2.4 Queue Call Supervised Transfer to Agent in Same Queue

In this scenario the agent who answered an external call to the queue transfers it to another agent in the same queue.



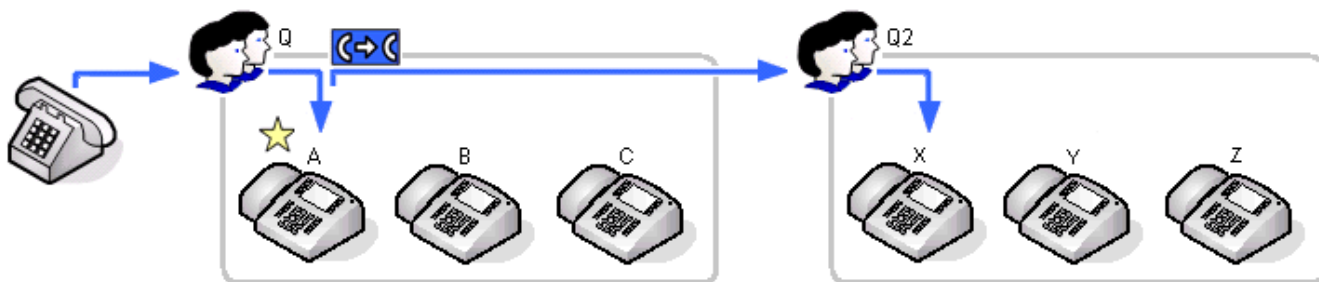
Events	Queue Q	Agent A	Agent C
• A call is routed to the queue.	Calls Waiting 1	–	–
• The call is presented to the first available agent.	Agents Ringing 1	–	–
• The call is answered.	Answered Calls 1	Answered Calls 1	–
• The call is put on hold pending transfer.	–	–	–
• The agent dials the transfer target.	–	Internal Made 1	–
• The call is answered.	–	–	Answered Internal Non Queue 1
• The agent completes the transfer.	Transferred 1	Transferred 1	Answered External Non Queue 1
Historical	Answered Calls 1 Transferred 1	Answered Calls 1 Internal Made 1 Transferred 1	Answered Internal Non Queue 1 Answered External Non Queue 1

Queues	Answered Calls	No Answer	Transferred
Queue Q	1	0	1
Queue Q2	0	0	0
<i>TOTAL</i>	1	0	1

Agents	Answered Calls	Internal Made	Transferred	Answered Int Non-Q	Answered Ext Non-Q
Agent A	1	1	1	0	0
Agent B	0	0	0	0	0
Agent C	0	0	0	1	1

7.2.5 Queue Call Unsupervised Transfer to Queue

In this scenario the agent who answered an external call to the queue transfers it to another queue and completes the transfer without waiting to be answered.



Events	Queue Q	Agent A	Queue Q2	Agent X
• A call is routed to the queue.	Calls Waiting 1	–	–	–
• The call is presented to the first available agent.	Agents Ringing 1	–	–	–
• The call is answered.	Answered Calls 1	Answered Calls 1	–	–
• The call is put on hold pending transfer.	–	–	–	–
• The agent dials the transfer target.	–	–	–	–
• The agent completes the transfer without waiting to be answered.	Transferred 1	Transferred 1	Answered Calls 1	Answered Calls 1
Historical	Answered Calls 1 Transferred 1	Answered Calls 1 Transferred 1	Answered Calls 1	Answered Calls 1

Queues	Answered Calls	No Answer	Transferred
Queue Q	1	0	1
Queue Q2	1	0	0
TOTAL	2	0	1

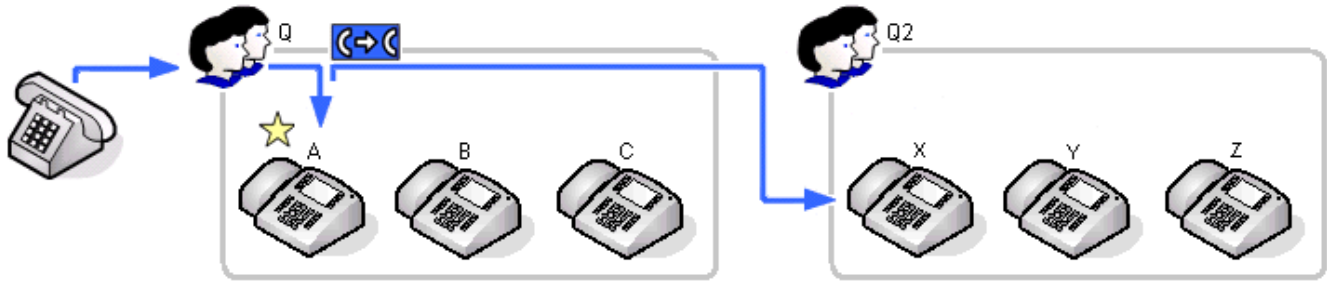
Agents	Answered Calls	Internal Made	Transferred
Agent A	1	0	1
Agent B	0	0	0
Agent C	0	0	0

Queues	Answered Calls	No Answer	Transferred
Queue Q	1	0	1
Queue Q2	1	0	0
TOTAL	2	0	1

Agents	Answered Calls	Internal Made	Transferred
Agent X	1	0	0
Agent Y	0	0	0
Agent Z	0	0	0

7.2.6 Queue Call Unsupervised Transfer to Agent

In this scenario the agent who answered an external call to the queue transfers it to an agent in another queue and completes the transfer without waiting to be answered.



Events	Queue Q	Agent A	Queue Q2	Agent X
• A call is routed to the queue.	Calls Waiting 1	–	–	–
• The call is presented to the first available agent.	Agents Ringing 1	–	–	–
• The call is answered.	Answered Calls 1	Answered Calls 1	–	–
• The call is put on hold pending transfer.	–	–	–	–
• The agent dials the transfer target.	–	–	–	–
• The agent completes the transfer without waiting to be answered.	Transferred 1	Transferred 1	–	–
• The call is answered.	–	–	–	Answered External Non Queue 1
Historical	Answered Calls 1 Transferred 1	Answered Calls 1 Transferred 1	–	Answered External Non Queue 1

Queues	Answered Calls	No Answer	Transferred
Queue Q	1	0	1
Queue Q2	0	0	0
<i>TOTAL</i>	1	0	1

Agents	Answered Calls	Internal Made	Transferred	Answered Ext Non Q
Agent A	1	0	1	0
Agent B	0	0	0	0
Agent C	0	0	0	0

Queues	Answered Calls	No Answer	Transferred
Queue Q	1	0	1
Queue Q2	0	0	0
<i>TOTAL</i>	1	0	1

Agents	Answered Calls	Internal Made	Transferred	Answered Ext Non Q
Agent X	0	0	0	1
Agent Y	0	0	0	0
Agent Z	0	0	0	0

The following is an example report, using the [Call Details Report](#) ⁵⁷ template, for an unsupervised transfer from a queue to an agent in another queue. It shows the initial call being answered, put on hold and then the initial call transferred.

CDR

From 02/12/2008 - 02/12/2008 07:55 - 17:00

Report type	Target Name	Supervisor Name
Call Details Report - All	Queue	Mark Gallagher

Ungrouped

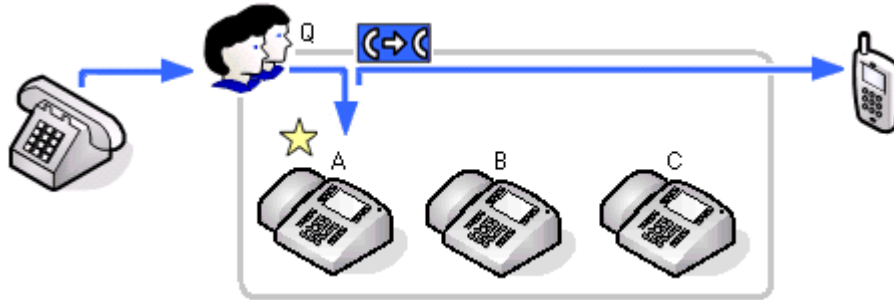
Date - Time	Call Direction	Number	DDI	Queue	Queue Time	Agent	Duration	Status	Reference
02/12/2008 07:55:44	Inbound	01707364416	200	Queue	00:00:02	Agent A	00:00:07	Answered	000133
02/12/2008 07:55:46	Inbound	01707364416		Queue		Agent A	00:00:07	Holding	000133
02/12/2008 07:55:53	Inbound	01707364416	200	Queue		Agent X	00:00:04	Transferred	000133

Summary

Customer Calls	1	Call Interactions	1	External Inbound Calls	1
		Internal Calls	0	External Outbound Calls	0

7.2.7 Queue Call Unsupervised Transfer to Non-Agent

In this scenario the agent who answered an external call to the queue transfers it to an agent in another queue and completes the transfer without waiting to be answered.



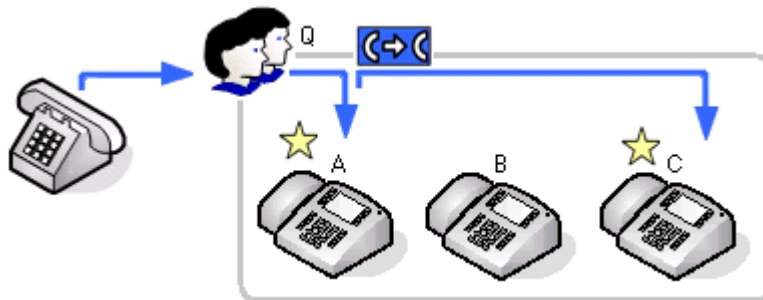
Events	Queue Q	Agent A
• A call is routed to the queue.	Calls Waiting 1	–
• The call is presented to the first available agent.	Agents Ringing 1	–
• The call is answered.	Answered Calls 1	Answered Calls 1
• The call is put on hold pending transfer.	–	–
• The agent dials the transfer target.	–	–
• The agent completes the transfer without waiting to be answered.	Transferred 1	Transferred 1
Historical	Answered Calls 1 Transferred 1	Answered Calls 1 Transferred 1

Queues	Answered Calls	No Answer	Transferred
Queue Q	1	0	1
Queue Q2	0	0	0
<i>TOTAL</i>	1	0	1

Agents	Answered Calls	Internal Made	Transferred
Agent A	1	0	1
Agent B	0	0	0
Agent C	0	0	0

7.2.8 Queue Call Unsupervised Transfer to Agent in Same Queue

In this scenario the agent who answered an external call to the queue transfers it to another agent in the same queue.



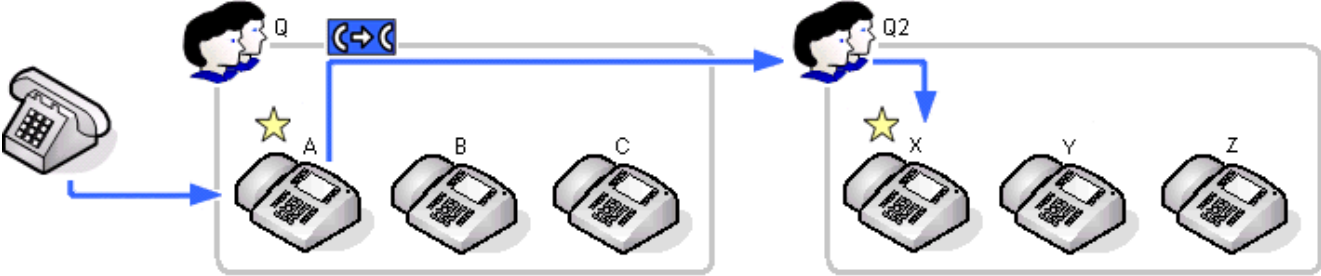
Events	Queue Q	Agent A	Agent C
• A call is routed to the queue.	Calls Waiting 1	–	–
• The call is presented to the first available agent.	Agents Ringing 1	–	–
• The call is answered.	Answered Call 1	Answered Calls 1	–
• The call is put on hold pending transfer.	–	–	–
• The agent dials the transfer target.	–	–	–
• The agent completes the transfer without waiting to be answered.	Transferred 1	Transferred 1	–
• The call is answered.	–	–	Answered External Non Queue 1
Historical	Answered Call 1 Transferred 1	Answered Call 1 Transferred 1	Answered External Non Queue 1

Queues	Answered Calls	No Answer	Transferred
Queue Q	1	0	1
Queue Q2	0	0	0
<i>TOTAL</i>	1	0	1

Agents	Answered Calls	Internal Made	Transferred	Answered Ext Non-Q
Agent A	1	0	1	0
Agent B	0	0	0	0
Agent C	0	0	0	1

7.2.9 Direct Call Supervised Transfer to Queue

In this scenario the agent who answered a direct call transfers it to another queue.



Events	Queue Q	Agent A	Queue Q2	Agent X
• An external call is routed direct to an agent.	–	–		
• The call is answered.	–	Answered External Non Queue 1		
• The call is put on hold pending transfer.	–	–	–	–
• The agent dials the transfer target.	–	Internal Made 1		
• The call is answered.	–	–	Answered Calls 1	Answered Calls 1
• The agent completes the transfer.	–	–	Answered Calls 1	Answered Calls 1
Historical	–	Answered External Non Queue 1 Internal Made 1	Answered Calls 2	Answered Calls 2

Queues	Answered Calls	No Answer	Transferred
Queue Q	0	0	0
Queue Q2	2	0	0
TOTAL	2	0	0

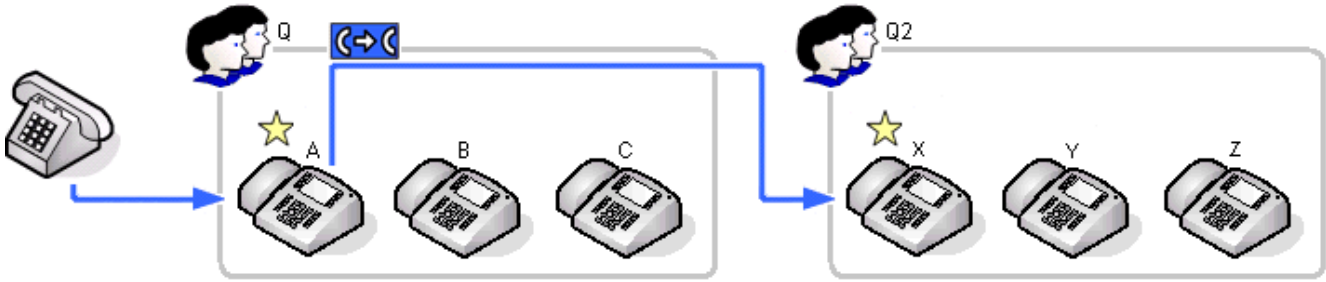
Agents	Answered Calls	Internal Made	Transferred	Answered Ext Non Q
Agent A	0	1	0	1
Agent B	0	0	0	0
Agent C	0	0	0	0

Queues	Answered Calls	No Answer	Transferred
Queue Q	0	0	0
Queue Q2	2	0	0
TOTAL	2	0	0

Agents	Answered Calls	Internal Made	Transferred	Answered Ext Non Q
Agent X	2	0	0	0
Agent Y	0	0	0	0
Agent Z	0	0	0	0

7.2.10 Direct Call Supervised Transfer to Agent

In this scenario an agent transfers a direct call to an agent in another queue.



Events	Queue Q	Agent A	Queue Q2	Agent X
• An external call is routed direct to an agent.	–	–	–	–
• The call is answered.	–	Answered External Non Queue 1	–	–
• The call is put on hold pending transfer.	–	–	–	–
• The agent dials the transfer target.	–	Internal Made 1	–	–
• The call is answered.	–	–	–	Answered Internal Non Queue 1
• The agent completes the transfer.	–	–	–	Answered External Non Queue 1
Historical	–	Answered External Non Queue 1 Internal Made 1	–	Answered Internal Non Queue 1 Answered External Non Queue 1

Queues	Answered Calls	No Answer	Transferred
Queue Q	0	0	0
Queue Q2	0	0	0
<i>TOTAL</i>	0	0	0

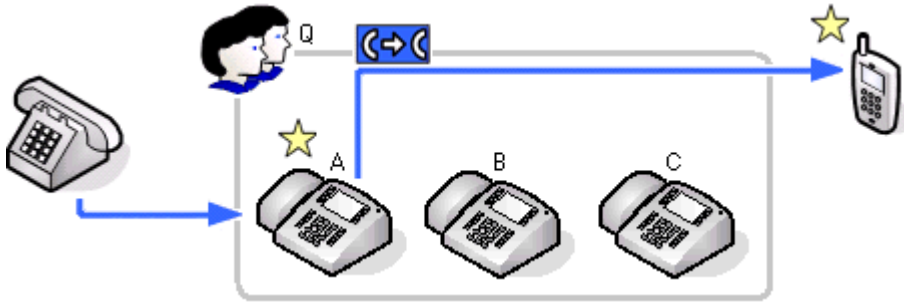
Agents	Answered Calls	Internal Made	Answered Ext Non Q	Answered Int Non Q
Agent A	0	1	1	0
Agent B	0	0	0	0
Agent C	0	0	0	0

Queues	Answered Calls	No Answer	Transferred
Queue Q	0	0	0
Queue Q2	0	0	0
<i>TOTAL</i>	0	0	0

Agents	Answered Calls	Internal Made	Answered Ext Non Q	Answered Int Non Q
Agent X	0	0	1	1
Agent Y	0	0	0	0
Agent Z	0	0	0	0

7.2.11 Direct Call Supervised Transfer to Non-Agent

In this scenario the agent transfers a direct call to a non-agent.



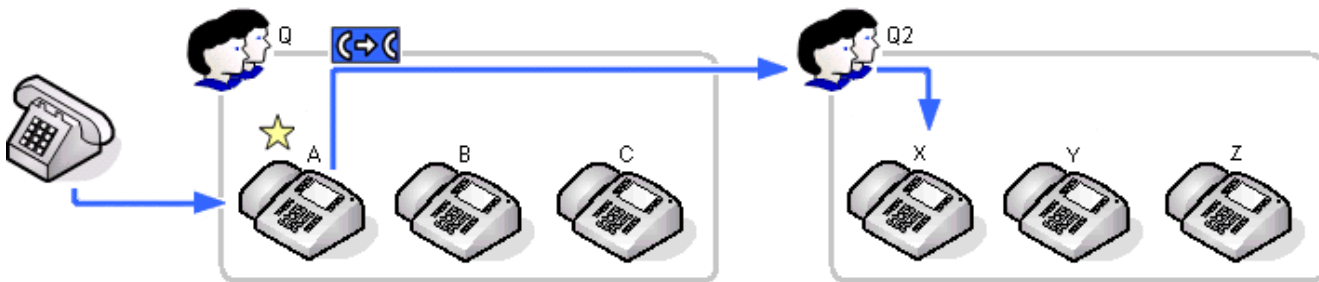
Events	Queue Q	Agent A
• An external call is routed direct to an agent.	–	–
• The call is answered.	Answered External Non-Queue 1	–
• The call is put on hold pending transfer.	–	–
• The agent dials the transfer target.	–	–
• The call is answered.	–	–
• The agent completes the transfer.	–	–
Historical	Answered External Non-Queue 1	–

Queues	Answered Calls	No Answer	Transferred
Queue Q	0	0	0
Queue Q2	0	0	0
<i>TOTAL</i>	0	0	0

Agents	Answered Calls	Internal Made	Transferred	Answered Ext Non Q
Agent A	0	0	0	1
Agent B	0	0	0	0
Agent C	0	0	0	0

7.2.12 Direct Call Unsupervised Transfer to Queue

In this scenario the agent transfers a direct call to another queue and completes the transfer without waiting to be answered.



Events	Queue Q	Agent A	Queue Q2	Agent X
• An external call is routed direct to an agent.	–			
• The call is answered.	–	Answered External Non Queue 1		
• The call is put on hold pending transfer.	–	–	–	–
• The agent dials the transfer target.	–	–		
• The agent completes the transfer without waiting to be answered.	–	–	Calls Waiting 1 Agents Ring 1	
• The call is answered.			Answered Calls 1	Answered Calls 1
Historical	–	–	Answered Calls 1	Answered Calls 1

Queues	Answered Calls	No Answer	Transferred
Queue Q	0	0	0
Queue Q2	1	0	0
TOTAL	1	0	0

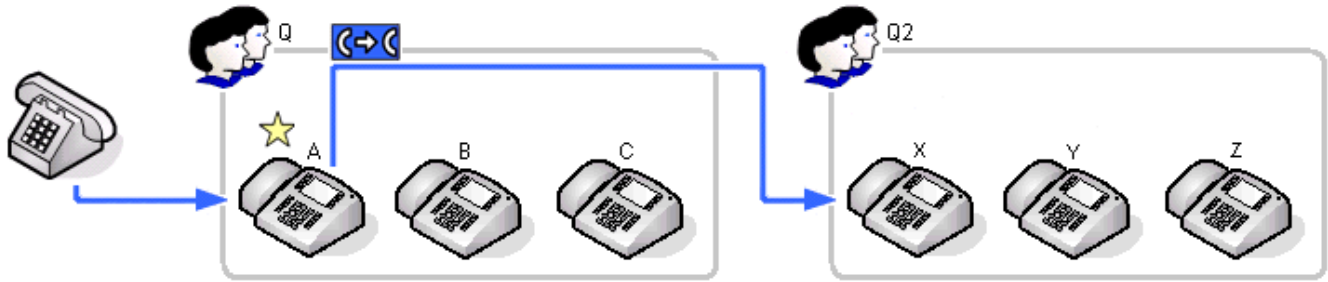
Agents	Answered Calls	Internal Made	Transferred	Answered Ext Non Q
Agent A	0	0	0	1
Agent B	0	0	0	0
Agent C	0	0	0	0

Queues	Answered Calls	No Answer	Transferred
Queue Q	0	0	0
Queue Q2	1	0	0
TOTAL	1	0	0

Agents	Answered Calls	Internal Made	Transferred	Answered Ext Non Q
Agent X	1	0	0	0
Agent Y	0	0	0	0
Agent Z	0	0	0	0

7.2.13 Direct Call Unsupervised Transfer to Agent

In this scenario the agent who answered a direct call transfers it to an agent in another queue and completes the transfer without waiting to be answered.



Events	Queue Q	Agent A	Queue Q2	Agent X
• An external call is routed direct to an agent.	–	–	–	–
• The call is answered.	–	Answered External Non Queue 1	–	–
• The call is put on hold pending transfer.	–	–	–	–
• The agent dials the transfer target.	–	–	–	–
• The agent completes the transfer without waiting to be answered.	–	–	–	–
• The call is answered.	–	–	–	Answered External Non Queue 1
Historical	–	Answered External Non Queue 1	–	Answered External Non Queue 1

Queues	Answered Calls	No Answer	Transferred
Queue Q	0	0	0
Queue Q2	0	0	0
<i>TOTAL</i>	0	0	0

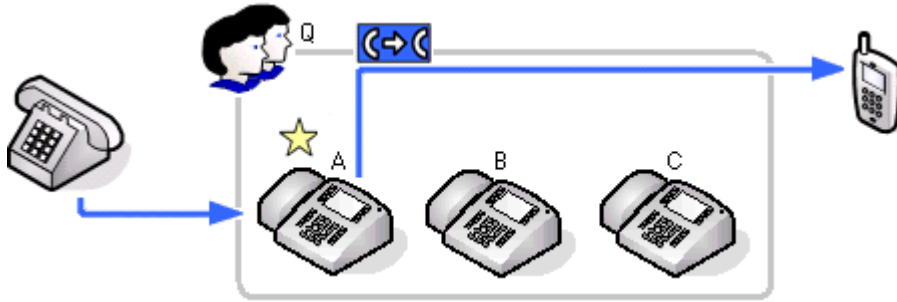
Agents	Answered Calls	Internal Made	Transferred	Answered Ext Non Q
Agent A	0	0	0	1
Agent B	0	0	0	0
Agent C	0	0	0	0

Queues	Answered Calls	No Answer	Transferred
Queue Q	0	0	0
Queue Q2	0	0	0
<i>TOTAL</i>	0	0	0

Agents	Answered Calls	Internal Made	Transferred	Answered Ext Non Q
Agent A	0	0	0	1
Agent B	0	0	0	0
Agent C	0	0	0	0

7.2.14 Direct Call Unsupervised Transfer to Non-Agent

In this scenario the agent who answered an external call to the queue transfers it to an agent in another queue and completes the transfer without waiting to be answered.



Events	Queue Q	Agent A
• An external call is routed direct to an agent.	–	–
• The call is answered.	–	Answered External Non Queue 1
• The call is put on hold pending transfer.	–	–
• The agent dials the transfer target.	–	–
• The agent completes the transfer without waiting to be answered.	–	–
• The call is answered.	–	–
Historical	–	Answered External Non Queue 1

Queues	Answered Calls	No Answer	Transferred
Queue Q	0	0	0
Queue Q2	0	0	0
<i>TOTAL</i>	0	0	0

Agents	Answered Calls	Internal Made	Transferred	Answered Ext Non Q
Agent A	0	0	0	1
Agent B	0	0	0	0
Agent C	0	0	0	0

7.3 Overflow Calls

- An overflowed call is any call originally targeted at the queue that then overflows using the queue's overflow settings. The overflowing calls are then presented to members of other queues.
- IP Office Customer Call Reporter only supports overflow using other IP Office Customer Call Reporter queues as the overflow destinations.

Hunt groups on the telephone system can be configured to use queuing when the number of calls waiting to be answered exceeds the number of available agents to which waiting calls can be presented. With queuing enabled the additional callers continue to be treated as if ringing even though they are queued.

Without queuing, when the hunt group become busy, addition calls go directly to the overflow destination if set, else to voicemail if available, else return busy to the caller.

IP Office Customer Call Reporter is only supported for queues (hunt groups) that use queuing.

Overflow Settings

Every queue can be configured by the telephone system maintainer with a number of overflow settings.

- **Overflow Group List**
This is the key setting, which if set, enable overflow for the queue. The Overflow Group List is a list of other hunt groups whose members are used to answer overflowing calls. The list is used in sequential order, with the overflowed call being presented to the available agents in each group using the Ring Mode setting of that group. If still unanswered the overflowed call then goes to the next group in the list and eventually back to the overflowing group in a continuous loop until answered.
- **Overflow Time (Optional)**
An Overflow Time can be set though this is not necessary to use overflow, see *'When Do Calls Overflow?'* below.
- **Overflow Mode**
By default, if the queue is using 'queuing', once one calls overflows all queued calls overflow. This can be switched off, with the overflow of each call being determined on a call by call basis.

When Do Calls Overflow?

If an Overflow Group List has been setup for a queue, calls will overflow when:

- For a queue without 'queuing' enabled, a call overflows immediately if there are no available agents.
- For a queue with 'queuing' enabled but no Overflow Time set, a call will overflow when it has been presented to but not answered by each of the available agents.
- For queues with 'queuing' enabled and an Overflow Time set, a call will be presented to available agents or wait in the queue until the overflow time expires at which point the call will overflow.
 - If the call is currently being presented to an agent when the overflow time expires, the call will complete ringing for the No Answer Time at that agent before it actually overflows.
- The default IP Office operation is to overflow all 'queued' calls once any one call has overflowed. However if required the IP Office can be switched to overflow calls using the rules above on a call by call basis.

How are Overflowed Calls Treated?

When a call overflows it still belongs to the original queue. The overflow list is used to expand the list of agents to whom the call can be presented for answer. The only setting of the hunt groups to which a call overflows that are applied are their own [Ring Mode](#)^[274] and [No Answer Time](#)^[272] settings. All other settings, including announcements and voicemail, applied to the call are those of the original queue. Similarly, for IP Office Customer Call Reporter, the call statistics belong to the overflowing queue.

For users to which the overflowed call is presented, the indication of the call source will be that of the queue from which it has overflowed.

Overflowed Calls and Statistics

For IP Office Customer Call Reporter statistics, calls overflowing from a queue are treated as follows unless specifically stated as otherwise for a particular statistic:

- Calls that overflow from a queue to another queue are included in the original queue's [Overflowed Calls](#) ^[194] statistic.
- Queue calls overflowing to a non-queue hunt group are not supported.
- For the queue which queue calls overflowed from:
 - The calls are not included in the queue's [Calls Waiting](#) ^[179], [Answered Calls](#) ^[169] and [Lost Calls](#) ^[187] statistics. Instead they are included in its [Overflowed Calls Waiting](#) ^[193], [Overflowed Answered](#) ^[193] and [Overflowed Lost](#) ^[197] statistics.
 - The calls are included in the queue's performance statistics: [Average Answer %](#) ^[173], [Average Answer Time](#) ^[175] and [Grade of Service](#) ^[182].
 - If the overflowing call goes to voicemail they are included in the queue's [Routed to Voicemail](#) ^[207] statistic.
 - If the overflowing call is routed to somewhere outside the queue and its overflows it is included in the queue's [Routed to Other](#) ^[274] statistics.
- For the queue which queue calls overflowed to:
 - The calls are only included in the queue's [Calls Waiting](#) ^[179] statistic.
 - For agents, the calls are included in their [Agent Call Share](#) ^[165], [Agent Productivity](#) ^[155], [Answered Calls](#) ^[169], [No Answer](#) ^[190], [Lost Calls](#) ^[187], [Talk Average](#) ^[202], [Talk Inbound](#) ^[203], [Talk Inbound Average](#) ^[204], [Talk Internal](#) ^[205], [Talk Outbound](#) ^[206], [Talk Outbound Average](#) ^[207] and [Talk Total](#) ^[208] statistics.
- Once a call has overflowed it remains an overflowed call. This applies even if it is answered by a member of the original queue from which it overflowed.

The table below summarizes which statistics include calls overflowing from the queue and calls that overflow to a queue:

Statistic includes calls...	Overflowed from		Overflowed to	
	Queue	Agent	Queue	Agent
Agents Call Share ^[165]	-	-	-	✓
Agents Ringing ^[166]	-	-	-	-
Answered Calls ^[169]	✗	✗	✗	✓
Answered Internal (Queue) ^[172]	✗	✗	✗	✓
Average Answer % ^[173]	✓	✗	✗	✗
Average Answer Time ^[175]	✓	✗	✗	✗
Calls Waiting ^[179]	✗	✗	✓	✓
Grade of Service ^[182]	✓	✗	✗	✗
Lost Calls ^[187]	✗	✗	✗	✓
Overflowed Answered ^[193]	✓	-	✗	-
Overflowed Calls ^[194]	✓	-	✗	-
Overflowed Calls Waiting ^[195]	✓	-	✗	-
Overflowed Lost ^[197]	✓	-	✗	-
No Answer ^[190]	✗	✗	✗	✓
Routed to Other ^[206]	✓	✗	✗	✗
Routed to Voicemail ^[207]	✓	✗	✗	✗
Transferred ^[209]	✓	✗	✗	✗

- Statistics not included in the table and those marked - are not applicable.

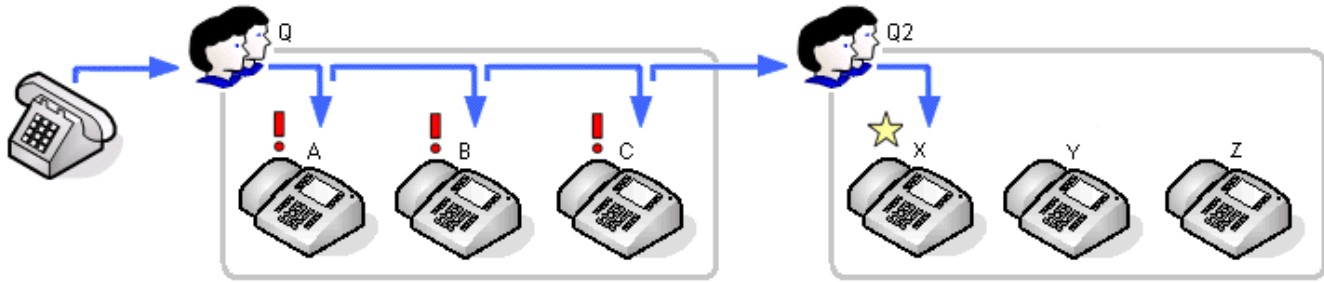
Overflowed Calls and Reports

Queue reports based on the [Call Summary Report](#) ^[60] template will report overflowed calls against the queue from which they overflowed. They will not report the calls against the queue to which they overflow.

Queue reports based on the [Call Details Report](#) ^[57] template will behave the same as reports based on the Call Summary report above except when grouped by *Queue*. When grouped by *Queue*, the report reports overflowed calls against both the queue from which they overflowed and against the group to which they overflowed.

7.3.1 Unanswered Call Overflows and is Answered

This scenario shows a call being presented to and not answered by any of the agents in a queue and so overflowing. The call is then answered by the first agent in the overflow to which it is presented.



Events	Queue Q	Agent A	Agent B	Agent C	Queue Q2	Agent X
• A call is routed to the queue.	Calls Waiting 1	–	–	–	–	–
• The call is presented to the first available agent.	Agents Ringing 1	–	–	–	–	–
• The call is not answered.	No Answer 1	No Answer 1	–	–	–	–
• The call is presented to the next available agent.	Agents Ringing 1	–	–	–	–	–
• The call is not answered.	No Answer 1	–	No Answer 1	–	–	–
• The call is presented to the next available agent.	Agents Ringing 1	–	–	–	–	–
• The call is not answered.	No Answer 1	–	–	No Answer 1	–	–
• The call overflows to another queue.	Overflowed Calls 1	–	–	–	Calls Waiting 1	–
• The call is presented to the first available agent.	Overflowed Calls Waiting 1	–	–	–		–
• The call is answered.	Overflowed Answered 1	–	–	–	–	Answered Calls 1
Historical	No Answer 3 Overflowed Calls 1 Overflowed Answered 1	No Answer 1	No Answer 1	No Answer 1	–	Answered Calls 1

Queues	Answered Calls	No Answer	Lost Calls	Overflowed Calls	Overflowed Answered	Overflowed Lost
Queue Q	0	3	0	1	1	0
Queue Q2	0	0	0	0	0	0
<i>TOTAL</i>	0	3	0	1	1	0

Agents	Answered Calls	No Answer	Lost Calls
Agent A	0	1	0
Agent B	0	1	0
Agent C	0	1	0

Queues	Answered Calls	No Answer	Lost Calls	Overflowed Calls	Overflowed Answered	Overflowed Lost
Queue Q	0	3	0	1	1	0
Queue Q2	0	0	0	0	0	0
<i>TOTAL</i>	0	3	0	1	1	0

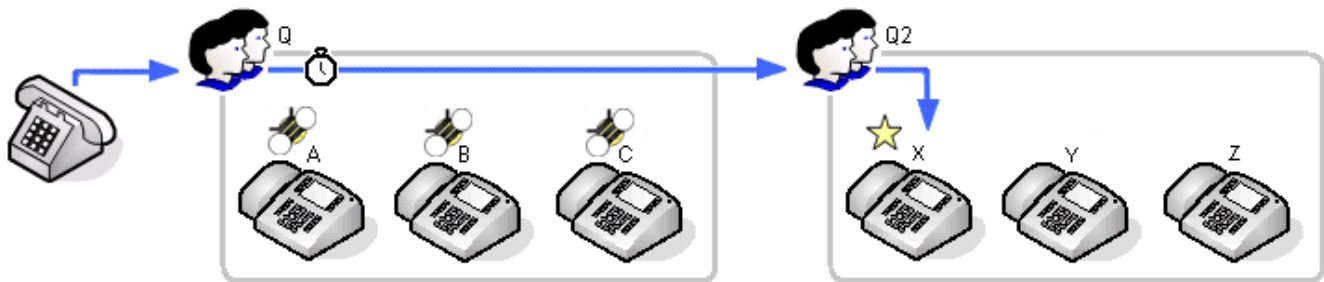
Agents	Answered Calls	No Answer	Lost Calls
Agent X	1	0	0
Agent Y	0	0	0
Agent Z	0	0	0

Notes:

- The overflowed call is included in the specific overflow statistics of the queue from which it overflowed.
- The overflowed call is included in the performance statistics of the queue from which it overflowed.
- The overflowed call is not included in any queue statistics of the queue to which it overflowed except the Call Waiting statistic while the call was waiting to be answered.
- The overflowed call is included in the answered, lost and no answer statistics of the agents in the queue to which it overflowed.

7.3.2 Overflowed and Answered by 1st Agent

In this scenario the queue has queuing enabled and an overflow time set. An external call to the queue is queued to be answered as there are no available agents. When the overflow timeout expires the call overflows. The call is then answered by the first agent in the overflow to which it is presented.



Events	Queue Q	Queue Q2	Agent X
• A call is routed to the queue.	Calls Waiting 1	–	–
• The call overflows to another queue.	Overflowed Calls 1	Calls Waiting 1	–
• The call is presented to the first available agent.	Overflowed Calls Waiting 1	Calls Waiting 1	–
• The call is answered.	Overflowed Answered 1	–	Answered Calls 1
Historical	Overflowed Calls 1 Overflowed Answered 1	–	Answered Calls 1

Queues	Answered Calls	No Answer	Lost Calls	Overflowed Calls	Overflowed Answered	Overflowed Lost
Queue Q	0	0	0	1	1	0
Queue Q2	0	0	0	0	0	0
TOTAL	0	0	0	1	1	0

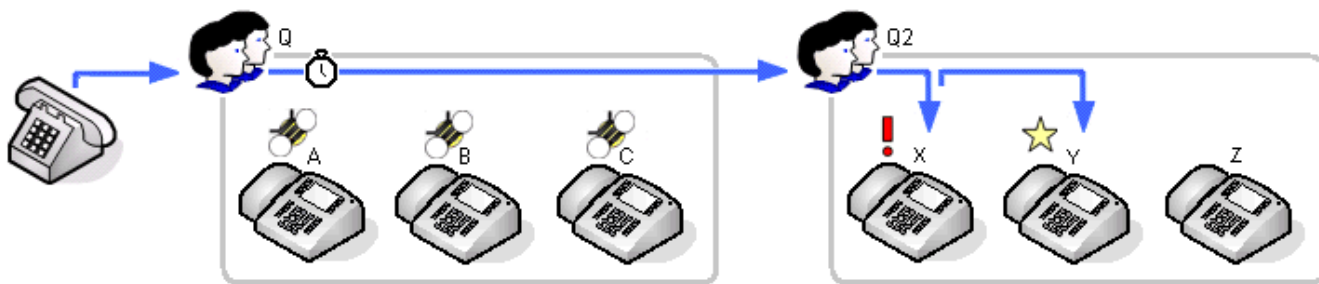
Agents	Answered Calls	No Answer	Lost Calls
Agent X	1	0	0
Agent Y	0	0	0
Agent Z	0	0	0

Notes:

- The overflowed call is included in the specific overflow statistics of the queue from which it overflowed.
- The overflowed call is included in the performance statistics of the queue from which it overflowed.
- The overflowed call is not included in any queue statistics of the queue to which it overflowed except the Call Waiting statistic while the call was waiting to be answered.
- The overflowed call is included in the answered, lost and no answer statistics of the agents in the queue to which it overflowed.

7.3.3 Overflowed and Answered by 2nd Agent

In this scenario, the call overflows but is not answered by the first agent in the overflow to which it is presented, however it is answered by the next available agent.



Events	Queue Q	Queue Q2	Agent X	Agent Y
• A call is routed to the queue.	Calls Waiting 1	–	–	–
• The call overflows to another queue.	Overflowed Calls 1	Calls Waiting 1	–	–
• The call is presented to the first available agent.	Overflowed Calls Waiting 1	Calls Waiting 1	–	–
• The call is not answered.	–	Calls Waiting 1	–	–
• The call is presented to the first available agent.	–	Calls Waiting 1	No Answer 1	–
• The call is answered.	Overflowed Answered 1	–	–	Answered Calls 1
Historical	Overflowed Calls 1 Overflowed Answered 1	–	No Answer 1	Answered Calls 1

Queues	Answered Calls	No Answer	Lost Calls	Overflowed Calls	Overflowed Answered	Overflowed Lost
Queue Q	0	0	0	1	1	0
Queue Q2	0	0	0	0	0	0
TOTAL	0	0	0	1	1	0

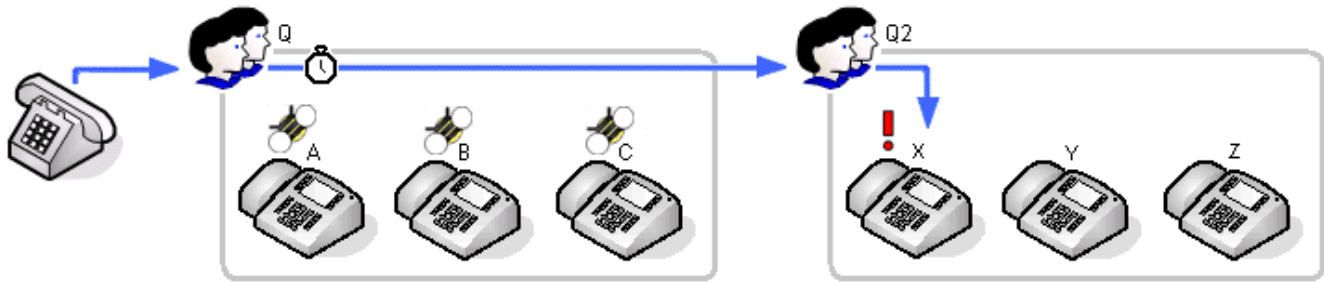
Agents	Answered Calls	No Answer	Lost Calls
Agent X	0	1	0
Agent Y	1	0	0
Agent Z	0	0	0

Notes:

- The overflowed call is included in the specific overflow statistics of the queue from which it overflowed.
- The overflowed call is included in the performance statistics of the queue from which it overflowed.
- The overflowed call is not included in any queue statistics of the queue to which it overflowed except the Call Waiting statistic while the call was waiting to be answered.
- The overflowed call is included in the answered, lost and no answer statistics of the agents in the queue to which it overflowed.

7.3.4 Overflowed and Lost

In this scenario, after the call overflows the caller disconnects before the call can be answered.



Events	Queue Q	Queue Q2	Agent X
• A call is routed to the queue.	Calls Waiting 1	–	–
• The call overflows to another queue.	Overflowed Calls 1	Calls Waiting 1	
• The call is presented to the first available agent.	Overflowed Calls Waiting 1		–
• The caller hangs up.	Overflowed Lost 1	–	Lost Calls 1
Historical	Overflowed Calls 1 Overflowed Lost 1	–	Lost Calls 1

Queues	Answered Calls	No Answer	Lost Calls	Overflowed Calls	Overflowed Answered	Overflowed Lost
Queue Q	0	0	0	1	0	1
Queue Q2	0	0	0	0	0	0
TOTAL	0	0	0	1	0	1

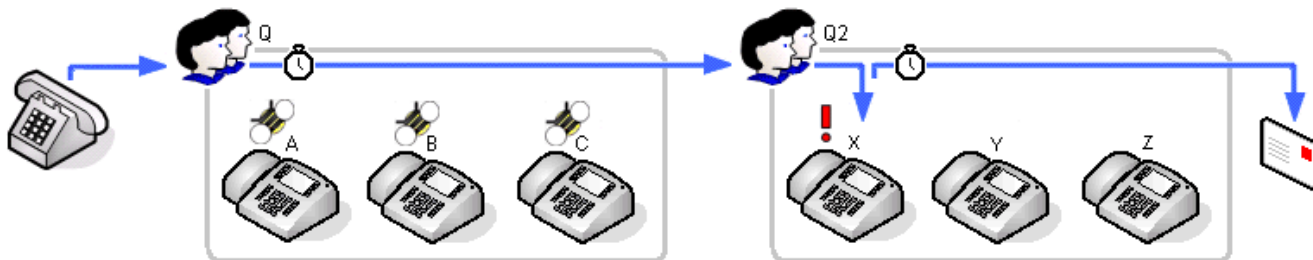
Agents	Answered Calls	No Answer	Lost Calls
Agent X	0	0	0
Agent Y	0	0	0
Agent Z	0	0	0

Notes:

- The overflowed call is included in the specific overflow statistics of the queue from which it overflowed.
- The overflowed call is included in the performance statistics of the queue from which it overflowed.
- The overflowed call is not included in any queue statistics of the queue to which it overflowed except the Call Waiting statistic while the call was waiting to be answered.
- The overflowed call is included in the answered, lost and no answer statistics of the agents in the queue to which it overflowed.

7.3.5 Overflow and Timed Out to Voicemail

In this scenario after a call overflows, the queue's voicemail timeout occurs. The call will then go to the original queue's voicemail mailbox.



Events	Queue Q	Queue Q2	Agent X
• A call is routed to the queue.	Calls Waiting 1	–	–
• The call overflows to another queue.	Overflowed Calls 1	Calls Waiting 1	–
• The call is presented to the first available agent.	Overflowed Calls Waiting 1		–
• While being presented the call times out to voicemail.	Routed to Voicemail 1	–	–
Historical	Overflowed Calls 1 Routed to Voicemail 1	–	–

Queues	Answered Calls	No Answer	Lost Calls	Overflowed Calls	Overflowed Answered	Routed to Voicemail
Queue Q	0	0	0	1	0	1
Queue Q2	0	0	0	0	0	0
<i>TOTAL</i>	0	0	0	1	0	1

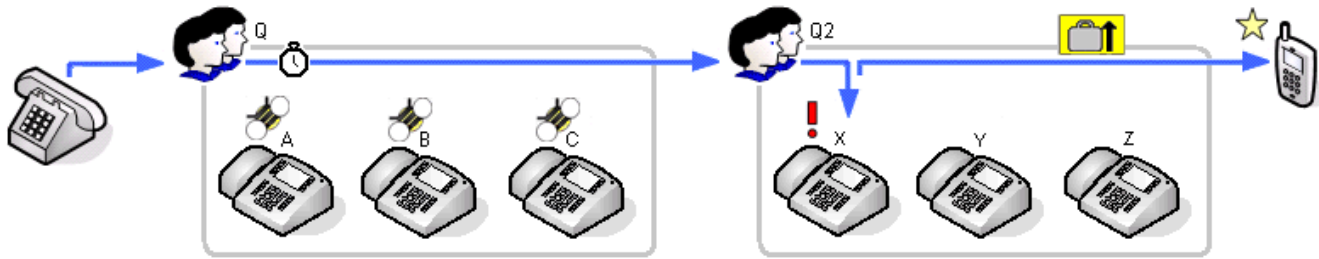
Agents	Answered Calls	No Answer	Lost Calls
Agent X	0	0	0
Agent Y	0	0	0
Agent Z	0	0	0

Notes:

- The overflowed call is included in the specific overflow statistics of the queue from which it overflowed.
- The overflowed call is included in the performance statistics of the queue from which it overflowed.
- The overflowed call is not included in any queue statistics of the queue to which it overflowed except the Call Waiting statistic while the call was waiting to be answered.
- The overflowed call is included in the answered, lost and no answer statistics of the agents in the queue to which it overflowed.
- The call is included in the Routed to Voicemail statistic of the queue from which it overflowed.

7.3.6 Overflowed Call Picked Up

In this scenario the overflowed call is pickup by someone outside the original and overflow queue.



Events	Queue Q	Queue Q2	Agent X
• A call is routed to the queue.	Calls Waiting 1	–	–
• The call overflows to another queue.	Overflowed Calls 1	Calls Waiting 1	–
• The call is presented to the first available agent.	Overflowed Calls Waiting 1		–
• While being presented the call times out to voicemail.	Routed to Voicemail 1	–	–
Historical	Overflowed Calls 1 Routed to Other 1	–	–

Queues	Answered Calls	No Answer	Lost Calls	Overflowed Calls	Overflowed Answered	Routed to Other
Queue Q	0	0	0	1	0	1
Queue Q2	0	0	0	0	0	0
TOTAL	0	0	0	1	0	1

Agents	Answered Calls	No Answer	Lost Calls
Agent X	0	0	0
Agent Y	0	0	0
Agent Z	0	0	0

Notes:

- The overflowed call is included in the specific overflow statistics of the queue from which it overflowed.
- The overflowed call is included in the performance statistics of the queue from which it overflowed.
- The overflowed call is not included in any queue statistics of the queue to which it overflowed except the Call Waiting statistic while the call was waiting to be answered.
- The overflowed call is included in the answered, lost and no answer statistics of the agents in the queue to which it overflowed.
- The overflowed call is included in the Routed to Other statistic of the queue from which it overflowed. The same would apply even if the call had been picked up by an agent in the original queue or the overflow queue.

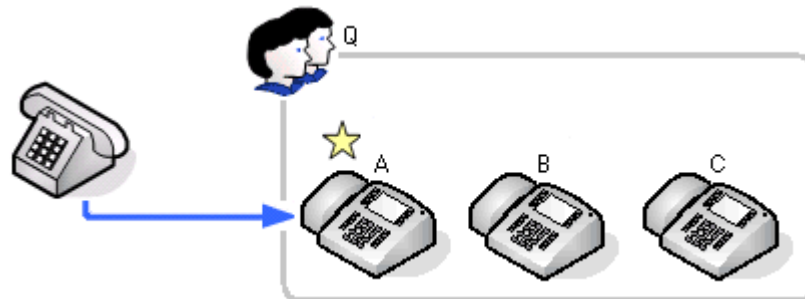
7.4 Non-Queue Calls (Direct Calls)

The terms 'non-queue call' or 'direct call' are used for calls targeted directly at a particular agent rather than at the queue to which they belong.

While handling a direct call and agent will not be presented with queue calls and will be indicated as Busy Non-Queue.

7.4.1 Direct External Call to Agent (Answered)

An external call is targeted directly to an agent. The agent answers the call.



Events	Queue Q	Agent A
<ul style="list-style-type: none"> An external call is routed direct to an agent. 	–	–
<ul style="list-style-type: none"> The call is answered. 	–	Answered External (Non Queue) 1
Historical	–	Answered External (Non Queue) 1

Queues	Answered Calls	No Answer	Lost Calls	Routed To Other	Routed To Voicemail
Queue Q	0	0	0	0	0
<i>TOTAL</i>	0	0	0	0	0

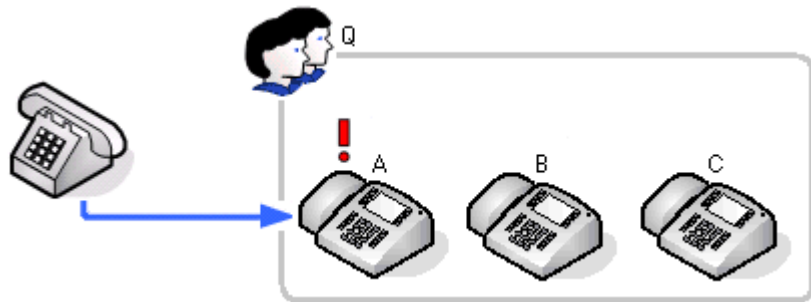
Agent	Answered Calls	No Answer	Lost Calls	Routed To Other	Answered Ext Non-Q
Agent A	0	0	0	0	1
Agent B	0	0	0	0	0
Agent C	0	0	0	0	0

Notes:

- Except for affecting the agent's state, [direct calls](#)^[269] to an agent are not recorded unless the agent answers the call.
- The agent states used for direct calls are [Ringing Non Queue](#)^[274] and when connected [Busy Non Queue](#)^[268].
- Direct calls are not recorded against any queue to which the agent belongs.

7.4.2 Direct External Call to Agent (Unanswered)

An external call is targeted directly to an agent. The agent does not answer and the caller disconnects.



Events	Queue Q	Agent A
• An external call is routed direct to an agent.	–	–
• The call is not answered.	–	–
• The caller hangs up.	–	–
Historical	–	–

Queues	Answered Calls	No Answer	Lost Calls	Routed To Other	Routed To Voicemail
Queue Q	0	0	0	0	0
<i>TOTAL</i>	0	0	0	0	0

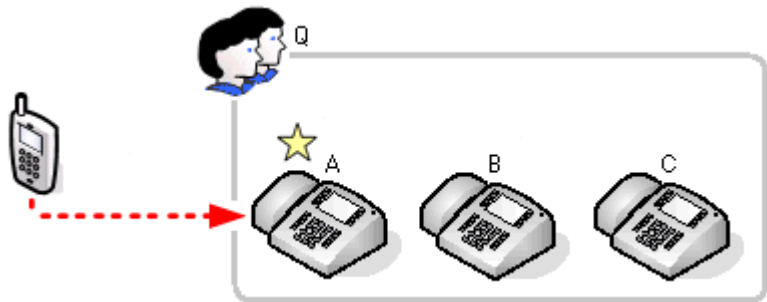
Agent	Answered Calls	No Answer	Lost Calls	Routed To Other
Agent A	0	0	0	0
Agent B	0	0	0	0
Agent C	0	0	0	0

Notes:

- Except for affecting the agent's state, [direct calls](#)^[269] to an agent are not recorded unless the agent answers the call.
- The agent states used for direct calls are [Ringing Non Queue](#)^[274] and when connected [Busy Non Queue](#)^[268].
- Direct calls are not recorded against any queue to which the agent belongs.
- Since the call was not targeted at a queue, it is not recorded as a lost call for the agent or queue.

7.4.3 Internal Call Direct to Agent (Answered)

An internal call to an agent. The agent answers.



Events	Queue Q	Agent A
• An external call is routed direct to an agent.	–	
• The call is answered.	–	Answered Internal (Non-Queue) 1
Historical	–	Answered Internal (Non-Queue) 1

Queues	Answered Calls	No Answer	Lost Calls	Routed To Other	Routed To Voicemail
Queue Q	0	0	0	0	0
<i>TOTAL</i>	0	0	0	0	0

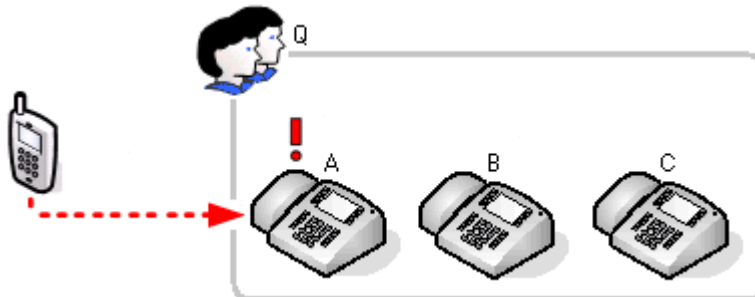
Agent	Answered Calls	No Answer	Lost Calls	Routed To Other	Answered Int Non-Q
Agent A	0	0	0	0	1
Agent B	0	0	0	0	0
Agent C	0	0	0	0	0

Notes:

- Except for affecting the agent's state, [direct calls](#)^[269] to an agent are not recorded unless the agent answers the call.
- The agent states used for direct calls are [Ringing Non Queue](#)^[274] and when connected [Busy Non Queue](#)^[268].
- Direct calls are not recorded against any queue to which the agent belongs.

7.4.4 Internal Call Direct to Agent (Unanswered)

An internal call to an agent who does not answer. Since this is not a call targeted to a queue, it is not recorded as a lost call. It would only appear in statistics if the agent has [answered the call](#)^[252].



Events	Queue Q	Agent A
• An external call is routed direct to an agent.	–	–
• The call is not answered.	–	–
• The caller hangs up.	–	–
Historical	–	–

Queues	Answered Calls	No Answer	Lost Calls	Routed to Other	Routed to Voicemail
Queue Q	0	0	0	0	0
<i>TOTAL</i>	0	0	0	0	0

Agent	Answered Calls	No Answer	Lost Calls	Routed to Other
Agent A	0	0	0	0
Agent B	0	0	0	0
Agent C	0	0	0	0

Notes:

- Except for affecting the agent's state, [direct calls](#)^[269] to an agent are not recorded unless the agent answers the call.
- The agent states used for direct calls are [Ringing Non Queue](#)^[274] and when connected [Busy Non Queue](#)^[268].
- Direct calls are not recorded against any queue to which the agent belongs.
- Since the call was not targeted at a queue, it is not recorded as a lost call for the agent or queue.

7.5 Voicemail

For direct calls to an agent, if the call goes to voicemail, it is not recorded by any statistic.

Queue calls can be routed to voicemail if the queue has a Voicemail Answer Time set. This time is applied from the when a call is presented to a queue and if it expires the call is routed to voicemail and recorded as such in the Routed to Voicemail statistic of the queue and the last agent to which it was presented. Voicemail is used immediately the timeout expires regardless of how long the call has been ring an agent.

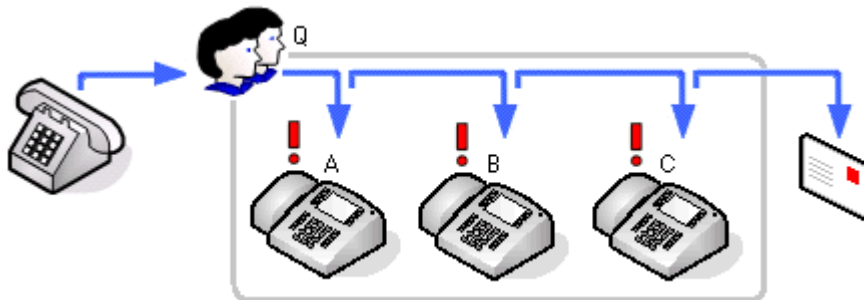
Other statistics (Answered Calls, Lost Calls, Overflowed Answered, Overflowed Lost etc.) are not incremented by queue calls that go to voicemail and are then waiting to be answered, answered or lost.

If using Voicemail Pro, details of what happened to calls that go to voicemail can be reported using reports based on the [Voicemail Report](#) ⁶³ template.

Note that assisted transfers from the voicemail server to a queue or agent are not supported by IP Office Customer Call Reporter.

7.5.1 Queue Call Timed Out to Voicemail

An external call is targeted to a queue. The call is presented to each available agent in turn but remains unanswered. When the queue's voicemail timeout occurs the call goes to the queue's voicemail mailbox immediately.



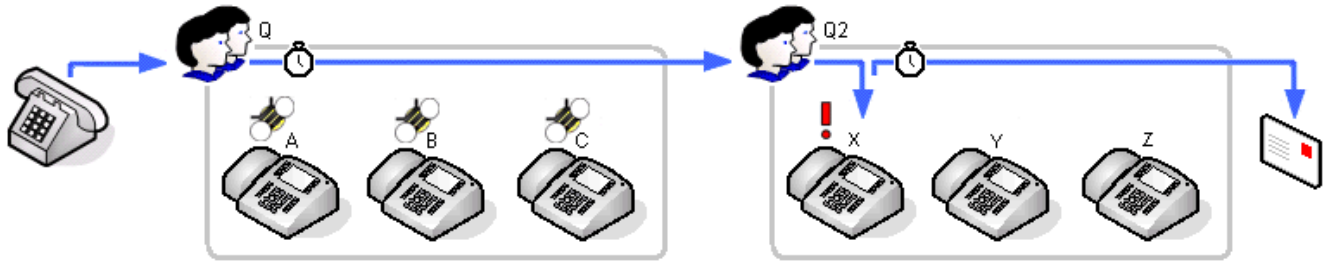
Events	Queue Q	Agent A	Agent B	Agent C
• A call is routed to the queue.	Calls Waiting 1	–	–	–
• The call is presented to the first available agent.	Agents Ringing 1	–	–	–
• The call is not answered.	No Answer 1	No Answer 1	–	–
• The call is presented to the next available agent.	Agents Ringing 1	–	–	–
• The call is not answered.	No Answer 1	–	No Answer 1	–
• The call is presented to the next available agent.	Agents Ringing 1	–	–	–
• The call is not answered.		–	–	No Answer 1
• While being presented the call times out to voicemail.	Routed to VM 1	–	–	–
• The caller leaves a message.	New Messages 1			
Historical	No Answer 2 Routed to VM 1 New Messages 1	No Answer 1	No Answer 1	No Answer 1

Queues	Answered Calls	No Answer	Lost Calls	Routed to Other	Routed to Voicemail
Queue Q	0	3	0	0	1
<i>TOTAL</i>	0	3	0	0	1

Agents	Answered Calls	No Answer	Lost Calls	Routed to Other
Agent A	0	1	0	0
Agent B	0	1	0	0
Agent C	0	1	0	0

7.5.2 Overflow and Timed Out to Voicemail

In this scenario after a call overflows, the queue's voicemail timeout occurs. The call will then go to the original queue's voicemail mailbox.



Events	Queue Q	Queue Q2	Agent X
• A call is routed to the queue.	Calls Waiting 1	–	–
• The call overflows to another queue.	Overflowed Calls 1	Calls Waiting 1	–
• The call is presented to the first available agent.	Overflowed Calls Waiting 1		
• While being presented the call times out to voicemail.	Routed to Voicemail 1	–	–
Historical	Overflowed Calls 1 Routed to Voicemail 1	–	–

Queues	Answered Calls	No Answer	Lost Calls	Overflowed Calls	Overflowed Answered	Routed to Voicemail
Queue Q	0	0	0	1	0	1
Queue Q2	0	0	0	0	0	0
TOTAL	0	0	0	1	0	1

Agents	Answered Calls	No Answer	Lost Calls
Agent X	0	0	0
Agent Y	0	0	0
Agent Z	0	0	0

Notes:

- The overflowed call is included in the specific overflow statistics of the queue from which it overflowed.
- The overflowed call is included in the performance statistics of the queue from which it overflowed.
- The overflowed call is not included in any queue statistics of the queue to which it overflowed except the Call Waiting statistic while the call was waiting to be answered.
- The overflowed call is included in the answered, lost and no answer statistics of the agents in the queue to which it overflowed.
- The call is included in the Routed to Voicemail statistic of the queue from which it overflowed.

7.6 Other Call Features

7.6.1 Announcements

While a call to a queue is waiting to be answered, the IP Office telephone system can play pre-recorded announcements to the caller. This option is configured by the IP Office telephone system maintainer. The playing of announcements to waiting calls does not affect IP Office Customer Call Reporter statistics.

Announcements can be configured on calls waiting to be answered within a queue or for direct calls waiting to be answered by an individual user. For IP Office Customer Call Reporter, queue announcements are supported and do not affect statistics. However the use of user announcements is not supported.

Note that the use of customized announcement call flows through Voicemail Pro that do anything other than provide prompts before returning the caller to the queue are not supported by IP Office Customer Call Reporter. For example, using a customized call flow that allows callers to opt to leave a message or to be transferred to another number, are not supported by IP Office Customer Call Reporter.

7.6.2 Bridged Appearances

Queue calls to an agent will be reflected by any bridged appearance buttons on another user's phone set to that agent.

- Use of this feature is not supported for agents. Using this feature may lead to statistics that appear incorrect or that are difficult to interpret.

7.6.3 Busy on Held

When an agent has a call on hold, their status is indicated as Holding, however they can be presented with other calls.

The IP Office has a Busy on Held setting for each user which can be enabled. When enabled, when the user has a call on hold they are not presented with any further hunt group or queue calls. This will not affect their IP Office Customer Call Reporter state which still shows *Holding*. Direct calls follow their forward on busy setting or otherwise go to voicemail or else get busy tone.

7.6.4 Call Pickup

There are a wide range of features that can be used to pickup a call ringing elsewhere on the telephone system. For example the call pickup can be based on the line on which the call was received, the group to which it is presented or the user or extension at which it is ringing. Consult with the system maintainer for details of which pickup features are available and how to access them.

- Queue calls answered by this method will be reported as Routed to Other for the queue at which they were ringing unless the pickup was by an agent in the same queue.
- For an agent answering the call:
 - If they are an agent in the same queue, the call is recorded in the Answered Calls statistic (and Answered Internal (Queue) if internal) for the queue and answering agent.
 - If they are not in the same queue, the call is recorded as Answered External (Non-Queue) or Answered Internal (Non-Queue) for the answering agent.
- Non-queue calls answered this way are recorded as Answered External (Non-Queue) or Answered Internal (Non-Queue) for the answering agent.

7.6.5 Call Coverage

Call coverage is not applied to queue calls. Therefore it does not affect statistics.

7.6.6 Do Not Disturb

An agent using any Do Not Disturb or Send All Calls feature is treated as selecting the Busy Not Available state. In that state the agent is not presented queue calls and the state and time in state is reported by the IP Office Customer Call Reporter.

This agent state indicates that the agent is not available to receive calls while they perform a non-call related activity such as attending a meeting. This state can be selected by an agent using the DND or SAC button on their phone, see [Agent Phone Controls](#) [273]. This also requires the agent to select one of the [reason codes](#) [274] displayed on their phone to indicate the reason they are going 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.


For agent on the following phones, when they select Busy NA (Not Available) state using a button on their phone they will be prompted to select a reason code if any have been configured on the telephone system.

- 1400 Series, 1600 Series, 2400 Series, 5400 Series, 4600 Series, 5600 Series and 9600 Series phones with available programmable buttons.

The codes are configured on the telephone system by the system maintainer. The reason code is displayed as part of Agent State (Queue) statistic information.

Up to 8 custom reasons can be configured plus the following two fixed reasons:

- **Automatic**
This reason is used if the agent is using a phone that allows reason code selection but fails to select a reason. For example if they enabled Busy NA through a short code, using Phone Manager or were forced into it by the IP Office's Agent Status on No Answer feature.
- **Unsupported**
This reason code is used for agents using phones that do not allow the selection of a reason code.
- **[Programmable Button](#)** [273]
Most Avaya feature phones supported by IP Office have [programmable buttons](#) [273]. The IP Office system maintainer can program each of these buttons with features for use by the phone's user.
 - You can select Busy Not Available state by pressing a DND (Do Not Disturb) or SAC (Send All Calls) button on your phone. You will then be requested to select a reason code from a list displayed on the phone. The available reason codes are configured by the IP Office system maintainer.
- **[Dialing Short Code](#)** [274]
The IP Office telephone system maintainer can setup dialing [short codes](#) [274] that allow special features to be accessed by dialing the short code number.
 - Dial a Do Not Disturb On short code. The default short code is **08*. This method does not allow the entry of a reason code and so is reported just Busy NA.
 - Dial a Do Not Disturb Off short code. The default short code is **09*.
- **Phone Manager Agent Mode**
Phone Manager Pro users can select *Agent Mode* within the applications preferences. This enables a number of additional icons. Note that selection of this mode can be disabled by the IP Office maintainer. Note: In this mode, the F1 and F3 functions are swapped. F1 becomes 'account call' and F3 becomes 'make call'.

	Busy Not Available An agent can use this icon to select Busy Not Available [268] state with the default reason code [274] <i>Busy NA</i> . The icon can also be used to exit the state.
---	---

7.6.7 Follow Me

Agents can use follow me to redirect their calls to another internal users phone. The calls remain associated with the agent and will be recorded in the statistics as if it was ringing against the extension at which the agent has logged on.

7.6.8 Forwarding Calls

Hunt groups and queues do not have call forwarding settings. However agents can use their own call forwarding settings to forward calls including queue calls.

- An agent's Forward on Busy and Forward on No Answer settings are applied to their direct calls but are not applied to queue calls that they receive.
- An agent's Forward Unconditional settings can be optionally applied to queue calls by selecting the Forward Hunt Group Calls option. When selected, it is applied to all queue calls including internal calls regardless of the agent's Forward Internal Calls setting.
- Queue calls cannot be forwarded to another hunt group or queue.
- If a queue call is forwarded and then unanswered after the queue's No Answer Time, the IP Office will attempt to retrieve the call and present it to the next available agent.
 - Some trunks, for example analog trunks, cannot provide the call progress signaling used by the IP Office to retrieve a call if unanswered. Calls forwarded via such trunks are treated as answered immediately when they are forwarded.

For IP Office Customer Call Reporter this means:

- Direct calls to an agent forwarded by the agents call forwarding settings are not recorded by any statistics.
- Queue calls to an agent forwarded by the agents call forwarding settings only affect IP Office Customer Call Reporter if the call is answered while forwarded.
 - If the call is forwarded to another agent within the queue, any Answered, Lost and No Answer statistics as appropriate are incremented for the queue and for the agent to which the call was forwarded and not the agent from which it was forwarded.
 - If the call is forwarded to a non-agent destination, if answered there it will recorded as Answered Other for the queue. However, if lost or not answered, the Lost or No Answer statistic for the queue or its agents are not incremented.
- Use of this feature is not supported for agents. Using this feature may lead to statistics that appear incorrect or that are difficult to interpret.

7.6.9 Holding Calls

Calls held by an agent affect the agent's status (which becomes Holding) but do not affect any other statistics.

Retrieving the call from hold does not affect any statistics either. This also applies to hold calls that recall to the agent who put the call on hold. They are not counted as additional answered calls.

The length of time that agent's had calls on hold is reported in reports based on the [Agent Summary Report](#)^[54] template.

7.6.10 Internal Twinning

Direct and queue calls for agents with internal twinning enabled are presented to both the agent's main and twinned extensions.

- Use of this feature is not supported for agents. Using this feature may lead to statistics that appear incorrect or that are difficult to interpret.

7.6.11 Line Appearance Buttons

Line appearance buttons can indicate when an incoming call on that line is ringing. The button can be used to answer the call.

- Use of this feature is not supported for agents. Using this feature may lead to statistics that appear incorrect or that are difficult to interpret.

7.6.12 Mobile Twinning

Mobile twinning is used to present calls to a user to both their normal extension and to an external number at the same time. This is not normally used with hunt group calls. However the option Hunt Group Calls Eligible for Mobile Twinning can be used to enable this.

- Use of this feature is not supported for agents. Using this feature may lead to statistics that appear incorrect or that are difficult to interpret.

7.6.13 Parking Calls

IP Office Customer Call Reporter treats calls parked by one agent and then unparked by another agent as [supervised transfers](#) ^[223] but omitting the enquiry answered stage.

7.6.14 Trunk to Trunk Calls

IP Office Customer Call Reporter is not supported for recording statistics relating to trunk to trunk calls including trunk to trunk transfers by agents.

7.6.15 Wrap Up

For all phone users, the IP Office phone system normally applies a short delay, by default 2 seconds, during which the user is indicated as still being busy to further calls. The main function of wrap up is to allow analog phone users who have just finished a call the opportunity to start dialing a short code or to start making a call before another incoming call is presented to them.

For users set as agents, the period of wrap up applied to their phone is reported as their being in [After Call Work](#) ^[268] state. If the agent is also set for automatic after call work, the wrap up period is applied first and then the automatic after call work period is begun.

Chapter 8.

Miscellaneous

8. Miscellaneous

8.1 Multiple Roles

A user can be configured to undertake more than one IP Office Customer Call Reporter role, selecting their current role (agent, supervisor or administrator) when they log in to the IP Office Customer Call Reporter web client. Full details are included in the IP Office Customer Call Reporter Installation manual.

- **Administrator and Supervisor**
The administrator's user name is setup during IP Office Customer Call Reporter installation. If a supervisor is added to the configuration then the user is able to login either as the administrator or as a supervisor.
- **Agent and Supervisor**
Agent usernames for IP Office Customer Call Reporter login use the user's name within the IP Office configuration. If a supervisor account with the same name is created that user is able to login as either an agent or a supervisor.
- **Agent, Supervisor and Administrator**
Creating an IP Office user and an supervisor account with names that match the administrator name allows that user to login as either an agent, a supervisor or as the administrator.

8.2 Configuration Changes

Changes to the IP Office switch configuration have an immediate effect on call routing and therefore on call statistics. However, as detailed below, it does not have an immediate effect on the agent and queue names visible in views and reports.

The IP Office Customer Call Reporter updates its information about the queues and agents configured on the IP Office telephone system every 5 minutes. Therefore adding, removing or renaming agents and queues do not affect views immediately. Instead it requires users to wait up to 5 minutes and to then refresh their view by either switching to another view and then back or by logging out and then logging in again.

Agents

- **Adding an Agent to a Queue**
Wait up to 5 minutes and then refresh the view.
- **Removing an Agent from a Queue**
Wait up to 5 minutes and then refresh the view. The agent's contribution to the queue's performance is still included in the queue statistics but they are not included in the view of agent statistics. The agent's statistics are still accessible within historical reporting.
- **Deleting an Agent**
Wait up to 5 minutes and then refresh the view. The agent's contribution to the queue's performance is still included in the queue statistics but they are not included in the view of agent statistics. The agent's statistics are still accessible within historical reporting.
- **Renaming an Agent**
Wait up to 5 minutes and then refresh the view. The agent's contribution to the queue's performance is still included in the queue statistics but the agent appears with their new name and reset personal statistics.
 - **Warning**
When targeting a report on agents, for reports based on the *Call Details Report* template, the agent's statistics are split appropriately between the old and new names. For reports based on other templates (*Agent Summary Report*, *Call Summary Report* and *Trace Report*), only the agent's statistics under the current name are reported.

Queue

- **Adding a Queue**
Before the new queue can be added to any view, it must first be selected in the list of queues available to a supervisor. This is done within the supervisors account details by either the [administrator](#)^[136] or by [supervisors with self-administrator rights](#)^[78] for their own account. Again this cannot be done until up to 5 minutes after the new queue was added to the IP Office configuration.
- **Renaming a Queue**
Wait up to 5 minutes and then refresh the view. The queue name is automatically removed from the view. To add the queue using the new name is the same as for adding a queue detailed above. The queue's statistics within historical reporting are split appropriately between the old and new names.
- **Deleting a Queue**
Wait up to 5 minutes and then refresh the view. The queue name is automatically removed from the view. The queue's statistics are still accessible within historical reporting.

8.3 Troubleshooting

Reports/Graph/Help Do Not Appear

Using these options requires the browser to allow pop-up windows. If they do not appear when selected, the browser may have been configured to block pop-up windows.

- Most browsers can be configured to either allow all pop-ups, to allow pop-ups from a particular web server or to prompt whenever a pop-up windows attempts to open.
- Additional software other than the browser, for example some PC firewall software and ad-blocker software, may also stop pop-up windows and may need to be configured to allow pop-up windows for the IP Office Customer Call Reporter server address.

Part of a View Goes Gray

When a web client is displaying a view of queue and agent statistics and alarms, it is regularly polling the IP Office Customer Call Reporter server for updated data. The statistics in views are updated approximately every 2 seconds.

If the background of any section of a view goes gray with no data, it indicates that there has been an excessive delay in receiving updated data.

- If this is not a regular event then no action is required, the web client view will update automatically.
- If this occurs frequently inform your administrator or maintainer.

View is Blank

There are a number of reasons why a view may be blank:

- No content has been setup for the view by the administrator or supervisor.
- For an agent the view will be blank if it does contain any queues of which they are also a member.

"Connection to the server has been lost. Realtime statistics might be out of date" Message

This message indicates that connection may have been lost. For example the system administrator may have restarted some part of IP Office Customer Call Reporter. Refreshing the browser view should correct the web client.



Chapter 9.

Glossary

9. Glossary

This section provides definitions of key IP Office Customer Call Reporter terms.

9.1 Administrator

The administrator can amend IP Office Customer Call Reporter system preferences plus create and administer supervisors. That includes assigning which queues a supervisor can see or granting the supervisor self-administration rights to amend their own settings including queues.

The administrator does not have any views of call statistics. However they can setup and amend the views used by supervisors and their agents.

There is only one administrator account and only one person can log in as the administrator at any time.

9.2 After Call Work (ACW) [Agent State]

After Call Work indicates that the agent is not available to receive [queue calls](#) ^[273] while they perform some other call related activity. Typically this 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 [After Call Work](#) ^[907]. Agents can be configured to be automatically put into ACW state after a queue call or else they can manually select to enter the state when required.

Note: The [Wrap-Up](#) ^[277] feature briefly applied to the end of all calls including queue calls is also reported as After Call Work state.

9.3 Agent

An agent is a user who handles calls to queues on the IP Office telephone system. Unlike general IP Office users they have been specifically configured as agents in the IP Office configuration. IP Office Customer Call Reporter supports up to 150 agents.

- To make and receive calls, the agent must login to a phone on the IP Office telephone system. Note that T3 Series and T3 IP Series phones are not currently supported.
- The agent's phone status is recorded by IP Office Customer Call Reporter. For example when they logged in to a phone, answer a call, log off, etc.
- The agents are also configured as members of queues and are then presented with call targeted to those queues. An agent can be a member of several queues.
- Using the web client allows the agent to see the same monitor views as their supervisor. However, unlike the supervisor an agent only sees their own statistics and those for queues which they belong.

9.4 Agent Productivity [Statistic]

- This statistic is available for queues and agents.
- It only includes incoming external trunk calls. Outbound external calls are not included.
- It shows the percentage of calls an agent handled within a set of service criteria over all calls except lost calls.
- The service criteria includes calls answered in the target answer time and for between the minimum and maximum talk times.

9.5 Agent State (Queue) [Statistic]

- This statistic is only available for agents.
- It shows the current state of each agent in the selected queue.
- The related statistic [Agent State \(Queue\) Time](#) ^[159] can be used to show how long each agent has been in their current state.

9.6 Agent State (Queue) Time [Statistic]

- This statistic is only available for agents.
- It shows how long the agent has been in their current state for the selected queue.
- The agent's current state can be shown by the related statistic [Agent State \(Queue\)](#) ^[157].

9.7 Agent State (System) [Statistic]

- This statistic is only available for agents.
- It shows the agent activity across all queues to which the agent belongs, ie. the whole system.
- The related statistic [Agent State \(System\) Time](#) ^[162] can be used to show how long each agent has been in their current state.

9.8 Agent State (System) Time [Statistic]

- This statistic is only available for agents.
- It shows how long the agent has been in their current system state.
- The agent's current state can be shown by the related statistic [Agent State \(System\)](#)^[160].

9.9 Agents ACW [Statistic]

- This statistic is only available for queues.
- Its shows the number of agents who are currently in the After Call Work (ACW) state.
- For users who previously used CCC, the ACW state is similar to Busy Wrap Up.

9.10 Agents Available [Statistic]

- This statistic is only available for queues.
- It shows the number of agents in the queue who are currently available to answer calls.

9.11 Agents Busy [Queue State]

This queue state is reported for a queue when all the logged in agents are in a busy state.

This queue state is reported by the [Queue State](#)^[190] statistic. The time the queue has been in a particular state is reported by the [Queue State Time](#)^[190] statistic.

9.12 Agents Call Share [Statistic]

- This statistic is only available for agents.
- It shows the percentage of [queue calls](#)^[273] answered by the agent out of all queue calls answered by the agents in the queue.

9.13 Agents Logged On [Statistic]

- This statistic is only available for queues.
- It shows the number of agents who are members of the queue and are currently logged in.
- When logged in an agent can also be in other states.

9.14 Agents Present [Statistic]

- This statistic is only available for queues.
- It shows the number of agents who are logged in but whose membership of the queue is currently disabled.

9.15 Agents Ringing [Statistic]

- This statistic is only available for queues.
- It shows the number of agents with [queue calls](#)^[273] ringing but not yet answered.

9.16 Answered Calls [Statistic]

- This statistic is available for queues and agents.
- It shows the number of [queue calls](#)^[273] that answered by the agents in the queue or the agent being reported on.
- It does not include direct calls to agents.
- Once a call has overflowed, if answered, for the queue it is reported as Overflowed Answered.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include calls that go to voicemail.

9.17 Answered External Non-Queue [Statistic]

- This statistic is only available for agents.
- It shows the number of external inbound calls that are targeted directly to an agent and answered by that agent.
- It does not includes queue calls to a queue of which the agent is a member.

9.18 Answered Internal Non-Queue [Statistic]

- This statistic is only available for agents.
- It shows the number of internal inbound calls that are targeted directly to an agent and answered by that agent.
- It does not includes queue calls to a queue of which the agent is a member.

9.19 Answered Internal Queue [Statistic]

- This statistic is available for queues and agents.
- It shows the number of internal calls to the queue that were then answered by the agents in the queue or the agent being reported on.

9.20 Announcements

While a call to a queue is waiting to be answered, the IP Office telephone phone system can play pre-recorded announcements to the caller. This option is configured by the IP Office telephone system maintainer. The playing of announcements to waiting calls does not affect IP Office Customer Call Reporter statistics.

9.21 Available [Agent State]

This agent state is reported when an agent is logged in and is not in any other state. That is, when the agent is available to receive and answer queue calls.

9.22 Average Answer % [Statistic]

- This statistic is available for queues and agents.

It shows the number of [queue calls](#) [273] answered by the queue within the specified answer threshold time, divided by the total number of calls answered.

9.23 Average Answer Time [Statistic]

- This statistic is available for queues and agents.

It shows the sum of answer times divided by the number of queue calls answered by the queue or by the agent being reported.

- The average answer time is measured from the call arriving at the target (queue or agent).
- When calculated for an agent, the statistic is only based on the calls that the agent handled on behalf of the hunt group selected in the view.

9.24 Average Wait Time [Statistic]

- This statistic is only available for queues.

Average waiting time of calls.

9.25 Busy [State]

This agent state is reported when the agent answers and is connected to a call to a queue of which they are a member.

9.26 Busy Alt-Queue [Agent State]

This agent state is reported when, while viewing the agent's status in one queue of which they are a member, the agent is connected to a call belonging to another queue of which they are a member. It is also used when the agent is connected to a call that has overflowed from a queue.

9.27 Busy Not Available [Agent State]

This agent state indicates that the agent is not available to receive calls while they perform a non-call related activity such as attending a meeting. This state can be selected by an agent using the DND or SAC button on their phone, see [Agent Phone Controls](#) [87]. This also requires the agent to select one of the [reason codes](#) [274] displayed on their phone to indicate the reason they are going 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.

9.28 Busy Not Available [Statistic]

- This statistic is only available for queues.

It shows the total number of agents in the queue who have currently indicated they are [Busy Not Available](#) [268].

- Busy Not Available is a state selected by an agent when they need to stop receiving queue calls in order to do some non-call related activity.

9.29 Busy Non-Queue [Agent State]

This agent state is reported when the agent answers a call that was not targeted to the queue to which they belong. It is also reported when an agent makes a call.

9.30 Busy Wrap Up

Busy Wrap Up is an agent state used by the IP Office [CCC](#) [269] application. It is not supported by IP Office Customer Call Reporter. The equivalent state for IP Office Customer Call Reporter is to report the agent as *Present* when their memberships of all the groups to which they belong are all disabled.

This is different from [Wrap Up](#) [277].

9.31 Call Pickup

The IP Office supports a number of features that allow agents to pickup calls ringing in a queue.

9.32 Call Waiting [Statistic]

- This statistic is only available for queues.

It shows the number of calls targeted to the queue that are waiting to be answered by the agents in the queue or the agent being reported on.

- It includes calls currently ringing at agent phones.
- Calls that overflow from the queue and are still waiting to be answered are reported using [Overflowed Calls Waiting](#)^[195]

9.33 CCC

Compact Call Center (CCC) is an alternate call center reporting application supported with IP Office telephone systems.

CCC and IP Office Customer Call Reporter are not supported on the same IP Office system except for the use of CCC Reporter to access historical CCC reports. However some CCC licenses can be used with IP Office Customer Call Reporter.

9.34 CLI

Called or Calling Line ID. Also known as CLID or ICLID (Incoming Calling Line ID). On incoming calls this is the telephone number of the caller if provided with the call. On outgoing calls it is the number called.

9.35 Connected

The state where the agent is talking to a caller. This state does not include time when the call is alerting the agent or the agent has the call on hold or parked.

9.36 Collective Group

Hunt groups configured as 'collective' presents a waiting call to all available agents simultaneously. This type of hunt group is not supported for use as an IP Office Customer Call Reporter queue.

9.37 Current Wait Time [Statistic]

- This statistic is only available for queues.

Time of the longest currently waiting call.

9.38 Direct Call

The terms 'non-queue call' or 'direct call' are used for calls targeted directly at a particular agent rather than at the queue to which they belong.

While handling a direct call and agent will not be presented with queue calls and will be indicated as Busy Non-Queue.

9.39 Enquiry Call

While transferring a call, the original call is put on hold pending transfer and a call is made to the transfer target. The call to the transfer target is called an 'enquiry call'. It is also known as a 'consultation call'.

9.40 Grade of Service [Statistic]

- This statistic is only available for queues.

It shows the number of queue calls answered within the defined answer threshold as a percentage of all queue calls presented.

- It excludes calls where the caller disconnects before the statistic's Lost Calls Threshold setting, measured from when the call was presented to the queue.
- It includes calls that become lost calls.
- It does not include calls that were routed elsewhere (Routed to Other) or to voicemail (Routed to Voicemail).

9.41 Holding [Agent State]

This agent state is reported when an agent has a call on hold.

9.42 Hot Desking

Since agents login at an extension in order to start receiving calls, they can use any extension available rather than needing a permanent phone extension. Users who login at different extensions are referred to as 'hot deskers'.

9.43 In Service [Queue State]

This queue state is reported for a queue in normal operation, ie. with some agents logged in and available to answer calls.

Agents in the queue will no longer be presented with calls targeted to that queue. Depending on how the queue has been configured by the telephone system maintainer, the calls will either overflow to another queue or to voicemail.

This queue state is reported by the [Queue State](#)^[198] statistic. The time the queue has been in a particular state is reported by the [Queue State Time](#)^[199] statistic.

9.44 Internal Made [Statistic]

- This statistic is only available for agents.
- It shows the number of internal calls made by an agent. Only internal calls that are answered are included.

9.45 IP Office

IP Office is an Avaya telephone system for small businesses. It supports traditional analog phones, Avaya digital feature phones and Avaya IP features phones.

9.46 Last Agent

In a queue with no overflow and voicemail, if there is only one available agent, when a call is present to them it will continue ringing without regard to the No Answer Time of the queue and any related No Answer Time actions that the IP Office would normally apply. This applies even if the agent enables Busy Not Available while the call is being presented.

9.47 Licenses

Use of IP Office Customer Call Reporter is controlled by licenses entered by the maintainer into the IP Office telephone system. Insufficient licenses may cause IP Office Customer Call Reporter to not work. Licenses control:

- The number of IP Office Customer Call Reporter agents (up to a maximum of 150).
- The number of IP Office Customer Call Reporter supervisors and wallboards that can be logged in at any time (up to a maximum of 30 of each).

9.48 Logged In

An agent is "logged in" when they use an extension on the telephone system to enter their extension number and login code. Their telephone settings are then applied to that extension and they are then able to make and receive calls including calls targeted to queue of which they are members.

Agents can log in to an extension either by pressing the Login button if displayed or dialing a login short code. The default short code is *35* <agent extension number> * <agent login code> #.

9.49 Logged Out [Agent State]

This agent state is reported when an agent has [logged out](#)^[89] from the phone system. Note that this is the default state assumed by IP Office Customer Call Reporter when it cannot determine the exact state, for example when restarting.

9.50 Longest Waiting Group

Hunt groups configured as 'longest waiting' do not use the order in which agents has been configured as members of the queue. Instead a new call targeted to the queue is presented to the available agent who has been in the available state the longest.

9.51 Longest Wait Time [Statistic]

- This statistic is only available for queues.
- Waiting time of the longest waiting call.

9.52 Lost

- A lost call is one where the caller disconnects before being answered.

9.53 Lost Calls [Statistic]

- This statistic is available for queues and agents.
- It shows the number of queue calls where the caller disconnected before they were answered by an agent in the queue or the agent being reported on.
- Queue calls that are lost are reported as lost against both the queue and against the last agent to which the call was presented.
- Once a call has overflowed, if lost, for the queue it is reported as Overflowed Lost.
- It does not include calls that go to voicemail.

9.54 Membership

- The hunt group queues of which an agent is a member are configured by the IP Office telephone system maintainer. They cannot be changed by the agent or supervisor. However an agent's membership of a hunt group queue can be disabled.
 - When an agent's membership of a queue is disabled, the agent's state for that queue will be reported as *Present* when it would normally have been *Available*.
 - On many Avaya display phones, a G on the display indicates that the user currently has their membership of at least one group enabled.

9.55 Maintainer

In this documentation the term 'maintainer' or 'system maintainer' refers to the person who configures settings on the IP Office telephone system. That may not be the same person as the IP Office Customer Call Reporter [Administrator](#)^[268].

9.56 New Messages [Statistic]

- This statistic is only available for queues.

It shows the current number of unread messages in the mailbox of the selected queue.

- This is not an IP Office Customer Call Reporter statistic that can be reset, it is a value reported by the voicemail server providing the mailbox.

9.57 Night Service [Queue State]

A queue can be set in 'night service' state either manually or as the result of an automatic time schedule.

Agents in the queue will no longer be presented with calls targeted to that queue. Depending on how the queue has been configured by the telephone system maintainer, the calls will either overflow to another queue or to voicemail.

This queue state is reported by the [Queue State](#)^[198] statistic. The time the queue has been in a particular state is reported by the [Queue State Time](#)^[199] statistic.

9.58 No Agents [Queue State]

This queue state is reported for a queue where no agents are logged in.

This queue state is reported by the [Queue State](#)^[198] statistic. The time the queue has been in a particular state is reported by the [Queue State Time](#)^[199] statistic.

9.59 No Answer

When a queue call is presented to an agent it rings for a time set in the telephone system configuration (called the No Answer Time) before being presented to the next available agent. Calls that have rung for the full time without being answered are recorded as no answer calls. Calls that ring for only part of the time and are then answered elsewhere are not recorded.

The telephone system can be configured to change the agent's state if they do not answer a call. That can include logging the agent off or setting them into [Busy Not Available](#)^[268] state with the [reason code](#)^[274] *Busy NA*.

9.60 No Answer [Statistic]

- This statistic is available for queues and agents.
- 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 be presented elsewhere.
- For a queue it shows the total number of no answer events for the agents in the queue.
- For an agent it includes queue calls and queue calls that overflowed to the agent's queue. It does not include non-queue calls.
- If an agent enables Busy Not Available while being presented with a queue call, that will be counted against the agent and queue.

9.61 No Answer Time

Hunt group queues and agents both have No Answer Time settings that are configured by the IP Office system maintainer.

For calls to a hunt group queue, the queue's No Answer Time is used. It sets how long a call will be presented to an agent before being presented to the next available agent. Each time a call is not answered within the No Answer Time and then presented elsewhere it is recorded as a [No Answer](#) ^[271] call for the queue and for the agent.

No answer time is not used for collective groups and when the agent is the last available agent in a group that does not have any overflow or voicemail set.

For direct calls to an agent rather than a queue of which the agent is a member, the agent's No Answer Time setting is used. It sets when calls should go to voicemail or use the agent's forward on no answer number if set. The agent's No Answer Time setting is not used for queue calls.

9.62 Non-Queue Call

The terms 'non-queue call' or 'direct call' are used for calls targeted directly at a particular agent rather than at the queue to which they belong.

9.63 Off Hook

This is a telephony term for when the handset on a traditional phone is lifted from the phone. For IP Office Customer Call Reporter, off hook time is used for any state where the agent's phone is in use but not connected to a call. For example when in the process of making a call.

9.64 Out of Service [Queue State]

A queue can be set as 'out of service'.

Agents in the queue will no longer be presented with calls targeted to that queue. Depending on how the queue has been configured by the telephone system maintainer, the calls will either overflow to another queue or to voicemail.

This queue state is reported by the [Queue State](#) ^[196] statistic. The time the queue has been in a particular state is reported by the [Queue State Time](#) ^[199] statistic.

9.65 Outbound Calls External [Statistic]

- This statistic is only available for agents.
- It shows the number of outbound external calls made by the agent.
- If the outgoing call attempts to seize an external trunk but is unsuccessful, for example getting busy tone, it is still included.

9.66 Overflowed

- An overflowed call is any call originally targeted at the queue that then overflows using the queue's overflow settings. The overflowing calls are then presented to members of other queues.
- IP Office Customer Call Reporter only supports overflow using other IP Office Customer Call Reporter queues as the overflow destinations.

9.67 Overflowed Answered [Statistic]

- This statistic is only available for queues.
- 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 queue calls answered by methods such as call pickup (use [Routed to Other](#) ^[206]).
 - It does not include calls that go to voicemail.

9.68 Overflowed Calls [Statistic]

- This statistic is only available for queues.
- It shows the number of calls that have overflowed from the queue to its overflow destination.
- Once a call has overflowed, it may also appear in the queue's [Overflowed Calls Waiting](#) ^[272], [Overflowed Answered](#) ^[272] and [Overflowed Lost](#) ^[273] statistics.

9.69 Overflowed Calls Waiting [Statistic]

- This statistic is only available for queues.
- It shows the number of calls overflowed from the queue and still waiting to be answered.

9.70 Overflowed Lost [Statistic]

- This statistic is only available for queues.

It shows the number of calls which overflowed from the queue and were then lost.

- It does not include calls that go to voicemail.

9.71 Present [Agent State]

This agent state is reported when an agent is logged in but their membership of the particular queue has been disabled. In this state they will not be presented with calls targeted to that queue. The agent's state for other queues may still be [available](#)^[268].

9.72 Programmable Button

Most Avaya phones have a number of programmable buttons which can be used for special functions which can include functions specific to IP Office Customer Call Reporter. Buttons can be provided by the telephone system maintainer for logging in, logging out, enabling/disabling group membership and controlling busy not available and after call work.

9.73 Queue

A queue is a hunt group configured for IP Office Customer Call Reporter operation. Calls to a queue are presented the first [available agent](#)^[268] in the queue using a pattern set in the queue's configuration. If the call is not answered it is presented to the next available agent and so on until answered. The order in which the agents are used is set in it's configuration to one of the following orders: [Collective](#)^[269], [Sequential](#)^[275], [Rotary](#)^[274] and [Longest Waiting](#)^[270].

9.74 Queue Call

This term is used for calls targeted to a queue, either by the telephone system or by the caller dialing the queue's extension number. Unless otherwise specifically stated, most statistics shown by IP Office Customer Call Reporter are only for queue calls. Calls direct to an agent ([non-queue calls](#)^[269]) rather than to the queue to which they belong are not normally included.

9.75 Queue State [Statistic]

- This statistic is only available for queues.
- It shows the current state of the queue as one of the following: In Service, Agents Busy, No Agents, Night Service or Out of Service.
- The related statistic [Queue State Time](#)^[199] can be used to show the time that the queue has been in its current state.

9.76 Queue State Time [Statistic]

- This statistic is only available for queues.
- It shows the time the queue has been in its current state.
- The related statistic [Queue State](#)^[199] can be used to show current state.

9.77 Queuing

Hunt groups on the telephone system can be configured to use queuing when the number of calls waiting to be answered exceeds the number of available agents to which waiting calls can be presented. With queuing enabled the additional callers continue to be treated as if ringing even though they are queued.

Without queuing, when the hunt group become busy, additional calls go directly to the overflow destination if set, else to voicemail if available, else return busy to the caller.

IP Office Customer Call Reporter is only supported for queues (hunt groups) that use queuing.

9.78 Reason Codes

For agent on the following phones, when they select Busy NA (Not Available) state using a button on their phone they will be prompted to select a reason code if any have been configured on the telephone system.

- 1400 Series, 1600 Series, 2400 Series, 5400 Series, 4600 Series, 5600 Series and 9600 Series phones with available programmable buttons.

The codes are configured on the telephone system by the system maintainer. The reason code is displayed as part of Agent State (Queue) statistic information.

Up to 8 custom reasons can be configured plus the following two fixed reasons:

- Automatic
This reason is used if the agent is using a phone that allows reason code selection but fails to select a reason. For example if they enabled Busy NA through a short code, using Phone Manager or were forced into it by the IP Office's Agent Status on No Answer feature.
- Unsupported
This reason code is used for agents using phones that do not allow the selection of a reason code.

9.79 Reference

Each call is assigned a unique call reference number that remains with the call whilst it is on the IP Office telephone system. The Reference number for a call is included in reports based on the [Trace Report](#) [62] and [Call Details Report](#) [57] templates. A call's Reference number can also be used as the target reports based on the Trace Report template.

9.80 Ring Mode

A hunt group's ring mode defines the order in which agents in the group are used. The options are [Collective](#) [269], [Sequential](#) [273], [Rotary](#) [274] and [Longest Waiting](#) [275].

9.81 Ringing [Agent State]

This agent state is reported when the agent is being presented with a call targeted to a queue of which they are a member. If they answer the call their state will change to [Busy](#) [268].

9.82 Ringing Alt-Queue [Agent State]

This agent state is reported when the agent is being presented with a call from another queue of which they are a member. If they answer the call their state will change to [Busy Alt-Queue](#) [268]. It is also used when the agent is being presented a call that has overflowed from a queue.

9.83 Ringing Non-Queue [Agent State]

This agent state is reported when the agent is being presented with a call that is not targeted to any queue of which they are a member. If answered the call their state will change to [Busy Non-Queue](#) [268].

9.84 Rotary Group

Hunt groups configured as 'rotary' present calls waiting to be answered to the first available agent after the agent who last answered a call to that queue. This is done using the order in which the agents have been configured in the queue by the telephone system maintainer. Unanswered calls are presented to the next available agent using the same queue membership order. Each new call targeted to the queue is to the agent after the one who last answered a queue call.

9.85 Routed to Other [Statistic]

- This statistic is available for queues and agents.

Sum of calls targeted at the queue or agent that are subsequently answered by a party, other than a member of the original queue, the overflow or voicemail. Only direct calls to agents will affect the Routed to Other for agents. Queued calls to agents will affect the Queue statistic.

9.86 Routed to Voicemail [Statistic]

- This statistic is available for queues and agents.

For a queue it shows the number of queue calls presented and then routed to voicemail.

- For an agent it shows the number of direct calls to the agent that were then routed to voicemail.
- It does not include announcements played by voicemail to the caller.

9.87 Short Code

Various IP Office functions can be programmed against sequence of numbers that can be dialed from user phones. This includes functions used by IP Office Customer Call Reporter agents.

9.88 Sequential Group

Hunt groups configured as 'sequential' present calls waiting to be answered to the first available agent in the queue, then if unanswered to the next available agent and so on. This is done using the order in which the agents have been configured in the queue by the telephone system maintainer. Each new call targeted to the queue is again presented to the first available agent in queue membership order.

9.89 Small Community Network (SCN)

This refers to a method of linking several IP Office telephone systems using IP trunks. Currently calls received on SCN trunks are reported as external calls by IP Office Customer Call Reporter.

IP Office Customer Call Reporter 1.2 does not support SCN operation, ie. agents and hunt groups on more than one IP Office system. In addition advanced small community networking features such as remote hot desking and/or distributed hunt groups are not supported.

9.90 Statistics

IP Office Customer Call Reporter collects information about calls to queues and agents and stores this in its database. It also collects information about the current state of the queues and agents. Statistics based on this information are then used in web views and historical reports.

- Except where specifically indicated, usually by the term 'Non-Queue', all statistics relate to calls targeted to queues.
- Each statistic can only be added once within each view.
- Statistics are calculated values. They are affected by configurable settings on the particular view, wallboard or report such as whether to include or exclude internal calls. Those settings can be varied for each instance where a particular statistic is used.
- The statistics value in views and wallboards can be manually reset when required by any supervisor for who the [administrator](#)^[268] has enabled the [Reset Statistics](#)^[43] option. Resetting the statistics affects the view and wallboard statistics for all supervisors and agents. It does not affect the statistics used for historical reports.
- The statistics in views are updated approximately every 2 seconds.

9.91 Supervised Transfer

A supervised transfer is one where, having put your current call on hold pending transfer, you make an [enquiry call](#)^[269] and wait for that call to be answered. When answered you can announce the transfer and then complete the transfer process. This is also called an assisted transfer.

9.92 Supervisor

Supervisors can [create](#)^[36] and [amend views](#)^[39] of the agent queues assigned to them. Those views are then viewable by the supervisor and the agents. Supervisors can also [create reports](#)^[47] that they then either run [manually](#)^[50] or that they [schedule](#)^[51] to run automatically at regular intervals.

IP Office Customer Call Reporter supports up to 30 supervisors. However the maximum number of supervisors that can be logged in at any time is controlled by the number of available Supervisor licenses (each license enables a simultaneous Supervisor login and Wallboard login).

9.93 Wallboard

The IP Office Customer Call Reporter administrator can create wallboard accounts. When logged in with one of these accounts, the browser can be used to display queue statistics for any queues plus other information such as messages sent or scheduled by IP Office Customer Call Reporter supervisors.

IP Office Customer Call Reporter supports up to 30 wallboards. However the maximum number of wallboards that can be logged in at any time is controlled by the number of available Supervisor licenses (each license enables a simultaneous Supervisor login and Wallboard login).

9.94 System Status Application

The IP Office System Status Application (SSA) is a software tool used to view the status of the IP Office telephone system. It uses the same connection method to the IP Office as the IP Office Customer Call Reporter application and so cannot normally be run from the IP Office Customer Call Reporter server.

9.95 Talk Average [Statistic]

- This statistic is available for queues and agents.
- Total talk time divided by the total number of inbound (queue calls)/outbound (Trunk) calls, relative to the include/exclude internal settings.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

9.96 Talk Inbound [Statistic]

- This statistic is available for queues and agents.
- It only includes incoming external trunk calls. Outbound external calls are not included.
- It shows the time the agent has spent handling incoming queue calls.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

9.97 Talk Inbound Average [Statistic]

- This statistic is available for queues and agents.
- It only includes incoming external trunk calls. Outbound external calls are not included.
- It shows the average time the agent has spent on incoming calls for the queue. Calculated as: Talk Inbound divided by calls answered by the agent or queue.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

9.98 Talk Internal [Statistic]

- This statistic is available for queues and agents.
- It shows the time the agent has spent on internal calls (inbound and outbound).
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

9.99 Talk Outbound [Statistic]

- This statistic is available for queues and agents.
- It shows the time the agent has spent on outgoing external calls. Only includes time of call from successful trunk seizure .
- Since outbound calls are not queue related; when calculated for a queue, it is the sum of agents outbound talk time.
- It does not include held, parked and ACW call time.

9.100 Talk Outbound Average [Statistic]

- This statistic is available for queues and agents.
- It shows the average time the agent has spent on outbound external calls. Calculated as: Talk outbound divided by the number of outbound calls.
- It does not include held, parked and ACW call time.

9.101 Talk Total [Statistic]

- This statistic is available for queues and agents.
- It only includes incoming external trunk calls. Outbound external calls are not included.
- It shows the time the agent has spent on outgoing calls (any) and incoming calls (for this queue). It only includes time of outbound calls from successful trunk seizure.
- It does not include queue calls answered by non-queue member using methods such as call pickup.
- It does not include held, parked and ACW call time.

9.102 Transferred [Statistic]

- This statistic is available for queues and agents.

For a queue it is the number of calls originally targeted at the queue and then successfully transferred by the queue's agents.

- For an agent it is the number of the queue's calls that they have transferred.
- It includes both supervised and unsupervised transfers.
- It does not include [direct calls](#) ^[269] to agents that they then transfer.

9.103 Unsupervised Transfer

In an unsupervised transfer, having put your current call on hold pending transfer, after dialing the transfer destination you complete the transfer process without waiting to hear if the call is answered.

9.104 View

The term view is used for the first 3 tabs displayed to supervisors and agents. Each view consists of a table of queues and queue statistics. Clicking on any of the queue names will display an additional table of agent statistics for the agents in that queue. An alarm list or ticker can also be added to each view to show alarms and warnings for that view or all the supervisor's views. The views can be amended by the supervisor and administrator.

Agents are able to see the same views as their supervisor but cannot change the queues or statistics. The agent's version of the view will only show queues to which the agent belongs and their own agent details.

9.105 Weighted Average

A weighted average is used when combining statistics from different sources, for example when displaying the overall Average Answer % for several queues. The method used will take account of a weighting factor such as the number of calls answered by each individual queues.

The example below shows the Average Answer % for 3 queues.

Statistic	Queue 1	Queue 2	Queue 3
Calls Answered	30	2	40
" within answer threshold	20	1	40
Average Answer %	66%	50%	100%

There are several ways in which the overall average for the queues could be expressed:

- Simple Average: 72%
The method is the average of the individual averages.
 - Simple average = $(66+50+100)/3 = 72\%$.
- Combined Average: 85%
This method treats the calls as if answered by a single combined queue.
 - Combined average = $(20+1+40)/(30+2+40) = 85\%$.
- Weighted Average: 88%
The weighted average is similar to the combined average but adjusts the contribution of each queue by the number of calls answered by that queue.
 - Weighted average = $((66 \times 20) + (50 \times 1) + (100 \times 40)) / (20 + 1 + 40) = 88\%$.

9.106 Wrap Up

For all phone users, the IP Office phone system normally applies a short delay, by default 2 seconds, during which the user is indicated as still being busy to further calls. The main function of wrap up is to allow analog phone users who have just finished a call the opportunity to start dialing a short code or to start making a call before another incoming call is presented to them.

For users set as agents, the period of wrap up applied to their phone is reported as their being in [After Call Work](#) state. If the agent is also set for automatic after call work, the wrap up period is applied first and then the automatic after call work period is begun.

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