

**ARMSTRONG BUSINESS SOLUTIONS**

**CALL CENTER PRO USER GUIDE**

**FOR BUSINESS GROUP ADMINISTRATORS**

**JULY 2020**

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# 1 Call Center Pro User Guide for Business Group Administrators

Call Center Pro allows Business Group Administrators to see detailed statistical information on the activity of the Multi Line Hunt Groups in their Business Group or Department using the CommPortal BG Admin interface.

If a Business Group Administrator manages any Multi Line Hunt Groups which are using the Call Center Pro Premium service level, described in 1.1.2, it can also be used to access a number of advanced supervisory features for monitoring Multi Line Hunt Group members, including the ability to listen in on or participate in calls.

## 1.1 How Call Center Pro works

Call Center Pro uses the Multi Line Hunt Group feature within a Business Group to provide detailed information about Multi Line Hunt Group activity for Business Group Administrators through the CommPortal BG Admin interface.

This information is particularly useful if you are operating a small call center and want to monitor the performance of your call center staff.

### 1.1.1 Multi Line Hunt Group

Your Business Group will include one or more Multi Line Hunt Groups. You can view the configuration of a Multi Line Hunt Group using the CommPortal BG Admin interface.

**Figure 1: BG Admin Multi Line Hunt Group page**

Business Group Admin Portal John Smith

### Hunt Groups in Department

A Hunt Group (MLHG or Multi-Line Hunt Group) is a set of lines within a Business Group (members), so that calls to the group are passed to a non-busy member of the Hunt Group, or may be added to a queue if all members are busy. Please contact us if you would like to set up a new Hunt Group.

Move selected to: --Select Department-- Move

Hunt Group Name	Number of Members	Service Level	Department
Accounts	8	Premium ACD	MetaSwitch
Marketing	2	Premium ACD	MetaSwitch
Sales	3	Basic ACD	MetaSwitch
Support	1	Hunt Group	MetaSwitch

Licenses remaining: Basic ACD 19 of 20, Premium ACD 13 of 15

On this page, you can view, edit, move and remove a Multi Line Hunt Group, add and remove member lines, and access the configuration options for the member lines. These tasks are described in section 1.3.

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Once calls are coming in to the Multi Line Hunt Group, you can use the **Supervisor Dashboard** link on the CommPortal BG Admin interface to launch a range of pages that provide current and historical statistics on each of your Multi Line Hunt Groups is performing.

### 1.1.2 Call Center Pro Premium

Call Center Pro Premium is a service level that offers a number of additional supervisory features to aid you in the day to day management of your Business Group, including the ability to listen in, provide agent coaching or barge-in to your Agents' calls.

If you are managing one or more Multi Line Hunt Groups using the Call Center Pro Premium service level, you will be able to use and manage these features using the **Settings** option in the Call Center Pro interface. You will also see a number of additional statistics which provide further information on the activity of queues and agents.

### 1.1.3 Getting Started with Call Center Pro

The following sections contain more detailed information about how to set up and use Call Center Pro within your Business Group or Department.

- 1.2, Accessing the CommPortal BG Admin interface
- 1.3, Using CommPortal to administer your Multi Line Hunt Group
- 1.4, Accessing Call Center Pro statistics
- 1.6, Interpreting Call Center Pro Statistics
- 1.7, Using the Reports
- 1.8, Call Center Pro Premium service features
- 1.9, Managing Call Center Pro Premium service settings using the Call Center Pro Settings screen

## 1.2 Accessing the CommPortal BG Admin interface

To use Call Center Pro, you must be able to access the CommPortal BG Admin interface using a browser: Armstrong Business Solutions should have given you a URL to access this interface, and a phone number and password to log on.

CommPortal is supported on the latest versions of all major browsers and operating systems, including IE, Firefox, Google Chrome and Safari. Your computer should be running either Windows 2000 or later, or Mac OS X 10.6 (Snow Leopard) or later.

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## 1.3 Using CommPortal to administer your Multi Line Hunt Group

You can use the Unified Voice BG Admin interface to make changes to the configuration of a Multi Line Hunt Group within a Business Group or Department, including adding and removing Multi Line Hunt Group lines and amending the configuration options on those lines.

Before you make any of the following changes, you must ensure that you adhere to the capacity guidelines for MLHGs, outlined in section 1.3.1, and the licensing guidelines, outlined in section 1.3.2.

The rest of this section describes the following tasks:

- 1.3.3 - Finding Multi Line Hunt Groups in CommPortal
- 1.3.4 - Viewing and modifying Multi Line Hunt Group settings.
- 1.3.5 - Moving Multi Line Hunt Groups between departments in a Business Group
- 1.3.6 - Adding lines to a Multi Line Hunt Group.
- 1.3.7 - Logging MLHG member lines in and out of a Multi Line Hunt Group.
- 1.3.8 - Configuring unavailable call forwarding on an MLHG Pilot number
- 1.3.9 - Removing lines from a Multi Line Hunt Group.
- 1.3.10 - Changing positions of lines within the Multi Line Hunt Group.
- 1.3.11 - Renaming a Multi Line Hunt Group.

### 1.3.1 Capacity guidelines

You must ensure that you adhere to the following capacity guidelines when administering MLHGs.

- You can configure up to 10 Multi Line Hunt Groups for use with Call Center Pro in a single Business Group.
- Each Multi Line Hunt Group configured for use with Call Center Pro can have up to 64 Multi Line Hunt Group members. Each Business Group can have a maximum of 100 Multi Line Hunt Group members.
- Each Multi Line Hunt Group can have up to 2 Call Center Pro supervisors.
- Each Multi Line Hunt Group member can be a member of up to 10 Multi Line Hunt Groups that are configured for use with Call Center Pro.

### 1.3.2 Licensing guidelines

Each line using Call Center Pro must have an Call Center Pro license, although a subscriber who is a member of multiple MLHGs only requires a single license.

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Your telephony service provider may have limited the number of licenses available to your MLHGs. If this is the case, you will be able to see how many of the available licenses have not yet been allocated to MLHG member lines on the MLHGs page, as described in 1.3.3.

If you have a limited number of licenses, you must be careful when adding lines to an MLHG or moving lines between MLHGs that you do not exceed these license limits. Your change will be rejected if you do not have enough licenses.

### 1.3.3 Finding Multi Line Hunt Groups in CommPortal

Take the following steps to find your Multi Line Hunt Groups in CommPortal.

- Log in to the CommPortal BG Admin interface.
- Click on the **Hunt Groups (MLHGs)** link in the navigation panel on the left-hand side of this page or the icon in the **Groups** panel in the center of the page.

**Figure 2: Finding Multi Line Hunt Groups in CommPortal**

The screenshot shows the 'Business Group Admin Portal' interface. On the left is a navigation menu with options like Home, Groups, Hunt Groups (MLHGs), Sales Department, Call Pickup Groups, Supervisor Dashboard, All Lines, Users, Attendants, and Group Access. The main content area is titled 'Hunt Groups in Department:' and includes a 'View All' dropdown. Below this is a text block explaining that a Hunt Group is a set of lines within a Business Group. There is a 'Move selected to:' section with a 'Select department' dropdown and a 'Move' button. A table lists Hunt Groups with columns for Name, Number of Members, Service Level, and Department. The table shows one entry for 'Sales Department' with 5 members and 'Premium ACD' service level. At the bottom, it states 'Licenses remaining: ACD 0 of 5'.

<input type="checkbox"/>	Hunt Group Name	Number of Members	Service Level	Department
<input type="checkbox"/>	Sales Department	5	Premium ACD	None

- You will now see the Multi Line Hunt Group page.
- If your Multi Line Hunt Group is in a sub-department of the Business Group and is not currently being displayed, you will see a drop-down list at the top of the page that you can use to select the Department.
  - You will now see all the Multi Line Hunt Groups in this Business Group or Department.
- This screen will display additional information for MLHGs that are licensed to use Call Center Pro.
  - If the number of these licenses is limited within the Business Group, you will see information at the bottom of the screen indicating how many of the available licenses have not yet been allocated to MLHG member lines.
  - You will see a Service Level column indicating whether an MLHG uses Call Center Pro. In this column:
    - **Premium ACD** indicates that the MLHG has the Call Center Pro Premium service.

- **Hunt Group** indicates that this MLHG is not licensed for Call Center Pro.

### 1.3.4 Viewing and modifying Multi Line Hunt Groups

You can view the details of a Multi Line Hunt Group and modify its settings.

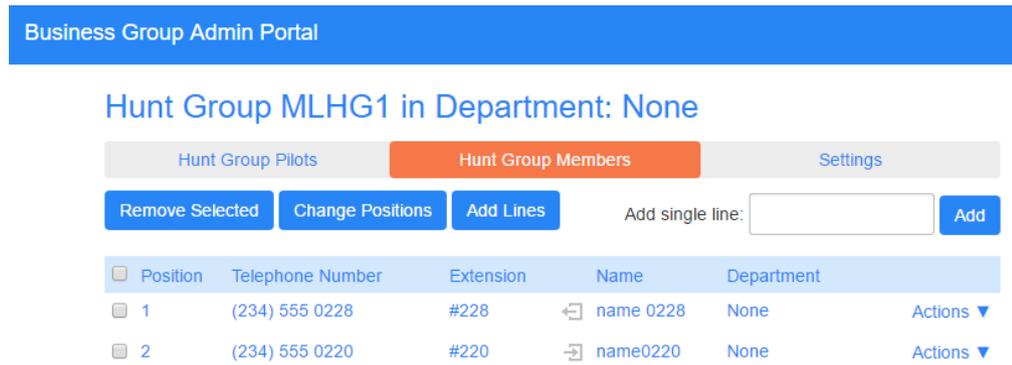
- Select the Multi Line Hunt Group that you want to modify by clicking on any of the details for that Multi Line Hunt Group on the main **Hunt Groups (MLHGs)** screen.
- You will now see the details of this Multi Line Hunt Group.

**Figure 3: Multi Line Hunt Group Pilot Lines**

Business Group Admin Portal		
Hunt Group MLHG1 in Department: None		
Hunt Group Pilots	Hunt Group Members	Settings
Telephone Number	Extension	Name
(234) 555 0226	#226	pilot1
(234) 555 0227	#227	pilot2

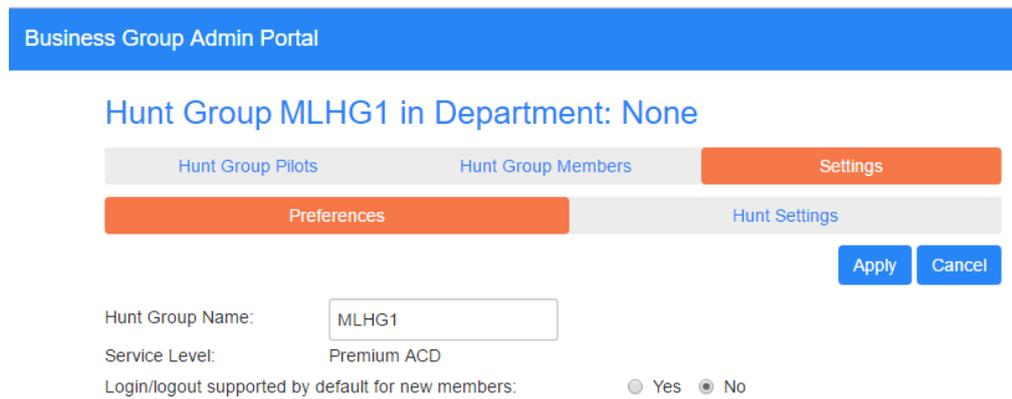
- If the Multi Line Hunt Group has any Pilot Numbers, these will be shown on the **Hunt Group Pilots** tab.
  - A pilot number is one which, when called, enters this Multi Line Hunt Group. You can have multiple MLHG Pilot Numbers for the same MLHG. If you require additional Pilot Numbers, you should contact Armstrong Business Solutions.
  - You can click any of the entries on the Pilot Number line to view the configuration for an MLHG Pilot line.
- To view and modify the lines configured in the Multi Line Hunt Group, open the **Hunt Group Members** tab.
- You will now see details of all the lines which are members of this Multi Line Hunt Group, including whether each member is currently logged in.

**Figure 4: Viewing a Multi Line Hunt Group**



- To view and modify the settings for the Multi Line Hunt Group, open the **Settings** tab.

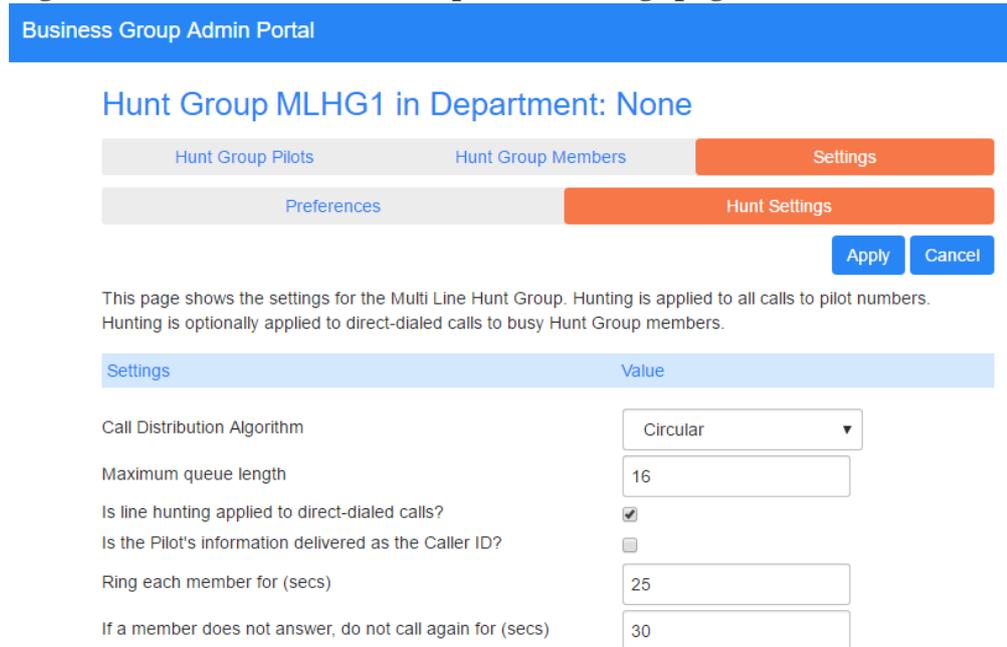
**Figure 5: Multi Line Hunt Group Settings page**



This screen displays information about this MLHG, including the Call Center Pro Service Level used by the MLHG, and allows you to change some of the settings for the MLHG.

- You can use the **Preferences** tab on this page to
  - change the name of the Multi Line Hunt Group, as described in 1.3.11.
  - control whether or not new members of the Multi Line Hunt Group can log themselves in or out of the MLHG, as described in 1.3.7.
- You can also open the **Hunt Settings** tab to view the call distribution algorithm that is currently in use for this Multi Line Hunt Group and other detailed Multi Line Hunt Group settings. You can use this tab to specify whether or not the Pilot Line's information (DN and name) is delivered as the Caller ID.

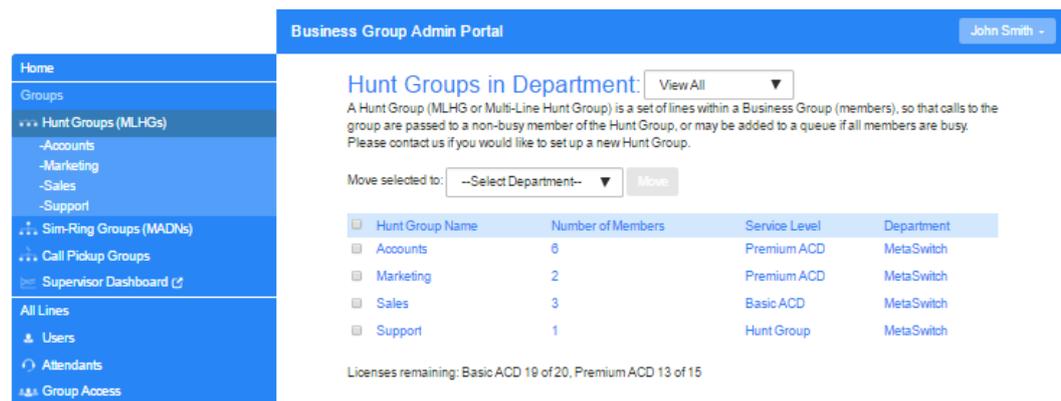
**Figure 6: Multi Line Hunt Group Hunt Settings page**



### 1.3.5 Moving Multi Line Hunt Groups

If your Business Group has a number of departments, you can move Multi Line Hunt Groups between these departments within your Business Group.

**Figure 7: Moving a Multi Line Hunt Group**



- Tick the checkbox on the left of the Multi Line Hunt Group(s) that you want to move.
- Use the drop-down above the list of Hunt Groups to select the department that you want to move the Multi Line Hunt Group to.
- Click **Move**.
- The Multi Line Hunt Group(s) will now be moved to the new department.

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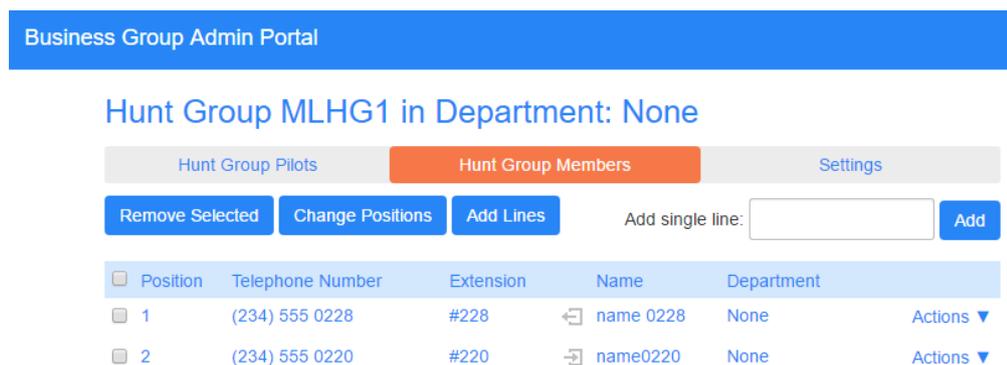
### 1.3.6 Adding a new member line to a Multi Line Hunt Group

You can add a new member line to a Multi Line Hunt Group, as long as you do not exceed the limit of 64 Multi Line Hunt Group member lines in each Multi Line Hunt Group. If you have a limited number of Call Center Pro licenses, as described in 1.3.2, you must ensure that you have a suitable license to use for the new MLHG member, or your attempt to add a line will be rejected.

This task assumes that you have followed the steps to access the Multi Line Hunt Groups page in CommPortal, as described in 1.3.4.

1. Click the **Hunt Group Members** tab.

**Figure 8: Adding a Line to a Multi Line Hunt Group**

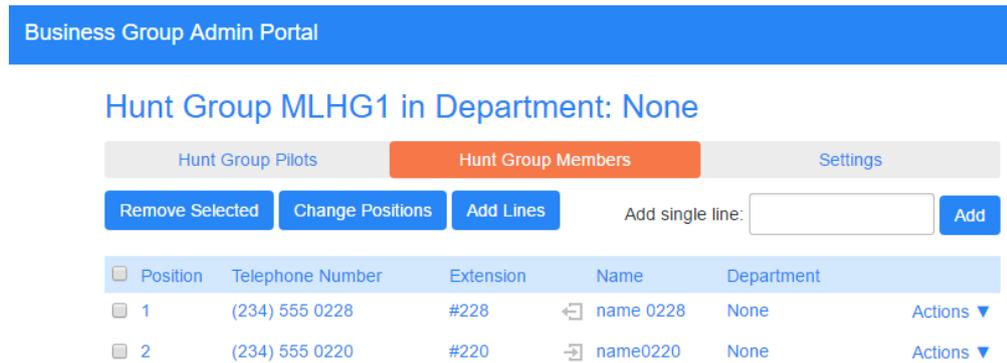


2. If you know the telephone number of the line you want to add as a new Multi Line Hunt Group member:
  - Type the number in the **Add single line** box at the top right of the screen.
  - Click **Add**.
  - The line is then added to the Multi Line Hunt Group.
3. If you do not know the telephone number of the line, or want to add a number of lines, you can select them from a list of available lines.
  - Click the **Add Lines** button in the middle of the screen.
  - A new screen appears, listing all the available lines in the Department. You can use the drop-down to select a different Department.
  - Tick the checkbox to the left of the line(s) that you want to add.
  - Click **Add Selected**.
  - The line(s) will be added to the Multi Line Hunt Group.

### 1.3.7 Logging an MLHG Member line in/out

On the **Hunt Group Members** screen, each line displays an icon to show whether the MLHG Line is currently logged in  or out  of this MLHG.

**Figure 9: Logging MLHG members in and out**



When a line is logged out, the MLHG member will not receive calls sent to the MLHG.

You can log MLHG members in and out as required.

- Click the drop-down alongside **Actions** and select **Edit line**
- You will then see a pop-up that allows you to
  - enable or disable whether this MLHG member line can log themselves in and out of the MLHG
  - tick the checkbox, or remove the tick, to log the MLHG member line in or out of the MLHG.
- Click **Apply** to save your changes.

You can also control whether or not the users of any new MLHG member lines that you create can automatically log themselves in and out of the MLHG.

- Select the **Settings** tab.
- Use the radio buttons alongside *Login/logout supported by default for new members* to select whether or not to enable this feature.

When enabled, new MLHG members can log in and out either via their CommPortal account or by dialing an access code on their phone. If you disable this option, MLHG members cannot log themselves in or out.

### 1.3.8 Configure Unavailable Call Forwarding on an MLHG pilot number

If you have one or more MLHG Pilot lines in your MLHG, as described in section 1.3.4, you may be able to configure Unavailable Call Forwarding on the MLHG Pilot number so that callers can still reach your business even if all the lines in the MLHG are unavailable, for example because you have a power outage.

To enable (or disable) Unavailable Call Forwarding:

- Open the MLHG that contains this Pilot line.

- 
- Click on the Pilot line that you want to configure. This will open the CommPortal page for this line.
  - Click on the **Go to Call Manager** tab.
  - Expand the **Forwarding** tab and enable (or disable) unavailable call forwarding.
  - Configure the forwarding number that will be used if all the lines in this MLHG are unavailable.
  - Click **Apply** to save your changes.

### 1.3.9 Removing a Multi Line Hunt Group member from a Multi Line Hunt Group

You can remove a member line from a Multi Line Hunt Group. This will not delete the line from the Business Group or Department, it will just no longer be a member of the Multi Line Hunt Group.

This task assumes that you have followed the steps to access the Multi Line Hunt Groups page in CommPortal, as described in 1.3.4.

- On the screen shown in Figure 8, find the line that you want to remove from the Multi Line Hunt Group.
- Tick the checkbox on the left of the line.
- Click the **Remove Selected** button.
- The line will be removed from the Multi Line Hunt Group.

### 1.3.10 Changing the position of a member line in a Multi Line Hunt Group

You can change the position of a member line in a Multi Line Hunt Group. When a call is received in the Multi Line Hunt Group, it may be routed to Multi Line Hunt Group members in the order in which they are listed in the Multi Line Hunt Group.

This task assumes that you have followed the steps to access the Multi Line Hunt Groups page in CommPortal, as described in 1.3.4.

- On the **Hunt Group Members** tab, click the **Change Positions** button.
- You will now see a new screen that lists all the lines and their current positions.

---

## Figure 10: Changing Positions in a Multi Line Hunt Group

### Change Member Positions in Hunt Group

Use the up/down arrow icons in the Position column to change the order in which the hunt algorithm selects non-busy lines to pass incoming calls to. Click Apply when you have finished.

Position	Telephone Number	Extension		Name	Department
1	(234) 555 0228	#228	←	name 0228	None
2 ↑	(234) 555 0220	#220	↩	name0220	None

Apply

Cancel

- Use the up and down arrows icons to move the lines to their new positions.
- Once all the lines are in the correct positions, click **Apply** to save your new configuration.

### 1.3.11 Renaming a Multi Line Hunt Group

You can rename a Multi Line Hunt Group.

- Select the Multi Line Hunt Group that you want to rename, following the steps described in 1.3.4.
- Click on the **Settings** tab.

#### Figure 11: Multi Line Hunt Group Settings page

Business Group Admin Portal

### Hunt Group MLHG1 in Department: None

Hunt Group Pilots    Hunt Group Members    **Settings**

**Preferences**    Hunt Settings

Apply    Cancel

Hunt Group Name:

Service Level: Premium ACD

Login/logout supported by default for new members:  Yes  No

- Select the **Preferences** page.
- Type the new name in the text box.
- Click **Apply** to save your new name.

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### 1.3.12 Call recording

If you use call recording in your Call Center Pro deployment, you can use the CommPortal BG Admin interface to manage the call recording service.

#### Enable or disable call recording for a line

You can use the CommPortal BG Admin interface to enable or disable call recording for your MLHG lines, including MLHG Pilot Lines. This task assumes that you have followed the steps to access the Multi Line Hunt Groups page in CommPortal, as described in 1.3.4.

- On the **Hunt Group Members** page, click on either the **Hunt Group Pilots** or **Hunt Group Members** tab, depending on the type of line.
- Find the line and click on it to view the configuration for that particular line.
- Click the **Call Settings** icon.
- In the **General** panel tick or untick the *Enable call recording* checkbox to enable or disable call recording for this line.

#### Access your Call Recording Server

You can click the **Call Recording** link on the left-hand menu of the CommPortal BG Admin interface to access the administrative interface of your call recording server, where you can configure your call recording service and manage your existing recordings.

## 1.4 Accessing Call Center Pro statistics

You will use the CommPortal BG Admin interface to access and download the various statistics generated by the Call Center Pro component.

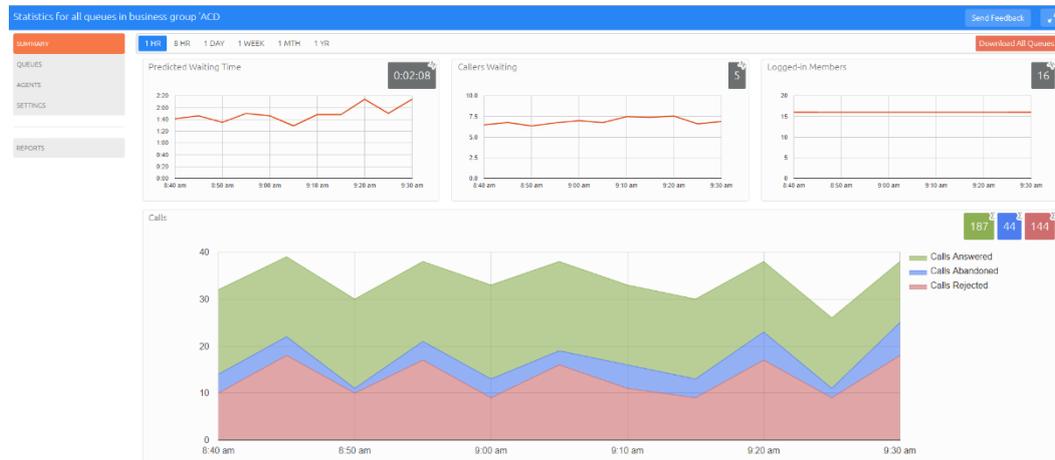
- Navigate to the MLHGs page, as described in 1.3.4.
- If your MLHG is in a sub-department of the Business Group and is not currently being displayed, use the drop-down list at the top of the page to select the Department.
- On the left-hand sidebar of the CommPortal BG Admin interface, click the **Supervisor Dashboard** link.

**Figure 12: Accessing the Supervisor Dashboard**



- This launches the Call Center Pro Summary screen in a new browser window, from where you can also access screens displaying statistics for your Queues and Agents, review and modify your settings, and generate reports.

**Figure 13: Call Center Pro Summary screen**



You should refer to section 1.6 for detailed information on what each statistic means and how it is calculated.

The remainder of this section describes the different screens in more detail, and provides more information about the presentation of the statistics.

### 1.4.1 Using the Call Center Pro screens

On each of these screens, you can access further information about the MLHG and its members using the following techniques.

- Hover over the data lines on the graphs to see values for a specific time within the time period of the graph. The graphs will display the time in hh:mm:ss or mm:ss as appropriate.
- Click on a time period at the top of the screen to show historical data for a different time period, for example 1 Day or 1 Week.

- Click the red **Download All Queues** button at the top right of the screen to download a .csv file that has more detailed statistics of all your queues for the selected time period. On the Agents page, this is a **Download All Agents** button that provides statistics for all the Agents.

### Using the Wallboard view

The Summary, Queues and Agents pages can also be displayed as a Wallboard view.

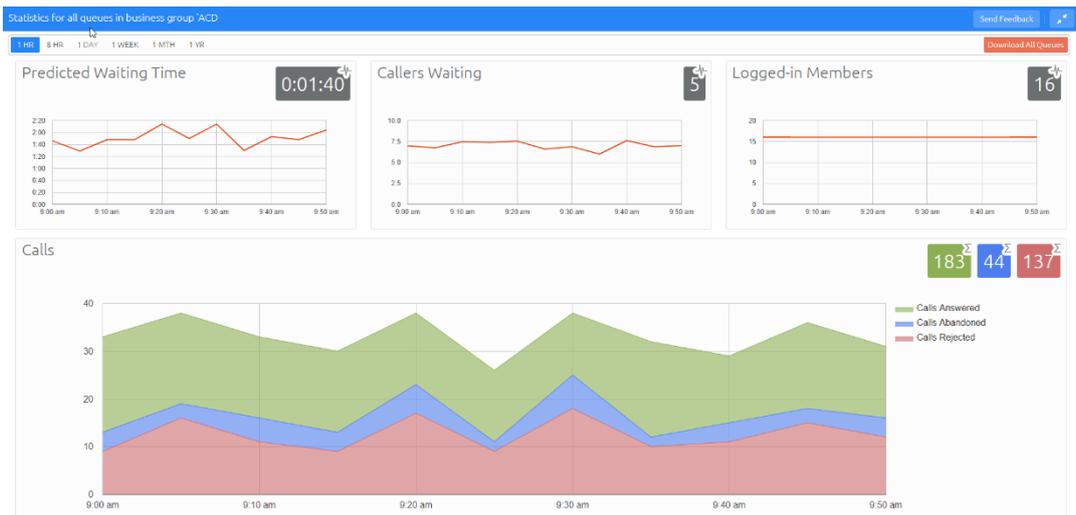
The Wallboard view removes the navigation and shows data for the time period that is currently selected. This view is extremely useful if you want to see at a glance how your Queues and Agents are currently performing.

To open and close the Wallboard view:

- Ensure that you have selected the appropriate time period that you want to display on the Wallboard view.
- Click on the  button at the top right of the screen to display the Wallboard view.
- Click on the  button to return to the standard view.

The Summary screen Wallboard view retains but enlarges the graphs.

**Figure 14: Summary screen Wallboard view**

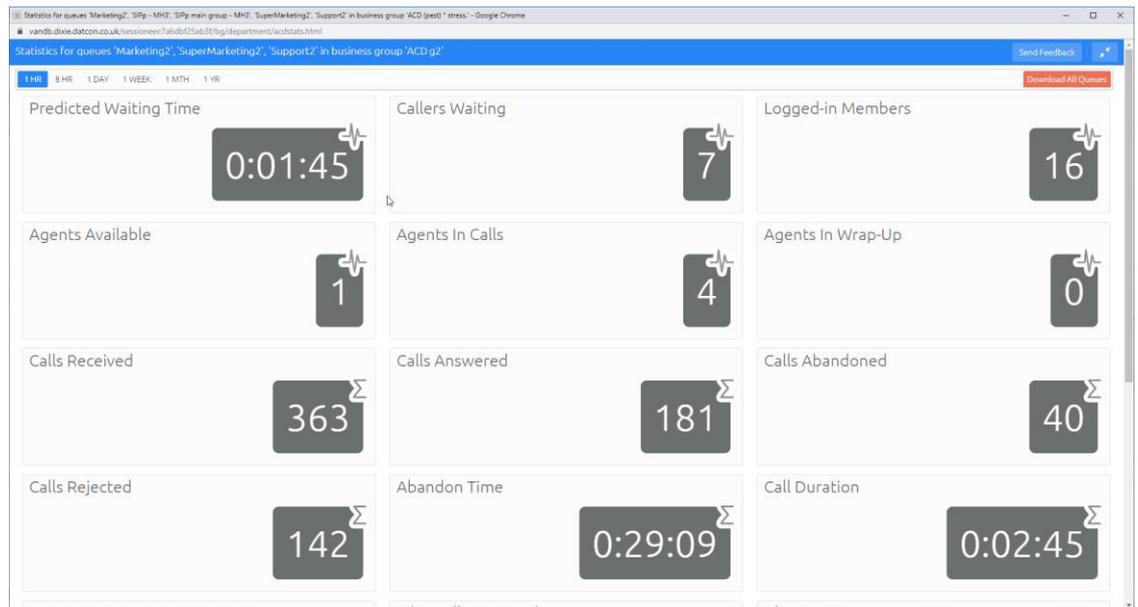


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The Queues and Agents Wallboard views simply display the name of the statistic and the gray boxes. The values in the gray boxes are either the cumulative total of the graph or a snapshot at the current time, as indicated by a tooltip and the icon in the top right hand corner of each box.

-  indicates that this is a cumulative total.
-  indicates that this is a near real-time value.

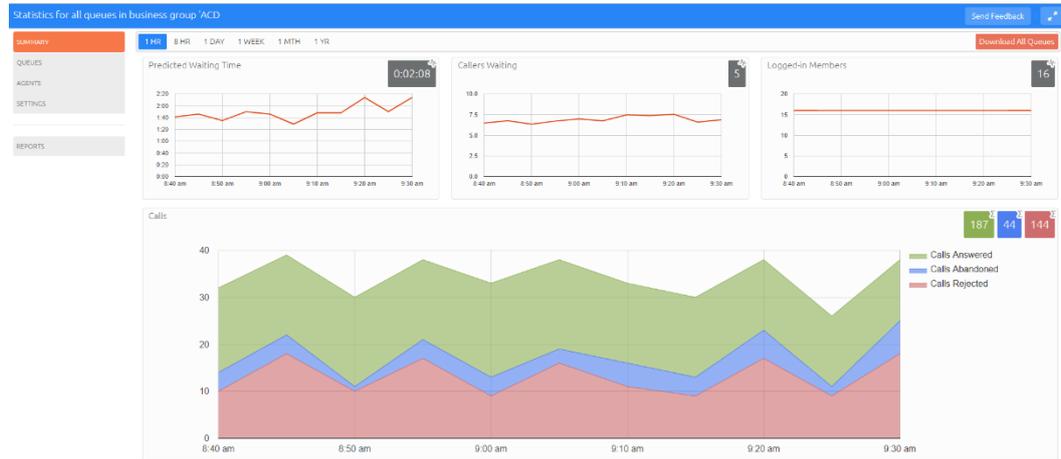
**Figure 15: Queues screen Wallboard view**



## 1.4.2 Viewing the Call Center Pro Summary screen

The Call Center Pro Summary screen displays a range of statistics for all the queues (MLHGs) in the Business Group or Department that you previously selected.

**Figure 16: Call Center Pro Summary screen**



The default view shows the 1 hour historical data (on the graphs) and either the cumulative total of the graph or a snapshot at the current time (the white numbers in the gray or colored boxes at the top right of each graph) for the following statistics:

- Predicted waiting time for a call to be answered.
- Number of callers waiting in the Queue(s) managed by this BG Administrator.
- Number of Agents who are logged in.
- Number of calls (separate statistics for answered, abandoned and rejected calls).

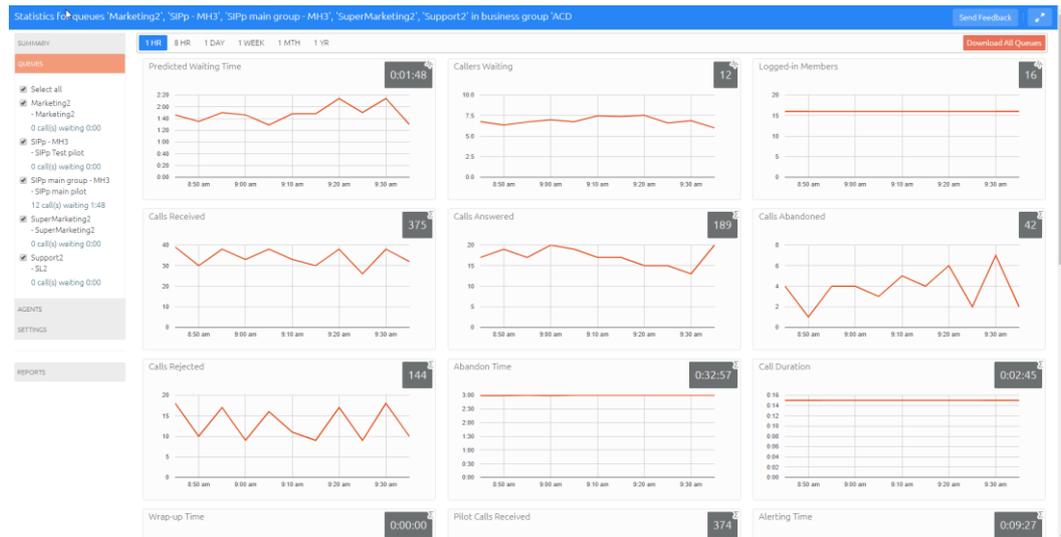
### 1.4.3 Viewing the Queues screen

The **Queues** screen shows detailed information on the Queues (MLHGs) that you administer.

To access the **Queues** screen:

- Click on the **Queues** box on the left of the Summary screen.
- This launches the default view, which shows 1 hour historical data for all the Queues that you administer.
  - As described in 1.4.1, the numbers in the gray boxes will either be the cumulative total from the graphs, or a near real-time value, and this will be indicated by the icon in the top right of each gray box.

**Figure 17: Queues screen**



- Use the checkboxes in the panel on the top left-hand side of the screen to display statistics for a single Queue or for a combination of Queues.
- This panel shows the MLHG Pilot Number and the number of calls that are currently waiting for all Queues selected, to help you identify the Queue that might be of the most interest to you, for example because there are a large number of callers waiting.
- Use the red **Download All Queues** button to download information about all your Queues in csv format.

The following statistics are displayed on the Queues screen. Some of these are displayed either as absolute numbers or as a rate per hour, depending on the configuration of your service.

- Predicted Waiting Time (duration)
  - This is the sum of queuing and alerting (agent's line is ringing) times.
  - The number in the gray box is the cumulative total for the time period selected.
- Callers Waiting (calls)
  - This is the number of callers waiting in the queue. Calls arriving in the MLHG may be put in a queue if all the lines are busy and your MLHG is configured to hold callers in a queue. When an agent becomes available, the first call in the queue will be hunted to that agent and it will not be counted in this statistic even if the agent has not yet answered the call.
  - You will not see this statistic if your MLHG is configured to only accept a call when an agent is available.
- Logged in Members (agents)

- 
- The number of agents who are currently logged in.
  - Calls Received (number of calls received or calls/hr)
    - This is the rate at which incoming calls arrive.
    - The number in the gray box is the cumulative total for the selected time period.
  - Calls Answered
    - For this historical statistics in the graphs, this is either the percentage or absolute number of received calls that were answered.
    - The number in the gray box is the cumulative total for the selected time period.
  - Calls Abandoned
    - These are received calls where the caller hung up before an agent answered.
    - For the historical statistics in the graphs, this is either the percentage or absolute number of received calls that were abandoned.
    - The number in the gray box is the cumulative total for the selected time period.
  - Calls Rejected
    - This is either received calls that were rejected as busy (if you have disabled queuing) or the received calls that were rejected when the queue was full.
    - For the historical statistics in the graphs, this is either the percentage or absolute number of received calls that were rejected.
    - The number in the gray box is the cumulative total for the selected time period.
  - Abandon Time (duration)
    - The average time a caller waits in a queue before hanging up without their call being answered.
    - The number in the gray box is the cumulative total for the selected time period.
  - Call Duration (duration)
    - The average duration of answered calls.
    - The number in the gray box is the cumulative total for the selected time period.
  - Wrap-up Time (duration)
-

- 
- The average time spent by agents completing any work associated with a call after the call itself has ended.
  - The number in the gray box is the cumulative total for the selected time period.
  - Pilot Calls Received (number of calls or calls/hr)
    - Calls may arrive in a queue either via the pilot number(s) or by calling one of the agents directly. You can configure your queue so that, if that agent is busy when the call arrives, the call is then queued as if it arrived via the pilot number(s).
    - For the historical statistics in the graphs, this is either the number of calls or the rate of calls per hour received by the pilot number.
    - The number in the gray box is the cumulative total for the selected time period.
  - Alerting Time (duration)
    - This is the average time between the call being hunted to an agent and the agent answering their phone. This statistic, along with Hunt attempts not answered, provides a useful metric of how responsive your call center agents are.
    - The number in the gray box is the cumulative total for the selected time period.
  - Logged-in Agent States
    - This is the total amount of time in seconds that agents logged in to the selected queues spent in each agent state in the period. Agents are only included on this graph for times when they were logged into at least one of the selected queues.
  - Current States (%)
    - This is the percentage of agents that are currently in each state. This statistic only includes agents who are logged in to at least one of the selected queues and only states that are currently being used by agents are shown. This statistic does include agents whose state is set automatically to unavailable, for example because they are in a call or have turned on MetaSphere CFS DND. Agents who are logged out of all the selected queues are not shown.
  - Disposition Codes (calls)
    - The total number of calls that have been assigned to each disposition code by agents in the selected queues.
  - Queued Calls Timed Out

- 
- You can configure your queue to timeout calls that have been queued for longer than a specified time. However, we would recommend implementing a different behavior in this scenario, for example by forwarding the caller to voicemail. If you see a lot of calls being timed out, then you probably need to add more agents to the queue.

If queuing has been disabled, a call will only be accepted if an agent is available, and this statistic will be hidden.

- For the historical statistics in the graphs, this is either the number of calls or the rate of calls per hour.
- The number in the gray box is the cumulative total for the selected time period.
- Calls Queued
  - If all agents are busy in other calls, an incoming call will be queued until an agent is available.
  - For the historical statistics in the graphs, this is either the percentage or rate of calls per hour.
  - The number in the gray box is the cumulative total for the selected time period.
  - If you have disabled queuing so a call is only accepted if an agent is available, this statistic will be hidden.
- Hunt Attempts Timed Out (number of calls or calls/hr)
  - This is the number of calls that were hunted to a particular agent but the call timed out before the agent answered, and the call was then hunted to another agent. If the caller simply hung up before the agent answered, this is not counted in this statistic. This statistic is only shown if hunt on no answer is configured for this MLHG.
  - This statistic, along with Alerting time, provides a useful metric of how responsive your call center agents are.
  - For the historical statistics in the graphs, this is either the number of calls or the rate of calls per hour.
  - The number in the gray box is the cumulative total for the selected time period.
- Exit from Queue Attempts
  - If you have this feature, this is the number of callers who pressed zero on their phone keypad to exit a MLHG Queue and forward their call either to voicemail or to a configured telephone number.

- The number in the gray box is the cumulative total for the selected time period.
- Time Before Exit From Queue
  - This is how long callers remain in a MLHG before pressing zero on their phone keypad to exit the Queue.
  - The number in the gray box is the cumulative total for the selected time period.

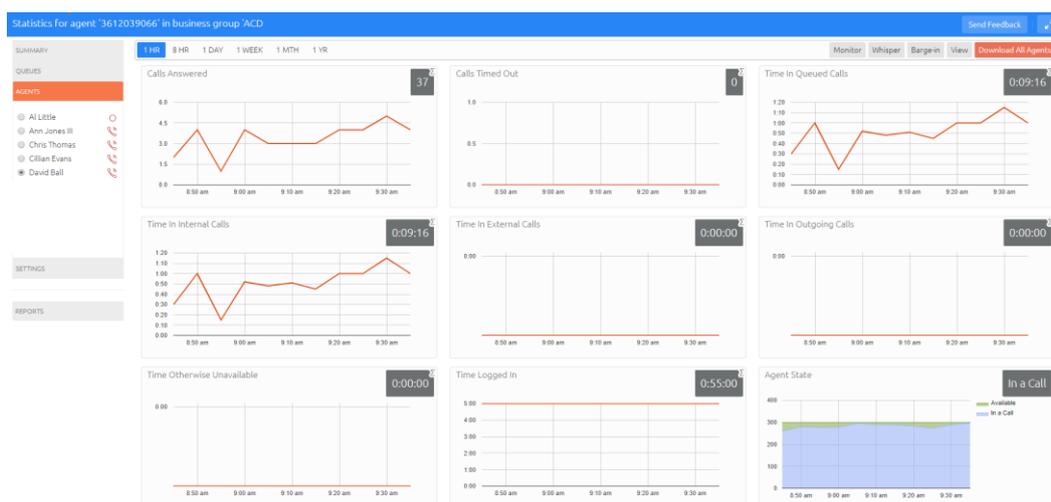
## 1.4.4 Viewing the Agents screen

You can access an **Agents** screen that shows detailed information on the agents (MLHG Member lines) belonging to the Queues (MLHGs) that you administer.

To access the Agents screen:

- Click on the **Agents** box on the left of the Summary screen.
- This launches the default view, which shows the current values (the white numbers in the gray box on the top right of each graph) and 1 hour historical data (on the graphs) for the first Agent in the Queue(s) that you administer. Depending on the configuration of your system, some of these numbers will be displayed either as absolute numbers or as a rate per hour, as indicated below.

**Figure 18: Viewing the Agents screen**



- Use the radio button to select the statistics for a different agent.
- Use the red **Download All Agents** button to download information in csv format about all your Agents. The download will include statistics per agent for each Queue that they belong to.

- 
- Use the orange **View** button to view the Agent Status page for the selected Agent. This page is described in 1.4.5.

The following statistics are available on this screen. Note that some of these statistics will only be shown if you are managing at least one Queue that is using the Call Center Pro Premium service level.

- Calls answered (number of calls or calls/hr)
  - The rate at which this agent answered incoming calls.
  - For the historical statistics, this is either the number of calls or the rate of calls per hour.
  - The number in the gray box is the cumulative total for the selected time period.
- Calls timed out (number of calls or calls/hr)
  - The rate at which this agent failed to answer calls (the calls may therefore have been hunted to another agent). This statistic tracks calls that were unanswered because the call was timed out when ringing this agent. If the caller simply hung up, then that is not counted here.
  - For the historical statistics, this is either the number of calls or the rate of calls per hour.
  - The number in the gray box is the cumulative total for the selected time period.
- Time in queued calls (% or duration in seconds)
  - The time this agent spent in calls that arrived via a queue.
  - For the historical statistics, this is a percentage or a duration in seconds.
  - The number in the gray box is the cumulative total for the selected time period.
- Time in internal calls (% or duration in seconds).
  - The time this agent spent in calls from other members of their Business Group.
  - For the historical statistics, this is a percentage or a duration in seconds.
  - The number in the gray box is the cumulative total for the selected time period.
- Time in external calls (% or duration in seconds).
  - The time this agent spent in calls dialed directly to the agent from outside the Business Group.
  - For the historical statistics, this is a percentage or a duration in seconds.

- 
- The number in the gray box is the cumulative total for the selected time period.
  - Time in outgoing calls (% or duration in seconds)
    - The time this agent spent in outgoing calls.
    - For the historical statistics, this is a percentage or a duration in seconds.
    - The number in the gray box is the cumulative total for the selected time period.
  - Time otherwise unavailable (% or duration in seconds)
    - The time that this agent was unavailable to answer calls without already being in a call, for example because they enabled Do Not Disturb on their line.
    - For the historical statistics, this is a percentage or a duration in seconds.
    - The number in the gray box is the cumulative total for the selected time period.
  - Time logged in (% or duration in seconds)
    - The time this agent was logged in to a queue. This number may exceed 100% if the agent is a member of more than one queue.
    - For the historical statistics, this is a percentage or a duration in seconds.
    - The number in the gray box is the cumulative total for the selected time period.
  - Wrap-up Time
    - The average time spent by this agent completing any work associated with a call after the call itself has ended.
    - The number in the gray box is the cumulative total for the selected time period.
  - Agent States
    - This is the percentage of time that this agent spent in each agent state, including agent states that are set automatically, for example when an agent was unavailable because they had logged out of all their queues, turned on DND or were in a call.
    - The state that this agent is currently in is shown in the top right hand corner.
  - Disposition Codes (calls/hr)
    - The total number of calls that this agent has assigned to each disposition code.

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## 1.4.5 Viewing the Agent Status page

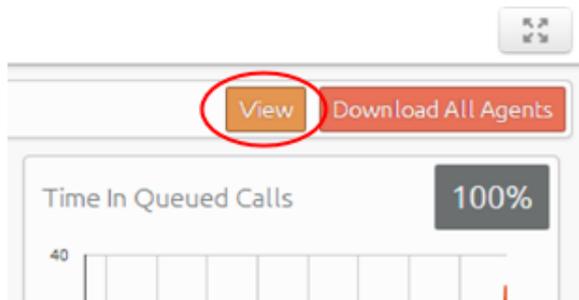
The Agent Status page is used by MLHG members to view information on the current activity of the Queues (MLHGs) that they belong to and, if they are a member of an Call Center Pro Premium Queue, manage their Agent State.

You can access the Agent Status page of a particular Agent if necessary. For example, you may need to mark an Agent as unavailable if they are not currently available to take calls but have failed to update their Agent State.

To view the Agent Status page:

- Go to the Supervisor Dashboard, as described in 1.4.
- Go to the Agents page, as described in 1.4.4.
- In the panel on the left-hand side of the Agents page, use the radio button alongside the Agent's name to select the Agent.
- Click the orange View button on the top right of the Agents page.

**Figure 19: View button on Agents screen**



The Agent Status page for your chosen Agent will then open.

## 1.5 Working with the .csv file

The .csv file generated from the **Agents** or **Queues** screen allows you to process and query the raw statistical data in an application of your choice, including database or spreadsheet applications. If you plan to process the data using a database application, please see the notes on the file's structure and header rows in 1.5.2.

**Note:** The .csv file exposes the raw data used by the Call Center Pro to calculate the values displayed in the Agents and Queues screen. You may therefore see some anomalies in the data: for example, values for the **Callers Waiting** field that display as zero in the **Queues.csv** file may occasionally show as a very low non-zero value of the order  $10^{-3}$  to  $10^{-5}$ .

---

All fields of the queues and agents CSV downloads will be rounded up and will use three decimal points if the value is less than 1, two decimal points if the value is greater than or equal to 1 and less than 10, or one decimal point if the number is greater than or equal to 1 and less than 100. Other values will not use a decimal point.

### 1.5.1 Importing the data into Microsoft Excel

If you wish to work with the raw data in Microsoft Excel, the following tips will allow you to view and sort it in a user-friendly manner:

- Unless you intend to modify the raw data in Excel and then use it in another application that requires it to be in .csv format, opening the .csv file directly in Excel is not recommended. Instead, import the data into a blank Workbook using **Data -> Get External Data -> From Text**, and use the wizard to ensure your data displays properly.
- Select the cell immediately to the right of the **Agent number** (if applicable), **Queue name** and **Timestamp** columns and immediately below the top header row (see 1.5.2 below). If your .csv file contains only a small number of header rows (10 or fewer), it may be more convenient to select the cell immediately below all header rows. Then choose **View -> Freeze Panes -> Freeze Panes** (based on current selection) to ensure the initial row(s) and columns remain visible as you scroll through the data.
- Highlight the topmost cell of the **Agent number** (if applicable), **Queue name** and **Timestamp** columns and select **Data -> Sort and Filter -> Filter**. This will allow you to individually select the queue types, dates/times and/or agents you wish to view.

### 1.5.2 Understanding the structure of the .csv file

The two types of .csv file generated by Call Center Pro both contain a fixed set of columns.

- **Queues** .csv files contain columns corresponding to all the fields available in the Call Center Pro **Queues** screen (see 1.4.3).
- **Agents**.csv files contain columns corresponding to all the fields available in the Call Center Pro **Agents** screen (see 1.4.4).

However, please note that

- some fields in the .csv files appear in a different order from fields in their corresponding screen type; and
- certain data types (for example, agent states and disposition codes) appear in a single field in the **Queues** and **Agents** screens but display in multiple columns in the .csv files.

In both types of .csv file, the first header row contains the headings for each column. The file also contains a variable number of subsequent header rows before the rows containing the statistical data.

- **Queues** .csv files contain a header row for each queue type for which there are data entries. For the variable agent state and disposition code fields, each row contains the value assigned to that field for the applicable queue type.
- **Agents** .csv files contain a header row for each combination of agent number and queue type for which there are data entries. (If an agent has worked on both billing and sales queues, two header rows will be generated for that agent.) For the variable agent state and disposition code fields, each row contains the value assigned to that field for the applicable queue type.
- In both types of file, the final header row specifies the unit of measurement (if any) for the column. If no unit is given, numerical values in that column represent instance counts.

**Figure 20. Screenshot showing an Agents-type .csv file displayed in Microsoft Excel.**

	A	B	C	W	X	Y
1	Agent num	Queue nam	Timestamp	Agent Unavailable State 4	Disposition Code 0	Disposition Code 1
2	5102171228	BillingQueue		In a meeting	Wrap-up timed out	Answered Billing Question
3	5102175082	BillingQueue		In a meeting	Wrap-up timed out	Answered Billing Question
4	5102175082	Sales Queue		In a meeting	Wrap-up timed out	Sold a Yellow Widget
5	5102175080	BillingQueue		In a meeting	Wrap-up timed out	Answered Billing Question
6	5102175081	BillingQueue		In a meeting	Wrap-up timed out	Answered Billing Question
7	5102175081	Sales Queue		In a meeting	Wrap-up timed out	Sold a Yellow Widget
8	5102175083	BillingQueue		In a meeting	Wrap-up timed out	Answered Billing Question
9				sec		
642	5102175082	BillingQueue	20/01/2015 02:00	0	0	0
643	5102175082	BillingQueue	21/01/2015 02:00	0	0	0
644	5102175082	BillingQueue	22/01/2015 02:00	61790	0	0
645	5102175082	BillingQueue	23/01/2015 02:00	86400	0	0
646	5102175082	BillingQueue	24/01/2015 02:00	86400	0	0
647	5102175082	BillingQueue	25/01/2015 02:00	86400	0	0
648	5102175082	BillingQueue	26/01/2015 02:00	86400	0	0
649	5102175082	BillingQueue	27/01/2015 02:00	86400	0	0
650	5102175082	BillingQueue	28/01/2015 02:00	86400	0	0
651	5102175082	BillingQueue	29/01/2015 02:00	86400	0	0
652	5102175082	BillingQueue	30/01/2015 02:00	86400	0	0
653	5102175082	BillingQueue	31/01/2015 02:00	86400	0	0

*In this example, panes have been frozen as described in 1.5.1 to allow header rows and initial columns to display when scrolling through the dataset.*

***Disposition Code 1** has different values for a sales queue than for a billing queue.*

In Excel, header rows are subject to the same filtering mechanisms as regular data rows. Filtering the above dataset to display records for a single agent number and queue type also yields a single header row. This row then provides a reference for the values assigned to agent states and disposition codes for the records displayed, as shown in the screenshot below.

**Figure 21. The above dataset filtered to display records for a single agent and queue type.**

	A	B	C	Z	AA	AB
1	Agent num	Queue nam	Timestamp	Disposition Code 2	Disposition Code 3	Disposition Code 4
6	5102175081	BillingQueue		Collected Payment	Issue Credit	Requested Payment Terms
1742	5102175081	BillingQueue	13/01/2015 02:00		0	0
1743	5102175081	BillingQueue	14/01/2015 02:00		0	0
1744	5102175081	BillingQueue	15/01/2015 02:00		12	3
1745	5102175081	BillingQueue	16/01/2015 02:00		0	0

## 1.6 Interpreting Call Center Pro Statistics

The Summary, Queues and Agents statistics displayed by Call Center Pro are calculated in a number of different ways. This section provides some background information to help you interpret these statistics.

On each screen, the graphs show historical data for the time period selected. The white numbers in the gray boxes on the top right of each graph or on the Wallboard views, are either the cumulative total shown in the graphs, or a snapshot at the current time. Each box has an icon and tooltip to indicate which type of value is being shown.

- Where the gray boxes display the current value, the numbers in the gray boxes use an hourly rate that is a running average.
- For the 1 day and 1 week granularities, this hourly rate will be the same as the number in the period. For other granularities, it will be 12x higher or 24x lower than the numbers in the graphs for the same call rate.
- The graphs either use the hourly rate, or display the absolute number for calls received, calls answered, calls abandoned and calls rejected in the selected time period and use these as the axis of the graph. These numbers are also shown in the tooltip which appears when you mouse over a specific time period on the graph. The tooltip also displays the percentage of total calls for calls that were answered, abandoned or rejected.

The statistics auto-refresh to keep the data current. This happens without the page reloading.

- Where the gray boxes display the current view, the statistics auto-refresh every 30 seconds.
- For historical data, the statistics auto-refresh every 5 mins when the 1 or 8 hour views are selected, every hour when the 1 day or 1 week views are selected or every day when the 1 month or 1 year views are selected.
- The list of queues and agents currently configured auto-refreshes every hour.

The statistics shown on the Call Center Pro screens are calculated using different metrics.

---

The statistics always use the mean when combining multiple queues, or combining 12 x 5 min stats into 1 hour and 24 x 1 hour stats into 1 day. The running average is used for the current value of calculating event based statistics (that is, all statistics except Callers waiting, Logged in members). This is therefore effectively a weighted mean of the last ~5 events.

- Some statistics are calculated as a percentage that will be a proportion of the time period selected spent on that particular activity. For example, if the 1 Hour time period is selected, statistics are shown in 5 minute segments, and the current 5 minute period would therefore be 300 seconds.
- The number of calls per hour statistic is updated as calls arrive, and is calculated as 1 divided by the gap between the two most recent calls. There is a running average of the most recent values (for example the last 5 calls), but weighted so that the most recent changes count for more. If the rate of calls suddenly changes, the value will still partly reflect the old rate until several new calls have arrived.

This means that during low call volumes the current value statistic may at first seem too high because it now takes a long time for a call to arrive at the new rate.

For historical values, if this statistic is displaying a rate per hour rather than the absolute number of calls, the statistic takes the number of calls and divides by the granularity (for example, if you have 2 calls in 5 minutes, you will have 24 calls per hour). This allows for simple comparison of the current value shown for a statistic when switching between different time periods. For example, if the call center is receiving calls at a steady rate of approximately 5 calls every 5 minutes, a current rate of 60 calls per hour will be shown for both the 1 hour and 1 day views.

Note that this may cause unexpected statistics if you are testing the system by carrying out individual calls on an otherwise idle system. For example, a single call will result in a rate of 12 calls per hour being shown for both the 1 hour and 1 day views.

- For the Predicted waiting time statistic, the current view values are updated as new data becomes available. It is calculated by doubling the average time spent waiting so far by all current waiting calls (since on average they are halfway through their wait). If there are no calls currently waiting or currently active, then the predicted waiting time will be reported as zero. If there is only one call waiting, the predicted waiting time displayed will be twice the time that call has been waiting.

- 
- The following statistics are tracked as numbers.

Callers waiting  
Logged in members

- The current view value is the actual number at that refresh point, whereas the graph is the mean over that time period. If an agent logs out during the period of the graph, they will be shown as logged in for less than 100% of the time. For example, an agent logging out for 1 minute in a 5 minute period will be shown as logged in for 80% of the time. Callers waiting may show as a fraction when calculating historical values.
- On the **Queues** tab, depending on how your deployment is configured, the graphs may show the absolute number rather than the rate for the following statistics:

Calls received / Calls answered / Calls rejected / Calls Abandoned  
Pilot Calls received  
Calls queued / Queued calls timed out / Hunt attempts timed out  
Exit from Queue attempts / Time before exit from Queue

- On the Agents tab, again depending on how your deployment is configured, the graphs may show the absolute number rather than the rate for the following statistics:

Calls answered / Calls timed out  
Time in queued / internal / external / outgoing calls  
Time otherwise unavailable / time logged in.

## 1.7 Using the Reports feature

From the Supervisor Dashboard, you can create a wide range of reports for the Business Group or Departments that you manage (and any of their sub-departments), ranging from broad call center traffic statistics to individual call records.

These reports provide crucial information on Queue and Agent activity over a specified period, which you can use to help you with day-to-day management tasks, such as planning for busy periods during the working week and monitoring the general performance of your Agents. You can either schedule reports to be generated on a regular basis, or generate a report on past activity over a specified period.

This section describes

- the report formats for scheduled reports (section 1.7.1)
- the different types of report you can create (section 1.7.2)
- how to generate Reports (section 1.7.3).



- "Compound reports" that contain multiple tables have the data from all tables in a single CSV file, which is divided in sections as follows:
  - Sections are separated by a blank line.
  - Each section begins with a line that contains the section title and is followed by the section data according to the rules above.
  - If there is no data in any section, the report contains a single line with the text `No Data` (or its international equivalent, as in the existing browser and PDF reports).
- Otherwise, if one or more sections have no data, those sections contain the section title line followed by `No Data`.

## 1.7.2 Report types

You can create the following types of report.

### Agent Summary

The **Agent Summary** report gives an overview of the performance of all of the Agents in your call center, allowing you to spot any issues that may require further investigation.

It includes general performance information for all Agents in the Business Group or Departments that you manage (and any of their sub-departments) during your chosen time period. The entirety of this time period must be within the last 60 days.

This information is presented in a table. Note that this table does not include information on incoming calls that were not received via a Queue or outgoing calls.

**Figure 23: Agent Summary report**

Agent	Queue	Min call duration	Mean call duration	Max call duration	Mean alerting time	Total calls offered	Total calls answered
John Smith	Support	2:36	2:36	2:37	0:00	60	60 (100%)
Ann Jones	Support	2:36	2:36	2:37	0:00	143	143 (100%)
Jane Watson	Careers	2:46	2:46	2:47	0:00	186	186 (100%)
David Ball	Careers	2:46	2:46	2:47	0:00	126	126 (100%)
Chris Thomas	Careers	2:46	2:46	2:47	0:00	181	181 (100%)

Each row in the table gives information on an Agent's activity when handling calls from a particular Queue, as indicated in the **Agent** and **Queue** columns. If an agent is a member of more than one Queue, they will have a row in the table for every Queue that they are a member of.

---

The Agent Summary report provides the following information.

- **Min call duration** - The duration of the shortest call answered by the Agent that was received from this Queue during the specified time period.
- **Mean call duration** - The average length of a call answered by this Agent from this Queue during the time period specified.
- **Max call duration** - The duration of the longest call that this Agent handled from this Queue during the time period specified.
- **Mean alerting time** - The average amount of time between a call from this Queue being hunted to the Agent and the Agent answering their phone.
- **Total calls offered** - The number of calls offered to this Agent from this Queue during the chosen time period.
- **Total calls answered** - The number of calls answered by this Agent from this Queue.

### Call Log

The **Call Log** report gives a detailed overview of call activity for your call center, providing information on all calls made to or from the Business Group or Departments that you manage (and any of their sub-departments) during your chosen time period. The entirety of this time period must be within the last 60 days.

This information is presented as a table with a row for each call.

**Figure 24: Call Log report**

Date	Direction	Source	Intermediate Destinations	Destination	Alerting Time	Duration	Account Code
11/01/2017 00:00:02	inbound	36	SIPp main pilot	David Wright	0:15	0:10	
11/01/2017 00:00:05	inbound	36	SIPp main pilot	Cillian Evans	0:03	0:10	
11/01/2017 00:00:08	inbound	36	SIPp main pilot	David Wright	0:06	0:10	

The Call Log report provides the following information for each call.

- **Date** - The date and time at which the call was initiated.
- **Direction** - Whether this was an incoming, outgoing or internal call.
- **Source** - The number of the calling party.
- **Intermediate Destinations** - Any numbers that this call was routed to before reaching its destination. This may include an MLHG Pilot Number or the names or numbers of any other Agents that this call was hunted to before it was answered or abandoned.
- **Destination** - The number of the party that received the call.

- **Alerting Time** - How long in seconds before the call was answered.
- **Duration** - The duration of the call.
- **Account code** - The account code used (if applicable).

Note that calls which have used any of the following services may be listed more than once, with each listing representing a leg of the call.

- MADNs
- Call Waiting
- Call Pickup
- Call Hold
- 3-Way Calling
- For some types of call transfer, for example if a call is transferred by a Business Group line into an MLHG, the initial leg of the call will be reported separately.

### Call Detail by Agent

The **Call Detail by Agent** report offers a detailed view of call activity for a particular Agent, allowing you to easily assess their level of performance.

It provides information on all incoming and outgoing calls involving an Agent during your chosen time period. The entirety of this time period must be within the last 60 days.

This information is presented as a table with a row for each call.

**Figure 25: Call Detail by Agent report**

Date	Direction	Source	Intermediate Destinations	Destination	Alerting Time	Duration	Account Code
10/25/2017 10:28:54	internal	John Smith		hello	0:14	0:14	1596
10/25/2017 11:01:32	Internal	John Smith		hello	0:08	0:22	3257
10/26/2017 12:01:14	internal	hello		John Smith	0:05	unconnected	

The Call Detail by Agent report provides the following information for each call.

- **Date** - The date and time at which the call was initiated.
- **Direction** - Whether this was an incoming, outgoing or internal call.
- **Source** - The number of the calling party.
- **Intermediate Destinations** - Any numbers that this call was routed to before reaching its destination. This may include an MLHG Pilot Number or the names or numbers of any other Agents that this call was hunted to before it was answered or abandoned.
- **Destination** - The number of the party that received the call.
- **Alerting Time** - How long in seconds before the call was answered.
- **Duration** - The duration of the call.

- 
- **Account code** - The account code used (if applicable).

Note that calls which have used any of the following services may be listed more than once, with each listing representing a leg of the call.

- MADNs
- Call Waiting
- Call Pickup
- Call Hold
- 3-Way Calling

### **Call Duration Summary**

This **Call Duration Summary** report gives a clear indication of how quickly your Agents are dealing with customer calls.

It provides information on the length of calls answered by Agents for a particular Queue during your chosen time period. The entirety of this period must be within the last 60 days.

Note that calls will only be included if they started in the specified time period. A call does not have to finish within the specified time period to be included. If a call is passed from one Queue to another, it will be included in the Call Duration Summary report for both Queues.

For ease of use, calls are divided into a number of duration ranges, starting with calls less than 1 minute long and going up to calls over an hour long.

This information is presented in both a histogram and a table.

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**Figure 26: Call Duration Summary report**



The histogram shows how many answered calls fell into each duration range during the specified time period.

The table presents the same information, along with the total duration of all calls in each duration range.

### Daily Traffic

The **Daily Traffic** report provides a useful indication of when your call center is at its busiest, allowing you to identify peak hours of activity and whether your Agents are handling more calls in the morning or afternoon.

It provides information on the volume of incoming calls to the Business Group or Departments that you manage (and any of their sub-departments) during your chosen time period. This time period must be within the last 32 days. The information is presented in a bar chart and table.

**Figure 27: Daily Traffic report**



The bar chart displays the number of calls received each day from 0.00am to 12.00 and from 12.00 to 24.00. If the hours of a working day have been specified using the Start of day and End of day fields, calls started outside of the hours of a working day will be excluded from this count.

The table presents the following information for each day that is included in the specified time period.

- **AM call count** - the number of calls received from 0.00 to 12.00. If the hours of a working day have been specified using the **Start of day** and **End of day** fields, calls started outside of the hours of a working day will be excluded from this count.
- **PM call count** - the number of calls received from 12.00 to 24.00. If the hours of a working day have been specified using the **Start of day** and **End of day** fields, calls started outside of the hours of a working day will be excluded from this count.
- **Peak hour** - the hour of day during which the most calls were received. Note that the peak hour can only be calculated for data that is less than 32 days old.
- **Peak hour call count** - the number of calls received during the peak hour. Note that the peak hour call count can only be calculated for data that is less than 32 days old.
- **AM total call duration** - the total duration of all calls received from 0.00 to 12.00. If the hours of a working day have been specified using the Start of day and End of day fields, the duration of calls that were started outside of the hours of a working day will be excluded from this count.

- **PM total call duration** - the total duration of all calls received from 12.00 to 24.00. If the hours of a working day have been specified using the Start of day and End of day fields, the duration of calls that were started outside of the hours of a working day will be excluded from this count.

### Hourly Usage

The **Hourly Usage** report allows you to see which hours of the day a Queue is at its busiest, helping you to plan when extra Agents may be required.

It provides information on the volume of calls handled per hour by a particular Queue during a specified time period. The entirety of this time period must be within the last 32 days.

- If the time period that you specify is longer than one day, the totals shown for each hour will be the number of calls made during this hour on all selected days.
- If you use the **Start of day** and **End of day** fields to specify the hours of a working day, any activity outside of these hours will be excluded from the report.

This information is presented in a histogram and table, which both display the number of calls per hour that were received through your chosen Queue and answered by an Agent.

**Figure 28: Hourly Usage report**



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## User Statistics

The **User Statistics** report provides an overview of the performance of each of the Agents in your call center, allowing you to quickly view key metrics such as how many calls Agents are failing to answer and how long on average they are taking to deal with customer calls.

It provides call statistics for each Agent in the Business Group or Departments that you manage (and any of their sub-departments) during your chosen time period. The entirety of this time period must be within the last 60 days. This information is presented in a table, with each Agent having one row for incoming call statistics and one row for outgoing call statistics, as indicated in the Direction column.

**Figure 29: User Statistics report**

User Statistics							
Line	Direction	Total calls	Answered calls	Unanswered calls	Mean alerting time	Total call duration	Mean call duration
John Smith	inbound	3	0 (0%)	3 (100%)	0:06	0:00	0:00
John Smith	outbound	6	3 (50%)	3 (50%)	0:15	0:47	0:15
Ann Jones III	inbound	4415	3437 (77.8%)	978 (22.2%)	0:08	8:07:45	0:08
Ann Jones III	outbound	0	0 (0%)	0 (0%)	0:00	0:00	0:00

The table presents the following information on an Agent's incoming and outgoing calls during the specified time period.

- **Line** - The line used by the Agent.
- **Direction** - Whether this was an incoming, outgoing or internal call.
- **Total calls** - The number of incoming/outgoing calls involving this Agent.
- **Answered calls** - The number of incoming/outgoing calls involving this Agent that were answered by the called party. This is also shown as a percentage of the total outgoing calls made.
- **Unanswered calls** - The number of incoming/outgoing calls involving this Agent that were not answered by the called party. This is also shown as a percentage of the total outgoing calls made.
- **Mean alerting time** - The average time before a call was answered.
- **Total call duration** - The total duration of all incoming/outgoing calls involving this Agent.
- **Mean call duration** - The average duration of an incoming/outgoing call involving this Agent.

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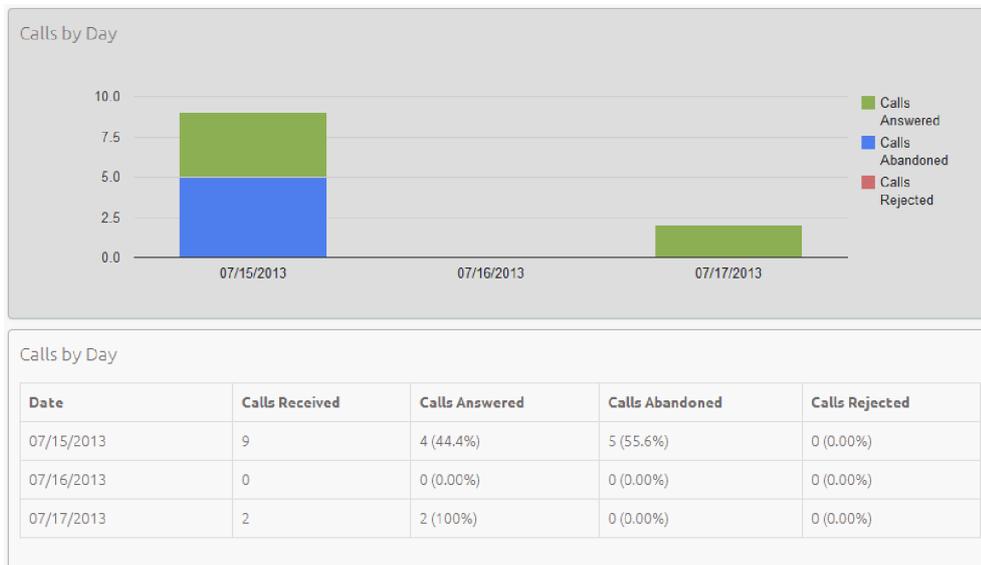
## Calls by Day

The **Calls by Day** report allows you to see the number of calls per day that are being received by your call center and how they are being handled. You may want to use this report to identify patterns in call volume so that you can anticipate busy periods in future, or you may use the output to identify unexpected rates of call abandonment or rejection.

The report provides statistics on call activity for the Business Group or Departments that you manage (and any of their sub-departments) on each day that falls within your chosen time period. The entirety of this time period must be within the last year. Note that if you use the **Start of day** and **End of day** fields to specify the hours of a working day, any activity outside of these hours will be excluded from the report.

This information is presented in a bar chart and table.

**Figure 30: Calls by Day report**



The bar chart displays the number of answered, abandoned and rejected calls for each day in the specified time period.

The table presents the following information for each day in the specified time period.

- **Calls Received** - The number of calls received.
- **Calls Answered** - The number of calls received that were answered by an Agent. This is also presented as a percentage of the total number of calls received.
- **Calls Abandoned** - The number of calls received that were abandoned by the caller before they were answered by an Agent. This is also presented as a percentage of the total number of calls received.

- **Calls Rejected** - The number of calls received that were rejected because there were no Agents available to take the call and the caller could not be put on hold. This could be because the maximum limit on the number of callers on hold had already been reached or because the relevant Queue does not support keeping callers on hold.

### Calls by Queue

The **Calls by Queue** report allows you to see the number of calls that are being received through a particular Queue and how they are being handled. You may want to use this report to identify patterns in call volume so that you can anticipate busy periods in future, or you may use the output to identify unexpected rates of call abandonment or rejection.

The report provides statistics on call activity for a particular Queue on each day that falls within your chosen time period. The entirety of this time period must be within the last year. Note that if you use the **Start of day** and **End of day** fields to specify the hours of a working day, any activity outside of these hours will be excluded from the report.

This information is presented in a bar chart and table.

**Figure 31: Calls by Queue report**



The bar chart displays the number of answered, abandoned and rejected calls for each day in the specified time period.

The table presents the following information for each day in the specified time period.

- **Calls Received** - The number of calls received through the Queue.
- **Calls Answered** - The number of calls received through the Queue that were answered by an Agent. This is also presented as a percentage of the total number of calls received through the Queue.

- **Calls Abandoned** - The number of calls received through the Queue that were abandoned by the caller before they were answered by an Agent. This is also presented as a percentage of the total number of calls received through the Queue.
- **Calls Rejected** - The number of calls received through the Queue that were rejected because there were no Agents available to take the call and the caller could not be put on hold. This could be because the maximum limit on the number of callers on hold had already been reached or because the relevant Queue does not support keeping callers on hold. This statistic is also presented as a percentage of the total number of calls received through the Queue.

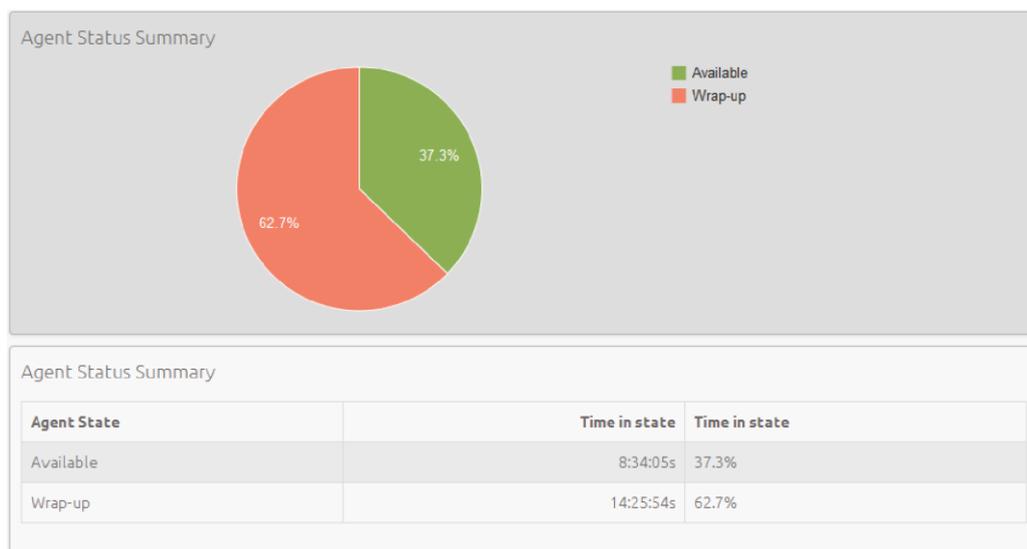
### Agent Status Summary

*This report is only available if you are using the Call Center Pro Premium service.*

The **Agent Status Summary** report allows you to see how long an Agent has been spending in each Agent State during your chosen time period, which must be within the last year. For more information on Agent States and how to configure them, see section 1.8.1.

The information is presented in a pie chart and table.

**Figure 32: Agent Status Summary Report**



The pie chart displays the percentage of your chosen time period that the Agent spent in each Agent State.

The table displays the total time that the Agent has spent in each Agent State. This is also presented as a percentage of your chosen time period.

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## All Agents Status Summaries

*This report is only available if you are using the Call Center Pro Premium service.*

The **All Agents Status Summaries** report includes multiple tables and charts, one for each agent, allowing you to analyze agent status information more easily and compare data between agents. The report data for each agent is the same as in the existing Agent Status Summary report but is now conveniently contained in a single source. For more information on Agent States and how to configure them, see section 1.8.1.

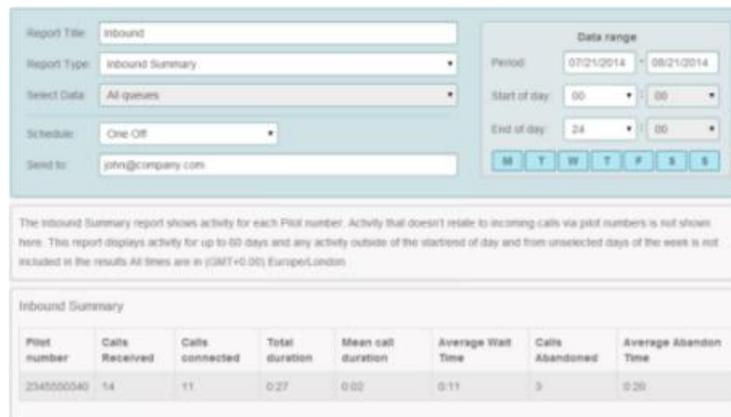
The information is presented in multiple pie charts and tables, one for each agent.

### Inbound Summary

The **Inbound Summary** report allows you to see a summary of the activity for each Pilot Number in your Queue(s). It provides statistics on the inbound calls received by all Pilot Numbers in all your queues within the chosen time period.

This information is presented in a table only.

**Figure 33: Inbound Summary Report**



The table presents the following information for the specified period.

- **Pilot Number** - The DN of each Pilot Number in your Queue(s).
- **Calls Received** - The number of calls received through the Pilot Number(s) in your Queue(s).
- **Calls connected** - The number of calls handled by the Pilot Number(s) in your Queue(s).
- **Total duration** - The total duration of all incoming calls received by the Pilot Number(s) in your Queue(s).
- **Mean call duration** - The average length of a call answered by the Pilot Number(s) in your Queue(s).

- **Average Wait Time** - The average time a caller had to wait before the Pilot Number(s) in your Queue(s) handled the call.
- **Calls Abandoned** - The total number of calls received by the Pilot Number(s) in your Queue(s) that were abandoned by the caller before they were answered.
- **Average Abandon Time** - The average time callers waited in a Queue before hanging up without their call being answered by the Pilot Number.

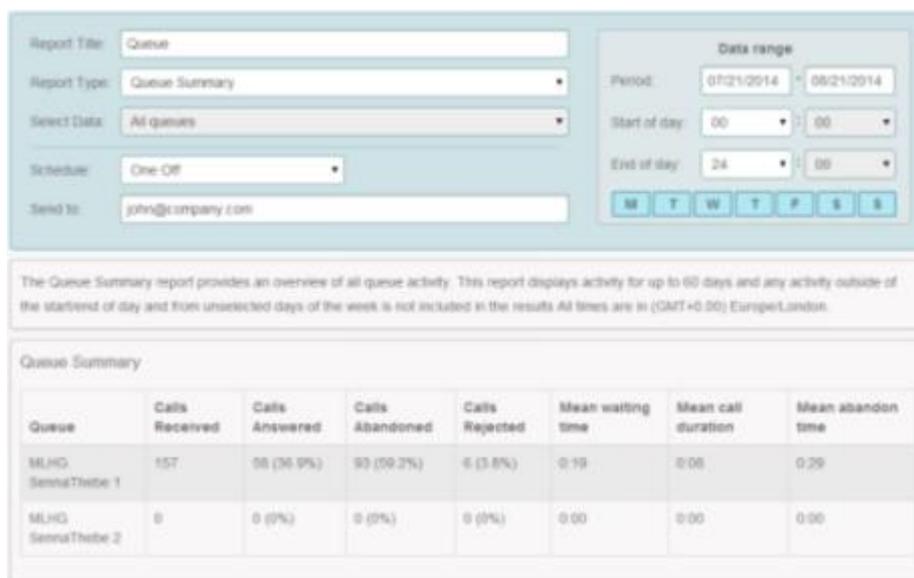
### Queue Summary

The **Queue Summary** report allows you to see the activity in all your Queues in a single report. This report includes both inbound and internal calls. You may want to use this report to identify patterns in call volume across your Queues so that you can anticipate busy periods in future, or you may use the output to identify unexpected rates of call abandonment or rejection.

The report provides statistics on the activity of all your Queues within your chosen time period. The entirety of this time period must be within the last 60 days.

This information is presented in a table only.

**Figure 34: Queue Summary Report**



The table presents the following information for the specified time period.

- **Queue** - The name of the Queue.
- **Calls Received** - The number of calls received through this Queue. This is also presented as a percentage of the total number of calls received through the Queue.

- 
- **Calls Answered** - The number of calls received through this Queue that were answered by an Agent. This is also presented as a percentage of the total number of calls received through the Queue.
  - **Calls Abandoned** - The number of calls received through this Queue that were abandoned by the caller before they were answered by an Agent. This is also presented as a percentage of the total number of calls received through the Queue.
  - **Calls Rejected** - The number of calls received through this Queue that were rejected because there were no Agents available to take the call, and the caller could not be put on hold. This could be because the maximum limit on the number of callers on hold had already been reached, or because the relevant Queue does not support keeping callers on hold. This statistic is also presented as a percentage of the total number of calls received through the Queue.
  - **Mean waiting time** - The average time callers had to wait before the call was answered by the Queue.
  - **Mean call duration** - The average length of a call answered by this Queue during the time period specified.
  - **Mean abandon time** - The average time callers waited in a Queue before hanging up without their call being answered.

### **Abandoned Calls Summary**

The **Abandoned Calls Summary** report allows you to see how many calls are abandoned across all of your Queues. This report includes both inbound and internal calls. You may want to use this report to identify unexpected rates of call abandonment in particular Queues which might indicate that you need more Agents in that Queue.

The information is presented in a table only.

**Figure 35: Abandoned Calls Summary Report**

Report Title:

Report Type:

Select Data:

**Data range**

Period:  -

Start of day:  :

End of day:  :

M  T  W  T  F  S  S

The Abandoned Calls Summary report provides an overview of abandoned calls per queue. This report displays activity for up to 1 year and any activity outside of the start/end of day and from unselected days of the week is not included in the results. All times are in (GMT+0.00) Europe/London.

Queue	Calls Abandoned	Mean abandon time
MLHG SennaThebe 1	45	0.15
MLHG SennaThebe 2	0	0.00
MLHG SennaThebe 3	0	0.00

The table presents the following information for the specified time period.

- **Queue** - The name of the Queue.
- **Calls Abandoned** - The number of calls received through this Queue that were abandoned by the caller before they were answered.
- **Mean abandon time** - The average time callers waited in a Queue before handing up without their call being answered.

**Abandoned Calls Detail report**

The **Abandoned Calls Detail** report shows the proportion of calls that are abandoned as well as the absolute number of abandoned calls, during specific time periods, enabling you to identify the time periods that have the highest abandon rates.

This information is presented in a table only.

**Figure 36: Abandoned Calls Detail report**

Abandoned Calls Detail			
Date	Calls Abandoned	Calls Rejected	Average Abandon Time
04/27/2017	0 (0%)	0 (0%)	0:00
04/28/2017	1 (14.3%)	0 (0%)	0:11
04/29/2017	0 (0%)	0 (0%)	0:00
04/30/2017	0 (0%)	0 (0%)	0:00
05/01/2017	0 (0%)	0 (0%)	0:00
05/02/2017	0 (0%)	0 (0%)	0:00
05/03/2017	0 (0%)	0 (0%)	0:00

- 
- **Date** - The date on which the calls took place. The date will be displayed in the format that is set for your deployment as a whole. The screenshot shows this in MM:DD:YYYY.
  - **Calls Abandoned** - The number of calls received through this Queue that were abandoned by the caller before they were answered. This statistic is also presented as a percentage of the total number of calls received through the Queue.
  - **Calls Rejected** - The number of calls received through the Queue that were rejected because there were no Agents available to take the call and the caller could not be put on hold. This could be because the maximum limit on the number of callers on hold had already been reached or because the relevant Queue does not support keeping callers on hold. This statistic is also presented as a percentage of the total number of calls received through the Queue.
  - **Average Abandon Time** - The average time callers waited in a Queue before hanging up without their call being answered.

### **Short Calls by Agent**

The **Short Codes by Agent** report allows you to see the number of calls of less than 5 seconds handled by your Agents within the chosen time period, which must be within the last 60 days. You may want to use this report to identify Agents with an abnormally high number of short calls which might suggest that they are not handling callers correctly.

This information is presented in a table only.

**Figure 37: Short Calls by Agent Report**

The screenshot shows a web-based report configuration interface. On the left, there are several input fields: 'Report Title' (Short Calls), 'Report Type' (Short Calls by Agent), 'Select Data' (All agents), 'Schedule' (One Off), and 'Send to' (john@company.com). On the right, there is a 'Data range' section with 'Period' (07/21/2014 - 08/21/2014), 'Start of day' (00 : 00), and 'End of day' (24 : 00). Below these are buttons for days of the week: M, T, W, T, F, S, S. A text box below the form explains the report: 'The Short Calls by Agent report lists the number of answered calls shorter than 5 seconds grouped per agent. This report displays activity for up to 60 days and any activity outside of the start/end of day and from unselected days of the week is not included in the results All times are in (GMT+0.00) Europe/London.' Below this is a table titled 'Short Calls by Agent' with two columns: 'Agent' and 'Short calls'. The table contains three rows of data.

Agent	Short calls
Alexandre Rondon	0
Lauro Araujo	12
Fape Castro	6

The table presents the following information for all your Agents over the specified time period.

- **Agent** - The name of the Agent.
- **Short calls** - The number of calls lasting less than 5 seconds handled by this Agent.

### Frequent Callers Summary

The **Frequent Callers Summary** report allows you to see the 50 most active callers, in order, for the selected Queue within your chosen time period, which must be within the last 60 days. You may want to use this report to identify callers whose repeat calls might indicate their call was not dealt with satisfactorily, for example because they called multiple times but hung up before their call was answered each time, or who are particularly good customers who might be suitable targets for a marketing campaign.

This information is presented in a table only.

**Figure 38: Frequent Callers Report**

The screenshot shows a web interface for configuring a 'Frequent Callers Report'. The configuration section includes fields for Report Title (Frequent Callers), Report Type (Frequent Caller Summary), Select Data (MLHG SennaThebe 1), Schedule (One Off), and Send to (john@company.com). A 'Data range' section allows setting a Period (07/21/2014 - 08/21/2014), Start of day (00:00), and End of day (24:00), with a day selection row (M, T, W, T, F, S, S). Below the configuration is a descriptive paragraph: 'The Frequent Caller report provides an overview of the most frequent callers within the selected queues. This report displays activity for up to 60 days and any activity outside of the start/end of day and from unselected days of the week is not included in the results All times are in (GMT+0.00) Europe/London.' The main content is a table titled 'Frequent Caller Summary' with the following data:

Caller ranking	Source	Calls Received	Calls Abandoned	Total queuing time	Total duration
1	2345550018	11	3	2:49	0:36
2	2345550999	4	0	0:25	0:00
3	Alexandre Rondon	1	1	0:10	0:00
4	Filipe Castro	1	1	0:10	0:00

The table presents the following information for the selected Queue for the selected time period.

- **Caller ranking** - The ranking for this caller, based on the number of calls received from them during the specified time period.
- **Source** - The number of the calling party.
- **Calls Received** - The number of calls received from this caller over the time period.
- **Calls Abandoned** - The number of calls that were abandoned by this caller before they were answered.
- **Total queuing time** - The total amount of time this caller had to wait before their call was answered by an Agent.
- **Total duration** - The total duration of all incoming calls received from this caller.

### 1.7.3 Generating a report

You can create reports to be generated at a specified point in the future, either on a one-off basis or at regular specified intervals, for example every week or month. These reports are created as pdf files which are then emailed to one or more email addresses.

- There is a limit on the number of reports that can be scheduled: if your system is already at this limit, you will not be able to schedule another report unless you delete an existing one first.

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You can also choose to generate an instantaneous report on past activity.

### **Before you begin**

There are a number of decisions that you will need to make before you start generating your reports.

You must decide which of the following report types you want to create. You can find full details of the statistics that are included for each report type in section 1.7.2.

- If you want to create an Agent Status Summary or Call Detail by Agent report, you will need to know the name or number of the Agent that you want to create a report for.
- If you want to create any of the following report types, you will need to know the name of the Queue that you want to create a report for.
  - Calls by Queue
  - Call Duration Summary
  - Frequent Callers Summary
  - Hourly Usage

You must know the date range that you want the report to cover.

- For all of the following report types, this date range must be within the last year.
  - Calls by Day
  - Calls by Queue
  - Queue Summary
  - Agent Status Summary and All Agents Status Summaries
- For all of the following report types, this date range must be within the last 60 days.
  - Abandoned Calls Summary and Abandoned Calls Detail Summary
  - Agent Summary
  - Call Log
  - Call Detail by Agent
  - Call Duration Summary
  - Frequent Callers Summary
  - Inbound Summary
  - Short Calls by Agent
  - User Statistics
- For an Hourly Usage or Daily Traffic report, this date range must be within the last 32 days.

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You must choose whether you want to specify the start time and end time for the working day. If you do specify these times, the report will only show statistics for activity between these two times. If you decide that you do want to specify the start time and end time for the working day, you must know these times. Note that if you choose a start time that is later in the day than the end time, the report will display statistics for activity between 0.00 and your chosen end time and for activity between your chosen start time and 24.00.

You must choose whether you want to exclude activity from certain days of the week from your report. For example, if your call center is closed on a particular day of the week, you may want to exclude these days of non-activity from your report to prevent it from presenting misleading average statistics. If you do want to exclude certain days of the week, you must know which days you want to exclude.

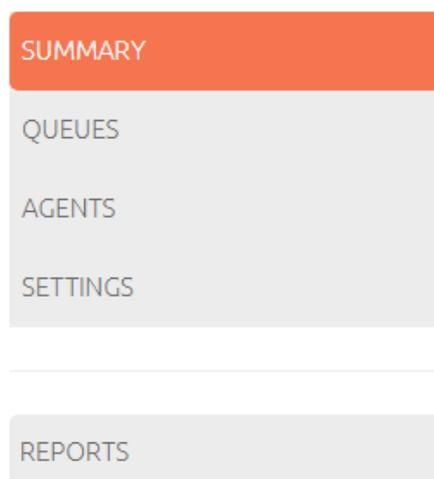
You must decide whether you want to generate a report on past activity, or schedule a one-off or recurring report on future activity.

### Launch the Reports page

To access the Reports page:

- As described in section 1.4, go to the MLHGs page in the CommPortal BG Admin interface and click the **Supervisor Dashboard** link.
- Click **Reports** in the box on the left of the Supervisor Dashboard.

### Figure 39: Reports link on Supervisor Dashboard



- This launches the Report Schedule Manager page, which will show you any reports that you have currently scheduled as well as allow you to create a new report.

**Figure 40: Reports page**

Report Schedule Manager [Send Feedback](#) [Add a new report](#)

Welcome 'BG Admin Line',  
Your scheduled reports are listed below. Schedule a new report with the button in the top right.

<b>Call Duration Report to 31/08 for dummy mlhg 1</b> _dummy_mlhg_1 - Call Duration Summary	Scheduled: One Off Period: 09/21/2013 - 09/30/2013	<a href="#">Edit</a> <a href="#">Delete</a> <a href="#">Clone</a>
<b>Daily Agent Summary Report</b> All agents - Agent Summary	Scheduled: Daily Next due: Today	<a href="#">Edit</a> <a href="#">Delete</a> <a href="#">Clone</a>
<b>Weekly Agent Calls weekend Report</b> Agent 61 [3612039061] - Call Detail by Agent	Scheduled: Weekly Next due: Sun 04/29/2018	<a href="#">Edit</a> <a href="#">Delete</a> <a href="#">Clone</a>
<b>Monthly Call Logs Report</b> All queues - Call Log	Scheduled: Monthly Next due: 04/30/2018	<a href="#">Edit</a> <a href="#">Delete</a> <a href="#">Clone</a>

- To create a new report, click **Add a new report** in the top right corner of this page to launch the Report creation screen.
- If you want to create a report that's very similar to one that you have already scheduled, click the **Clone** button alongside that report. This will create a new report with the appropriate fields already filled in.

You can now create your report on the Report creation screen.

Reports for business group '\_dummy\_stats' [Send Feedback](#) [Save](#) [Cancel](#)

Report Title: <input type="text" value="Call Duration Report to 31/08 for dummy mlhg 1"/>	<b>Data range</b>
Report Scope: <input checked="" type="radio"/> ACD <input type="radio"/> BG	Period: <input type="text" value="03/25/2018"/> - <input type="text" value="03/25/2018"/>
Report Type: <input type="text" value="Calls by Day"/>	Start of day: <input type="text" value="12 midnight"/> : <input type="text" value="00"/>
Select Data: <input type="text" value="All queues"/>	End of day: <input type="text" value="12 midnight"/> : <input type="text" value="00"/>
Department: <input type="text" value="Any"/>	<input type="button" value="M"/> <input type="button" value="T"/> <input type="button" value="W"/> <input type="button" value="T"/> <input type="button" value="F"/> <input type="button" value="S"/> <input type="button" value="S"/>
Schedule: <input type="text" value="One Off"/>	
Send to: <input type="text" value="sales@acme.com, ceo@acme.com"/>	

- The Calls by Day report shows a summary of the call activity for all queues by day.
- Only calls that arrive via queues will be included, for example outgoing or direct-dialled calls are not displayed.
- Any activity outside of the start/end of day and from unselected days of the week is not included in the results.
- Scheduled reports may take several hours to arrive from the end of the selected time range.
- All times are in (GMT-8.00) America/Pacific.

Call Duration Summary [Update Report](#)

- If you want to give the report your own title, type your chosen title into the **Report Title** field.

- 
- If you also have permission to create reports for your Business Group you will see the **Report Scope** field. Use the radio buttons to select **ACD** for this report. You will not see this option if you cannot create Business Group reports.
  - Use the drop-down alongside **Report Type** to select the type of report to generate.
    - See section 1.7.2 for a reminder of the information contained in each type of report.
    - You will then see a summary of what the report immediately below the input panel.
  - Use the **Select Data** drop-down to select an Agent or Queue for this report. This field will only be available if you need to make a selection. As noted in Before you begin:
    - You will need to select an Agent if you are generating an Agent Status Summary, Call Detail by Agent or Short Calls by Agent report.
    - You will need to select a Queue if you are generating a Calls by Queue, Call Duration Summary, Frequent Callers Summary or Hourly Usage report.
  - Use the **Department** drop-down to select the Department, if you are able to generate reports for more than one Department.
  - Fill in the **Data range** box. If you are creating a one-off report, these should be dates and times that have already passed.
    - Enter your chosen start date into the left-hand **Data range** field.
    - Enter your chosen end date into the right-hand **Data range** field.
    - If you want to specify the start time for a working day, use the **Start of Day** hour and minute drop-down to enter this time in 24h format.
    - If you want to specify the end time for a working day, use the **End of Day** hour and minute drop-down to enter this time in 24h format.
    - If you want to exclude any days from the report, click on the blue boxes at the bottom of the **Data range** panel to exclude the selected days.
  - If you do not have permission to schedule reports, you will not see any more options. Click **Update Report**, and the report data will appear on the screen below the report creation box.
  - If you have permission to schedule reports, you will see the following additional options on the screen.
  - Use the **Schedule** drop-down to select whether you want to generate a one-off or a scheduled report.
-

- 
- To generate a one off report, click **One Off**. The dates that you entered should be in the past.
  - To generate a **Scheduled** report, use the drop-down to select the regularity with which the report should be generated. If you select weekly, monthly or yearly in the Schedule drop-down, select the time you want the report to be generated into the **Due** field.
    - For Weekly, set this to the day of the week the report should be generated.
    - For Monthly, enter the day of the month on which you want the report to be generated. This will be between 1 and 31. If you enter a day that does not occur in a particular month, for example 31 April, the report will be generated on the final day of that month.
    - For Yearly, enter the date on which you want the report to be generated. This should be in MM/DD format.
  - Enter email addresses of anyone you want to receive a copy of the report. It will be emailed to them in pdf format once it has been created.
  - To see a preview of your report, click **Update Report**.

You may see the following error message when generating a report if any of the information you have just entered is not valid.

**Figure 41: Invalid information**



You should review the information that you have entered into the fields on the Reports page when creating the report, and correct any errors.

The report may not be created because the server cannot be contacted. If this is the case, you will see the following error message.

**Figure 42: Service availability error**



If you see this message, contact Armstrong Business Solutions to enquire about any known problems with the server's connectivity.

## 1.8 Call Center Pro Premium service features

You may be managing an MLHG that uses the Call Center Pro Premium service level.

---

The Call Center Pro Premium service provides several additional features accessed via the Supervisor Dashboard to assist you in the day to day management of your Business Group, including the ability to listen in on or participate in your Agents' calls and make changes to the availability state of these Agents.

This section provides full details of these additional features.

Section 1.9 describes how you can use the Call Center Pro Settings screen to manage these features and, if available in your deployment, configure dynamic queue announcements played to callers to advise them of their position in a queue and the approximate wait time.

### 1.8.1 Agent States

If you have the Call Center Pro Premium service, you can configure a number of **Agent States** that your Agents can use to indicate their current availability. This allows you to clearly identify and track when and why agents are not at their desks taking calls. There are also some Agent States which are set automatically as a result of the agent's actions, for example if they log out of all their queues.

There are two types of Agent States which can be set by the agents themselves using a drop-down on the Agent Status page.

- **Available** - Agents in the Available state can answer calls arriving from a Queue or direct-dial calls.
- **Unavailable** - Agents in an Unavailable state cannot answer calls arriving from a Queue. However, they are still able to answer direct-dial calls.

As **Agents** may be unavailable for a number of reasons, the Call Center Pro Premium service allows you to configure up to 30 unavailability reasons for your entire Business Group that Agents can choose from when moving to an Unavailable state. Each of these gives a different reason as to why an Agent is not currently able to take calls. For example, you can configure unavailability reasons that indicate an Agent is on a break, at lunch or in a meeting.

In addition to Agent States which agents can set themselves, there are a number of circumstances when the Agent State will be set automatically to one of the following.

- **Wrap-up state.** If wrap-up is enabled for a queue, the Agent is automatically moved into wrap-up state when they finish a call that arrived via a queue. For more information on wrap-up, see section 1.8.2.
- **Logged Out.** This Agent State is displayed when an Agent is logged out of all the queues of which they are a member but is not in wrap-up or a custom unavailable state.
- **Line Not Ready.** This Agent State is displayed when an Agent is logged in to a queue but their telephone line is not ready to receive calls, for example it is an unregistered SIP line.

- **DND.** This Agent State is displayed when an Agent is logged in to a queue but has turned on their DND call service, and is not in wrap-up or a custom unavailable state.
- **In a call.** This Agent State is displayed when an Agent is in a call but would otherwise be available. This can be any type of incoming or outgoing call, and not just calls received via a queue. The Agent is moved into this state as soon as their line starts ringing.

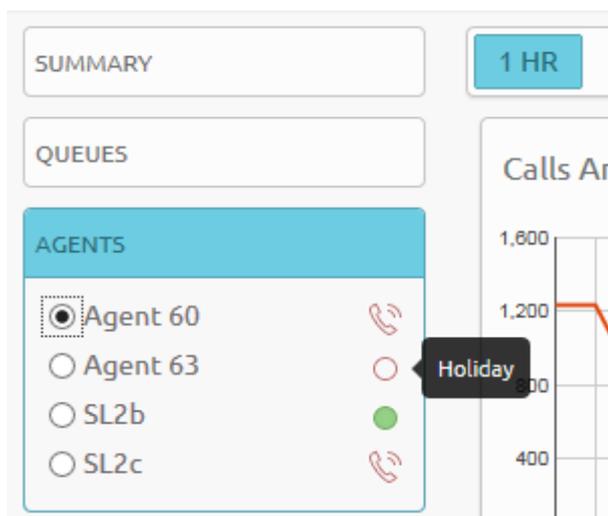
You will use the Settings screen, described in section 1.9, to enable or disable Agent States for your Business Group and configure any custom unavailability reasons which your agents can choose when they make themselves unavailable to take calls from their queues.

### Viewing Agent States

To see a near real-time indication of the state of each Agent in the Queues that you manage:

- As described in section 1.4, go to the MLHGs page in the CommPortal BG Admin interface, and click the **Supervisor Dashboard** link.
- Select the **Agents** box on the left of the Supervisor Dashboard to launch the Agents screen.

**Figure 43: Agents screen with the Call Center Pro Premium service**



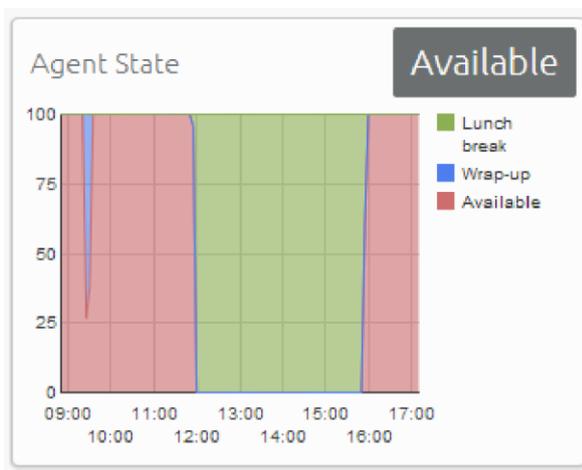
The Agent state is indicated by the icon to the right of the Agent's name. There are four possible icons.

- ● - The **Available** icon indicates that this Agent is in an Available state and can receive calls.

-  - The **Unavailable** icon indicates that this Agent cannot currently take calls arriving from a Queue. However, they may still be able to answer incoming direct-dial calls. This icon will pulse if the Agent is currently in the wrap-up state. The tooltip will display the reason the Agent is unavailable. It will show 'in a call' if the agent's phone is currently ringing but they have not yet answered the call.
-  - The **In a Call** icon indicates that this agent is in a connected call. This icon will pulse if the Agent is in the wrap-up state.

You can also see an Agent's current state in the top right hand corner of the **Agent State** statistic graph, as shown below.

**Figure 44: Agent State statistic graph**



### Agent State statistics

Statistics are generated to allow you to see how long agents have been spending in each Agent State. These statistics are available through the Queues and Agents screens and are described in 1.4.

If you have permission to generate reports, as described in 1.7, you can also generate reports that show summaries of your agents' activity, either per agent or for all the agents in a Department.

## 1.8.2 Wrap-up and Disposition Codes

If you have the Call Center Pro Premium service, you can enable the wrap-up state and disposition codes for the Queues that you manage. The wrap-up state marks Agents as unavailable while they carry out any post-call clerical work related to a completed call, while disposition codes are used by Agents to indicate how a call was resolved.

---

## Wrap-up state

**Wrap-up state** is an Agent State that your Agents will enter immediately after completing a customer call. While in wrap-up state, Agents can complete any work related to the completed call.

If wrap-up has been enabled for a Queue, Agents are automatically put into wrap-up state after ending a customer call that has arrived through that Queue. Agents are unavailable for further calls from the Queue while in this state, allowing them time to resolve any issues coming out of the call.

You can choose to allow Agents to exit wrap-up state directly or require them to choose a disposition code to indicate how the call was resolved. For more information on disposition codes, see [Disposition Codes](#).

You can configure a wrap-up timer so that Agents can only spend a limited amount of time in wrap-up state. The Agent will see the timer counting down on the Agent Status page. When the Wrap-up time expires, the Agent will automatically exit Wrap-up state. If you have configured your Call Center to use mandatory disposition codes, a wrap-up timed out disposition code will automatically be entered. The Agent will then return to the Available state, unless they have carried out another action which would automatically set their Agent state to Unavailable, for example they have logged out of their Queue(s). For more information on Agent States, see section 1.8.1.

You can enable wrap-up for a Queue and configure the wrap-up timer using the Settings screen, as described in section 1.9.

## Disposition Codes

**Disposition Codes** allow the agent to select specific information to identify how they handled the previous call.

You can configure up to 30 **Disposition Codes** per Queue that each correspond to a possible resolution to a customer call. Agents can use a drop-down list to assign one of these codes to each call that they complete, allowing you to easily see whether calls are being dealt with satisfactorily and identify any recurring problems.

You can choose to enable or disable the use of disposition codes for each Queue that you manage. Additionally, you can decide whether Agents must assign a disposition code to a completed call before being able to handle any more calls.

You can enable or disable disposition codes for your Queues and configure new codes using the Settings screen, as described in section 1.9.

## Wrap-up and Disposition Code statistics

Statistics are generated to show the average time that Agents have been spending in the wrap-up state, giving you a clear indication of how much time is being taken carrying out clerical duties after a call has been completed. You can view the average wrap-up time for each Agent or for all Agents in a Queue.

---

Additionally, you can see how many calls are being assigned each disposition code, giving you useful information on how your Agents are dealing with calls and helping you identify patterns that may indicate an issue with your service. Again, you can view this statistic for an individual Agent or for all Agents in a Queue.

These statistics are available through the Queues and Agents screens and are described in 1.4.

### 1.8.3 **Monitor / Whisper / Barge-In**

If you have the Call Center Pro Premium service, you can use the **Monitor / Whisper / Barge-In** feature to listen in on your Agents' calls undetected, talk to an Agent during a call without the customer hearing, or fully participate in an ongoing call and speak to all parties.

You can only use the Monitor, Whisper and Barge-In actions to participate in an Agent's call if:

- the Agent is a member of the Business Group and department that you manage or any of its sub- departments
- the Agent is a member of at least one Queue that uses the Call Center Pro Premium service.

You can access the Monitor / Whisper / Barge-In feature through the Agents screen or invoke it directly from your phone.

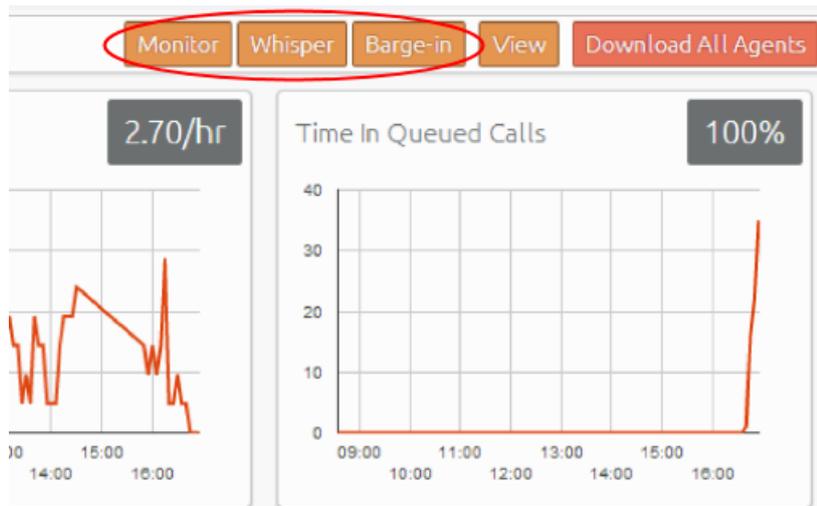
#### **Using the Call Center Pro interface Agents screen**

To use the Monitor / Whisper / Barge-In feature via the the Call Center Pro interface Agents screen in CommPortal:

- As described in section 1.4, go to the MLHGs page in the CommPortal BG Admin interface, and click the **Supervisor Dashboard** link.
- Select the **Agents** box on the left of the Supervisor Dashboard to launch the Agents screen.
- In the panel on the left-hand side of the screen, you will see a list of the Agents that are logged in to the Queues that you manage.
- An 'In a call' icon  indicates the Agents currently in an active call with a customer.
- To use Monitor / Whisper / Barge-In, select the radio button next to an Agent in an active call.
- If the agent selected is an Call Center Pro Premium agent, you will then see three orange push buttons in the top left of the screen.

---

**Figure 45: Monitor / Whisper / Barge-In pushbuttons**



- You can then take one of the following actions:
  - Monitor - listen in on the existing call between the selected Agent and the customer.
  - Whisper - speak to or advise the selected Agent during the call, without the customer hearing.
  - Barge-In - fully join the call, speaking to both the selected Agent and the customer.
- When you click one of the buttons, your phone will ring and you will be connected to the Agent's call when you answer your phone.
- When you are in an Agent's call, you can continue to use the pushbuttons to change your level of participation. For example, if you are listening in on a call using the **Monitor** pushbutton and decide that you want to offer an Agent some advice without the customer hearing, you can simply click the **Whisper** button.
  - Note that invoking the Whisper action will result in a brief loss of audio that will affect the customer. We recommend that you only invoke the Whisper action during a break in conversation between the Agent and customer to minimize any impact on the customer's experience.

### Using your phone

You can also invoke the Monitor, Whisper or Barge-In actions directly from your phone, without the need to use the Call Center Pro Supervisor Dashboard.

To do this, dial the access code of the action that you want to use, followed by the intercom code of the Agent whose call you want to participate in. Your Armstrong Business Solutions will provide you with the necessary access codes.

---

Note that if you use the Monitor, Whisper and Barge-In actions directly from your phone, you will not be able to change your level of participation during the call.

## 1.9 Managing Call Center Pro Premium service settings using the Call Center Pro Settings screen

As described in 1.8, the Call Center Pro Premium service level provides several advanced supervisory features for Business Groups and Queues, including Agent States and Disposition Codes.

You can manage settings for these additional features using the Call Center Pro **Settings** screen. This section describes how to carry out the following tasks:

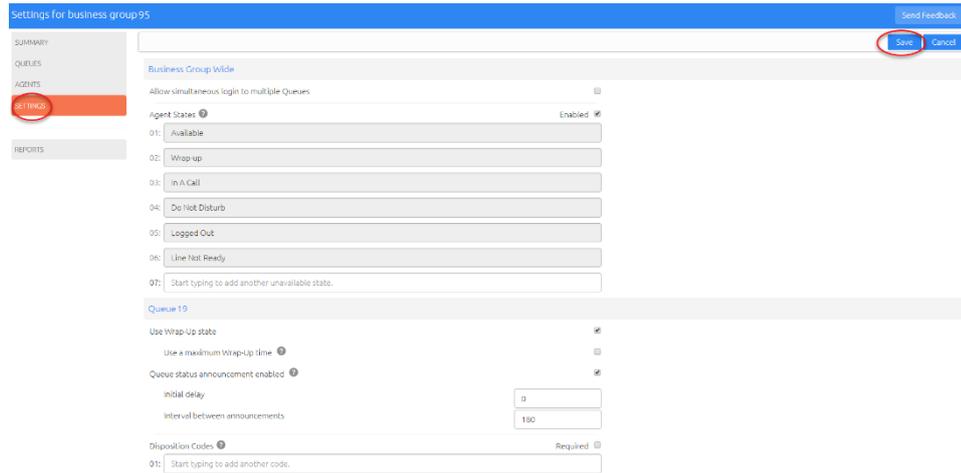
- Enabling or disabling simultaneous login to multiple MLHGs that require explicit login.
- Enabling the use of agent states for a business group.
- Adding or removing agent states.
- Enabling or disabling the use of the 'wrap-up' state and disposition codes for a specific Queue.
- Mandating the use of disposition codes by agents in a specific Queue.
- Adding or removing disposition codes.
- Configuring dynamic Queue announcements (if available in your deployment)

### 1.9.1 Opening the Call Center Pro Settings screen

To access the Call Center Pro Settings screen:

- As described in section 1.4, go to the CommPortal BG Admin interface, and click the **Supervisor Dashboard** link.
- Select the **Settings** box on the left of the Summary screen.
- You will then see the **Settings** screen.

**Figure 46: Settings screen**



When you have finished making all your changes, click the **Save** pushbutton in the top right hand corner of the **Settings** page to confirm your changes.

The rest of this section describes how to make changes to the settings on the **Settings** page. However, you cannot change any entries that are grayed out.

## 1.9.2 Enabling or disabling simultaneous login to multiple Queues

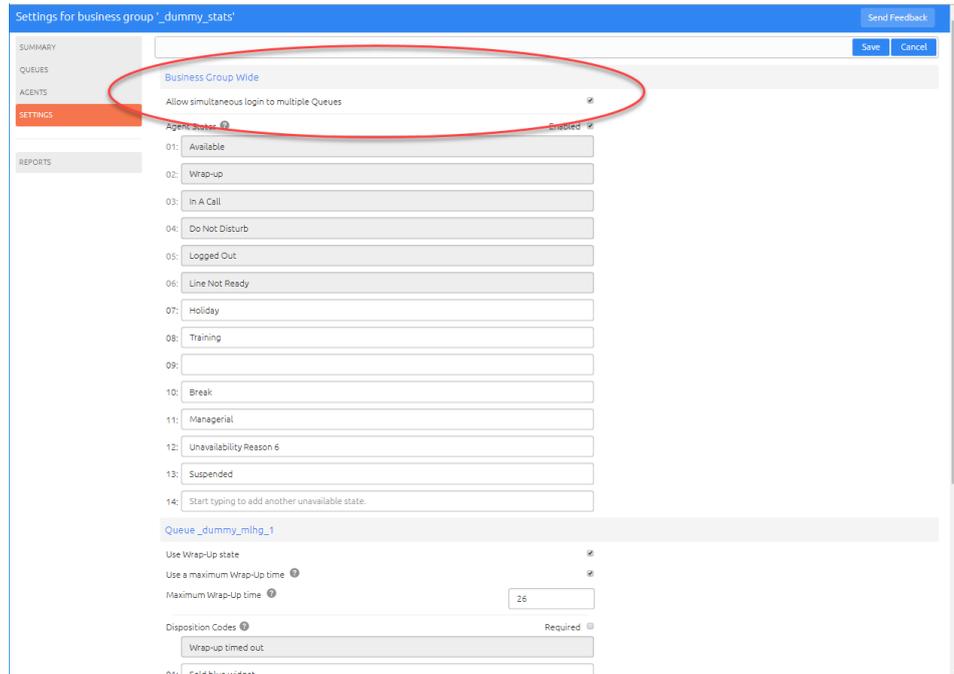
You can choose to allow Agents in this Business Group to be logged in to more than one Queue that requires explicit login. If this setting is disabled, Agents will be automatically logged out of a Queue that requires explicit login if they try to log in to another.

Note that this setting does not affect Queues which do not require explicit login. Agents are always allowed to be logged in to more than one of these Queues simultaneously.

To enable or disable simultaneous login to multiple Queues:

- check or uncheck the box marked Allow simultaneous login to multiple Queues as appropriate

**Figure 47: Configuring simultaneous login**



- click the **Save** pushbutton in the top right hand corner of the **Settings** page to confirm your changes.

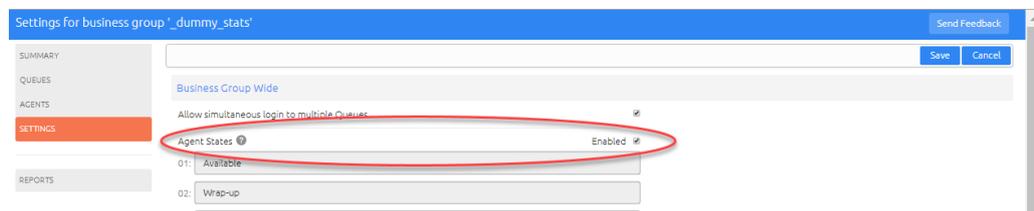
### 1.9.3 Enabling or disabling agent states

You can enable or disable the use of agent states for all Queues in this Business Group. For more information on agent states, see section 1.8.1.

To enable or disable agent states:

- check or uncheck the box marked **Agent States - Enabled** as appropriate

**Figure 48: Enable or disable Agent States**



- click the **Save** pushbutton in the top right hand corner of the **Settings** page to confirm your changes.

### 1.9.4 Adding or removing unavailability reasons

You can add up to 30 additional unavailability reasons per Business Group that can be used by Agents to indicate why they are currently unable to take calls arriving via any of their queues. You can also remove any existing unavailability reasons.

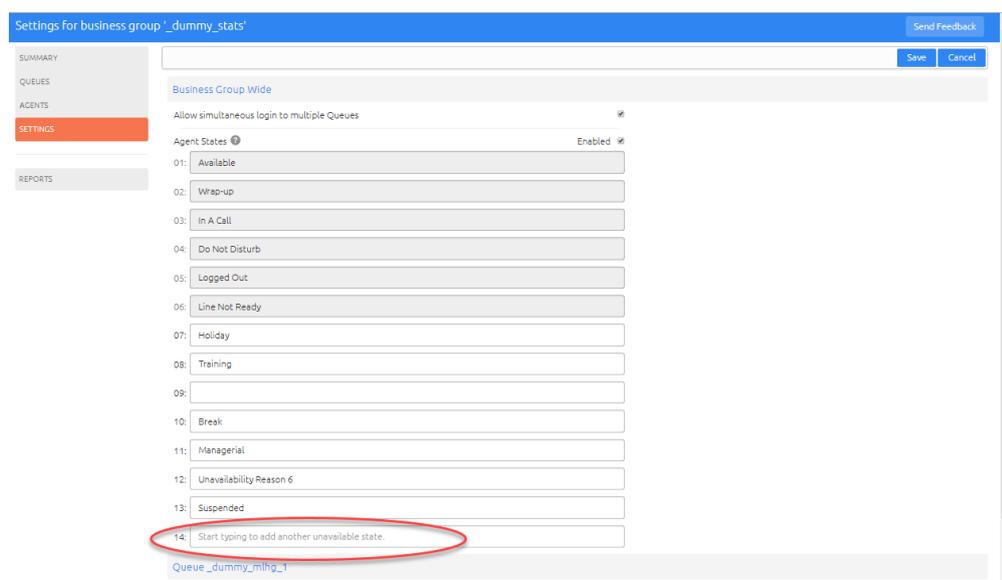
---

Note that Agent States must be enabled, as described in section 1.9.3 before you can add or remove any unavailability reasons.

You should also note that the statistics that are generated for agent states are tracked by the number that they hold in the list, rather than the name given to them. If you move an unavailability reason to another position in the list, the historical statistics will stay associated with the number and will be assigned to any unavailability reason that you put in its place. If possible, you should avoid changing the position of unavailability reasons in the list to prevent states becoming associated with the wrong historical statistics.

Figure 49: Configuring unavailability reasons shows the panel where you can view and make changes to your unavailability reasons.

**Figure 49: Configuring unavailability reasons**



To make changes to your unavailability reasons:

- To add new unavailability reason, type its name into the field labeled **Start typing to add another unavailability state** at the end of the list.
- To remove an unavailability reason, delete the text and leave the field blank.

Once you have made all your changes, click the **Save** pushbutton in the top right hand corner of the **Settings** page to confirm your changes.

### 1.9.5 Enabling the wrap-up state for a Queue

The wrap-up state is an Agent State that your Agents will enter immediately after completing a customer call. While in the wrap-up state, Agents should carry out any clerical work related to the completed call. For more information on the wrap-up state, see section 1.8.2.

Note that Agent States must be enabled, as described in section 1.9.3 before you can enable the Wrap-Up state for a Queue.

---

You should decide whether you want to configure any disposition codes for Agents to use to indicate how a call was resolved. If you do want to configure disposition codes, you should also decide whether Agents must assign a disposition code to a call before they are able to leave the wrap-up state.

You must also decide whether you want to configure a wrap-up timer, so that your Agents can only spend a limited time in wrap-up state. Once the timer expires, the Agent is automatically moved out of wrap-up.

**Figure 50: Enabling wrap-up state**

The screenshot shows the configuration for 'Queue 1'. It includes the following elements:

- Use Wrap-Up state:** A checkbox that is checked.
- Use a maximum Wrap-Up time:** A checkbox that is checked.
- Maximum Wrap-Up time:** An input field containing the value '26'.
- Disposition Codes:** A heading with a help icon and a 'Required' checkbox that is checked.
- Disposition Code List:** A list box containing the text 'Wrap-up timed out'.
- Code Entry:** A text input field with the label '01:' and the value 'Sold blue widget'.

To enable or disable the use of the wrap-up state for a Queue:

- Find your chosen Queue on the **Settings** page and check or uncheck the box marked **Use Wrap-Up state** as appropriate.
- If you want to use the Wrap-Up timer
  - check the box marked **Use a maximum Wrap-Up time**
  - enter the time in seconds which agents are able to spend in Wrap-Up state in the input box.
- If you decided that you wanted to add disposition codes to the wrap-up state, type one of your chosen codes into the empty field underneath the **Disposition Codes** heading. Once you begin typing in the empty field, another field will appear underneath. Enter your second chosen code into this new field, and so on until you have entered all of your chosen codes.
  - If you have enabled the Wrap-Up timer, a **Wrap-up timeout** disposition code will have been pre-configured and will be automatically applied whenever an Agent is moved out of Wrap-Up because the Wrap-Up time expired.
- If you decided that Agents must assign a disposition code to a call before leaving wrap-up state, ensure that the **Required** checkbox above the list of disposition codes is checked.
- Click the **Save** pushbutton in the top right hand corner of the Settings page to confirm your changes.

---

## 1.9.6 Adding or removing disposition codes

You can add up to 30 additional disposition codes per Call Center Pro Premium Queue that can be used by Agents to indicate how a call was resolved. You can also remove any existing disposition codes, apart from the pre-configured Wrap-up timeout disposition code.

Note that Agent States and the wrap-up state must be enabled before you can configure disposition codes.

You should note that the statistics that are generated for disposition codes are tracked by the number that they hold in the list, rather than the name given to them. If you move a code name to another position in the list, the historical statistics will stay associated with the number and will be assigned to any code name that you put in its place. If possible, you should avoid changing the position of disposition codes in the list to prevent codes becoming associated with the wrong historical statistics.

**Figure 51: Modifying Disposition Codes**

Disposition Codes ⓘ Required

Wrap-up timed out

01: Sold blue widget

02: Sold red gadget

03: Sold yellow gadget

04: Told to RTFM

05: Referred to support

06:

07: Wrong queue

08: Start typing to add another code.

To make changes to your disposition codes:

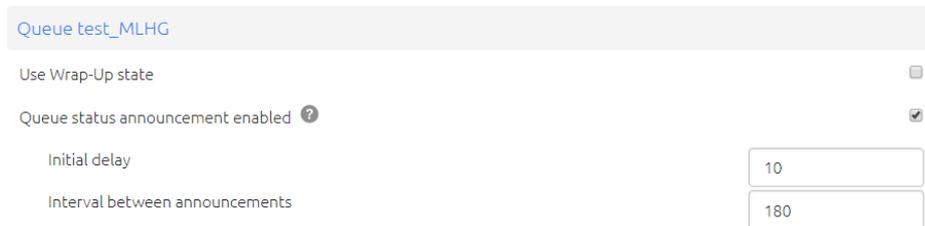
- To add a new disposition code, type its name into the empty field at the end of the list.
- To remove a disposition code, delete the text and leave the field blank.
- Click the **Save** pushbutton in the top right hand corner of the **Settings** page to confirm your changes.

---

## 1.9.7 Configure dynamic Queue announcements

If this feature is available in your deployment, you can configure whether callers will hear announcements while they are waiting for their call to be answered that tell them their place in the queue and the approximate wait time until an agent will be available.

**Figure 52: Configuring dynamic Queue announcements**



The screenshot shows a configuration page for a queue named "Queue test\_MLHG". It includes the following settings:

- Use Wrap-Up state:** A checkbox that is currently unchecked.
- Queue status announcement enabled:** A checkbox that is checked, with a help icon to its right.
- Initial delay:** A text input field containing the value "10".
- Interval between announcements:** A text input field containing the value "180".

To configure Queue announcements:

- Tick the checkbox alongside **Queue status announcement enabled**.
- The following additional fields will then appear. These are hidden if **Queue status announcement enabled** is not ticked.
- Set **Initial delay** as required. This sets the time before a caller will hear the initial announcement, and can be any non-negative numeric value in the range 0-3600 seconds.
  - The default is 10 seconds, so that the caller hears music on hold for a short time before the first announcement. Set this to a different value if you want music to be played for a longer or shorter time.
  - Set this to 0 if you want the first announcement to be played when callers join the queue and before they hear any music.
- Set **Interval between announcements** to the number of seconds that music on hold should be played between each announcement. This can be any non-negative numeric value in the range 0-3600 seconds. The default is 180 seconds.
- Click the **Save** pushbutton in the top right hand corner of the **Settings** page to confirm your changes.