

MiVoice Office Call Reporter User Guide

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USER GUIDE



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Call Analytics

MiVoice Office Application Suite provides an advanced call analytics platform in the form of 'MiVoice Office Call Reporter'. This solution provides a range of tools to analyze the call experience of your customers and to monitor the performance of staff, both historically and in real-time.

MiVoice Office Call Reporter stores as much information as it can about telephone calls, it tracks where calls have routed to (including Call Routing Announcements/Auto Attendants) and stores DID, contact information and internal information such as agent IDs and account codes.

Historical Reporting vs Real-Time Reporting

There are two interfaces provided by the system to access call information:

Historical Reporting

The historical reporting interface (Reports option on the main menu) provides a way to view call data over a specific period of time. This can be for the current day or over a large period of time like a week or month. Historical reports are designed to be used to locate specific calls or to monitor customer experience/user performance over time to ensure that service levels are being met.

Call data can be viewed as a list if searching for a specific telephone call or grouped together which allows call traffic to be analyzed in more detail.

Once configured, historical reports can be scheduled to be delivered via email or to a network share on a regular basis.

 Calls only appear in the historical reports once complete.

For more information, please refer to the [Historical Reporting](#) section.

Real-Time Wallboard/Dashboard

The real-time interface provides a view of daily call data (including calls that are in progress) and allows users/supervisors to track performance and customer experience as it is happening. Being able to track performance in real-time allows immediate responses to be made to improve performance.

The real-time interface provides a range of tiles which can be customized and filtered as required. Alarms can then be used to alert users to areas of analysis that need attention.

For more information, please refer to the [Real-Time Reporting](#) section.

Using Call Analytics

The historical and real-time elements of MiVoice Office Call Reporter allow analysis of many aspects of call and status information. The sections below outline the most common reports and real-time tiles that can be used to get started when analyzing customer experience and user performance.

Analyzing Customer Experience

Ensuring that customer enquiries are answered quickly and dealt with in a prompt manner is important to all businesses. The following reports and statistic tiles will help to analyze how long your customers are waiting and how long they spend on the phone to you.

 To improve customer experience reporting, [Account Codes](#) can be used to categorize calls so you can see more easily what customers are calling about.

Reports

- Calls by DID Report -> This shows call data grouped by the external number your customer dialed. The

default columns show how many calls came in and details of both talk time and ring time (longest and average).

- Call List -> Identify a specific customer's call and trace it through the telephone system.
- Unreturned Lost Calls -> Provides a list of callers into your business where the call was not answered before the external caller hung up. Calls are removed from this list when they have been called or they have called back in and have been answered.

Real-Time Statistics

- Longest Waiting (Active Call Statistics) -> Displays the longest time any call has been waiting
- Calls Ringing External In (Active Call Statistics) -> the total number of external inbound calls in the ringing state.
- Calls Lost (Call Totals) -> Displays many callers hung up before being answered

 Use [Alarms](#) on your statistics tiles to notify when customers have exceeded your predefined threshold/SLAs

Analyzing User Performance

It is important to monitor users within the business to ensure they are handling calls correctly. This can mean answering calls in a timely manner but also not spending too much time with one customer at the expense of another.

User performance can be analyzed at extension or agent level.

 To analyze DND (do-not-disturb) activity, [DND Reporting](#) license is required.

 To analyze ACD agent activity, [ACD Reporting](#) licenses are required.

Reports

- Calls by Agent/Extension -> Look at call performance on a user level.
- Calls by Hunt Group -> Look at the service level, lost calls and performance at team level.
- DND Status by Agent/Extension -> Displays long have users been spending in do-not-disturb.

Real-Time Statistics

- Agents Free -> Is there anyone available to take calls.
- Avg Time Busy/Avg Talk Time -> What is the average amount of time spent on a call.
- Avg Time Busy N/A -> What is the average time spent in wrap up.
- Longest Time In DND for an Agent -> How long was the longest time an agent spent in do-not-disturb.

 A [Personal Wallboard](#) toolbar can be used to help agents (increased licensing may be required).

Reporting Concepts

Call Reporting Concepts

The following concepts apply to call reporting and have an effect on how call data can be analyzed.

Internal & External Calls

All telephone calls that take place are logged for call reporting. This includes all external calls (calls involving a trunk line) and internal calls (calls between internal extensions of the business).

When analyzing call data, it is important to know that internal calls are included in some statistics and they can skew figures if the wrong statistics are used.

For example, if looking at 'Calls Handled' for the telephone system, this would include all internal and external calls. Additional fields are provided to break this number down for different call types:

- Calls External
- Calls Internal

Ensure that when choosing fields for reports and real-time tiles, the field containing the required information is selected.

For more information on the fields available, please refer to the [Statistics](#) section.

Call Direction (Inbound & Outbound)

The direction indicates which party initiated the telephone call (which party dialed the number). All calls modeled by the system have a direction but depending on the tile/report being run, the direction may not be relevant.

External calls always have a direction no matter what tile or report is displayed the data.

Internal calls only have a direction when the tile/report is showing data which has been grouped by a device (Agent ID, Extension, Hunt Group) on the telephone system. For more information, refer to the [Report Grouping](#) section.

Transferred Calls

Transferred calls are connected calls which have been moved by the user to another device. This includes calls transferred by any of the following methods:

- Announced/Blind Transfer
- Reverse Transfer/Pickup*

For example, if extension 1001 transfers a call to extension 1002, the call will be classed as Transferred Out for extension 1001 and Transferred In for extension 1002.

Overflowed Calls

Overflowed calls are ringing calls which have moved from one device to another. This can be because the call was deflected by the user or the call was moved automatically due to one of the following reasons:

- Manual or System Forward
- Hunt Group Recall Timer
- Reverse Transfer/Pickup*

For example, a call that rings extension 1001 and follows a 'Forward - No Answer' timer to extension 1002 will appear as Overflowed Out against extension 1001 and Overflowed In against extension 1002.

 * Calls reverse transferred from a hunt group are included in Calls Answered statistics not Overflowed Out or Transferred Out statistics.

Call Segmentation

Call segmentation refers to how data about calls is modeled and stored for reporting. Understanding call segmentation is an important step in being able to analyze call data correctly.

For more information on how call segmentation affects statistics, please refer to the [Call Segmentation](#) and [Call Segmentation & Analytics](#) sections.

Grouping & Aggregated Data

On reports that show grouped data (Calls by Hunt Group etc) or on reports that show non-segmented data, individual call segments are grouped and data from each segment is aggregated.

The [Aggregated Data](#) section provides information on how this data grouping affects the data displayed.

Lost Calls

A lost call is any external call that has not been answered. Lost call statistics can be added to real-time tiles and historical reports. Lost call statistics differ slightly depending on whether segmented or non-segmented call data is being used:

- Segmented: Any call where the last segment is not answered will be classed as a lost call, even if it has been answered on a previous segment (internal calls are not included in lost call statistics).
- Non-segmented: Any call that has never been answered.

For example, if a call was answered at reception (extension 1000) and then transferred to a hunt group and hung up before being answered would not class as a lost call on a Non-Segmented report (or unfiltered real-time tile) but would show as a lost call against the hunt group on a Calls by Hunt Group report (or real-time group grid).

Service Level Statistics

Service Level

The service level is a target of how quickly inbound calls should be answered. The service level statistic uses the service level to display what percentage of calls were answered within the desired time. This can be viewed in historical reports and real-time tiles.

When viewing the service level on an ungrouped real-time tile, the ring time used to calculate the service level will be the ring time of the entire call. To remove the time spent by the caller in call routing announcements, use the 'Reset call timers when a call rings this group' setting against hunt groups (make this change in the [Phone System](#) configuration area).

When viewing the service level on a tile showing segmented data or a grouped report, the ring time used to display the service level will be the ring time for that call segment. In this scenario, the 'Reset call timers when a call rings this group' setting will have no effect.

Short Calls

Short calls are calls which are answered but have an extremely short call duration. This could be for a number of reasons, but is mainly caused by people hanging up just as a call has been answered. To flag up these types of calls, the '[Short Call Threshold](#)' can be set. Once a call has been flagged as short, it can be removed from reports using a filter to prevent it from skewing statistics.

Please refer to the [Call Reporting Settings](#) section for information on changing the Short Call Threshold.

Abandoned Calls

These are calls that have not been answered and have an extremely short ring duration (default set to less than 10 seconds). Calls that are classed as abandoned can be removed from service level calculations and all historical reports so as not to skew statistics.

Please refer to the [Call Reporting Settings](#) section for information on changing the Abandoned Call Threshold

Correct Hunt Group Telephone System Configuration

MiVoice Office Call Reporter relies on the events from the telephone system to model exactly what happens to each telephone call. In some circumstances the telephone system can be incorrectly programmed which in turn will cause incorrect events or bad modeling of call data. The following configurations are examples of this and should be avoided to ensure that reports show useful and correct information.

Recall Timer Clash

Each hunt group has three timers used to control what happens to calls. The 'Announcement' & 'Overflow' timers play messages to the callers as a welcome or to specify the callers place in the queue. The 'Recall' timer controls when the call is overflowed to another hunt group or device on the telephone system.

Although it is possible to configure a hunt group in this way, it is not good practice because the caller will be cut off half way through listening to a message. For this reason, ensure that the recall timer will not interrupt either the announcement or overflow messages.

Recall Loops

The 'Recall' timer for the hunt group provides a way to move the call if everyone in the hunt group is busy. It is possible (either directly or through a chain) to route a call back to a hunt group that it has already rung at.

If a call rings the same hunt group multiple times, when viewed on a report which groups by hunt groups it will only appear as a single call with the combined call data (call durations and times) aggregated.

Although it is possible to configure the telephone system in this way, it is not good programming because callers will lose their place in the queue to new calls ringing at the hunt group and will end up waiting longer to be answered which completely defeats the point of the recall.



The overflow timer will repeat so you will need to take this into consideration when you calculate the recall timer.

Call Segmentation

Call segmentation is the name given to how the system models telephone calls. The way calls are modeled affects the call recording and call reporting areas of the solution. The following section explains how the system models calls and what users need to be aware of when using different features within the solution.

The section below explains the difference between single and multi-segment calls. For information on how call segmentation affects different aspects of the solution, please refer to the following sections:

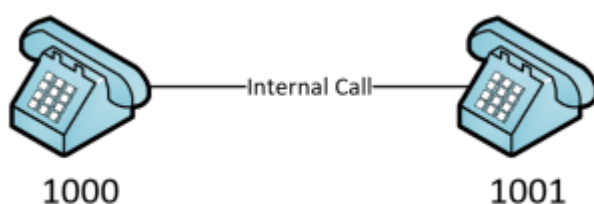
- [Call Segmentation & Recording](#)
- [Call Segmentation & Analytics](#)

Single Segment Calls

A single segment telephone call is a call that involves only two devices on the telephone system. Valid devices on the telephone system include:

- Internal Extensions
- Trunks (for making external calls)
- Voicemail Applications (for announcements or leaving/retrieving voicemail messages)
- Hunt Groups

The image below shows a single segment call between two internal extensions:

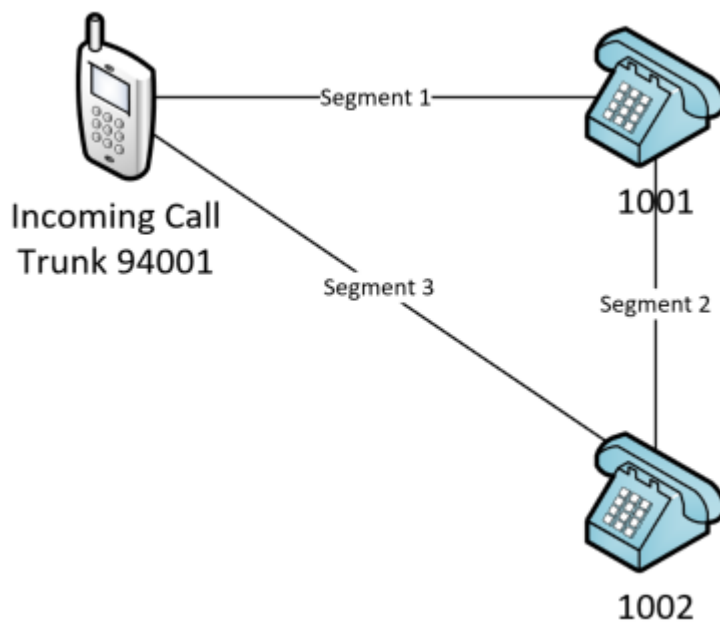


As soon as another device becomes involved in the call (e.g. through a conference or transfer), the call becomes multi-segment.

Multiple Segment Calls

A multi-segment call is a telephone call that has involved three or more devices, either at the same time as a conference or at different times when the call was transferred between devices.

The image below shows a multi-segment call:



The call starts out as an external call between extension 1001 and an external caller through trunk 94001 (segment 1). Extension 1001 performs an announced transfer to extension 1002 (segment 2), once they have finished introducing the caller, extension 1001 completes the transfer leaving the external caller connected to extension 1002 (segment 3).

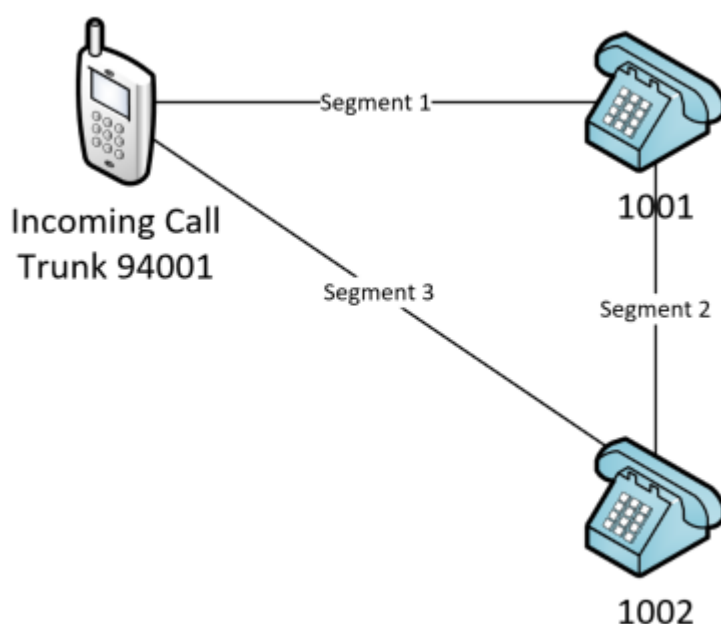
The call is modeled as three separate segments to ensure that all the information about the life of the call is stored and it can be easily identified by searching for any device that interacted with the call.

The sections below outline how call segmentation works in some common call scenarios.

 Each call scenario does not happen in isolation and can apply to a single call one or more times. For example, a call can be transferred multiple times before being routed through a hunt group and then conferenced.

Transferred Calls

Transferred calls occur any time a call is moved from one device from another. Calls can be transferred between extensions or to other devices such as Call Routing Announcements (CRA) or hunt groups.



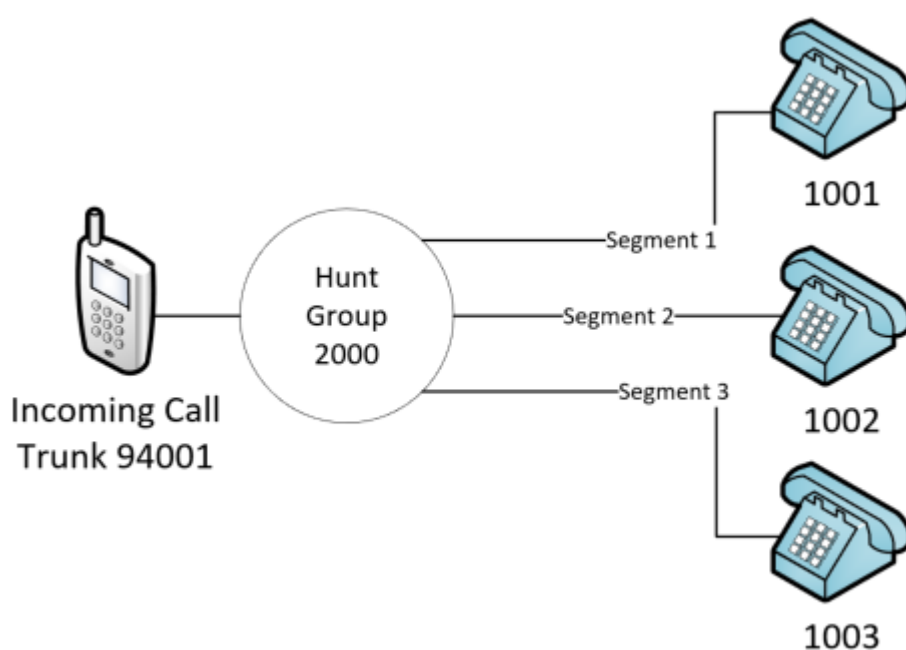
Every time a call is transferred to a new device a new segment will be generated. A call that goes through several announcements, gets answered by an attendant and then gets transferred to another extension will have at least four segments.

Hunt Group Calls (Linear, Distributed, Balanced Call Count, Longest Idle)

Hunt groups are used to distribute calls between a number of users on the telephone system, ensuring that calls are answered by someone who is available and has the skill set to handle the request.

When a hunt group is configured to ring one device at a time (using any of the modes listed above), the call will be segmented each time it rings a new extension/agent within the group.

The image below shows a telephone call that has alerted hunt group 2001:



The call is presented to extension 1001, then extension 1002, then finally gets answered on extension 1003.

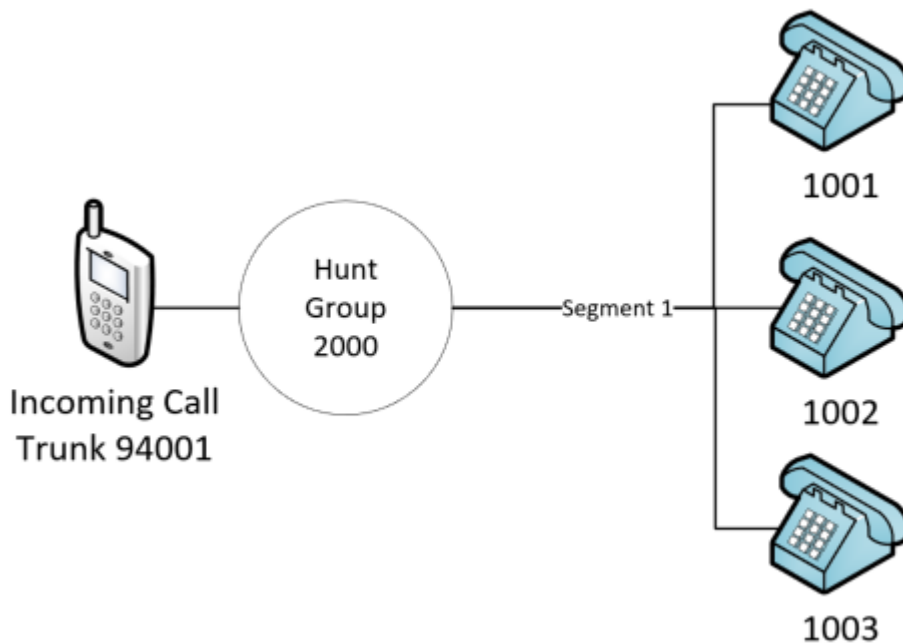
This call consists of three segments.

Hunt Group Calls (All-Ring)

Hunt groups are used to distribute calls between a number of users on the telephone system, ensuring that calls are answered by someone who is available and has the skill set to handle the request.

When a hunt group is configured to offer calls to all member extensions/agents at the same time (all-ring), only a single segment will be created within the software.

The image below shows an example of a telephone call alerting a hunt group configured to ring all extensions:



Even though the call has alerted three different extension (1001, 1002, 1003), it will only be modeled with a single segment. the call segment will be logged against the extension which answers the call.

 This is not best practice when trying to analyze individuals' performance.

Conference Calls

A conference call is a call that involves more than two devices at a time. When calls with more than two devices are active, conference resources on the telephone system are used to merge the audio streams from each device.

A new segment is created each time the number of devices in the conference changes.

Example call flow:

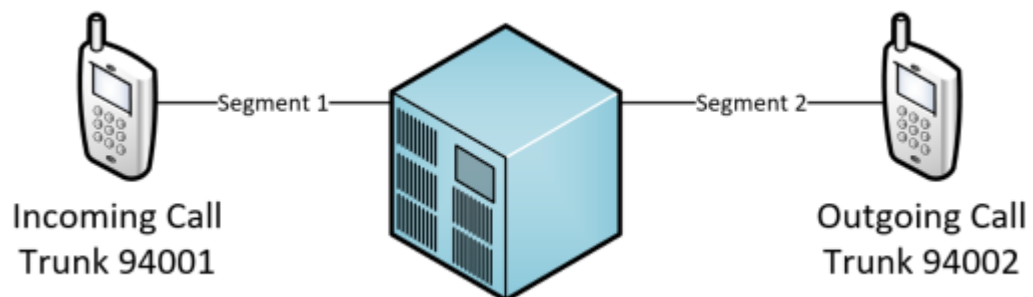
- Extension 1001 dials extension 1002 (segment 1)
- Extension 1001 press 5 then dials extension 1003 (segment 2)
- Extension 1001 connects the conference (segment 3)

Each time a new party is added or leaves the conference a new segment is created.

Trunk to Trunk Calls

Trunk to trunk calls are calls between two trunks on the telephone system that do not involve any internal extensions.

The image below shows a trunk to trunk call:



Call Segmentation & Analytics

Segmentation & Historical Reporting

When viewing reports, it is important to understand how call segments will affect the data being displayed. Some reports will count individual call segments while others will only count calls (refer to the [Report Templates](#) section to see which reports show call segments and which show calls).

For example, a 'Calls By DID' report will only count complete calls and will ignore call segments. This is because the report is designed to show how many actual calls came in on a DID. A 'Calls By Hunt Group' report will count individual call segments. This is because a call may get presented to more than one hunt group (or agent/device within that group) and so needs to be counted against each.

Examples of how segmentation affects historical reports:

Statistic	Report Template	Description of Data
Max Ring Time (In)	Calls by DID/Trunk	Will display details of the call with the longest ring time until first answered for each DID/Trunk.
	Calls by Hunt Group	Will display details of the call with the longest ring time for calls that have rung at the hunt group, not including any time spent ringing at other devices in previous or subsequent segments.
	Calls by Agent/Extension	Will display details of the call with the longest ring time for calls that have rung at the hunt group, not including any time spent ringing at other devices in previous or subsequent segments.
Total Ring Time (In)	Calls by DID/Trunk	Will display the accumulated ring time until first answered for all calls that have rung at the DID/Trunk.
	Calls by Hunt Group	Will display the accumulated ring time for all calls that have rung at the hunt group, not including any time spent ringing at other devices in previous or subsequent segments.
	Calls by Agent/Extension	Will display the accumulated ring time for all calls that have rung at the agent/hunt group, not including any time spent ringing at other devices in previous or subsequent segments.
Calls Overflowed Out	Calls by DID/Trunk	Not relevant on a non-segmented report.
	Calls by Hunt Group	Will display the number of calls that recalled to another destination.
	Calls by Agent/Extension	Will display the number of calls that recalled to another destination.
Calls Transferred Out	Calls by DID/Trunk	Not relevant on a non-segmented report.
	Calls by Hunt Group	Will display the number of calls answered by Agents/Extensions within the group and then transferred somewhere else.
	Calls by Agent/Extension	Will display the number of calls that were answered at the agent/extension and then transferred to another device.
Lost Calls	Calls by DID/Trunk	Will display the number of calls where the last segment of the call was not answered.

	Calls by Hunt Group	Will display the number of calls where the caller hung up without being answered while ringing at the hunt group.
	Calls by Agent/Extension	Will display the number of calls where the caller hung up without being answered while ringing at the agent\extension.
Calls In Answered	Calls by DID/Trunk	Will display the number of calls on the DID/Trunk that were answered.
	Calls by Hunt Group	Will display the number of calls that were answered by a device in the hunt group.
	Calls by Agent/Extension	Will display the number of calls that were answered by the agent/extension. A call could be answered multiple times if transferred between extensions.
Calls In Refused	Calls by DID/Trunk	Not relevant, refused calls are only calculated for agent or extension.
	Calls by Hunt Group	
	Calls by Agent/Extension	Will display the number of calls that were refused (not answered) by an agent/extension that was in the free state and moved to the next device in the hunt group.

Segmentation & Real-Time Reporting Tiles

Tiles (Including Single Stat, Multi-Stat & Ticker)

When viewing real-time data using tiles or grids, it is important to understand how call segmentation will affect the data being displayed. By default, all tile based statistics will display non-segmented call data, with data aggregated between multiple call segments. However, if the statistic has been filtered by one or more devices (agent or extension), it will switch to displaying segmented call data which matches the device(s) on the filter.

Examples of how filtering and segmentation affect tile statistics:

Statistic	Filter	Description of Data
Max Ring Time (In)	No Filter	Will display the call with the longest ring time until it was first answered.  This statistic is not affected by the ' Reset Call Timers when a call rings this group ' flag. It will show max ring time including Call Routing Announcements (CRA).
	Hunt Group 2000	Will display the call that spent the longest time ringing at hunt group 2000. It will not include any time spent ringing in previous or subsequent call segments.
Longest Waiting	No Filter	Will display the active ringing call with the longest ring time, this is the current ring time accumulated across multiple segments and will include calls that have been answered but then transferred to another device and have started ringing again.

		 This statistic is affected by the ' Reset Call Timers when a call rings this group ' flag. It will show max ring time including Call Routing Announcements (CRA).
	Hunt Group 2000	Will display the active call with the longest ring time currently queuing at hunt group 2000.
Total Ring Time (In)	No Filter	Will display the accumulated ring time for all calls until they were first answered.  This statistic is not affected by the ' Reset Call Timers when a call rings this group ' flag. It will show all ring time including Call Routing Announcements (CRA).
	Hunt Group 2000	Will display the total accumulate ring time for call segments that have rung hunt group 2000. It will not include any ring time from previous or subsequent call segments.

Segmentation & Real-Time Dashboard Grids

There are five real-time dashboard grids:

- Agent, Extension & Hunt Group Grids, Shows segmented call data grouped by device (Agent/Extension/Hunt Group)
- Trunk & Call Grid, Shows non-segmented call data grouped by trunk or callid

Agent & Extension Grid Tiles

Agent and extension based grid tiles show segmented call data, looking at calls that relate to the device in the grid and ignoring any previous segments. The same concepts apply when running a Calls by Agent or Calls by Extension report.

Statistic	Grid Type	Description of Data
Max Ring Time (In)	Agent/Extension	Will display details of the call with the longest ring time for calls that have rung at the agent/extension, not including any time spent ringing at other devices in previous segments.
Total Ring Time (In)	Agent/Extension	Will display the accumulated ring time for calls that have rung at the agent/extension, not including any time spent ringing at other devices in previous segments.

Call & Trunk Grid Tiles

Call and trunk based grid tiles show non-segmented data, looking at the complete call and not the current segment. The same concepts apply when looking at a Calls by Trunk or Calls by Telephone Number report.

Statistic	Grid Type	Description of Data
Max Ring Time (In)	Trunk/Call	Will display details of the call with the longest aggregated ring time across all the call's segments.

Total Ring Time (In)	Trunk/Call	Will display the accumulated ring time for all segments of all calls.
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Aggregated Data

Many of the statistics available within the reporting and real-time interfaces are 'Aggregated Statistics', these statistics are based on data from multiple call segments which have been grouped together.

Call Lists

There are two types of call list available; 'Segmented and Non-Segmented'. Segment call lists show data directly from the database with the addition of some computed columns like call duration. No data aggregation occurs on these reports.

Non-segmented call list show a single row per call, no matter how many segments make up the call. This means that the call data from each call segment is aggregated to create the data for the whole call.

Grouped Reports

In addition to showing segmented or non-segmented data, some reports group data by a specific column to allow the data to be analyzed. Once data has been grouped, a whole new set of summarized statistics become available like; Totals, Averages, Minimum and Maximum values.

Some grouped reports use segmented call data and some use non-segmented data. Grouped reports that use non-segmented data merge the call segments together first before grouping the data.

The historical reporting system provides templates which group data by the following call data columns:

- Account Code
- Agent
- DID
- Extension
- Hunt Group
- Start Time
- Trunk
- User

Grouped reports are really useful for assessing performance and getting an overall view of the number and types of calls being processed. For example, a report grouped by extension can be used to see how many calls each extension handled and what their total talk time was.



Refer to the [Templates](#) section to see more information on which reports use grouped data and/or non-segmented call data.

Aggregated Non-Segmented Call Data

Report that use non-segmented data, merge all segments of a call together (by grouping Trunk + CallID) before any other grouping (if there is any) is applied to the report.

When grouping by trunk line occurs, the segmented call data needs to be aggregated. The following section outlines the effect aggregation has on a report's available columns.

Column Name	Aggregation Effect
Account Code	The last account code entered, on any segment.
Agent / Agent Name	If the call was answered, this will contain the details of the agent logged in if available. Other wise it will contain the agent details where the call first rang. If no agent was logged at all, these fields will be blank.

Answer Time	The time the call was first answered.
Call Answered	If any segment of the call was answered.
Call Duration	The cumulative call time of all segments.
Call Type	The call type of the first segment.
CallID	The call id of the first segment.
End Event	The end event of the last segment.
End Time	The end time of the last segment.
Extension / Extension Name	If the call was answered, this will contain the details of the extension that answered the call. Otherwise it will contain the details of the extension where the call first rang.
Hold Duration	The cumulative hold duration for all segments.
Hunt Group / Hunt Group Name	The details of the first hunt group the call passed through if applicable.
Lost Call	Was the last segment of the call answered.
Rec ID	The database Record ID of the first segment.
Ring Duration	The ring duration until the call was first answered.
Start Time	The start time of the initial segment.
Tag Fields 1 to 5	The last valid entry in each field. For example, if field 1 was tagged on segment 1 and field 2 was tagged on segment 3 then both tag fields 1 and 2 would show on the report unless overridden with a valid tag in subsequent segments.
Talk Duration	The cumulative talk duration for all segments includes any ring time after the call was first answered.
Transferred Agent From	Contains the transferring agent's details the first time the calls was transferred if applicable.
Transferred Agent To	Contains the transferred to agent's details the first time the calls was transferred if applicable.
Transferred From	Contains the transferring extension's details the first time the calls was transferred if applicable.
Transferred To	Contains the transferred to extension's details the first time the calls was transferred if applicable.
Username	If the call was answered, this will contain the details of the username of the MiVoice Office Application Suite user that answered the call. Otherwise it will contain the username where the call first rang.

 If a Call List column is not listed here then the aggregation will have no effect on it.

Making Sense of Summarized Data

When analyzing a summarized (grouped) report, it is important to understand what has happened to each call. This is done by evaluating similar summarized columns to make sure they add up to the total number of calls (e.g. Total Calls Handled = Total Calls In + Total Calls Out).

Depending on how the report is grouped or whether the report is using segmented call data or not, the way the summarized data adds up is different.

Grouping Segmented Data (Agent, Extension, User or Hunt Group)

The follow table shows how call totals and durations can be analyzed in the context of a grouped report using segmented data.

Call Totals	Calls Handled	= Calls Inbound + Calls Outbound
		= Calls Internal + Calls External
		= Calls Answered + Calls Lost + Calls Refused + Calls Overflowed Out
	Calls Answered	= Calls Completed + Calls Transferred Out
Call Durations	Total Call Time	= Total Ring Time + Total Talk Time + Total Hold Time
	Total Call Time (In)	= Total Ring Time (In) + Total Talk Time (In) + Total Hold Time (In)
	Total Call Time (Out)	= Total Ring Time (Out) + Total Talk Time (Out) + Total Hold Time (Out)

 Reports that group segmented call data by hunt group vary slightly to ones grouped by other devices because hunt groups cannot answer calls. Due to this fact, Calls Transferred Out or Calls Refused are not relevant on this report.

 Wrap duration is an agent statistic not a call statistic and so does not feature as part of the call duration.

Grouping Non-Segmented Data (DID, Trunk, Phone Number, Start Time or Account Code)

The follow table shows how call totals and durations can be analysed in the context of a grouped report using non-segmented data.

Call Totals	Calls Handled	= Calls Inbound + Calls Outbound + Calls Internal*
		= Calls Internal + Calls External
		= Calls Answered + Calls Lost
Call Durations	Total Call Time	= Total Ring Time + Total Talk Time + Total Hold Time
	Total Call Time (In)	= Total Ring Time (In) + Total Talk Time (In) + Total Hold Time (In)
	Total Call Time (Out)	= Total Ring Time (Out) + Total Talk Time (Out) + Total Hold Time (Out)

 * When a report is not grouped by an internal device on the telephone system, internal calls have no direction and so are not included in Calls Inbound or Calls Outbound statistics.

Trunk to Trunk, Conference Calls & Dynamic Extension Express

Certain call scenarios can cause confusion when interpreting historical and real-time statistics. In general, these are calls that either include more than one trunk or there are more than two participants in the call.

- Trunk to Trunk Calls, calls that link two trunks together and are no longer connected to any internal extension
- Conference Calls, calls where there are more than two participants. This can be a mixture of internal and external participants
- Dynamic Extension Express Calls (DEE), these are personal routing calls where the phone system hunts around more than one of a user's extensions/external numbers to find them

The following sections outline how each of the call scenarios listed above affects the various aspects of historical and real-time reporting.

Trunk to Trunk

These are calls that connect to external parties together, with no internal device involved in the call.

Historical

Trunk to trunk calls have the following effect on historical reports:

Template Type	Description
Call List	When viewed in a call list, trunk to trunk calls will appear only once, but with details of both trunk numbers and outside numbers involved in the call.
Calls by Trunk	When viewed on a Calls by Trunk report, the call will be summarized against each trunk that was involved in the call.

Real-Time

Trunk to trunk calls have the following effect on real-time tiles & grids:

Statistic Type	Description
Active Call Statistics	• Calls In Progress External: Trunk to trunk calls will count twice in active external calls, once for the inbound leg and once for the outbound leg.
Call Totals	• Calls Inbound/Outbound: The call is accounted for in both the Calls Inbound and Calls Outbound statistics. This logic applies to all statistics that are calculated from these, such as % Calls Inbound/Outbound. • Calls External/Calls Handled: Trunk to trunk calls are counted twice, once for the inbound leg and once for the outbound leg.

Trunk Grid	Trunk to trunk calls will display twice on a Trunk Grid, once for each trunk involved in the call.
Call Grid	Trunk to trunk calls display as a single call on the Call Grid

Conference

Conference calls are calls which include 3 or more devices. These can be a mix of extension and trunks (external calls).

Historical

Conference calls have the following effect on historical reports:

Template Type	Description
Call List	When viewed in a call list, conference calls will appear only once, but with details of both trunk numbers and outside numbers involved in the call.
Calls by Trunk	When viewed on a Calls by Trunk report, the call will be summarized against each trunk that was involved in the conference. The trunks may be involved as inbound or outbound calls depending on how the conference was set up.
Calls by Extension	When viewed on a Calls by Extension report, conference calls will be counted against each extension that is involved in the conference.

Real-Time

Conference calls have the following effect on real-time statistics and grids:

Statistic Type	Description
Active Call Statistics	• Calls In Progress: Each participant of a conference will be counted within the active call statistics. External parties will be counted under 'Calls In Progress External' for example.
Call Totals	Each party of a conference will be counted within the call totals statistics.
Trunk Grid	Any external participants in conference calls will be displayed as a normal incoming or outgoing call on the trunk grid.
Extension Grid	Any internal participants in conference calls will be displayed as a normal incoming or outgoing call on the extension grid (and agent grid if an ACD agent is logged into one of the extensions).
Call Grid	A conference will show as a single entry on the call grid, no matter how many participants are involved in the conference.

Dynamic Extension Express

DEE calls have a large impact on both historical and real-time data. When a user receives a DEE call, it is effectively a hunt group call which can be answered on any of the user's device. To make matters more complicated, DEE calls can be answered on external number such as a home or mobile number.

Historical

DEE calls have the following effect on historical reports:

Template Type	Description
Call List Segmented	When viewed on a segmented call list, each device which is alerted as part of a DEE call will be displayed. The hunt group parameter is populated with DEE to indicate why the extension was called. Lost Calls: On call list reports, unanswered DEE calls that have alerted an external device will appear twice as a lost call, once for the unanswered inbound leg, and once for the unanswered outbound leg
Calls by Trunk	When viewed on a Calls by Trunk report, the call will be summarized against each trunk that was involved in the call. If the DEE call originated externally, it will be counted against the incoming trunk. If the call alerted or was answered externally, it will be counted against the outgoing trunk.
Calls by Extension	When viewed on a Calls by Extension report, DEE calls will be counted against each extension that the calls rang at and will be classed as answered on the extension it was answered on and missed/lost on all other extensions it rang at.
Calls by User	When viewed on a Calls by User report, DEE calls will appear once no matter how many of the user's devices rang. The call will be classed as answered if it was answered at any of the user's devices.

Real-Time

DEE calls have the following effect on real-time statistics and grids:

Statistic Type	Description
Active Call Statistics	• Calls In Progress External: External DEE calls will be displayed in active call statistics. If the DEE call originated externally, it will display as a trunk to trunk call would. If it originated internally, the external leg will appear as an external outbound call.
Call Totals	Calls Outbound/Outbound (DEE)/Calls External/Calls Handled: Externally

	answered DEE calls are excluded from the normal Call Total statistics. They are not calculated as part of the Calls Outbound/External or Handled statistics. Instead, a dedicated statistic named Calls Outbound (DEE) is provided for these externally answered calls.
Trunk Grid	Externally ringing/answered DEE calls will display as a normal outgoing call on the trunk grid.
Call Grid	DEE calls will display as a single call on the call grid, event when ringing multiple numbers

Historical Reporter Overview

The MCS server provides access to the Call Reporting features of the MiVoice Office Application Suite. Call Reporting features include:

- The ability to run Call Lists and Grouped Reports
- The ability to configure schedules to automate reporting to email or a network share

This section outlines how the reports are licensed and how users can be given permissions to use reporting features. For information on running and using reports, please refer to the [Reporting](#) section.

There are a number of settings which affect how reporting data is calculated and presented. Refer to the [Call Reporting Settings](#) section for more information.

Licensing

There are 5 specific licenses that govern how reporting can be access and used:

Call Logging

The call logging license is a system wide license that enables access to the reporting section of the MCS website. This license provides access to run Call List reports, configuration reports and the Inbound Call Summary report.

Call Reporting Devices

For access to any type of grouped reports with aggregate data (Calls by Extension or Calls by Trunk for example), Call Reporting Devices licenses must be installed. The number of Call Reporting Device licenses required will depend on the number of extensions programmed on the telephone system(s) that the MCS is connected to.

If a system has Call Reporting Device licenses, users will be able to create and run grouped based reports.

 The Call Logging license is a prerequisite to having Call Reporting licenses.

 If a system has insufficient Call Reporting Device licenses to cover the number of extensions on the telephone system(s) then the system will go into license violation mode. Refer to the [License Violation](#) section for more information.

DND Reporting

There is a system wide license that enables the storage of and reporting on do-not-disturb (DND) events from the telephone system. Once enabled, the system will log DND status change events and provide access to DND status columns and DND event reports.

 DND events from the telephone system are not stored historically until the system has a DND Reporting license.

ACD Reporting

This is a per agent license that enables the storage of and reporting on automatic call distribution (ACD) events from the telephone system. Once enabled, every time an ACD agent logs in an ACD Reporting license will be consumed and the status change events for the agent will be historically logged in the database.

 ACD events from the telephone system are not stored historically unless an ACD Reporting license is available for the an Agent when it logs in.

Scheduling

The Scheduling license is a system wide license that enables access to create schedules for call reports. It can be applied to systems that only have Call Logging licenses or systems that have both Call Logging and Call Reporting licenses.



Refer to the [Report Templates](#) section for more information on which types of report can be run with which license.

User Permissions

When a system has been licensed with reporting licenses, users can be given permission to run reports and create/manage schedules. This is done through the use of [Security Profiles](#).

Other than giving users access to run/manager reports, there is no way to limit user access to specific report data. Once a user has access to reports they can run them on all historical data stored on the system.

Call Reporter Settings

The following settings are used when calculating data for the Call Reports. Settings changed here will affect all users.

General

Call Rate Period

The call rate period is used by the Calls by Start Time template when grouping calls together. Calls will rarely have the same Start Time, so to group them together to see call over time the Start Time is rounded down using the Call Rate Period. For example, with the call rate period set to 30, calls will be grouped in ranges of 30 minutes -> 08:30-09:00, 09:00-09:30. (Default: 30 minutes)

Short Call Threshold

Any answered call with a talk time (plus hold time) less than the value configured here will be classed as a Short Call. Using filters, these calls can then be removed from reports if required. (Default: 20 seconds)

Ignore Abandoned Calls

If this setting is enabled, any call with a ring time less than that of the abandoned call threshold will be excluded from all historic reports and service level calculations. (Default: False)

Service Level

This setting is the target time in which inbound calls should be answered. This is used when calculating what % of inbound calls met the target service level. (Default: 10 seconds)

Daily Statistics Reset Time

This setting controls two things:

- When the Real-Time statistics for the Wallboard/Dashboard get reset to zero to denote the start of a day.
- When the Historical statistics calls a new day as starting. Any calls crossing this transition time will not be grouped together.

(Default: 02:00)

Reset Call Timers Only Once per Call

When enabled, the call timers will only be reset once per call. When disabled, call timers can be reset each time a call rings at a hunt group with the '[Reset call timers when a call rings this group](#)' settings enabled.

(Default: Enabled)

Account Codes

When looking at a Calls by Account Code report, all calls with any type of account code on will be displayed. However, when viewing reports grouped by other items (Trunks, DID, etc) then account code columns need to be added to the report.

The Account Code settings here represent the 10 account code columns that are added to these grouped reports. Any description given to the code here will be used in column headers on the reports so they make sense to the user.

Ring Duration Categories

The ring duration intervals configured here are used in grouped reports and real-time statistics to show the break down of when calls were lost and answered.

Each ring duration is calculated as $\leq$ when calculating the call statistics.

For example, if a call was answered after 9 seconds, it would be counted in all but ring duration 1's statistics on a report.

The ring durations configured here can then be access as real-time statistics or historical reports through the following statistic types:

- Answered $<$ [Ring Duration], % Answered $\leq$ [Ring Duration]
- Lost $\leq$ [Ring Duration], % Lost $\leq$ [Ring Duration]

By default, 6 ring durations are configured on the system. If required, more can be added by clicking the 'Add ring duration' link

(Default: 5, 15, 30, 60, 120, 240)

Call Statistics

Depending on the device type that is involved in a call, how the call is modeled and whether the call is treated as answered can be changed. Please refer to the [PBX Configuration](#) section for more information.

Call Reporter Global Variables

Global Variables provide a way to add data manually to one or more Real-Time Wallboard/Dashboard tiles. Data entered here can be added to any wallboard/dashboard by a real-time user.

Access to create, edit or delete global variables is controlled by [Security Profile](#).

To create a global variable, press the 'New' button and populate the two required parameters:

- Name, this is the name real-time users will see when adding the data to a tile. This must be unique amongst global variables
- Value, this will be the data displayed on the real-time tile.

Global variables can be edited and deleted as required. Any changes made to a global variable will be reflected immediately on any Wallboard/Dashboard it is being displayed on.

Call Reporter External Data

External data sources can be used with the Real-Time elements of the MiVoice Office Call Reporter to display information from data sources external to the call/status logging platform. It provides a method for displaying important information on a Real-Time Wallboard/Dashboard that hasn't come from the telephone system. Some examples of the data from external data sources might be displayed:

- Sales information such as targets or orders processed
- Support information such as open tickets or escalated tickets

The external data feature can be used to query information from any ODBC or OLE DB compliant database. Data returned from these queries can be displayed on single statistic, multiple statistic and ticker tiles.

Licensing

The external data feature is a licensable feature within the MiVO Application Suite. If your system is licensed, the 'External Data Sources' should be visible within the MiVoice Office Call Reporter area of the [Site License](#) section of the website.

Once the feature has been licensed, any number of external database connections can be configured.

Configuring an External Data Source

This section outlines the steps involved in configuring a connection to an external database and pulling back one or more pieces of data. The connection string and command details will vary depending on the type of database being connected to.

 To connect some databases, additional drivers may need installing on the operating system running the MCS server. For more information, please review the documentation of the target database.

Connections

The connection is the first step in configuring MCS to communicate with an external data source. The following properties need to be configured:

- Name, used to uniquely identify the connection to anyone managing the MCS website
- Type, ODBC or OLE DB. Select the connection type required by the target database
- Refresh Interval, how often the MCS will query the external database for updated information (minimum 15 seconds)
- Connection String, this provides all the information necessary to connect to the external database including location and authentication

The connection string will vary depending on the target database's type and location. To help in setting up a connection, some example connection strings are provided. In the examples below, the parameters myServerAddress, myDataBase, myUsername & myPassword need substituting with the actual values for the target database. Once the connection string has been entered, it must be successfully tested before the website will allow the command details to be configured.

SQL Server ODBC

```
Driver={SQL Server Native Client 11.0};Server=myServerAddress;Database=myDataBase;Uid=myUsername;Pwd=myPassword;/p>
```

SQL Server OLE DB

```
Provider=SQLNCLI11;Server=myServerAddress;Database=myDataBase;Uid=myUsername;Pwd=myPassword;
```

MySQL ODBC

```
Driver={MySQL ODBC 5.2 UNICODE Driver};Server=localhost;Database=myDataBase;User=myUsername;Password=myPassword;Option=3;
```

MySQL OLE DB

```
Provider=MySQLProv;Data Source=mydb;User Id=myUsername;Password=myPassword;
```

IBM DB2 ODBC

```
Driver={IBM DB2 ODBC DRIVER};Database=myDataBase;Hostname=myServerAddress;Port=1234;Protocol=TCPIP;Uid=myUsername;Pwd=myPassword;
```

IBM DB2 OLE DB

```
Provider=IBMDADB2;Database=myDataBase;Hostname=myServerAddress;Protocol=TCPIP;Port=50000;Uid=myUsername;Pwd=myPassword;
```

Command

The command is used to query information from the target database once a connection has been established. The command can be in the form of an SQL select statement (Text) or a stored procedure call.

Once the command has been entered, pressing the 'Test' button will execute the command on the target database. If successful, the 'Data Fields' tab will be enabled and will be populated with results of the command.

Data Fields

The data fields represent the data returned from the external database. The grid displays the resulting data from the test command with the index and field name of the columns returned.

The 'Display Name' is the name that will be displayed to Real-Time users when selecting external data to add to a tile. This is pre-populated with the field name returned from the database but can be overridden if required.

Once all display names have been updated as required, saving the external data source will make it available for Real-time Wallboard and Dashboard users.

Historical Reporting

The reporting section of the MCS solution provides access to run and manage call and configuration based reports. For information on using the reporting features of the solution, please refer to the following sections:

- [Report Templates](#)
- [Report Grouping](#)
- [Report Creation](#)
- [Running Reports](#)
- [Exporting Reports](#)
- [Shared Reports](#)
- [Report Scheduling](#)
- [Call Segmentation Information](#)

For information on licensing and permissions, please refer to the [Reporting Overview](#) section.

Using Reporting

The following section outlines the reporting user interface and how reports can be run, filtered and exported.

Default Reports & Report Categories

Each user with permission to run reports is automatically configured with a default set of reports. These reports are individual to the logged in user and can be edited/deleted as required.

These default reports are displayed in different categories to help navigate between different types of reports:

Category	Report Name	License	Description
Call Lists	Call List General	Call Logging	A list of all calls on the system (segmented, internal and external calls).
	Invalid Dialed Numbers	Call Logging	A list of outbound external calls that failed to complete.
	Lost Calls	Call Logging	A list of calls that were not answered (external calls only)
	Trunk to Trunk Calls	Call Logging	A list of trunk to trunk calls (inbound calls that were diverted or transferred externally)..
	Unreturned Lost Calls	Call Logging	A list of lost calls that have not been returned or subsequently answered.
Call Performance	Call Performance By Day	Call Reporter	Overview of lost calls on a day by day basis.
	Service Level By Half Hour	Call Reporter	In depth breakdown of answered calls by half hour (call rate period).
	Service Level By Half Hour & Day	Call Reporter	In depth breakdown of answered calls by half hour and day (call rate period).
Calls By Device	Calls By Account Code	Call Reporter	Breakdown of external calls by account codes entered.
	Calls By DID	Call Reporter	Breakdown of inbound external calls by DID number.
	Calls By Extension	Call Reporter	Breakdown of all calls by extension number.
	Calls By Hunt Group	Call Reporter	Breakdown of inbound calls by hunt group.
	Calls By Trunk	Call Reporter	Breakdown of external calls by trunk line.
	Calls By User	Call Reporter	Breakdown of all calls by user.
	Detailed DND Status List	DND Reporting	List of DND state changes.
	DND Status By Extension	DND Reporting	Breakdown of DND status by extension.

	Unmatched Calls By Extension	Call Reporter	Breakdown of unmatched calls by extension.
	Unmatched Calls By User	Call Reporter	Breakdown of unmatched calls by user.
Calls By Number	Calls By Telephone Number	Call Reporter	Breakdown of calls by the number dialled/received.
	Calls For Service Codes	Call Reporter	Breakdown of calls made to service code numbers (see dial plans for more information).
	Top Dialed Numbers	Call Reporter	Breakdown of calls made by telephone number.
	Top Received Numbers	Call Reporter	Breakdown of calls received by telephone number.
Calls By Time	Call Summary By Day	Call Reporter	Breakdown of external calls by day.
	Call Summary By Month	Call Reporter	Breakdown of external calls by month.
	Call Summary By Week	Call Reporter	Breakdown of external calls by week.
	Calls By Half Hour	Call Reporter	Breakdown of external calls by half hour.
	Calls By Half Hour & Day	Call Reporter	Breakdown of external calls by half hour and day.
	Hunt Group Calls By Half Hour	Call Reporter	Breakdown of external hunt group calls by half hour.
	Hunt Group Calls By Half Hour & Day	Call Reporter	Breakdown of external hunt group calls by half hour and day.
	Hunt Group Calls By Day	Call Reporter	Breakdown of external hunt group calls by day.
	Line Usage By Half Hour & Day	Call Reporter	Breakdown of external calls by half hour and day including details of trunk utilization.
Calls/Status By Agent	ACD Status By Agent	ACD Reporting	Breakdown of ACD status by agent.
	Calls By Agent	ACD Reporting	Breakdown of calls made/received by agents.
	Detailed ACD Status List	ACD Reporting	List of ACD state changes for every licensed agent on the system.
	DND Status By Agent	ACD Reporting	Breakdown of DND state changes by agent.
	Unmatched Calls By Agent	ACD Reporting	Breakdown of unmatched calls by agent.
Other - Configuration	ACD Agent List	Call Logging	A list of ACD Agents imported from the telephone system(s).
	Device List	Call Logging	A list of extensions imported from the telephone system(s).

	DID Number List	Call Logging	A list of DID numbers configured on the MCS.
	Trunk List	Call Logging	A list of trunks imported from the telephone system(s).

These default reports can be deleted as required. The categories can be used to add additional reports or deleted as required.

 Reports that are not licensed will be identified with a padlock symbol. In addition, some columns within reports may require an additional license, these will also be identified with a padlock symbol.

Inbound Call Summary

The inbound call summary report is a read-only report that gives a system overview of inbound external calls. This is the first report that is run every time a user browses to the reporting section of the MCS website.

This summary screen can be viewed on any system with a Call Logging license. It shows un-segmented call data for external calls coming into the telephone system. This screen is designed to provide a quick overview of system performance, for more information use one of the Call Performance reports.

Running Reports

Any existing report can be run by hovering over the report name with the mouse and pressing the play icon (▶). Each report has a default filter and date range which will be used when first running a report.

Filtering & Date Ranges

Once a report is on screen the date range and filter options above the report can be used to change, expand or restrict the data the report is displaying. When changing the date range or filter that is applied to a report, the 'Apply' button needs to be pressed to refresh the report.

The date range drop down offers a range of predefined date ranges (Today, Yesterday, This Month, Last Month etc..) that can be used to quickly change the call data being used to produce the report. If a specific date or date range is required then the 'Custom' option can be used to select the dates required. Refer to the [Date Ranges](#) section for more information.

 The larger the date range the report is being run over, the longer the report will take to run. If a report is taking a long time to run, try reducing the date range. In addition, the UI is limited to displaying a maximum of 5000 rows of data.

 If the number of rows in the report exceeds 1000, the export option will not be available. To export more records than this you must use [Scheduling](#).

The filter drop down can be used to restrict the data to only contain records that are specifically required (Caller ID, Extension etc..). The filter drop down will display all of a user's own filters along with any shared or built-in filters on the system. Refer to the [Filters](#) section for more information on creating and using filters.

Paging & Totals

Due to the fact that the reports are in a webpage, it is not feasible that all the rows returned from a report are displayed all at once on the screen. Instead, rows are displayed in pages which can be navigated using the following control:

⏮ ⏪ 1 of 6 ⏩ ⏭

The icons either side of the page number information can be used to navigate through the pages of the report.

Clicking the far right icon takes you straight to the final page of the report.

If the report is **grouped**, there will be a total row at the end of the reports which shows totals of all columns where it is appropriate.

Cloning Reports

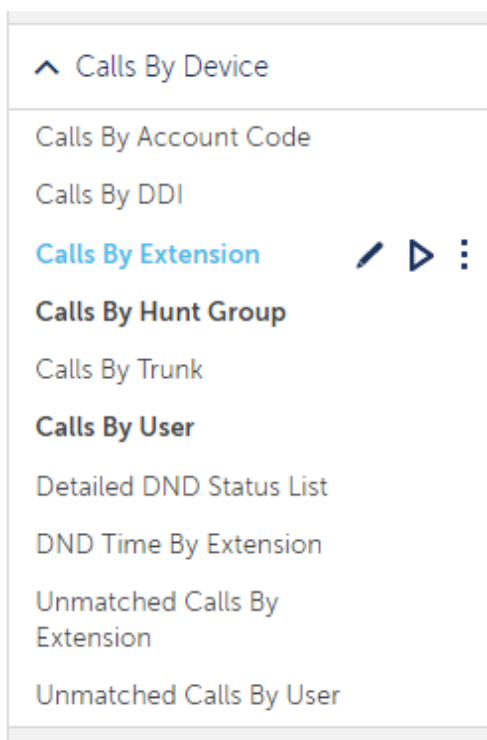
Copies of a report can quickly be made using the 'Clone' feature. To make a clone of an existing report, press the more icon () next to the report and select 'Clone' from the menu. A form will appear prompting for a new name for the report and the name of the category to store the report in.

Cached Reports

Due to the time it can take to run reports (especially when large date ranges are involved), the system will cache reports so that they can be re-used in the future without having to request the data again from the database.

If a report has previously been run with the same filter and date range then the system will use a cached version to speed up the running of the report.

The image below shows a list of reports in the 'Calls By Device' category:



If a report has previously been run and a cached copy is available, the report's name will be displayed with a bold font (in the image the Calls By Extension, Calls By Hunt Group and Calls By User reports all have cached versions available). To view the cached copy of the report, simply click anywhere on the report's name. To run the report again, press the play icon which will appear when the mouse hovers over the report in the list.

When viewing a cached report, the following warning may appear:

 **You are viewing a cached report - the data may not reflect your current filter settings.**

This usually means that the filter used on the report includes calls from the current day and so the data contained within the report maybe out of date. Pressing the 'Apply' button will re-run the report and include any calls made since the report was cached.

-  Reports that include large amounts of data should be run out of working hours to reduce the risk of resource contention with other users or other features of the system. Use [Report Scheduling](#) to run reports at times when the system is not in use.
-  Cached reports are deleted at the time specified by the '[Daily Statistics Reset Time](#)' setting.
-  Refer to the [Report Creation](#) section for information on creating and editing reports.
-  Refer to the [Statistics](#) section for information on the columns available in each report.
-  Refer to the [Exporting](#) section for more information on exporting reports from the screen.

Report Templates

Overview

The MCS has a series of report templates that can be used to create and run reports. Each report template contains the following information:

Data source (Call or configuration data for example)

This outlines when to get the data for the report from. Currently the two data sources available to the templates are

- Call Data
- Status Data (DND/ACD)
- Configuration Data

Columns

This outlines what columns are available to add to a report. Depending on the data source and grouping, the columns which are available to add to the report will change.

Grouping

This defines how the data in the report should be grouped (if at all). For example, a list of call records would usually have no grouping, each call and it's associated properties can be viewed. If however the data is grouped by Telephone Number, aggregate columns become available such as Total Calls and Total Ring Time etc.

When creating a new report, a template must first be chosen before columns can be selected. Each template has a set of default columns which will automatically be visible, but can be added or removed by the user. When editing a report, if the template is changed, the selected columns will automatically be changed to the template's defaults.

 Refer to the [Aggregated Data](#) section for more information on grouped and call list reports.

Available Templates

The following templates are available for creating reports:

Template Name	License	Description	Segmented Data
ACD Data - ACD Status List	Call Logging	A list of ACD state changes for all licensed agents. This template requires the ACD Reporter license.	N/A
Call Data - Call List	Call Logging	A list of call data records (not segmented*).	No
Call Data - Call List (Segmented)	Call Logging	A list of call data records which is segmented*.	Yes
Call Data - Invalid Dialed Numbers	Call Logging	A list of call data records containing invalid dialed numbers only.	No
Call Data - Lost Calls	Call Logging	A list of call data records containing lost calls only.	No
Call Data - Trunk to	Call	A list of call data records containing trunk to trunk calls	No

Trunk Calls	Logging	only.	
Call Data - Calls by Account Code	Call Reporter	Call data grouped by Account Code, external calls only.	No
Call Data - Calls by Agent	ACD Reporting	Call data grouped by Agent, internal and external calls. This template requires the ACD Reporter License.	Yes
Call Data - Calls by DID	Call Reporter	Call data grouped by DID number, inbound external calls only.	No
Call Data - Calls by Extension	Call Reporter	Call data grouped by Extension, internal and external calls.	Yes
Call Data - Calls by Hunt Group	Call Reporter	Call data grouped by Hunt Group, inbound calls only.	Yes
Call Data - Calls by Start Time	Call Reporter	Call data grouped by Start Time, external calls only.	No
Call Data - Calls by Start Time (Hunt Group Segmented)	Call Reporter	Hunt Group segmented call data grouped by Start Time, external hunt group calls only.	Yes
Call Data - Calls by Telephone Number	Call Reporter	Call data grouped by Telephone Number, external calls only.	No
Call Data - Calls by Trunk	Call Reporter	Call data grouped by Trunk, external calls only.	No
Call Data - Calls by User	Call Reporter	Call data grouped by User. This includes calls made on any extensions associated with a user.	Yes
Call Data - Unreturned Lost Calls	Call Logging	A list of call data records (not segmented*), filtered to show unreturned lost calls only. External calls only.	No
Call Data - Inbound Call Summary **	Call Logging	Inbound call summary for external calls.	No
Config - ACD Agent List ***	Call Logging	Configuration data, a list of all ACD Agents MCS has imported from the telephone system.	N/A
Config - DID Number List	Call Logging	Configuration data, a list of all DID Numbers configured on MCS.	N/A
Config - Device List	Call Logging	Configuration data, a list of all Extensions MCS has imported from the telephone system.	N/A
Config - Trunk List	Call Logging	Configuration data, a list of all Trunks MCS has imported from the telephone system.	N/A
DND Data - DND Status List	DND Reporting	A list of DND state changes. This template requires the DND Reporter License.	N/A

* Refer to the [Call Segmentation](#) section for more information.

** The Inbound Call Summary template is not user selectable, it is fixed to the Inbound Call Summary Report.

*** MCS does not support ACD member hunt groups, only ACD Agent hunt groups.



If '#ERROR' appears in any column, this is an indication of missing data. This can happen if the reporting service is stopped or loses connection to the telephone system.

Call List Limits

Each of the call list report templates (Call List, Call List (Segmented) & Unreturned Lost Calls) has a fixed limit of 5,000 rows of call data. If the date range for a report is configured and the resulting data would generate more than 5,000 rows, only the first 5,000 rows will get returned. When this happens, a warning message will appear on the screen alerting to this fact. To remove the warning, reduce the date range the report is being run for or apply a [filter](#) to restrict the result set. Alternatively schedule the report to return all records.

Recording Playback

The Call List reports provide a 'Play' option against answered calls which allows the user to playback the recording if they have the necessary MiVoice Office Call Recorder features configured. Clicking the play link will open up the normal playback window. If a call has not been recorded due to it being made on an unrecorded device or because it has been excluded, the play link will still appear but the user will be informed that the call was not recorded after pressing it.

 The prefix to each template ('Call Data', 'Config') refers to the data source the template is using.

 Refer to the [Reporting](#) section for information on licensing.

Report Creation

The following section describes the properties that can be configured against a report. The properties discussed here are displayed when creating a new report or editing an existing report.

To create a new report, press the 'New Report' button above the reports accordion#list on the reporting page. To edit a report, hover over a report and press the edit icon () or press the more icon () and select Edit from the menu.

About the Report

Each report that is configured on the system requires a template to be selected. This template tells the report about the type of data that is being returned, the available columns for the report and whether the data is grouped or not. Once a template has been selected, the name and category properties must be configured before navigating to the columns section:

- **Name** - User definable name that will be used to identify the report for running or adding to schedules.
- **Category** - Defines where the report will appear on the website. Categories are used to group similar reports together to aid user access to them. Either select an existing category or type in the name of a new one.
- **Description** - User definable description, this can be used to store more detailed information about the report and what it is for.

 Changing the template of an existing report will cause the selected columns to change to the default ones for the selected report.

 To cancel the changes being made to a report simply navigate away from the current page without pressing the 'Save' button.

 Refer to the [Report Templates](#) section for information about each of the different templates available.

Columns

The column selection screen is split into three sections:

Available Columns

This section outlines each of the available columns for a specific report template. To add a column to the report, simply click on the column. Each of the columns available is displayed in a different category to group similar columns together and aid user navigation. Clicking on a category name will display the columns in that category. For a brief outline of what the data in the column represents, hover over the column with the mouse to get a tooltip.

Any columns that have already been added to the report will show grayed out and in italics.

 A maximum of 50 columns can be added to a report.

Chosen Columns

This section shows all the columns that will currently be displayed on a report. Columns will be displayed in the order in which they are visible in this list. To change the order of the chosen columns, simply left click on the column and drag it to a new location in the list.

If the data returned by the report template is grouped in any way, the columns the report will be grouped on will be displayed in blue in the chosen columns list. These columns can be re-ordered but cannot be removed from the report. To remove other columns from the report simply press the red cross next to the column name.

To change the column on which the report is grouped, a different template must be selected.

Column Options

Each column has settings that can be configured including Header, Cell Width and in some cases Display As (display format).

The header setting is the name that will be displayed as the column header when the report is run. All columns have a default header name configured which is generally much shorter than the column's full name so that it will fit better within the report header.

The cell width option outlines the width the column should have within the report. All columns have been given a default width that suits the data type however these may need to be changed, especially if trying to fit a large number of columns onto a single report for exporting.

If a column contains a date or duration of some kind then the display format option will appear. The following date formats are available:

Call Time (Start Time, Answer Time, End Time etc..)

- Date and Time -> dd/MM/yyyy HH:mm:ss
- Date Only -> dd/MM/yyyy
- Time Only -> HH:mm:ss
- Week -> dd/MM/yyyy (Mon) (The date rounded to the previous Monday)
- Month -> MMM, yyyy

Duration (Call Time, Talk Time, Hold Time etc..)

- Hours, Minutes and Seconds -> HH:mm:ss
- Total Seconds

 Refer to the [Report Grouping](#) section for more information on these display formats and how they affect grouped reports.

 Refer to the [Statistics](#) section for more information on the columns available for each template.

Filters

The filters page provides a way to configure the initial filter and date range that will be used when the report is first run. These properties can be changed after the report is run using the ad-hoc date range and filter drop downs on the report viewer.

In addition, the time range on a day by day basis can be configured so that data outside this range is ignored. This is very useful for ignoring calls outside of working hours. For example, if a report is configured to run a display data over a week, the time range could be limited to between 9am and 5pm so any calls outside of these hours on any day of the week included in the report would not be shown.

Sorting

The sorting page provides a way to control which column(s) within the report are used to sort by when displaying the data. By default a sort column and direction will be defined in the template but this can be changed as required.

Reports can be sorted by more than one column by adding another column from the available columns list.

Saving a Report

Once all the properties have been configured, press the 'Save' button to implement the changes. If a new category has been entered for the report it will be created at this time.

If the report saves successfully it will be run immediately and display on screen. If there are any problems when saving the report, a message box will appear in red outlining the problem and suggesting changes that

need to be made.

Exporting Reports

Any report viewed on the MCS website can be exported directly from screen. By default, all exported reports are in landscape format to maximize the page space available for columns.

Exporting

To export a report, run the report and then press the save button at the top of the report:



From the menu that displays, select one of the available export formats:

- Excel
- PDF
- Word

As soon as the export format has been chosen, the report will be exported in the required format and a standard browser download prompt will appear asking where to save the file to. The type of prompt received will differ from browser to browser.

-  Applications that support Excel, Word and PDF formats are not required for exporting but will be required to open the exported files.
-  If the number of rows in the report exceeds 1000, the export option will not be available. To export more records than this you must use [Scheduling](#).

Shared Reports

A shared report is visible to all users on the system that have access to reports. Shared reports can be run, edited and deleted by any user on the system. Shared reports are also the only type of report that can be added to a [schedule](#).

Creating a Shared Report

Shared reports can be created directly from the Shared Reports section of the website or can be created by sharing an existing personal report.

To share an existing personal report, press the more icon () next to the report and select 'Share' from the menu. A form will appear prompting for the following information:

- **New Name** -> This will be the name given to the shared report.
- **Category** -> Choose a category for the shared report to reside in or enter the name of a new one.

Pressing the 'Copy Report' button will then accept this information and create the shared report. The shared report is effectively a copy of the existing report, the original will still be visible under 'My Reports' and any changes to the new report made by other users will not affect the original.

Shared reports have their own category structure which is system wide, any new category created in shared reports will be visible to all users.

Filters & Scheduling

Shared reports can be run directly on the website in the same way personal reports can. When running the shared reports in this way, personal or [shared filters](#) can be applied to the report.

Only shared reports can be added to a [schedule](#) to be run on a regular basis. When running a shared report through a schedule, only shared filters can be applied to it.

Schedule Creation

To create a new schedule, navigate to the schedules section of the website (sub menu below Reporting) and press the 'New' button. The schedule management form will appear to guide the user through configuring the schedules. The same form can be accessed to edit an existing schedule by hovering over the schedule in question and pressing the edit icon ().

Details

The details section request a name and description for the schedule. The name will be used to identify the schedule and must be unique. The description is not required, but can be used to store information about what the schedule is for.

Schedule

Schedule section outlines when the schedule should be run:

Start

The time at which the report will first be run, subsequent recurrences will then be calculated from this initial time.

End Date & Time (Optional)

If the schedule does not need to be permanent then an end date for the schedule can be entered here.

Recurrence - Minute & Hour

Selecting a recurrence of minutes or hours provides an additional option to enter the interval number (15 minutes, 2 hours etc). If required, the recurrence can then be limited to run between certain hours of the day and on certain day/days of the week.

For example: Run every 15 minutes between 9am and 5pm Monday to Friday only, this allows a small interval between the schedule running but restricting reports out of working hours.

 The minimum recurrence value that can be entered is 15 minutes.

Recurrence - Day

Selecting a recurrence of day allows you to have a schedule that runs once a day at a certain time. As with the Minute & Hour options specific days of the week can be select so that reports don't run at weekends for example

Recurrence - Week

Selecting a weekly recurrence allows schedules to run once a week or less frequently.

Recurrence - Month

A monthly recurrence allows schedules to be run once a month or less frequently. In addition to selecting the number of months between running, the frequency options allows a specific day number (e.g. 1st) of the month to be selected or a contextual day like the first Monday of the month for example.

 If a contextual day of the month is selected for the frequency, this will occur in partial weeks. So if the first Friday of the month is selected and the 1st of the month is a Friday, the schedule will run on this day.

Reports

The reports section allows one or more reports to be added to the schedule. To add a report, press the 'Add' button and populate the form that appears.

Select a report from the drop down and then configure the following properties:

- Filter -> Select a shared filter from the list is required
- Date Range -> Select a date range the report should be run for

The filter and date range selected will be used instead of the report's default filter and date range. It is important to use contextual date ranges when running reports although a custom date range is configurable if required. Contextual date ranges are needed because the schedule will be running repeatedly so setting a specific custom date range will mean the same report is run each time.

If more than one report is added to a schedule it will run the reports one by one and then move onto the action to deliver all reports in one go.

 Only [shared filters](#) and [shared reports](#) can be added to schedules.

Action

The action section outlines what happens to the reports once they have been run by the scheduler. Reports can either be exported to a network share or emailed to one or more people. Select an action type using the drop down and then complete the necessary properties.

Whichever action type is selected, the same [format](#) options of .xls, .doc or .pdf are available.

 When exporting to '.xls', there is a limit of 65,536 rows enforced.

Email

All the standard email options are available. Multiple email addresses can be entered into each of the address properties (To, CC, BCC) using a comma (,).

 For schedules to be sent out by email, an [SMTP](#) server must be configured. The source email address configured for the MCS server will be used for scheduled emails.

Export

Reports can be exported to any of the [network shares](#) that the MCS server has been configured for. If no network shares are available to select from the drop down list then they must first be added in the configuration section (⚙️) of the MCS website.

After a share is selected, a sub folder path can be entered. The scheduler will attempt to create the sub folder if it does not already exist. If a sub folder has already been added on the [network share](#) configuration then any sub folder entered here will be appended to that sub folder.

 Refer to the [Network Shares](#) section for more information.

Real-Time Reporting

Real-Time Reporting provides users with real-time visibility of calls and status of various different aspects of the telephone system.

This system provides two levels of real-time access for users:

- [Wallboard](#), up to 5 real-time views restricted to single statistic tiles, media tiles and a ticker.
- [Dashboard](#), a supervisor real-time UI with up to 10 real-time views and additional tile support.

Users can be assigned permission to access either the Wallboard or the Dashboard. This is done using a [Security Profile](#).

For information on how to use the Real-Time Wallboard, please refer to the [Quick Start Guide](#).

The following sections provide a breakdown of all aspects of Real-Time Reporting use:

- [Tiles](#)
- [Statistics](#)
- [Tile Alarms](#)
- [Real-Time Filtering](#)
- [Full Screen Views](#)
- [Global Variables](#)

For information on how call segmentation, dynamic extension express, conferencing & trunk to trunk calls affect the data display on different tile types, please refer to the following sections:

- [Call Segmentation](#)
- [Dynamic Extension Express \(Personal Call Routing\)](#)

Real-Time Wallboard

The Real-Time Wallboard is designed to provide real-time statistics on a screen that is visible from across a room if necessary.

Wallboard licenses are used on a per concurrent connection basis, each user that has a Wallboard view open within a browser will consume a Wallboard license.

 Opening multiple tabs with Wallboards on will use multiple licenses.

Each Wallboard has up to 5 Real-Time View which can contain any of the following tile types:

- Single Statistic
- Cycling Multiple Statistic Tile
- Ticker (limited to one per view)
- Media

The following sections of the document provide more information on various aspects of the Real-Time Wallboard:

- [Views](#)
- [Tile Types](#)
- [Appearance](#)
- [Filtering](#)
- [Alarms](#)
- [Full Screen](#)

A user's access to the Real-Time Wallboard is controlled using the [Security Profile](#) that has been assigned to their user account.

Real-Time Dashboard

The Real-Time Dashboard is designed to provide real-time statistics to a supervisor/manager. It provides all the features of the Real-Time Wallboard but with the following additional features:

- Up to 10 Multiple Views, increase of 5 over the Real-Time Wallboard. Users can then switch between views as required.
- Grid Tiles, the dashboard provides access to grid based tiles. These provide information on a device/call basis for more detailed real-time analysis
- Multiple Statistic Tiles, these provide improved support for displaying multiple statistics on a tile and include the Primary/Secondary and List based appearances.
- Call/Status Control, this provides the user with the ability to change another user's status or to move calls around the telephone system

Dashboard licenses are used on a per concurrent connection basis, each user that has a Dashboard view open within a browser will consume a Dashboard license.

 Opening multiple tabs with Dashboards on will use multiple licenses.

Each Dashboard provides access to configure multiple Real-Time Views which can contain any of the following tile types:

- Single Statistic
- Multiple Statistic Tile
- Ticker (limited to one per view)
- Media
- Grids

The following sections of the document provide more information on various aspects of the Real-Time Dashboard:

- [Views](#)
- [Tile Types](#)
- [Appearance](#)
- [Filtering](#)
- [Alarms](#)
- [Full Screen](#)
- [Call Control](#)

A user's access to the Real-Time Dashboard is controlled using the [Security Profile](#) that has been assigned to their user account.

Real-Time Views

A Real-Time View is a collection of real-time tiles. On the Wallboard, up to 5 different views can be configured. On the Dashboard, up to 10 views can be added by the user.

Each view has the following configuration options:

- Name, the user definable name for the view (this is not available on the Wallboard)
- Display Mode, switch between different tile layout modes
- Color Mode, switch between different color modes that applies when creating new tiles.

To access the configuration of a view, Press the edit button (✎) to the top left of the Wallboard/Dashboard.

Display Mode

The display mode controls how the tiles in the view are located and sized.

Uniform Grid

Default for Wallboards.

When set in this mode, each tile's size is automatically controlled by the view. As new tiles are added, the size of existing tiles is reduced so each tile has the same size and they all fit in the optimum way on the view.

The location of tiles can be changed by dragging and dropping tiles within the view.

Manual Sizing

Default for Dashboards.

When set in this mode, each tile's size is directly controlled by the user. This provides a more flexible view where tiles can be different sizes. This mode is ideal for when using the Media Tile and allows it to be large than the other tiles around it.

 When switching between modes, the order and size of tiles will be lost.

 Neither of the Display Mode options will affect a Ticker Tile. These will display at the top or bottom of the screen based on their own display mode setting.

Color Mode

The color mode controls how the background/foreground of tiles are automatically generated by the system when new tiles are added.

 Changing the color mode has no effect on tiles that have already been added to the view.

Colored Background

Default for Wallboards.

When this mode is selected, a random background color will be selected for any new tiles added and the foreground (text) will be set to white.

Colored Text

Default for Dashboards.

When this mode is selected, a random foreground (text) color will be selected for any new tiles and the background will be set to white.

No Color

When this mode is selected, all new tiles added will start with a white background and blank foreground (text).

 The color mode only affects the initial color of the tile and is designed to simplify initial view creation. The foreground and background colors can be changed as required by the user at any time.

Copying a View

Once a view has been configured, it is possible to copy it to other users on the system to avoid having to recreate views over and over again.

Selecting the 'Copy to User' option will load the 'Copy View' window. Simply select the user to copy the view to and click the 'Copy' button.

 When copying a view, links to shared filters from tiles will be kept but personal filter links will not be copied. Any tile on the copied view that was linked to a personal filter will revert to 'All Calls'.

Real-Time Tiles

The following table shows the types of tile that are available, what sort of data they can display and which real-time license they are supported on.

Tile	Data	Wallboard	Dashboard
Single Statistic	• Aggregated (Totals/Averages/Percentages) • Minimum/Maximum Values • Global Variables • External Data	Yes	Yes
Multiple Statistic	• Aggregated (Totals/Averages/Percentages) • Minimum/Maximum Values • Global Variables • External Data	Cycling Statistic Tile Only (Limited to 2 Statistics)	Yes
Ticker	• Aggregated (Totals/Averages/Percentages) • Minimum/Maximum Values • Global Variables • External Data	Yes (Limited to 1)	Yes (Limited to 1 per View)
Media	• YouTube Live Streams • Uploaded MP4/M4V Video • Images	Yes	Yes
Grids	• Agent Grid* • Group Grid* • Call Grid • Extension Grid • Trunk Grid	No	Yes

 * Requires ACD Reporter licenses

Single Statistic Tiles

One or more of these tiles can be added to a view. Each tile can show a single piece of information at a time and can have its foreground/background color customized as required.

Single statistic tiles have two display modes:

- Text
- Circular Gauge

Example single statistic tiles:

Calls Inbound

1

% Calls Matched



Multiple Statistic Tiles

One or more of these tiles can be added to any real-time view (limited to cycling tiles only on a Wallboard view). The multiple statistic tile can be configured with up to 20 pieces of information. There are three display modes to choose from when creating a multiple statistic tile:

- Primary / Secondary, up to 2 pieces of information can be displayed using this mode.
- List, up to 20 pieces of information can be displayed on the tile with this mode.
- Cycle, the tile will cycle through up to 20 pieces of information in this mode. Only one statistic will be visible at a time.

Once the tile has been created, the display mode can be changed at anytime from the tile's appearance tab.

The foreground color of each statistic added can be configured separately so they can be distinguished from each other.

Example multiple statistic tiles:

Agents Logged In

16

Free

12

Call Info

Calls Inbound 1

Calls Answered 12

Calls Lost 2

Calls Matched 3

Calls With CLI 1



On Real-Time Wallboards, Cycling tiles are limited to 2 statistics per tile.

Ticker

A single ticker tile can be added to a view. The ticker can have up to 20 pieces of information added to it. There are three appearance options associated with the ticker:

- Location, the ticker can be located at the top or bottom of the view
- Size, the ticker has three size modes: Small, Normal & Large
- Scroll Speed, the ticker has three speed modes: Slow, Normal & Fast

Each piece of information added to the tile will scroll along it in the order it was added. If there are a large amounts of data on the ticker it may not be possible to see all pieces of information at the same time.

Example ticket tile:

Agents Free **12** Calls Ringing **0** Calls Active **0** Call Rate **1** Calls Inbound **1** Calls Answered

Media

One or more media tiles can be added to a view. Each media tile can be configured to play one of the following:

- Local content, the tile will loop an MP4 video provided by the user
- YouTube Videos, the tile can display video and live streams from YouTube. Simply paste in the URL for the specific video/stream.
- Display an image file

If displaying video content, the config tab provides an option for selecting the aspect ratio of the video. The tile will try and auto detect the aspect ratio by default but can be overridden by selecting '16:9' or '4:3'. The video will start with the audio on, this can be changed by muted if required.

 Depending on the media content being displayed, there may be specific license requirements either in the form of a 'TV License' and/or in the form of a license from the content provider. It is up to the customer to ensure they are licensed correctly to display any content they choose to add to the media tile.

Grids (Agent, Call, Extension, Group & Trunk)

One or more grid tiles can be added to a view. Grid tiles can be used to show data by device or call rather than system wide.

Agent Grid

Displays all the ACD agents on a system with the background color for each row indicating their ACD status. The agent grid can be filtered as per any other tile but also has the option for not displaying agents that are currently logged out.

Background Color	Status
White	Logged Out
Green	Free
Red	Busy (On a call)
Yellow	Wrap-Up
Blue	Do-Not-Disturb
Grey	Offline

Light Grey

Unlicensed

The table below shows the status icons that are shown on an Agent Grid.

Icon	Description
	Logged In
	Logged Out
	Call In Progress
	Busy N/A (Do-Not-Disturb)

The screen shot below shows an example Agent Grid.

Agents + Agent Status (Logged In)											
Agent	Agent Name	Time L...	ACD Statu...	DND Mess...	Hunt Groups	Time In...	Time On...	Ca...	Calls O...	Avg Talk Ti...	Total Talk...
	7012 Charles Ryan	02:30:16	Busy N/A	ON A TRIP	2202,2230,...	00:45:45	05:22:49	0	0	00:00:00	00:00:00
	7013 Alice Craig	02:30:16	Busy N/A	ON HOLID...	2002,2007,...	02:30:15	05:22:49	0	0	00:00:00	00:00:00
	7014 Mark Llaird	02:30:16	Busy N/A	GONE HO...	2202,2230,...	02:30:15	05:22:49	0	0	00:00:00	00:00:00
	7015 Frankie Williams	02:30:16	Busy N/A	OUT OF O...	2002,2007,...	02:30:15	05:22:49	0	0	00:00:00	00:00:00
	7016 Julia Phillips	02:30:16	Busy		2211,2201,...	02:30:15	05:22:49	0	0	00:00:00	00:00:00
	7017 Wayne Gemson	01:36:08	Busy		2211,2201,...	00:04:54	01:36:06	0	0	00:04:38	00:04:38
	7018 John Goldsmith	02:30:16	Busy		2211,2201,...	00:04:53	05:22:49	0	0	00:04:38	00:04:38
	7019 Terry Baker	02:30:16	Free		2202	02:30:15	05:22:49	0	0	00:00:00	00:00:00
	7020 Sam Bagley		Free		2211,2201,...	00:15:46	05:34:28	0	0	00:00:00	00:00:00
	7021 Oliver Marks	01:07:57	Free		2002,2202,...	00:02:35	01:07:55	0	0	00:00:00	00:00:00
	7022 Garry Taylor	02:30:16	Free		2002,2007,...	00:19:44	05:22:49	0	0	00:00:00	00:00:00
	7023 Bruce Dawson	02:30:16	Free		2002,2007,...	00:34:38	05:22:49	0	0	00:00:00	00:00:00
	7024 Becky Smith	00:36:44	Free		2006,2003,...	00:15:53	00:36:42	0	0	00:00:00	00:00:00
	7025 Carrie Tucker	02:30:16	Free		2004	02:30:15	00:00:34	0	0	00:00:00	00:00:00

 To use an Agent Grid, ACD Reporting licenses are required in addition to the Real-Time Dashboard license. If any agent does not have a license, they will display with a grey background.

 MCS does not support ACD member hunt groups, only ACD agent groups.

Call Grid

Displays all active calls on the system (internal & external) with the background color for each row indicating the calls status.

Background Color	Status
White	Internal Call
Green	Outbound Call
Yellow	Inbound Call

The table below shows the status icons that will display on a Call Grid.

Icon	Description
	Call In Progress
	Call On Hold
	Call Ringing In
	Call Ringing Out

The screen shot below shows an example Call Grid with an inbound, outbound and an internal call.

Call List											
Call ID	Call Dire...	Contact...	Telephon...	First Ran...	Last Ran...	Answerin...	Extension	Ring Time	Talk Time	DDI Digits	DNIS
 18B357	None	[New Co...	9004	1085	1085	2045	2045, 3065	00:00:09	00:13:12	[n/a]	
 18P812	Outbound	Wendy N...	+44123...	1895		1895	1029	00:00:14	00:02:48	[n/a]	
 18P509	Inbound	Graham C...	+444576...	1813		1029	1029	00:00:27		+441617...	SALES

Extension Grid

Displays all the extensions configured on the system with the background color of each row indicating the trunk/call status. The call data displayed is segmented.

Background Color	Status
White	Idle (No call)
Green	Outbound Call
Yellow	Inbound Call
Grey	Offline

The table below shows the status icons that can be displayed on an Extension Grid.

Icon	Description
	Extension Idle
	Extension Offline

	Call In Progress
	Call On Hold
	Call Ringing In
	Call Ringing Out
	Do-Not-Disturb

The screen shot below shows an example Extension Grid.

Extensions									
Extensio...	Extension Name	Calls Inbound	Calls In Co...	Calls Outbo...	Calls Out C...	Avg Talk Time	Total Talk T...	Last Call En...	Extension S...
 9000	Charles Ryan	0	0	0	0	00:00:00	00:00:00		Idle
 9001	Alice Craig	0	0	0	0	00:00:00	00:00:00		Idle
 9002	Mark Laird	0	0	0	0	00:23:39	00:23:39		Busy
 9003	Frankie Williams	0	0	0	0	00:00:00	00:00:00		DND
 9004	Julia Phillips	0	0	0	0	00:00:00	00:00:00		Idle
 9005	Wayne Gemson	0	0	0	0	00:00:00	00:00:00		Idle
 9006	John Goldsmith	0	0	0	0	00:16:21	00:16:21		OnHold
 9007	Terry Baker	0	0	0	0	00:00:00	00:00:00		Offline
 9008	Bill Perkins	0	0	0	0	00:00:00	00:00:00		Offline

Group Grid

Displays all hunt groups that are configured on the telephone system. The background color indicates the status of the hunt group in regard to agents free and calls queuing.

Background Color	Status
White	UCD Hunt Group
Green	Agents Free
Yellow	No Agents Free / No Agents Logged In
Red	Number of Calls Ringing is greater than the number of Agents Free

 For UCD hunt groups, the number of free extensions is not tracked.

The screen shot below shows an example Group Grid.

Groups										
Group	HGrp Name	Ringing	%SL	% Calls Lost	Agents Free	AgtsWrp	AgtsLogge...	AgtsN/A	In	OverOut
 91000	Sales	2	98%	0%	1	0	2	1	69	0
 91001	Support	4	87%	0%	3	0	7	1	121	0
 91002	General	1	91%	3%	1	0	5	0	43	0
 91003	Accounts	0	80%	1%	1	0	1	0	10	0
 91004	Overflow	0	100%	0%	1	0	4	1	5	0

 To use a Group Grid, ACD Reporting licenses are required in addition to the Real-Time Dashboard license. If any agent does not have a license, their status will not be calculated against the group's statistics.

 MCS does not support ACD member hunt groups, only ACD agent groups.

Trunk Grid

Displays all trunks that are active on calls. The background color indicates the direction of the call (Yellow -> Inbound, Green -> Outbound). The Icon to the left shows the status of the call.

Background Color	Status
White	Internal Call
Green	Outbound Call
Yellow	Inbound Call

The table below shows the status icons that can be displayed on a Trunk Grid.

Icon	Description
	Call In Progress
	Call On Hold
	Call Ringing In
	Call Ringing Out

The screen shot below shows an example Trunk Grid.

Trunks											
Trunk	Call Dire...	Contact...	Telephon...	First Ran...	Last Ran...	Answerin...	Extension	Ring Time	Talk Time	DDI Digits	DNIS
94301	Inbound	[New Co...	+441618...	2522	1834	1032	1032	00:00:23	00:02:31	+441617...	MAIN
94302	Inbound	CHRIS R...	+447968...	1828	1828		1828	00:00:03		+441617...	CHRIS R...
94303	Inbound	James P...	+449876...	1872	2531	1046	1046	00:00:07	00:05:19	+441617...	SALES
94304	Inbound	Graham C...	+444576...	1813	1811	1029	1029	00:00:27	00:02:48	+441617...	SALES
94305	Inbound	Mark B...	+444123...	2501	1862		1042	00:00:19		+441617...	SUPPOR...
94309	Outbound	Grace H...	+441958...	1863			1863	00:00:22		[n/a]	
94309	Outbound	Mary M...	+445820...	1871			1871	00:00:20		[n/a]	
94310	Outbound	Phil C...	+449756...	1845			1845	00:00:31	00:11:15	[n/a]	
94311	Outbound	Garry M...	+449856...	1804			1804	00:00:12		[n/a]	
94312	Outbound	Chris Ra...	+447968...	1828			1828	00:00:05		[n/a]	

A maximum of 20 columns can be added to a real-time grid at a time.

Real-Time Tile Properties

Each tile has a set of properties that control various aspects of the tile's look and feel as well as the data displayed.

Title & Fields to Display

The title will be displayed at the top of a tile that is added to a view. The title of a tile will automatically be defaulted to the name of the first data field that is selected to be displayed on the tile.

Depending on the tile type, one or more data fields can be added to the tile for display. To add a field, press the 'Pick Field' button and select the field required from the context menu displayed.

The fields that are available will depend on the tile type. For more information on the fields available, please refer to the following sections:

- [Statistics](#)
- [Global Variables](#)



The Media tile has different properties to other tile types. Please refer to the [Tile Types](#) section for more information.

On multiple statistic tiles, the name of the data field selected will be used to identify the statistic when it is displayed. This can be overridden if required. While the 'Edit Tile' window is open, click on any of the fields and text box will appear allowing the name to be overridden.

The order of fields added can also be changed by drag and drop.

Appearance

The appearance tab provides configuration of the background and foreground colors of the tile, as well as any Display Mode options that may be relevant to the specific tile being edited. On multiple statistic (list) tile, the color of each of the fields that have been added can be changed.

Each tile also has properties for filtering and alarms. For more information, please refer to the [Real-Time Filtering](#) & [Real-Time Alarms](#) Sections.

Real-Time Filtering

By default, when tiles are added to a Real-Time View, they will show unfiltered data. This means that the data will include all relevant calls/extension etc.

Under normal circumstances, it is necessary to apply a filter to a tile so that the data displayed is meaningful.

Any of the following filters can be used to filter the data on a tile:

- Built-In filters
- User Filters
- Shared Filters

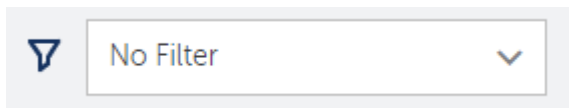
For more information on different filters and how they are managed, please refer to the [Filters](#) section.

There are two ways in which filters can be used on a Real-Time View:

- Tile filters, apply a filter directly to a tile
- View filters, apply a filter to all tiles within a view

Applying View Filters

At the top of the current Real-Time View, the filter dropdown will indicate if there is a filter currently assigned. In the image below, there is no filter assigned at view level:



To apply a filter to all the tiles within a view, select the required filter from the drop down.

To add a new filter or edit an existing one, press the filter icon () on the title bar to access the filter configuration section.

Tile Filters

Each tile can control how filters are applied to the data it is showing. The filter options available on each tile are:

- Filter, select a filter to apply to this tile
- Filter Mode, choose how the filter is applied

Each tile can have a filter applied to directly to it. By default, a tile will have no filter applied.

The Filter Mode can then be used to control whether any filter applied to the tile is combined with or overrides any view based filter.

If 'Combine with view filter' is selected, the view and tile base filter are merged together and applied to the data on the tile.

If 'Replace view filter' is selected, the view filter is ignored and the tile's filter is applied. If the tile has no filter applied when this mode is selected, the view's filter is still ignored and the tile's data will not be filtered.

Filter Visibility

Depending on the Filter Mode selected on the tile, any filter applied to the tile will be displayed below the tile name.

If the filter is combined with the view's filter, it will be displayed with a (+) next to the filter name:

Calls Lost
+ Agent (1002)

If the filter is set to replace the view's filter, just the filter name will be displayed:

Calls Lost
Agent (1002)

Real-Time Alarms

Real-Time Alarms provide a way to bring attention to aspects of the telephone system that are running outside of acceptable parameters. Each tile on the system can have one or more real-time alarms configured.

To add an alarm, navigate to the 'Alarms' tab while editing a tile, then press the 'Add New Alarm' button. Once the alarm properties have been configured, remember to save the tile as well as the newly added alarm.

More than one alarm can be added to a tile to handle different scenarios.

 Real-Time Alarms are not available on Media tiles.

Triggers

The trigger defines when the alarm should be activated. The following comparisons can be used for trigger configuration:

- >
- <
- =
- Between (inclusive)

The alarm created will be active for as long as the statistic matches the trigger configured.

If the alarm is being created on a multiple statistic tile, the statistic the trigger will be calculated against must be selected.

Actions

For each real-time alarm created, one or more of the following actions can be configured.

Flash Tile

This action will cause the tile's foreground and background colors to swap back and forth, causing the tile to flash to get peoples attention. The tile will continue to flash while the conditions that caused the trigger remain.

Change Background Color

This action will cause the background color of the tile to change to the configured color. The background will revert back to its normal color when the trigger is no longer valid.

 This action type can be used to create a traffic light style tile, where the background color can be changed from green to yellow to red based on changing statistic values.

Change Stat Color

This action will cause the foreground color of the tile to change to the configured color. The foreground will revert back to its normal color when the trigger is no longer valid.

Make the tile fill the screen

This action will cause the tile to display full screen on the view, in front of all other tiles. The tile will revert back to it's original size and location when the trigger is no longer valid or by double clicking on the tile.

Play a sound

This action will cause a sound/music file to be played out of the configured speakers of the computer. The 'Play Count' setting can be used to control how many times the file is played (*Default 1*).

Any sound/music files that have been added within the logged in user's Folders. The system will display any files ending with the .mp3 file extension.

For information on how to upload sound files, please refer to the [Folders](#) section.

 Playing a sound for an alarm is not available on grid based tiles.

Send Email

This action can be used to send an email notification to one or more address. Enter the email address of the target recipient in the box provided (use a comma to separate multiple target email addresses). Any time the alarms activates, an email will be sent to the addresses providing details of the statistic. Emails are restricted to a maximum one per minute, if a tile causes an alarm, subsequent tile alarm triggers will not generate an alarm for one minute after.

Use of the 'Send Email' feature requires an SMTP connection to a mail server. For information on how to configure SMTP, please refer to the [SMTP](#) section.

 Email alarms are only sent when the dashboard or wallboard they are configured on is open.

 Sending an email for an alarm is not available on grid based tiles.

Send Tile Preview to 6900 Handset(s)

The action can be used to send a snap-shot of the tile statistic which is generating the alarm to one or more 6900 phones. The snap-shot will appear full screen on the phone for a period of 10 seconds (as long as the extension is idle, no alarms will be sent if the phone is currently on a call). The user can cancel the screen by pressing one of the cursor buttons.

 6900 tile previews for an alarm are not available on grid based tiles

 To prevent an excessive number of alarms being sent to a 6900, no more than one alarm per tile will be sent in a 60 second period.

 Only one tile alarm can be seen on a 6900 at a time. If a second (or third..) alarm is sent to a phone, it will overwrite any previous alarm currently being displayed.

 6900 alarms are only sent when the dashboard or wallboard they are configured on is open.

Real-Time Full Screen

The wallboard is designed to be used on a wall mounted display screen, visible to multiple users at a time. To optimize this usage, a full screen toggle () is provided which activates the browser's full screen mode. This can be found in the top right of the View.

When full screen mode is enabled, the browser's application border along with the main title bar for the website should be hidden, allowing the view to grow to the size of the screen.

Opening the Wallboard Full Screen

In most circumstances where a wall mounted display is used, a dedicated PC will be installed to drive the screen and run the browser that the wallboard will be displayed in.

When this setup is used, the PC and wallboard need to handle reboots and come back to an operational state without any user intervention. For this to happen, the following needs to take place:

1. The PC needs to be configured to automatically logon after a reboot
2. A shortcut needs to be called on start-up that opens the browser at the appropriate page
3. The MiVoice Office Application Suite website needs to have 'Use Windows Authentication' enabled so it automatically logs the user in.

Auto PC Logon

 Configuring a PC to automatically logon can be a security risk. Before doing this, ensure the user account to be used has no access beyond that of the target computer.

To setup a computer to automatically logon, the following keys need to be added to the registry:

HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Winlogon

- AutoAdminLogon = 1
- DefaultDomainName = [Your domain name]
- DefaultUsername = [Wallboard username]
- DefaultPassword = [Wallboard user account password]

Once these keys have been created and their values populated, the PC should automatically logon each time it is rebooted.

Browser Shortcuts

When using Internet Explorer or Chrome, it is currently possible to load the browsers in 'Kiosk' mode. This will take the browser straight to the specified URL and will load it full screen. In addition, it will stop general interaction with the website.

To activate Kiosk mode, create a shortcut for the browser required:

Internet Explorer:

"C:\Program Files\Internet Explorer\iexplore.exe" -k http://[APP_SUITE_SVR]/Secure/Dashboard/Index

Chrome:

*"C:\Users\[USERNAME]\AppData\Local\Google\Chrome\Application\chrome.exe" -Kiosk
"http://[APP_SUITE_SVR]/Secure/Dashboard/Index">*

 At the time of writing, there is no way to automate loading a URL in Full Screen mode in either Firefox or Edge.

Windows Authenticated Website Login

If MiVoice Office Application Suite has been installed on a Windows Domain, the website can be configured to automatically log users in with their windows credentials, saving them the effort of typing out their username and password each time.

This is extremely useful when setting up a Wallboard to automatically load when a PC starts up. To make use of this feature, ensure the steps below are followed:

- Enable 'Use Windows Authentication' in the [Website](#) settings ('Servers\Website')
- Make sure the [Windows Username](#) parameter is set against any user wishing to use the feature.
- Configure the browser to recognize the MiVoice Office Application Suite URL as a Local Intranet site.

Once the steps above have been correctly followed, anytime a configured user browses to the MiVoice Office Application Suite website, they will automatically be logged on.

Real-Time Global Variables & External Data

In most implementations of the Real-Time Wallboard/Dashboard, there is a requirement to display information that comes from outside of the telephone system. This information could relate to other areas of the business which also need monitoring. Two methods are provided to display non-telephone system related information:

- Global Variables, manually updated data fields
- External Data, automatically updated data that is queried from an external data source

If global variables and/or external data fields have been configured on the system, they will appear on the context menu when [adding](#) a field to a tile. No formatting is applied to these fields, the data will appear on the tile in exactly the format it has been entered/queried.

Global variables and external data fields can be added to the following tile types: Single Statistic, Multiple Statistic & Ticker.

Global Variables

Global variables can be created, edited or deleted by any user that has the appropriate permission. For more information on managing global variables, please refer to the dedicated section within the [Call Reporter](#) configuration.

External Data Sources

External data sources can be created, edited or deleted by any user that has the appropriate permission. For more information on managing external data fields, please refer to the dedicated section within the [Call Reporter](#) configuration.



Global variables and external data values are truncated to 100 characters when being displayed on the ticker tile or a Real-Time Wallboard for FireTV.

Real Time Call & Status Control

When using one of the grid tiles in conjunction with a Real-Time Dashboard license, various call and status control features are made available.

The following operations can be performed by dashboard users:

- Call Control
 - Call Now, make call to the extension/agent selected
 - Send Call To, move a call that is ringing to another device on the telephone system
 - Pickup Call, pick up a call that is ringing at another device/agent
 - Clear Call, hang up a call that is ringing or in progress at a device
 - Answer Call, force another extension/agent to answer a ringing call
 - Station Monitor, use the telephone system to listen in to a call that is in progress at an extension/agent
 - Remove Call, used to remove stuck calls which are no longer active on the telephone system
- DND Control
 - Enter DND State, place an extension/agent into one of the 20 available DND states
 - Remove DND State, take an extension/agent that is currently in DND out of DND
- ACD Agent Control
 - Login, log an ACD agent into one or more hunt groups
 - Logout, log an ACD agent out of one or more hunt groups
 - Enter Free State, place an ACD agent that is currently in Wrap-up into the Free state
 - Enter Wrap-up State, place an ACD agent that is currently in Free into the Wrap-up state

The functions available depends on the grid being used and the state of the currently selected device.

 The 'Remove Call' option can be found on the Call List grid's context menu if a call has been active for more than 10 minutes. This option does not need to be used under normal operation. If however there has been an error with communications to the telephone system (such as a lost packet), it is possible for a call to become stuck in an active state which can then skew statistics. When this happens, selecting the 'Remove Call' option will clear the call out of memory and should fix any incorrect active call statistics.

Using Call & Status Control

The call and status context menu can be accessed in one of two ways:

- Click on the status icon at the far left of each row on the grid
- Click on the more icon () at the far right of each row on the grid

Clicking on either of these icons will load the Call/Status Control menu:

Call now

Do Not Disturb

ACD

Log In...

Log Out...

Enter Wrap-Up State

The exact options available on the menu will depend on the grid type.

Call Control

Depending on the current status of calls at the selected device in the grid, one or more of the call control features will be available.

Call States	Call Now	Send Call To	Pickup Call	Clear Call	Station Monitor
Idle					
Ringing					
On Hold					
In Progress					

Do-Not Disturb Control

Do-not-disturb (DND) control is available on the Agent and Extension grids. The telephone system provides 20 different DND status options to choose from. Any extension or agent can be placed into DND from the relevant grid.

DND states can be removed manually by the user directly from the extension if required.

 Removing an ACD agent from DND will place them in the 'Free' state. Ensure they are at their desk and ready to receive calls before doing this.

ACD Agent Control

ACD agent control is available on the Agent, Extension & Group grids. Agents can be members of one or more hunt groups on the telephone system. When using the 'Login' and 'Logout' commands, a single hunt group can be selected or all hunt groups.

If an agent is in the 'Wrap-up' state, they can be placed into the 'Free' state so that they are offered calls by the telephone system. An agent can be placed into the 'Wrap-up' state manually, however when this is done they must be manually placed back in the 'Free' state using the dashboard otherwise they will stay in the 'Wrap-up' state until they logout.



Placing an ACD agent into the 'Free' state will cause them to be presented with call by the telephone system. Ensure they are at their desk and ready to receive call before doing this.

Filters

Filtering is used throughout the system to enable users to find specific calls or groups of calls. The system stores different types of information about each call which can be used to identify it. If any [custom tagging](#) information has been associated with a call then this can also be used in the filters.

Filters are created in the filters section of the MCS website and can be used when searching recordings and reports.

The MCS provides three types of filter:

Personal Filters

Any user on the system that has access to reports or recordings can create and manage their own filters. These filters will not be seen by other users of the system.

Shared Filters

Shared filters are visible by all users on the system (with the correct [permissions](#)). Shared filters can be deleted and managed by any user, not just the one that created it.

Refer to the [shared filters](#) section for more information.

Built-In Filters

Built-in filters are a type of shared filter that all users can see. They provide access to some commonly used filters and cannot be edited or deleted by any user. These built-in filters are used by many of the default reports provided to a user when they first login into the system.

Built-In Filters:

- Answered External Calls
- External Calls
- Inbound Calls
- Inbound External Calls
- Internal Calls
- Invalid Dialed Numbers
- Lost Calls
- Outbound Calls
- Outbound External Calls
- Service Codes
- Trunk to Trunk Calls



Refer to the [Filter Details](#) section for information of creating and editing filters.

Filter Details

Filters can be edited/created in the Filters section of the website. To create a new filter, press the 'New' button at the top left of the screen. To edit an existing filter, press the more icon () next to the filter and select 'Edit' from the menu.

Each filter is split up into six sections:

- Details -> Contains the user definable name for the filter.
- Devices -> Options to filter by extensions, hunt groups, agents and trunks.
- Call Details -> Options to filter by call details such as direction, type, outside number etc.
- Times -> Options to filter by call, talk and ring durations.
- Customer Details -> Options to filter by contact name, speed dial name, account codes or tag fields.
- Advanced -> Options to filter by Call ID, Service codes, Trunk to Trunk calls etc.
- Real-Time -> Options to filter real-time tiles only.

 Where the field has a text box entry, special characters can be used to search for patterns (%_!). For more information, please refer to the [Special Characters](#) section.

 The following numeric fields also support filter ranges by using the + or - special characters:
Agent, Extension, Hunt Group, Trunk

Details

The details tab just contains the user definable name for the filter. Nothing entered here will affect the filtering.

Name: This is the description that is used to reference this filter in other parts of the system. The name must be unique for the user or unique for the system if [shared](#).

Devices

Filter calls by device.

Extensions: A specific extension or range of extensions. For multiple extensions separate each one with a comma and for a range use a dash. For example 1001,1002-1008,1010.

Extension Name: The name of the extension (This will be the extension's description if configured, otherwise it will be the extension's username).

Agent IDs: A specific agent id or range of agent ids. For multiple agents separate each one with a comma and for a range use a dash. For example 1001,1002-1008,1010.

Agent Name: The name configured against this agent id.

Hunt Group: A specific hunt group or range of hunt groups. For multiple hunt groups separate each one with a comma and for a range use a dash. For example 2001,2003-2008,2013.

Hunt Group Name: The name configured against this hunt group (This will be the hunt group's description if configured, otherwise it will be the hunt group's username).

Trunk: The trunk number that the call was connected on. This applies to external calls only.

Transferred To: A specific extension or range of extensions that a call segment was transferred to.

Transferred From: A specific extension or range of extensions that a call segment was transferred from.

 When apply filters to a Non-segmented report, the Extension/Agent filter options will also be applied to the First Rang, Last Rang and Answered on fields.

Call Details

Filter calls by the specific details of the call.

Outside number: The outside number presented for this call. For inbound calls this is the caller ID and for outbound calls this is the dialed number. [Wildcards](#) can be used to generalize the search, for example *09%*, any calls that have an outside number starting with 09 would be matched.

DID: The direct dial number.

DNIS: The name associated with the direct dial number.

Direction: Was the call inbound, outbound or any.

Call Type: Was the call either internal, external or either.

Call Status: Is this call completed*, in progress*, recorded, not recorded or any of these.

Answered: Was the call answered or not.



Call details filter items cannot be used to filter the Agent or Extension Grid on a Real-Time Dashboard.

Times

Filter calls by the call, talk or ring duration. Slide the bar from either end to increase/decrease the duration required.

Duration: The complete duration of time for the call, including ring, talk and hold time.

Talk Time: The talk time that the call was connected for.

Ring Duration: The time that the call was ringing.

Short Call: Include or remove answered calls which have been classified as short using the [Short Call Threshold](#).

Call Time (Start/End): Enter times of day to filter out calls before or after working hours.

Call Time (Between/Not Between): If Call Start/End Times are configured, this setting controls whether the filter applies to calls between or outside of the times specified.



The Short Call filter option only works on historical reports, not real-time tiles.

Customer Details

Filter for specific customer related information.

Contact Name*: The MCS directory name associated with the outside number.

Speed Dial Name: The speed dial name associated with the outside number on the telephone system.

Account Code: The account code entered against this call. If more than one code is entered on a call, only the last one is saved.

Contact Match*: Was a contact matched in the MCS contact directories or not.

Field 1 to 5: Filter by the contents of the five custom tag fields.

Advanced

Notes*: Selects records that have had notes attached or if the notes contain specific words.

Serial*: The unique serial number of a specific recording.

Call ID: The id assigned to the call by the telephone system.

Logical Call ID: The logical call id used to link call segments together.

Global Call ID*: Call ID used to link CTI and Recording records in the database.

Trunk to Trunk*: Include or exclude trunk to trunk calls.

Invalid Dialed Number*: Include or exclude invalid dialed numbers. These are numbers where the external call attempt did not complete.

Service Codes: Include or exclude external calls to [service codes](#).

Real-Time

Agent Status: Filter what is displayed on real-time grids. this can be used to hide logged out agents from the ACD grid.

Device Status: Filter what is displayed on real-time grids. this can be used to hide offline extensions from the Extension grid



* Filter Items marked with an '**' are not applicable to Real-Time interfaces (Wallboard and Dashboard).

Shared Filters

Shared filters are accessible to any user on the system who has been given the correct permissions. These permissions are set via the Security Profile that has been assigned to a user's role.

For more information on shared filter permissions, refer to the [security profiles](#) section.

There are two ways to create a shared filter:

- Navigate to the Shared Folders section on the website and press the 'New' button. From this point follow the normal process of [creating a filter](#).
- Share an existing filter by pressing the more icon () next to the filter and selecting 'Share' from the menu.

When creating a shared filter from an existing personal filter, a new copy of the filter will be created without affecting the personal filter. A new name for the shared filter will have to be provided by the user.

Shared Filters & Reports

Shared filters can be applied to both personal and shared reports when running them directly on the website. When running reports via a [schedule](#), a shared filter must be used as personal filters cannot.

Special Characters

The use of special characters within the text boxes for a [Filter](#) enables the use of complex filter strings.

All Fields

The following characters are supported:

Special Characters	Description
Exclamation mark (!)	Not equal to
Percent (%)	Fuzzy matching (equivalent to a SQL LIKE %)
Underscore (_)	Fuzzy matching of a single character
Comma (,)	Can be used to search for multiple values at the same time

Device Fields

In addition to the special characters above, the following characters are supported when searching using a device based field (Extension, Agent, Trunk, Hunt Group):

Special Characters	Description
Plus sign (+)	Greater than or equal (e.g. 1000+ for extensions greater than or equal to 1000)
Hyphen (-)	Delimits a range of values to match (e.g. 1000-2000 for all extensions between 1000 and 2000 inclusive) or less than or equal to (e.g. -1000 for extensions less than or equal to 1000)

The example below shows what would be matched when entering combining multiple special characters using a comma:

- 1000-1005,!1003,1040,18%5,2000+

Matching endpoints: 1000, 1001, 1002, 1004, 1005, 1040, any that start with 18 and end with a 5, any with a value greater or equal to 2000.



Device numbers are stored as text so when using greater than or less than, it is compared on an alphabetic level not a numeric level

Statistics Overview

The reporting engine provides a range of information fields that show details of calls, status events and configuration. The fields available to add to a report will depend on the template the report is using.

- [Call List Data Fields](#)
- [Status List Data Fields](#)
- [Grouped Call/Status Data Fields](#)
- [Configuration Data Fields](#)
- [Real-Time Data Fields](#)

Call List Report Data

A call list report is a report that lists each call individually (and segments), rather than grouping calls together to get aggregated figures.

There are three templates that provide call list data:

- Call Data - Call List
- Call Data - Call List (Segmented)
- Call Data - Unreturned Lost Calls

For information about the data that these templates provide, refer to the [Templates](#) sections.

Each row in a call list report is an individual call or call [segment](#) and each column available contains a specific piece of information about that call or segment.

All of the data columns available on call list reports have been split up into the following categories:

[Advanced](#) - Information about a call not normally used.

[Call Info](#) - Standard information about a call; CLI, DID, Account Code etc.

[Call Times](#) - Time and duration information about a call; Start Time, End Time, Ring Duration etc.

[Devices / Agents](#) - Device or Agent information about a call, who answered or where did it ring?

[Tag Fields](#) - Specific customer related information that has been tagged to the call by the user.

Call Statistics - Advanced

The following call list fields are designed for engineering use and are not required for normal reporting purposes.

(All columns below are available on the following templates: Call List, Call List (Segmented) and Unreturned Lost Calls).

Call ID

The telephone system call id of the call. This can be used to trace calls back to the telephone system data or to match calls in other applications.

End Event

This columns contains the event code provided by the telephone system when the call ended. This is for engineering use only.

Logical Call ID

This column refers to the call id assigned to the call by the software. The logical call id is used to link call segments and announced transfer segments together as being part of the same call.

Rec ID

This column contains a unique id assigned to each call segment by the software.

Call Statistics - Call Info

Account Code

The last account code that was entered on this call. If no account was entered on the call then this will be empty. On segmented call list this will be the last account code entered on the segment, on a non-segmented report this will be the last account code entered on the call.

Call Answered

Was this call answered or not? On a segmented call list this will show the answered state or each segment. On a non-segmented call it will show whether the entire call is being treated as answered.

Call Direction

The direction of this call segment, either (In)bound or (Out)bound for external calls and n/a for internal calls.

Call Matched

Was the CLI associated with this call matched to a [Contact Directory](#) record?

Call State

What is the current state of the call (ringing, connected, on hold etc).

Call Type

The type of call, either (Int)ernal or (Ext)ernal.

CLI

The caller ID associated with this call for external calls. The will be the received number for inbound calls and the dialed number for outbound calls. On internal calls this property is empty.

CLI Received

Was the inbound call received with a Caller ID? This applies only to inbound external calls.

Contact Name

 Personal contacts do not show on reports by design as the matching happens centrally. System Speed Dials only match on Inbound Calls - the same way as the PBX handles it. Speed Dial matches will be shown in the Contacts fields in reports. If you have a System Speed Dial and Global Contact with the same number the Global Contact name will take precedence.

The contact information associated with this call segment. This may be populated from a [Contact Directory](#).

DID Digits

The significant DID digits received from the network provider to identify a call originated via a particular DID number. This applies to inbound external calls only and will be empty for all other call types.

DID Received

Was the inbound call received with DID digits? This is a Yes/No property that relates to inbound external calls only. For all other calls this will be displayed as n/a.

DNIS

A description against the DID that the inbound call originated on. This is the description programmed against the DID on the telephone system. This applies to inbound external calls only and will be empty for other call types.

Segment No *

The segment number of the call segment. Use the Logical CallID to link multiple segments together. This property is only available on segmented call list reports.

Segment Count **

The total number of segments for the call. This property is only available for non-segmented call list reports.

Short Call

A call is designated Short if the talk time (plus hold time) is less than the configured [Short Call](#) value. This property will be displayed as Yes/No.

Speed Dial Name

Any speed dial match from the telephone system for external calls. This property will be empty for other call types.

Telephone Number

The telephone number associated with this call segment. For external calls this will contain the CLI information, for internal calls this will contain extension number of the device making the call.

 * This column is only available on segmented call lists.

 ** This column is only available on un-segmented call lists.

Call Statistics - Call Times

Answer Time

The time of day that this call or call segment was answered. If the call was not answered this will be empty.

Call Duration

The total duration for this call or call segment including ring, hold and talk durations.

End Time

The time of day that this call segment ended.

Hold Duration

The duration this call segment spent on hold.

Ring Duration

The duration this call segment spent ringing.

Start Time

The time the call or call segment started ringing.

Talk Duration

The duration this call segment was in the answered state.



Each of the time and duration columns can be configured to display using different formats. For more information refer to the [Report Creation](#) section.



If '#ERROR' appears in any column, this is an indication of missing data. this can happen if the reporting service is stopped or loses connection to the telephone system.

Call Statistics - Devices / Agents

Agent / Agent Name **

The details of any agents associated with this call segment. On internal and conference calls there may be more than one agent associated with the call. For an agent to be associated with a call, the call doesn't need to have been passed from a hunt group, the agent just needs to be logged into the telephone associated with the call.

Answering Agent / Answering Agent Name *

The agent the call was first answered at.

Answering Extension / Answering Extension Name *

The extension the call was first answered at.

Extension / Extension Name **

The details of any extensions that were involved in this call segment. On internal and conference calls there may be more than one extension. This can be any device on the telephone system so can include voicemail applications etc.

First Rang Agent / First Rang Agent Name *

The first agent the call rang at.

First Rang Extension / First Rang Extension Name *

The first extension the call rang at.

Hunt Group / Hunt Group Name

The details of the hunt group the current call/call segment was presented from. On non-segmented calls this will be the first hunt group the call was presented to if there was more than one. If the call was not delivered through a hunt group this will be empty.

Last Rang Agent / Last Rang Agent Name *

The last agent the call rang at.

Last Rang Extension / Last Rang Extension Name *

The last extension the call rang at.

Transferred From / Transferred Agent From

The source device/agent if the call was transferred from another location. On non-segmented calls this will be the first device/agent that transferred the call if the call was transferred more than once.

Transferred To / Transferred Agent To

The destination device/agent if the call was transferred to another location. On non-segmented calls this will be the first device/agent that the call was transferred to if the call was transferred more than once.

Trunk Number / Trunk Description

If the call is external, this will contain the information about the trunk line used for the call. On internal calls this will be empty.

Username **

The name of any users associated with the call. On internal calls there may be more than one.



* This column is only available on the un-segmented call lists.



** This column is only available on the segmented call lists.

Call Statistics - Tag Fields

Tag Field 1 to 5

There are 5 custom fields for each call that can be populated with information by the user. This is most commonly used to attach customer specific information to calls such as account numbers or reference numbers. These number can then be added to reports or used to search and find recordings. Selecting one of the 5 fields here will add them to a call list reports.



For more information on tagging calls with custom information, please refer to the Phone Manager user guide.



For more information on naming each custom field, please refer to the [Default Report Settings](#) section.

Status List Data

A status list report is a report that lists each status change individually, rather than grouping changes together to get aggregated figures.

There are two templates that provide call list data:

- ACD Data - ACD Status List
- DND Data - DND Status List

For information about the data that these templates provide, refer to the [Templates](#) sections.

All of the data columns available on call list reports have been split up into the following categories:

[ACD](#) - Information about ACD status changes.

[DND](#) - Information about do-not-disturb status changes.

Status List Data - ACD

(All columns below are available on the following templates: ACD Data.)

ACD Status

The ACD status of the agent (Logged on, Free, Busy, Wrap, DND on/off, Logged out).

License Required: ACD Reporter

Agent

The agent ID the event occurred to.

License Required: ACD Reporter

Agent Name

The description of the agent the event occurred to.

License Required: ACD Reporter

DND Message

When the ACD Status is 'DND on', the DND message will be stored here.

License Required: ACD Reporter

DND Text

When the ACD Status is 'DND on', the DND text will be displayed if there was any additional information entered by the agent.

License Required: ACD Reporter

Event Time

The time the ACD status event occurred.

Extension

The extension number the ACD status event occurred on.

Hunt Group

When the ACD Status is 'Logged on/Logged off', the hunt group the agent logged into or out of will be displayed.

License Required: ACD Reporter

Hunt Group Name

When the ACD Status is 'Logged on/Logged off', the name of the hunt group the agent logged into or out of will be displayed.

License Required: ACD Reporter

Status List Data - DND

(All columns below are available on the following templates: DND Data.)

DND Status

The DND status of the extension(DND on/off).

License Required: DND Reporter

DND Message

The DND message associated with the event.

License Required: DND Reporter

DND Text

The DND text associated to the event. This is optional and will only show if there was any additional information entered by the user.

License Required: DND Reporter

Event Time

The time the DND status event occurred.

Extension

The extension number the DND status event occurred on.

Extension Name

The description of the extension the event occurred on.

Grouped Report Data

Grouped reports provide aggregated call information (totals, averages, percentages etc.) for devices on the telephone system. For more information on grouped reports, see the [Reporting](#) section.

The data columns listed below are available when selecting any of the grouped call templates:

- Call Data - Calls by Account Code
- Call Data - Calls by Agent
- Call Data - Calls by DID
- Call Data - Calls by Extension
- Call Data - Calls by Hunt Group
- Call Data - Calls by Start Time
- Call Data - Calls by Telephone Number
- Call Data - Calls by Trunk
- Call Data - Calls by User

For information about the data that these templates provide, refer to the [Templates](#) sections.

All of the data columns available have been split up into the following categories:

[Account Codes](#) - There are 10 account code fields that can be added to grouped reports.

[ACD Times](#) - Average, Percentage, Total time on duty etc

[Call Times \(%\)](#) - Time spent in ringing/talk, number of calls answered/lost with ring durations.

[Call Times \(Average\)](#) - Average talk time, ring time, hold time per call etc.

[Call Times \(Min/Max\)](#) - Longest ringing, shortest ringing, first call at etc.

[Call Times \(Total\)](#) - Total time spent ringing, total time spent talking etc

[Call Totals](#) - Total number of calls in, calls out, calls answered, calls lost etc.

[Call Totals \(%\)](#) - Percentage of calls in, calls out, calls answered calls lost etc.

[DND Times \(%\)](#) - Percentage of time spent in the available DND states.

[DND Times \(Average\)](#) - Average time spent in the available DND states.

[DND Times \(Max\)](#) - Maximum time spent in the available DND states.

[DND Times \(Total\)](#) - Total time spent in the available DND states.

[DND Totals](#) - The number of times an extension/agent used a DND state.

[Report's Call Totals \(%\)](#) - Breakdown of total statistics across a report.

[Report's Call Times \(%\)](#) - Breakdown of time statistics across a report.

 When viewing daily historic statistics (statistics which are not [Active Call](#)) on a real-time Wallboard/Dashboard, the statistics will update when the call has ended.

 There are 20 different DND states for users to choose from. The current name for each DND state on the telephone system is displayed in brackets where applicable. This can be changed on the telephone system and may not have been the name of the DND state when the user selected it.

 Not all columns are available in all grouped report templates.

Grouped Statistics - ACD Times

% Time In Busy

The [Time In Busy](#) as a percentage of [Time On Duty](#).

License Required: ACD Reporter

% Time In Busy N/A

The [Time In Busy N/A](#) as a percentage of [Time On Duty](#).

License Required: ACD Reporter

% Time In Free

The [Time In Free](#) as a percentage of [Time On Duty](#).

License Required: ACD Reporter

% Time In Wrapup

The [Time In Wrapup](#) as a percentage of [Time On Duty](#).

License Required: ACD Reporter

Avg Time Busy

The average time an agent spends in the busy state. [Time In Busy](#) divided by [Times In Busy](#)

License Required: ACD Reporter

Avg Time Busy N/A

The average time an agent spends in the busy not available state (DND). [Time In Busy N/A](#) divided by [Times In Busy N/A](#)

License Required: ACD Reporter

Avg Time Free

The average time an agent spends in the free state. [Time In Free](#) divided by [Times In Free](#)

License Required: ACD Reporter

Avg Time In Wrapup

The average time an agent spends in the wrapup state. [Time In Wrapup](#) divided by [Times In Wrapup](#)

License Required: ACD Reporter

Avg Time On Duty

The average time an agent spends logged into the telephone system. [Time On Duty](#) divided by [Times Logged In](#)

License Required: ACD Reporter

First Logon Time

The first time that an agent logged onto the telephone system.

License Required: ACD Reporter

Last Logoff Time

The last time that an agent logged out the telephone system.

License Required: ACD Reporter

Last Logon Time

The last time that an agent logged onto the telephone system.

License Required: ACD Reporter

Time In Busy

The total time an agent has spent in the busy state.

License Required: ACD Reporter

Time In Busy N/A

The total time an agent has spent in the busy not available state (this is the same as DND).

License Required: ACD Reporter

Time In Free

The total time an agent has spent in the free state.

License Required: ACD Reporter

Time In Wrapup

The total time an agent has spent in the wrapup state.

License Required: ACD Reporter

Time On Duty

The total time an agent has spent logged into the telephone system.

License Required: ACD Reporter

Times In Busy

The number of times the [ACD Status](#) of the agent went into the busy state.

License Required: ACD Reporter

Times In Busy N/A

The number of times the [ACD Status](#) of the agent went into the busy not available state (this is the same as DND).

License Required: ACD Reporter

Times In Free

The number of times the [ACD Status](#) of the agent went into the free state.

License Required: ACD Reporter

Times In Wrapup

The number of times the [ACD Status](#) of the agent went into the wrapup state.

License Required: ACD Reporter

Times Logged In

The number of times the the agent transitioned from being logged out to being logged in.

License Required: ACD Reporter

Unlicensed Agents

The number of agents currently logged in that don't have an ACD Reporting User license.

Grouped Statistics - DND Times (%)

% Time In DND 1 to 20

The amount of time spent in a specific DND message state as a percentage of total time for the report.

License Required: DND Reporter

% Time In DND

The amount of time spent in any DND message state as a percentage of total time for the report.

License Required: DND Reporter

Grouped Statistics - DND Times (Average)

Avg Time In DND 1 to 20

The average amount of time the extension spent in each of the 20 available DND states.

License Required: DND Reporter

Avg Time In DND

The average amount of time the extension spent in any of the DND states.

License Required: DND Reporter

Grouped Statistics - DND Times (Maximum)

Longest Time In DND 1 to 20

The longest time an extension spent in each of the DND states.

License Required: DND Reporter

Longest Time In DND

The longest time an extension spent in any of the DND states.

License Required: DND Reporter

Grouped Statistics - DND Times (Total)

Time In DND 1 to 20

The total time an extension spent in each of the available DND states.

License Required: DND Reporter

Time In DND

The combined total time an extension spent in any of the DND states.

License Required: DND Reporter

Grouped Statistics - DND Totals

Times In DND 1 to 20

The number of times an extension enter the select DND state. There are 20 DND states to select from.

License Required: DND Reporter

Times In DND

The total number of times an extension went into any of the 20 DND states.

License Required: DND Reporter

Grouped Statistics - Account Codes

Account codes can be entered on external calls made on the telephone system. The MCS will store any account code entered against a call segment, if more than one code is entered on a call segment then the last account code will be used for calculating grouped report data.

Up to 10 account codes can be added to grouped reports. Each of the 10 codes can be given a user definable name (see the [Reporting Settings](#) section for more information).

Code 1 to 10

Each of the codes will appear with either the default name (Code 1 to 10) or the user defined name (Sale, Complaint etc). These columns show the total number of calls that this account code was entered on.

(Available on the following templates: Calls by DID, Calls by Extension, Calls by Hunt Group, Calls by Start Time, Calls by Telephone Number, Calls by Trunk and Calls by User).

Grouped Statistics - Call Times (%)

% Answered <= Xs or % Answered > Xs *

The number of [Calls Answered](#) within a specific service level as a percentage of [Calls Inbound](#).

% Lost <= Xs or % Lost > Xs *

The number of [Calls Lost](#) within a specific service level as a percentage of [Calls Inbound](#).

% Total Hold Time

The [Total Hold Time](#) as a percentage of [Total Call Time](#).

% Total Ring Time

The [Total Ring Time](#) as a percentage of [Total Call Time](#).

% Total Talk Time

The [Total Talk Time](#) as a percentage of [Total Call Time](#).



* The 6 different call duration values are configured on [Default Report Settings](#) section.

Grouped Statistics - Call Times (Average)

Avg Answer Time (In)

The average [ring duration](#) for all inbound answered calls. This is calculated by taking the total ring duration on answered calls and dividing by [Calls In Answered](#).

Avg Answer Time (Out)

The average [ring duration](#) for all outbound answered calls. This is calculated by taking the total ring duration on answered calls and dividing by [Calls Out Answered](#).

Avg Call Time

The average [call duration](#) for all calls. This is calculated by dividing [Total Call Time](#) by [Calls Handled](#).

Avg Call Time (In)

The average [call duration](#) for all inbound calls. This is calculated by dividing [Total Call Time \(In\)](#) by [Calls Inbound](#).

Avg Call Time (Out)

The average [call duration](#) for all outbound calls. This is calculated by dividing [Total Call Time \(Out\)](#) by [Calls Outbound](#).

Avg Lost Call Time

The average amount of time lost calls spend ringing. This is calculated by dividing the [Total Ring Time \(Lost\)](#) by [Calls Lost](#).

Avg Ring Time

The average amount of time calls spend ringing. This is calculated by dividing [Total Ring Time](#) by [Calls Handled](#).

Avg Ring Time (In)

The average amount of ring time on inbound calls. This is calculated by dividing [Total Ring Time \(In\)](#) by [Calls Inbound](#).

Avg Ring Time (Out)

The average amount of ring time on outbound calls. This is calculated by dividing [Total Ring Time \(Out\)](#) by [Calls Outbound](#).

Avg Talk Time

The average talk time for all calls. This is calculated by dividing [Total Talk Time](#) by [Calls Handled](#).

Avg Talk Time (In)

The average talk time for all inbound calls. This is calculated by dividing [Total Talk Time \(In\)](#) by [Calls Inbound](#).

Avg Talk Time (Out)

The average talk time for all outbound calls. This is calculated by dividing [Total Talk Time \(Out\)](#) by [Calls Outbound](#).



Statistics with a direction (In/Out) behave differently depending on where they are used:

- On a Real-Time Tile, they will only include external calls
- On a Real-Time Agent/Extension Grid or on a Calls by Extension/User report, they will include internal and external calls

Grouped Statistics - Call Times (Min/Max)

First Call At

The time the first call started ringing.

Last Call At

The time the last call started ringing.

Last Call Answered At

The time of day the last call was answered.

Last Call Ended At

The time of day of the last call that ended.

Max Answer Time (In)

The longest time a single inbound answered call spent in the ringing state.

Max Answer Time (Out)

The longest time a single outbound answered call spent in the ringing state.

Max Call Time

The longest duration for a single call.

Max Call Time (In)

The longest duration of any inbound call.

Max Call Time (Out)

The longest duration of any outbound call.

Max Hold Time

The longest a call was on hold.

Max Hold Time (In)

The longest any inbound call was on hold.

Max Hold Time (Out)

The longest any outbound call was on hold.

Max Ring Time

The longest any call was ringing.

Max Ring Time (Lost)

The longest any lost call was ringing.

Max Ring Time (In)

The longest time an inbound call spent ringing.

Max Ring Time (Out)

The maximum time an outbound call spent ringing.

Max Talk Time

The longest time a single call spent in the talking state.

Max Talk Time (In)

The longest time a single inbound call spent in the talking state.

Max Talk Time (Out)

The longest time a single outbound call spent in the talking state.

Min Answer Time (In)

The shortest time an answered inbound call spent in the ringing state.

Min Answer Time (Out)

The shortest time an answered outbound call spent in the ringing state.

Min Call Time

The shortest duration for a single call.

Min Call Time (In)

The shortest duration for a single inbound call.

Min Call Time (Out)

The shortest duration for a single outbound call.

Min Hold Time

The shortest hold time for a single call.

Min Hold Time (In)

The shortest hold time for a single inbound call.

Min Hold Time (Out)

The shortest hold time for a single outbound call.

Min Ring Time

The shortest ring time for a single call.

Min Ring Time (Lost)

The shortest ring time for any lost call.

Min Ring Time (In)

The shortest ring time for any inbound call.

Min Ring Time (Out)

The shortest ring time of all outbound calls.

Min Talk Time

The shortest time a single call spent in the talking state.

Min Talk Time (In)

The shortest time a single inbound call spent in the talking state.

Min Talk Time (Out)

The shortest time a single outbound call spent in the talking state.



Statistics with a direction (In/Out) behave differently depending on where they are used:

- On a Real-Time Tile, they will only include external calls
- On a Real-Time Agent/Extension Grid or on a Calls by Extension/User report, they will include internal and external calls

Grouped Statistics - Call Times (Total)

Answered <= Xs or Answered > Xs

The total number of inbound calls answered inside each of the 6 service levels.

Lost <= Xs or Lost > Xs

The total number of inbound calls lost inside each of the 6 service levels.

Total Answer Time (In)

The total amount of ring time for all inbound answered calls.

Total Answer Time (Out)

The total amount of ring time for all outbound answered calls.

Total Call Time

The total duration for all calls including ring, hold and talk time.

Total Call Time (In)

The total duration for all inbound calls including ring, hold and talk time.

Total Call Time (Out)

The total duration for all outbound calls including ring, hold and talk time.

Total Hold Time

The total hold duration for all calls.

Total Hold Time (In)

The total hold duration for all inbound calls.

Total Hold Time (Out)

The total hold duration for all outbound calls.

Total Ring Time

The total ring duration for all calls.

Total Ring Time (Lost)

The total ring duration for all lost calls.

Total Ring Time (In)

The total amount of ring time on inbound calls.

Total Ring Time (Out)

The total amount of ring time on outbound calls.

Total Talk Time

The total amount of talk time for all calls.

Total Talk Time (In)

The total amount of talk time for all inbound calls.

Total Talk Time (Out)

The total amount of talk time for all outbound calls.



Statistics with a direction (In/Out) behave differently depending on where they are used:

- On a Real-Time Tile, they will only include external calls
- On a Real-Time Agent/Extension Grid or on a Calls by Extension/User report, they will include internal and external calls

Grouped Statistics - Call Totals

Calls Answered

The total number of calls answered (inbound and outbound).

Calls Completed

The total number of calls completed (inbound and outbound).

Calls External

The total number of external calls.

Calls Handled

The total number of calls handled (internal and external).

Calls In Ans

The total number of inbound calls that were answered (internal and external).

Calls In Ans External

The total number of inbound calls that were answered (external only).

Calls In Ans Internal

The total number of inbound calls that were answered (internal only).

Calls Inbound

The total number of calls inbound (external only)

Calls In Completed

The total number of inbound calls completed (internal and external).

Calls In External

The total number inbound, external calls.

Calls In Internal

The total number of inbound, internal calls.

Calls In Refused

The total number of inbound calls that alerted but were not answered.

Calls Internal

The total number of internal calls.

Calls Lost

The total number of external inbound calls that weren't answered.

Calls Matched

The total number of external calls matched to a Contact Directory.

Calls Not Matched

The total number of external calls that did not match a Contact Directory record.

Calls Out Ans

The total number of outbound calls that were answered (internal and external).

Calls Out Ans External

The total number of outbound calls that were answered (external only).

Calls Out Ans Internal

The total number of outbound calls that were answered (internal only).

Calls Outbound

The total number of outbound calls (internal and external).

Calls Out Completed

The total number of outbound calls completed (internal and external).

Calls Out External

The total number outbound, external calls.

Calls Out Internal

The total number of outbound, internal calls.

Calls Overflowed In

The total number of inbound calls that overflowed from another device.

Calls Overflowed Out

The total number of inbound calls that overflowed to another device.

Calls Transferred In

The total number of calls transferred to this device

Calls Transferred Out

The total number of calls transferred from this device

Calls With CLI

The total number of inbound external calls received with a Caller ID.

DID Calls

The total number of external inbound calls that were presented with a DID.

Max Lines Busy

The total number of trunks that were simultaneously busy during the selected time period.

Recoverable Calls

The total number of Lost calls that presented a CLI.

Short Calls

The total number of calls that were classified as a Short Call, the talk time (plus hold time) was less than the configured [Short Call](#) value.

Unreturned Lost Calls

The total number of calls that were Lost Calls and not subsequently answered on either an inbound or outbound call.

Grouped Statistics - Call Totals (%)

% Calls In Ans

The number of Calls In Answered as a percentage of Calls In.

% Calls In Ans Ext

The number of Calls In External Answered as a percentage of Calls In External.

% Calls In Ans Int

The number of Calls In Answered Internal as a percentage of Calls In Internal.

% Calls In Completed

The number of Calls In Completed as a percentage of Calls In.

% Calls In Ext

The number of Calls In External as a percentage of Calls In.

% Calls In Int

The number of Calls In Internal as a percentage of Calls In.

% Calls In Refused

The number of Calls Refused as a percentage of Calls In.

% Calls Inbound

The number of Calls Inbound as a percentage of Calls Handled.

% Calls Internal

The number of Calls Internal as a percentage of Calls Handled.

% Calls Lost

The number of Lost Calls as a percentage of Calls In External.

% Calls Matched

The number of Calls Matched as a percentage of Calls External.

% Calls Not Matched

The number of Calls Not Matched as a percentage of Calls External.

% Calls Out Ans

The number of Calls Out Answered as a percentage of Calls Out.

% Calls Out Ans Ext

The number of Calls Out External Answered as a percentage of Calls Out External.

% Calls Out Ans Int

The number of Calls Out Internal Answered as a percentage of Calls Out Internal.

% Calls Out Completed

The number of Calls Out Completed as a percentage of Calls Out.

% Calls Out Ext

The number of Calls Out External as a percentage of Calls Out.

% Calls Out Int

The number of Calls Out Internal as a percentage of Calls Out.

% Calls Outbound

The number of Calls Outbound as a percentage of Calls Handled.

% Calls Overflowed In

The number of Calls Overflowed In as a percentage of the Calls In.

% Calls Overflowed Out

The number of Calls Overflowed Out as a percentage of the Calls Out.

% Calls Transferred In

The number of Calls Transferred In as a percentage of Calls In

% Calls Transferred Out

The number of Calls Transferred Out as a percentage of Calls In

% Calls With CLI

The number of Calls With CLI as a percentage of Calls In External.

% DID Calls

The number of DID Calls as a percentage of Calls In External.

% Peak Used

The number of Max Busy Lines as a percentage of the total number of trunks configured on the system.

 The number of trunks on the system is calculated at runtime and is not stored historically.

% Short Calls

The number of Short Calls as a percentage of Calls Answered.

% Unreturned Lost Calls

The number of Unreturned Lost Calls as a percentage of Calls In External.

Grouped Statistics - Report's Call Totals (%)

% Of All Calls Answered

The number of [Calls Answered](#) as a percentage of all Calls Answered for the report.

% Of All Calls External

The number of [Calls External](#) as a percentage of all Calls External for the report.

% Of All Calls Handled

The number of [Calls Handled](#) as a percentage of all Calls Handled for the report.

% Of All Calls In

The number of [Calls In](#) as a percentage of all Calls In for the report.

% Of All Calls In Ans

The number of [Calls In Answered](#) as a percentage of all Calls In Answered for the report.

% Of All Calls In Ans Ext

The number of [Calls In Answered External](#) as a percentage of all Calls In Answered External for the report.

% Of All Calls In Ans Int

The number of [Calls In Answered Internal](#) as a percentage of all Calls In Answered Internal for the report.

% Of All Calls In Completed

The number of [Calls In Completed](#) as a percentage of all Calls In Completed for the report.

% Of All Calls In Ext

The number of [Calls In External](#) as a percentage of all Calls In External for the report.

% Of All Calls In Int

The number of [Calls In Internal](#) as a percentage of all Calls In Internal for the report.

% Of All Calls In Refused

The number of [Calls Refused](#) as a percentage of all Calls Refused for the report.

% Of All Calls Internal

The number of [Calls Internal](#) as a percentage of all Calls Internal for the report.

% Of All Calls Lost

The number of [Lost Calls](#) as a percentage of all Lost Calls for the report.

% Of All Calls Matched

The number of [Calls Matched](#) as a percentage of all Calls Matched for the report.

% Of All Calls Not Matched

The number of [Calls Not Matched](#) as a percentage of all Calls Not Matched for the report.

% Of All Calls Out

The number of [Calls Out](#) as a percentage of all Calls Out for the report.

% Of All Calls Out Ans

The number of [Calls Out Answered](#) as a percentage of all Calls Out Answered for the report.

% Of All Calls Out Ans Ext

The number of [Calls Out Ans External](#) as a percentage of all Calls Out Ans External for the report.

% Of All Calls Out Ans Int

The number of [Calls Out Ans Internal](#) as a percentage of all Calls Out Ans Internal for the report.

% Of All Calls Out Completed

The number of [Calls Out Completed](#) as a percentage of all Calls Out Completed for the report.

% Of All Calls Out Ext

The number of [Calls Out External](#) as a percentage of all Calls Out External for the report.

% Of All Calls Out Int

The number of [Calls Out Internal](#) as a percentage of all Calls Out Internal for the report.

% Of All Calls Overflowed In

The number of [Calls Overflowed In](#) as a percentage of all Calls Overflowed In for the report.

% Of All Calls Overflowed Out

The number of [Calls Overflowed Out](#) as a percentage of all Calls Overflowed Out for the report.

% Of All Calls Transferred In

The number of [Calls Transferred In](#) as a percentage of all Calls Transferred In for the report.

% Of All Calls Transferred Out

The number of [Calls Transferred Out](#) as a percentage of all Calls Transferred Out for the report.

% Of All Calls With CLI

The number of [Calls With CLI](#) as a percentage of all Calls With CLI for the report.

% Of All DID Calls

The number of [DID Calls](#) as a percentage of all DID Calls for the report.

% Of All Short Calls

The number of [Short Calls](#) as a percentage of all Short Calls for the report.

% Of All Unreturned Lost Calls

The number of [Unreturned Lost Calls](#) as a percentage of all Unreturned Lost Calls for the report.

Grouped Statistics - Report's Call Times (%)

% Of All Ans <= Xs or % Of All Ans > Xs

The number of calls answered with one of the 6 service levels as a percentage of all of the calls answered in the same service level for the report.

% Of All Lost <= Xs or % Of All Lost > Xs

The number of calls lost within one of the 6 service levels as a percentage of all call lost in the same service level for the report.

% Of All Total Call Time

The [Total Call Time](#) as a percentage of the entire Total Call Time for the report.

% Of All Total Hold Time

The [Total Hold Time](#) as a percentage of the entire Total Hold Time for the report.

% Of All Total Ring Time

The [Total Ring Time](#) as a percentage of the entire Total Ring Time for the report.

% Of All Total Talk Time

The [Total Talk Time](#) as a percentage of the entire Total Talk Time for the report.

Configuration Data - Device Info

The following information fields are available in the Config Data report [templates](#).

Device Number

The number of the device. This could be the trunk, agent ID, extension number or DID depending on the report run.

Description

The description given to the device on the telephone system.

Node ID

The node number of the telephone system on which the device resides.

Real Time Data

The following data fields are only available on [Real-Time Views](#), not in any of the [Historical Report Templates](#).

[Active Call Statistics](#) - Data relating to calls that are currently active on the telephone system etc

[Miscellaneous](#) - Current Date, Time etc

Active Call Statistics

Call Rate

The number of external calls in the current call rate period.

Calls Active

The total number of active calls (any call whether ringing, hold or in progress)

Calls Busy

The total number of calls in the ringing or connected state

Calls Busy External

The total number of external calls in the ringing or connected state

Calls Busy External In

The total number of external inbound calls in the ringing or connected state

Calls Busy External Out

The total number of external outbound calls in the ringing or connected state

Calls Busy Internal

The total number of internal calls in the ringing or connected state

Calls In Progress

The total number of calls currently in a connected state.

Calls In Progress External

The total number of external calls in the connected state.

Calls In Progress External In

The total number of external inbound calls in the connected state

Calls In Progress External Out

The total number of external outbound calls in the connected state

Calls In Progress Internal

The total number of internal calls in the connected state

Calls On Hold

The total number of calls in the hold state.

Calls On Hold External

The total number of external calls in the hold state.

Calls On Hold External In

The total number of external inbound calls in the hold state.

Calls On Hold External Out

The total number of external outbound calls in the hold state.

Calls On Hold Internal

The total number of internal calls in the hold state.

Calls Ringing

The total number of calls in the ringing state.

Calls Ringing External

Total number of external calls in the ringing state.

Calls Ringing External In

The total number of external inbound calls in the ringing state.

Calls Ringing External Out

The total number of external outbound calls in the ringing state.

Calls Ringing Internal

The total number of internal calls in the ringing state.

Inbound Call Rate

The number of inbound external calls in the last [Call Rate](#) period.

Longest Call by Call Time

The longest call time of any active call on the telephone system.

Longest Call by Ring Time (Inc. Ans)

The longest ring time of any active call on the telephone system, this includes connected calls that rang.

Longest Call by Talk Time

The longest talk time of any active call on the telephone system. The call may not currently be in the talking state

Longest Waiting

The longest ring time of a call in the ringing state.

 The longest waiting statistic applies to external calls only.

Lost Call Rate

The number of lost calls in the last [Call Rate](#) period.

Outbound Call Rate

The number of outbound external calls in the last [Call Rate](#) period.

Miscellaneous

Current Date

The current date.

Current Date / Time

The current date and time.

Current Time

The current time.

Current Year

The current year.

Day of Month

The current day of the month.

Day of Week

The current day of the week.



All dates and times shown relate to the current time on the server running the solution.



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