

Using Amanda Portal CallQ Agent The Amanda Call Queuing Package

Version 2.0

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1 Introduction

Amanda Portal CallQ Agent is a powerful, flexible ACD client that can be used with an Amanda Portal server. The Amanda Portal server can act as an ACD (automated call distributor) when using CallQ Agent. In order to use CallQ Agent the Amanda Portal server must have the Call Queuing module activated. This module is an optional module that must be purchased with the Amanda Portal server or can be purchased at a later time to unlock CallQ Agent.

CallQ Agent provides its users (agents) with the ability to connect to the Amanda Portal server via LAN/WAN/Internet. CallQ Agent supports Microsoft Windows 95/98/ME/NT/2000 and XP operating systems.

CallQ Agent can connect to one or more queues (up to 100 maximum) and uses a single client license per agent connected. Amanda Portal server comes standard with 10 client licenses (10 users can connect to the Amanda Portal server via the network simultaneously). Additional client licenses can be purchased through the Amanda Company. CallQ Agent is a great tool to effectively manage incoming calls for call centers, technical support departments, sales groups and anywhere effective call management and detailed call reporting is needed.

CallQ Agent provides agents of the queue important information about callers holding in queue, such as caller id, caller id name, how long they've been holding, and what port their call came in on. Calls can be selectively or automatically connected to agents of the queue. Additionally, when calls are completed comments about each call can be entered by the agents of the queue and later reviewed by running call reports.

Callers holding in queue can hear a number of different pre-recorded queue greetings and comfort messages. Greetings can be recorded and used to perform specific actions such as playing a custom greeting to the caller when their call enters the queue (initial queue greeting), a position change greeting (when their call moves up in the queue), a transfer greeting (when being connected to an agent), a voicemail greeting, queue closed greeting (when agents are not logged into the queue), timeout greeting or hold greeting. In addition to the queue greetings and comfort messages, the Amanda Portal server (ACD) can tell the caller their position in the queue, or estimated hold time based on previous call history.

CallQ Agent supports an unlimited number of comfort messages, which are played in order after each time the music on hold music is played. The default hold music can be configured to be played in 30, 60, or 90-second intervals, or custom hold music can be played instead.

When using Amanda Portal and CallQ Agent you can create an unlimited number of call queues where each queue can have an unlimited number of agents per queue.

2 Setting up the Queue

Each mailbox in the Amanda system can potentially be used as a call queue. The mailbox number identifies the queue. The creating mailbox is the owner, or administrator, of that particular queue.

To create a queue, the mailbox must have the “CREATE QUEUE” privilege enabled. As a default, mailboxes cannot create a call queue. The system administrator must add this privilege using Amanda Portal Station. The screenshot in Figure 1 shows the “CREATE QUEUE” privilege being added to mailbox 1020. Once a mailbox has this privilege, the owner of the mailbox can use the CallQ Agent, Queue menu, “Create Queue” function, to create a queue. This operation needs to be done only once per mailbox, unless the queue is subsequently deleted.

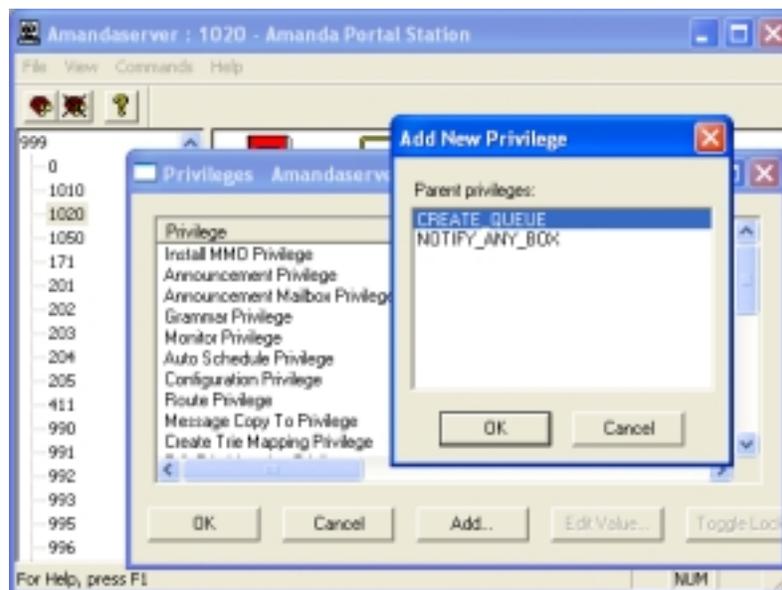


Figure 1: Enabling the CREATE QUEUE privilege

2.1 Queue Rules

The basic job of a call queue is to connect callers to agents. Callers are normally transferred to agents in the order the calls entered the queue, and agents are normally chosen based on how long they have been available to take a call. Sometimes agents will be privileged to take calls out of order, or they may be privileged to reject calls from particular callers.

Callers can potentially express a skill requirement (or more than one), and they can be connected only to agents whom the queue administrator has designated as possessing those skills. When there are no agents logged into the queue who possess all the required skills, then that caller will “fall out of” the queue and,

normally, go to voicemail where they can leave a message for help. There are various circumstances under which a call will fall out of the queue automatically. These circumstances are:

- If the queue is full (when the queue administrator sets a maximum number of calls holding) and callers try to enter the queue.
- Callers holding for the maximum waiting time (if a maximum waiting time is set by the queue administrator).
- If calls are queued waiting to be answered and all agents log out of the queue.
- When there are no agents are logged into the queue (supervisors are not considered agents).

By default when any of these things happen, the caller is sent to voicemail. Custom changes can direct these calls elsewhere. The following are extended mailbox settings that can contain Tcl code that states what to do otherwise:

For a position change event an override method can be specified by `QUEUE_POSITION_METHOD`. If not specified then play the position in standard form.

For a transfer event an override method can be specified by `QUEUE_TRANSFER_METHOD`. If not specified then transfer in standard form.

For a no more agents attached event an override method can be specified `QUEUE_CLOSED_METHOD`. If not specified then go to voicemail.

For a queue timeout (max enqueued time) event an override method can be specified by `QUEUE_TIMEOUT_METHOD`. If not specified then go to voicemail.

For a play greeting event an override method can be specified by `QUEUE_PLAY_GRT_METHOD`. If not specified then play the specified greeting.

For a go to voicemail event an override method can be specified by `QUEUE_VOICEMAIL_METHOD`. If not specified then go to voicemail.

To use any of these settings you must create an extended mailbox property entering the capitalized in the property field and setting an appropriate tcl value. For example, you might set “`QUEUE_CLOSED_METHOD`” as the property name, and “`method_chain <box>`” as the value, where box = the mailbox number where the caller will be sent (Figure 2 shows the caller being sent to mailbox 500 when the queue is closed).



Figure 2: Example Extended Mailbox Setting

3 Installing CallQ Agent

To install CallQ Agent you must have access to Amanda Portal server via the network. After the Amanda Portal server PC is physically connected to the network, you'll also need to configure it appropriately for the type of network it's connected too.

Assign the Amanda Portal PC a TCP/IP address, appropriate subnet, gateway and dns (if applicable). Then do one of the following:

If Connecting Amanda Portal To a Domain

If the network is a domain, the Amanda Portal PC will need an account to log into that domain in order to be trusted by other computers on the network, and for the Amanda Portal PC to trust users logged into the domain. See your network administrator for assistance with configuring the Amanda Portal PC for the domain.

If Connecting Amanda Portal to a Workgroup

If your connecting Amanda Portal to a workgroup you'll need to create at least one account on the Amanda Portal PC within control panel "Users and Passwords" in order to access shares on the Amanda Portal PC. The created user and password can later be used when trying to access the Amanda Portal server PC shared folders. This is required because there is no centralized security in a workgroup environment.

Once you can Access the Shared Clients folder

Access your Amanda Portal server through "Network Neighborhood" or "My Network Places". Once you find the Amanda Portal system (normally called Amandaserver), double click on it. You'll see a shared folder called "Clients". Open the shared Clients folder. Double click "ClientsInstall" to start the installation procedure. Read through the details for each screen before proceeding with the install. It's recommended that you choose all the default options except for which clients you wish to install.

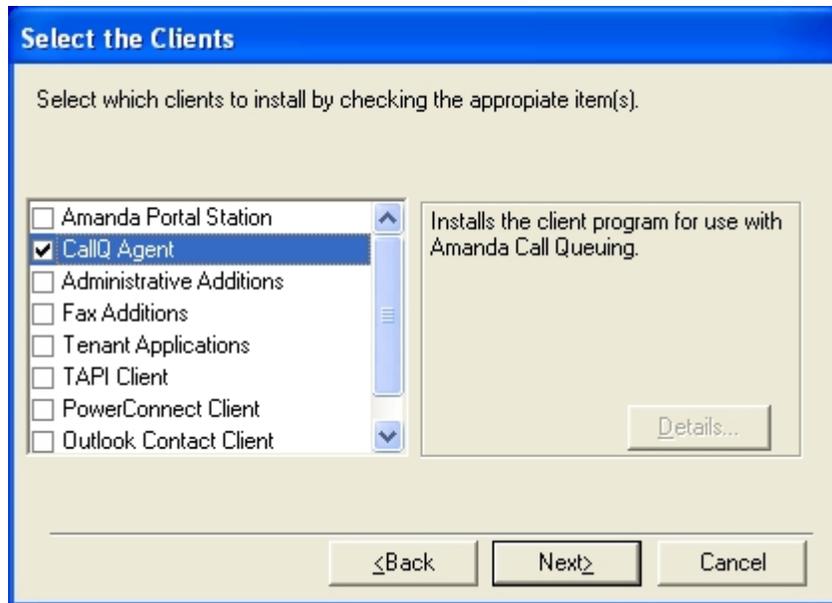


Figure 3: Selecting the Clients

Make sure you select CallQ Agent from the client list as shown in Figure 3. You can also install other clients such as Amanda Portal Station, and optionally its administrative additions and/or fax additions. Additionally, you can install other clients from here, which include Tenant applications (for tenant management), TAPI Client (which can be used in conjunction with CallQ Agent for CRM), Power Connect, and Outlook Contact Client. Finally, click next to continue and then click Finish to complete the installation.

Note: With custom modifications a call and/or agent can specify who gets assigned to whom.

4 Logging Into CallQ Agent

To log into CallQ Agent, click Start, Programs, Amanda Portal Clients, and “CallQ Agent” . You’ll see a screen like that shown in Figure 4. The fields in this dialog are:

Remote Address

Enter the hostname or IP address of your Amanda Portal server PC. Normally, it’s Amandaserver (as shown in Figure 4) .

Agent Number

Enter your mailbox number here.

Security Code

Enter your mailbox password (security code) here.

Remember Security Code

If you would like “CallQ Agent” to remember your security code for future logons, check this box and you won’t have to provide your security code in the future. This makes the logon process easier but less secure.

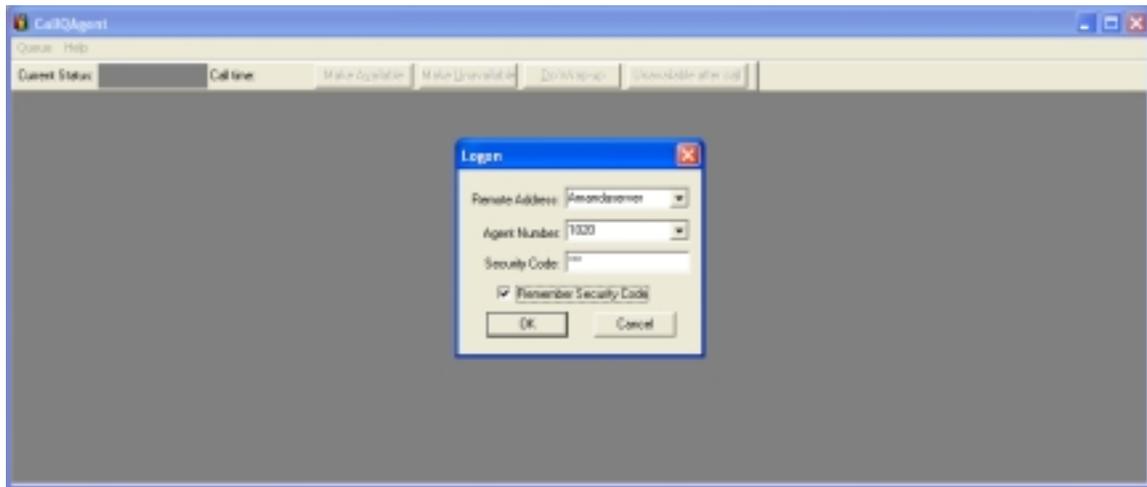


Figure 4: Logging into CallQ Agent

Once you’ve filled in the correct remote address, agent number (i.e. mailbox number) and security code, click OK to logon. Once you’re logged on, you’ll have access to the “Queue” menu.

5 The Queue Menu

Once your logged into CallQ Agent, the attach to queue dialog automatically pops up (with older versions of CallQ Agent you have to click the queue menu and then “attach to queue...” to open the dialog). Once the dialog is open you’ll be prompted to select the queue in which to attach.

The initial Queue menu contains the following choices, once you have logged into the server:

Attach to Queue Use this option to join a call queue, which has already been created by another user who has added you as an agent of their queue.

Create Queue If you wish to create a new call queue for your mailbox, you can create it by selecting “Create Queue”. If you have this privilege enabled, you will see a message stating that the queue was created successfully. Otherwise, if “CREATE QUEUE” is not enabled for your mailbox, you won’t be able to create or delete a call queue and you’ll see the following message: “You do not have the privilege to create or delete this call queue”.

Delete Queue Use this option to delete your existing call queue. The privilege “CREATE QUEUE” must be enabled for your mailbox in order to delete an existing queue. In order to delete a call queue, no agents can be currently attached to the queue (and therefore, the queue must have no calls).

Login Used to start the logon process.

Logout Used to close the connection to Amanda Portal server without exiting from CallQ Agent.

Exit This closes the CallQ Agent program.

When you click “Attach to Queue”, you’ll see the dialog box like that shown in Figure 5.

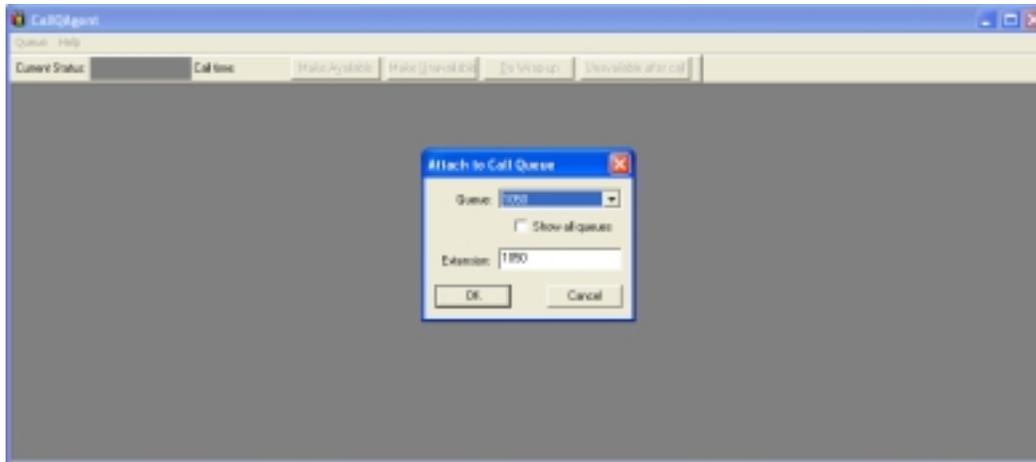


Figure 5: Choosing the queue to which to attach

An explanation for the attach to queue dialog settings are:

Queue The drop-down list enumerates all the queues that you are allowed to connect to on this server. If your mailbox number is already connected to a particular queue, then that queue will not be displayed by default.

Show all queues A drop down list that shows all the available queues an agent can attach to. Once attached to a queue, you'll see the screen like that in Figure 6.

Extension When attaching to a queue the extension field can be used to change the location of where calls will be transferred when you accept a call. This is useful when working in a different office or location.

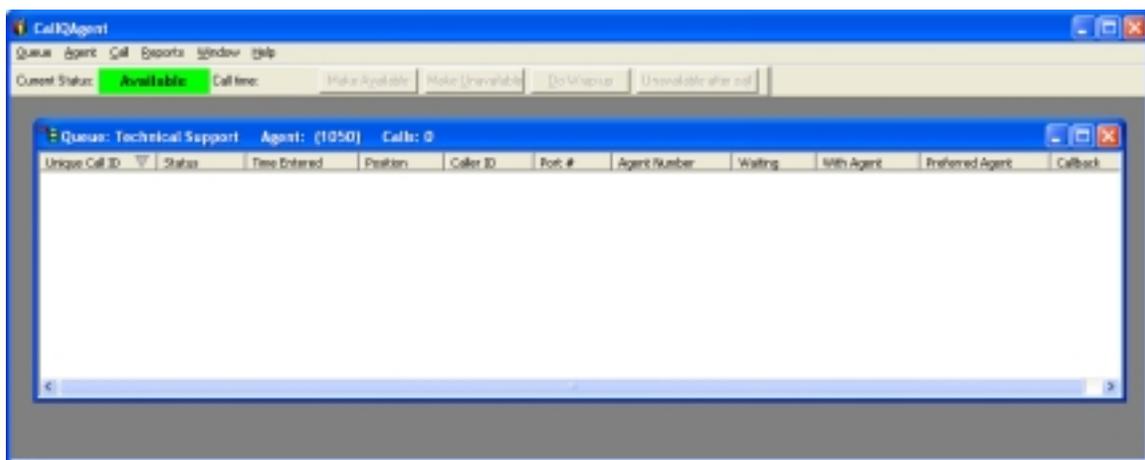


Figure 6: Sample logged-in screen

After you've logged into the queue, the queue menu changes and shows a few new menu options not previously available. Figure 7 shows the new queue menu after logging in:

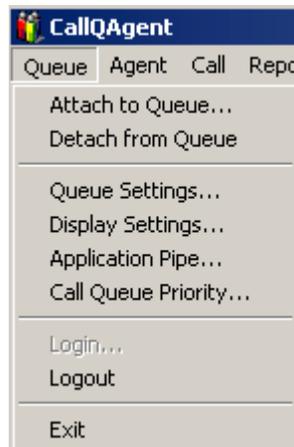


Figure 7: Logged in Queue Menu

Most of the queue settings are the same as the initial queue menu, except for the following:

Detach from Queue Used to disconnect from the selected call queue without exiting CallQ Agent.

Queue Settings Opens the queue settings dialog used to customize the call queue. Queue settings are discussed in section 5.1. Only queue administrators and supervisors can modify queue settings.

Display Settings Opens the display settings dialog used by agents to customize the call queue display. Display settings are discussed in section 5.5.

Application Pipe A way for you to pass data from CallQ Agent to another application. When this is used when a new call gets assigned to an agent, the information is passed to the application specified by the pipe. Custom programming is required to use this feature.

Call Queue Priority Opens the call queue priority dialog. This is used to create a call queue priority list. Call queue priority is discussed in section 5.7.

Across the top of the screen, below the menu bar, are some important controls and displays. The first is labeled "Current Status." It shows the status of the agent (different colors have been added to make each state stand out). Your status will be one of the following:

Available (Green) This means that you're ready to accept a call. By default, if there are calls in the queue that are in the "Available" state (waiting for an agent), then the longest-waiting such call will be connected to the

agent who has been waiting for a call the longest (however, in the queue settings you can configure the queue for “agent with the fewest calls”, “agent with the shortest connect time”, or set agent priorities which will over-ride the other settings). Agents who have just logged into the queue are treated as if they have been waiting forever for a call, so they have the highest priority of taking the next available call.

There are some exceptions to this general rule. If skills-based routing is being employed, then a call requiring a skill that the current agent does not have will not be connected to that agent. If this agent has the Rejection privilege and has rejected a particular call, then that call also will treat that agent as if he or she is unavailable. Finally, the queue administrator can change the rule for selecting an agent to select the agent who has the lowest talk time or least number of calls taken instead of the longest wait time.

If an agent “drops” a call (does not answer the phone when it rings), the agent is made unavailable automatically, on the assumption that he or she has left the area. If that agent comes back and clicks “Make Available” to become available again, then for a period of 30 seconds, that particular agent will be treated as unavailable by the particular call which was dropped.

Unavailable (Red) In the Unavailable state, the agent can watch the activity in the queue (if so privileged) but will not automatically be assigned any calls. If the agent has the privilege to “take” calls (to pick particular calls out of the queue, not necessarily the longest-waiting call), then the agent can do so even when in the Unavailable state. When the agent finishes with a call, the CallQ Agent will return to the Unavailable state after Wrap-up is finished.

Deciding (Blue) – The deciding state is the time in which an agent has the rejection privilege and is given time to accept or reject the call as in they are “deciding” whether or not to take the call.

Connecting (Light Blue) – The connecting state is the time in which a call is transferring to an agent, and the phone is ringing.

Init In Call (Pink) The queue administrator can set a parameter called “Minimum Connect” which specifies a minimum amount of time that an agent must be talking to be considered to have taken a call. By default, this parameter is 0, meaning that once an agent answers a call, the agent goes immediately to the “In Call” state. But if the parameter is positive, then for that many seconds, the agent will be in the “Init In Call” state, and then will progress automatically to the “In Call” state. Should the agent hang up on the call before reaching the “In Call” state, then the agent is considered to have dropped that call. This could happen if the agent happens to pick up the phone to make an outbound call just as the system is bringing a call to the phone. The agent might not realize what had happened since no ringing would have been heard, and might

then hang up on the caller. Since the agent would still be in the “Init In Call” state, the system will assume that the caller did not actually connect to the agent.

On Call/In Call (Purple) This is the state when the agent is speaking with a caller, after any “Init In Call” time has passed. The Call Timer will record how long the agent stays in this state. When an agent is on a call, the status in the queue shows “connected”.

Wrap Up (Yellow) Call centers have an option to allow agents to be given a short time after completing a call to “wrap up” the call, such as recording notes about the call or to give the agent a short break before the next call. For more information about wrapup see sub-section 5.1 below.

Checking (Dark Red) The time that it takes after wrapup to see if you are going to be assigned another call, go available/unavailable.

Next to Current Status is the call timer. Once you take a call and enter the connected state, the call time will start counting the seconds (and minutes) you’re on the call. In many call centers, knowing how long the call has gone on is important to the agent.

To the right of the call timer, there are three buttons used to control your state, if you are so permitted by the queue administrator. These buttons are:

Make Available To have access to the make available (and make unavailable) Buttons, you must have the “available” privilege enabled. When enabled, clicking this button tells the call queue you’re ready to take calls. If you’re available, and a new call comes into the queue, it will be automatically sent to your extension unless the queue has been configured otherwise. If you don’t have the “Available” privilege, then you’re “always available” as long as you’re logged into the queue, are not on a call, or in wrap-up.

Make Unavailable If privileged (the available privilege is enabled), an agent can be unavailable (or available). Clicking this button tells the call queue you’re not ready to answer a new call, and while your in an unavailable state calls will not be sent to you. Once you’re ready for a new call you can click the “Make Available” button, or you can selectively take a call by double clicking the call and clicking the connect button.

Unavailable after call Provides a way for an agent to make them self unavailable after completing their call. Choosing unavailable after call changes the state of the agent from available to unavailable so that when they wrapup their current call they’ll not get another call from the queue. This is useful when an agent needs a break or wants to go to lunch.

Do Wrap-Up Initiates the wrapup state for the agent after finishing up with a call.

5.1 Queue Settings. . .

Only the owner of the Queue or a queue supervisor can modify certain queue-related settings by clicking on “Queue Settings. . .”. Doing so will result a Queue Settings dialog window being displayed, similar to that shown in Figure 8.

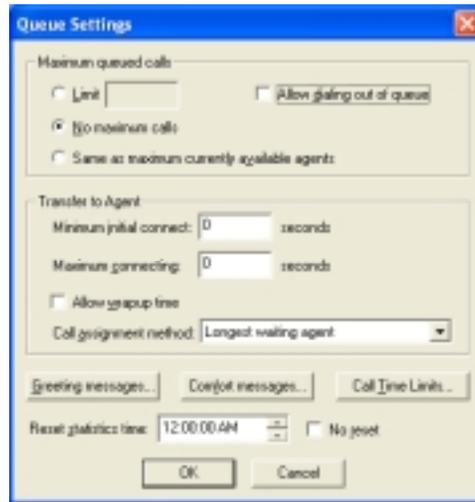


Figure 8: Queue Settings Dialog

The different fields and controls in the queue settings dialog are:

Minimum initial connect This is the minimum number of seconds that calls must be connected to an agent before they are considered to have been completed. This parameter determines how long agents will be in the “Init In Call” state.

Maximum connecting The maximum time the queue manager is willing to wait for a connect or fail confirmation from the call that is currently trying to transfer to them. This is a fail-safe time in case the call was not to come to the agent, which would leave the agent in the Connecting state forever. The default is 5 minutes, which is the same as specifying the value of 0.

Minimum lost This is the minimum number of seconds that you expect “legitimate” callers to stay in queue before hanging up. Calls that hang up sooner than this value are treated as “Early hangup” calls in the Dashboard statistics (see Sub-section 11.1) and in the permanent call statistics reports. If set to zero, then all hangup calls are counted as “lost” calls.

No queue timeout If checked, then there is no limit to how long calls may wait in queue before automatically being sent to voicemail.

Limit The maximum number of calls allowed in the queue at any time. When the maximum number of calls allowed is already enqueued, all new calls are sent to voicemail.

No maximum calls If checked, then there is no limit to the number of calls which may be waiting in queue. Otherwise, the “Maximum Calls” parameter will govern whether a new call can enter, based on the current number of waiting calls. Calls beyond that maximum are sent to voicemail.

Same as maximum currently available agents Sets the number for maximum queued calls to the number of currently available agents. Once the number of calls in queue is greater than the number of available agents, those calls will be sent to voicemail to record a message.

Allow wrap-up time When enabled, members of the call queue are allowed to access the “Do Wrap-up” option to move to the Wrap-up state at the end of a call. With auto-wrap-up, this button is always disabled.

Allow dialing out of queue When enabled, callers can dial digits to exit the queue. Dialing out of the queue consists of dialing another mailbox, menu, or pressing * to leave a message in the queue mailbox. Otherwise if not checked, caller’s dialed digits are ignored.

Greeting messages. . . This button brings up a dialog box for configuring greetings callers will hear when they enter or leave the queue. It’s described in Subsection 5.2.

Comfort Messages. . . This button brings up a dialog box for configuring periodic “comfort messages” to be played to waiting callers. This is described in Subsection 5.3.

Call Time Limits . . . This button brings up a dialog for configuring call time limits discussed in subsection 5.4. Call time limits are used to add color to the background of a call holding for more than the specified period of time.

Call assignment method This drop-down list lets you select which method will be used to choose which agent will take the next call (the default is the longest waiting agent). The choices are:

Longest waiting agent Assigns calls to the agent who has been off a call for the longest period of time. Agents who have just attached to the queue are considered to have been waiting an infinite amount of time, so they have the highest priority when a call becomes available.

Agent with fewest calls This method should be chosen if you wish to make the number of calls handled by each agent be approximately the same. The agent who has so far handled the fewest calls will get the next

call. Obviously, agents who have just attached to the queue have handled zero calls, so they will have the highest priority.

Agent with shortest connect time This assignment method can be used when you want the agents to have approximately equal times talking to the callers. Again, an agent who has just attached will have zero connect time, and so will have the highest priority initially.

Note: If agent priorities are enabled, they will take precedence over the call assignment methods.

Reset Statistics Time Sets a time when to reset the real time statistics of the dashboard display. The default time is 12:00am. If no reset is selected, this feature is disabled.

5.2 Greetings Dialog

An example of the greetings configuration dialog box is shown in Figure 9.



Figure 9: Greetings Dialog Box

Each of its settings is described below:

Report Position The system provides a number of different ways to inform callers of their position within the queue. The “Report Position” setting allows the queue administrator to select which method will be used for callers of this queue. The choices are:

Never Callers will just hear the hold music and any periodic comfort messages.

Say current position When the caller enters the queue, and each time the number of callers ahead decreases (either because those callers hung up, dialed out of queue, or were connected to an agent), the caller will be told their updated position.

Say estimate time When the caller first enters the queue, an estimate of the expected waiting time to speak with an agent will be played. Thereafter, the caller will hear only the hold music and optional comfort messages. The estimate is calculated from the current rate at which the agents are de-queuing calls and the number of calls ahead of the current caller in the queue.

Initial Queue greeting Select the greeting number that will be played to callers when they first enter the queue.

Position change greeting Select the greeting number that is played to the caller before their current position is played to them.

Transfer greeting Select the greeting number that is played to the caller when they are about to be transferred to an agent.

Voicemail greeting Select the greeting number that is played to the caller when they are be sent to voicemail.

Queue closed greeting Select the greeting number that is played to the caller When no agents are left who can take their call, so the caller is forced to leave the queue. This greeting is not necessarily the same as that which callers hear who cannot enter the queue (for instance, if there are no agents attached to the queue): in that case, callers hear whatever the current greeting is for the mailbox.

Timeout greeting Select the greeting number that is played to the caller when they have waited in the queue for the maximum amount of time.

Hold greeting Select the greeting number that is played to the caller before an agent has directed them to listen to another selected greeting.

5.3 Comfort Messages

The “Comfort Messages. . .” button brings up the dialog box shown in Figure 10. Comfort messages are recordings that are played periodically while callers are on hold and are otherwise listening to the selected Amanda hold music. The queue administrator records these comfort message(s) as regular greetings in the queue mailbox. This dialog is then used to specify which of the greetings, by number, should be played as comfort messages, and in what order they will be played to each caller.

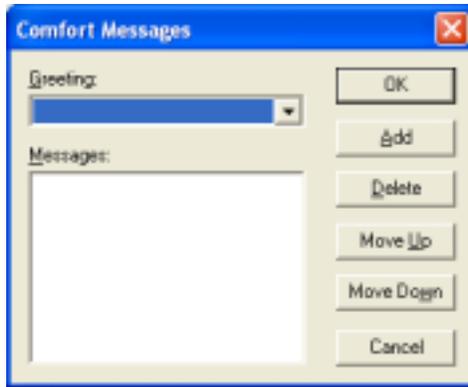


Figure 10: Comfort Messages Dialog Box

5.4 Call Time Limits. . .

After a call has held in queue for a certain period of time (specified in minutes), the background color of that call holding can be changed, by setting a call time limit. A typical scenario would be to use a stop light approach to calls holding in queue. Initially, when the call is queued, the background of the text of the call holding is black text on a white background. After n minutes where n is defined by queue call times, the background color of that call can be changed to one of eight different colors. Using the stop light approach, the call would change to green, yellow, and then red after the caller has been holding for x , y , and z minutes, where x might be 1 minute, y might be 3 minutes, and z minutes. Figure 11 shows the queue call times dialog used to enable call time limits.

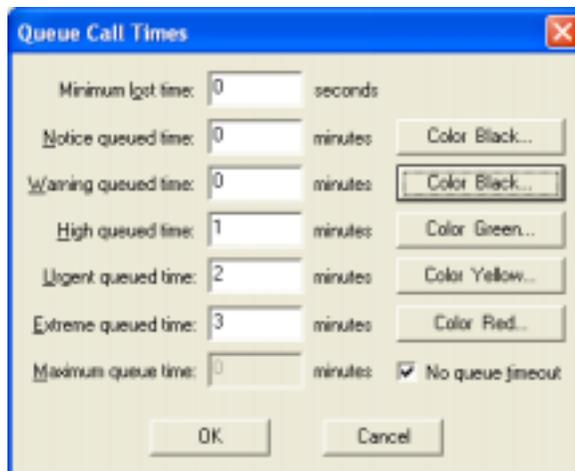


Figure 11: Queue Call Times Dialog

The fields within this dialog box are:

Minimum lost time When a caller calls into the queue, and they realize they didn't want to be queued and they hangup or dial another mailbox leaving the queue, if the number of seconds they were holding is lower than the minimum lost time, that call is not counted as a lost call.

Noticed queued time When enabled, after the specified number of minutes, calls holding in queue for that amount of time will have their background color changed to the specified color. The default is black. Click the "Color Black..." button to select a color other than black.

Warning queued time If enabled, after the specified number of minutes, calls holding in queue for that amount of time will have their background color changed to the specified color. The default is black. Click the "Color Black..." button to select a color other than black.

High queued time If enabled, after the specified number of minutes, calls holding in queue for that amount of time will have their background color changed to the specified color. The default is black. Click the "Color Black..." button to select a color other than black.

Urgent queued time If enabled, after the specified number of minutes, calls holding in queue for that amount of time will have their background color changed to the specified color. The default is black. Click the "Color Black..." button to select a color other than black.

Extreme queued time If enabled, after the specified number of minutes, calls holding in queue for that amount of time will have their background color changed to the specified color. The default is black. Click the "Color Black..." button to select a color other than black.

Maximum queued time The maximum number of minutes a caller can hold in queue for an agent. When enabled, callers who hold for the maximum queue time will be sent to voicemail to where they can record a message. The default is 0 minutes (which is no queue timeout). To enable the maximum queued time you must un-check the no queue timeout check box.

No queue timeout When checked, there is no queue timeout. Callers can hold in queue indefinitely. Un-checking no queue timeout will enable the maximum queued time field where a maximum queue time can be specified in minutes.

Important Note: Each queued time parameter can be enabled by itself if selecting a single parameter. However, when enabling more than one queue time parameter, each queued time setting has a priority level, and must have a value greater than the queued time above it, and less than the queued time parameter below it. Figure 11 shows an example using high, urgent, and

extreme queue times illustrating this behavior using a stop light model (green, yellow, and then red).

The color selection can be used to set the background color for calls holding in queue to any of the following colors shown in Figure 12.

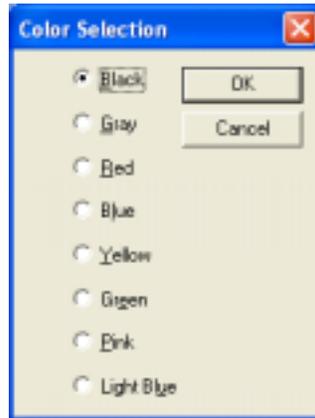


Figure 12: Color Selection Dialog

5.5 Display Settings. . .

The "Display Settings. . ." dialog allows you to control various aspects of how the CallQ Agent appears on your desktop. Click "Queue", then "Display Settings. . ." to access the display settings below. You'll see the window similar to that shown in Figure 13. Here you can remove or add columns, change the order of the columns, and change other aspects of the visual appearance of the CallQ Agent on your computer.

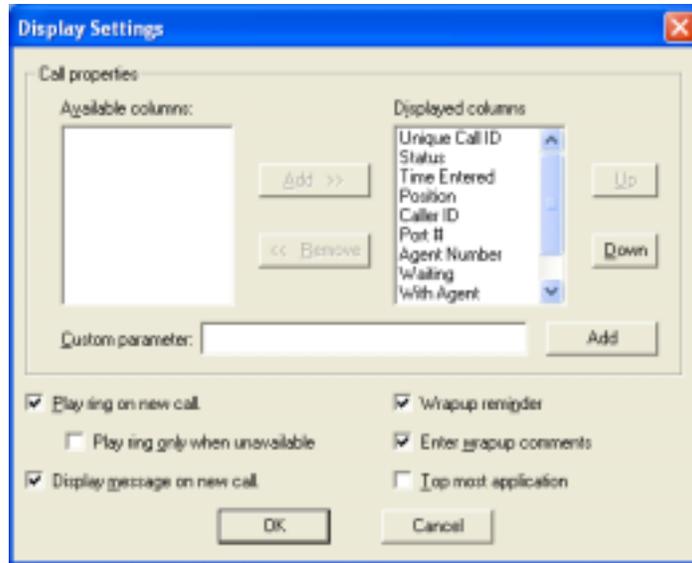


Figure 13: Display Settings

For example, if Amanda does not receive Caller ID/ANI information about calls, then you might want to remove the Caller ID column from the queue display since it will not be used. The fields and controls that appear in this dialog box are:

Play ring on new call When enabled, when a new call comes into the call queue you'll hear an audible notification that there is a call holding. If you don't wish to hear an audible notification on a new call, you can disable this option by deselecting the check box.

Play ring only when unavailable When enabled, CallQ Agent will only play an audible ring when the agent is in an unavailable state.

Display message on new call When enabled, you'll get a new call notification via a screen pop. You'll see the message shown in Figure 14 each time a new call comes into the queue.



Figure 14: New Call Notification Popup

Wrap-up reminder When agents are connected to callers through a telephone

switch, Amanda cannot automatically know when the agent hangs up. The agent must therefore push one of the Wrap-up, Available, or Unavailable buttons, or Amanda will continue to believe that he or she is with a caller. Unfortunately, agents may forget to do so at the end of the call. If this box is checked, then CallQ Agent will periodically remind the agent that they should press Wrap-up if they have finished with their call (every 5 minutes).

Enter wrap-up comments If checked, then when the agent goes into wrap-up, a dialog box will appear in which the agent can enter free-form text with commentary about the call that just ended.

Top most application If checked, then the CallQ Agent will remain “topmost” when it is running, so that the agent can always see the information that is being displayed.

Custom Parameters This is where users can add custom column names containing additional information about the call. When you double click on the call it will popup a call properties dialog with the field names in the left column. These are the available field names that must be exactly entered in the display dialog for them to show up, if not already there. A good example of this is the custom parameter “CallerId_Name”. Adding this custom parameter will add a new column that will display the caller id name of the caller (this is case sensitive, and must be entered exactly as shown).

Note: It’s important that CallQ Agent and the Amanda Portal server be setup with the same time in order for CallQ Agent to accurately show call times when calls are in queue.

5.6 Wrapup Comments and QCodes

Manual Wrapup

After an agent answers a call, that call is displayed in the queue (with the agent “on call”) window until the agent either clicks “Do Wrapup” or Make Available” (if the queue is setup for manual wrapup’s and not automatic). Clicking “Do Wrap-up” will either automatically wrapup the call (removing it from the queue) or if enabled a wrapup comments dialog box will appear.

The creator of the call queue can specify a maximum allowed wrap-up time for each agent, if “Allow Wrap-up time” is enabled in the queue settings. Otherwise, if you click “Make Available” then you are considered to have ended the call you are moved immediately to the “Available” state again; this always happens when the queue does not have the “Allow Wrap-up” queue setting enabled. If you do a wrap-up and finish before

the allowed time then you can click either (if allowed) “Make Available” or “Make UnAvailable” to leave the wrap-up state.

Automatic Wrapup

If Amanda connects calls to agents through a direct line (as on an MSI card), or through a “hairpin” transfer, then Amanda knows when the agent hangs up, and the agent will automatically be moved into the Wrap-up state (which may immediately transition to the Available or Unavailable state, if the agent’s wrap-up time setting is zero or wrap-up is not allowed for this queue, or wrapup comments are not enabled). In such “auto-wrap-up” situations, the agent cannot press the “Make Available” or “Make Unavailable” buttons while on a call, or “Make Available” while in Wrap-up. Instead, the agent must hang up the phone, and Amanda will automatically change the agent’s state.

The reason for this is that the agent may hang up, go into wrap-up, actually be ready for another call, and press Available; at about the same time that Amanda is automatically making the agent available. This can then result in receiving two calls, one of which of course will fail and be counted as a dropped call for the agent.

Wrapup Comments

Wrapup comments can be enabled so that agents can enter notes about whom they spoke to and what the call was about. These comments can later be used when running reports.

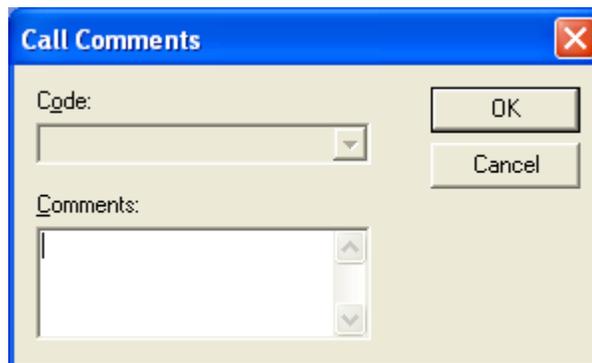


Figure 15: Example Wrapup Comments Dialog

If desired, agents can enable wrapup comments on a per agent basis. The system administrator can create a pre-entered list of codes for an agent to select from (see QCodes) to make wrapping up calls faster. The pre-entered queue codes allow for a more consistent and quicker wrapup. Wrapup comments can be used later for reports.

The queue administrator can determine if wrap-ups are to be done for the queue (globally) and, on an individual agent basis and what the maximum wrap-up time may be.

During wrap-up, an agent can (if so privileged) click on the “Make Available” or “Make Unavailable” buttons to finish wrap-up early and move to the indicated state. Otherwise, when the maximum wrap-up time passes, the agent will automatically go back to the state they were in before taking the last call (usually, the Available state).

To enable wrapup comments

- 1) The call queue administrator must enable “allow wrapup time” within the queue settings.
- 2) The call queue administrator must modify the Agent Settings and set the maximum wrapup time allowed for each agent.
- 3) The agents must enable “enter wrapup comments” within the display settings.

Queue Codes are entered within the queue mailbox as a textual mmo named “QCodes” (which is case sensitive). It’s a list of code and code descriptions.

To setup QCodes

As a default, the codes list is blank and ghosted out, unless the queue administrator creates a list of codes. To create a queue codes list, do the following:

- 1) Using Amanda Portal Station, select the queue mailbox and double click greetings.
- 2) Choose other as the mmo type and then click create.
- 3) Enter “QCodes” as the key name and optionally, enter a description.
- 4) Click the “edit mmo” button. Check the box to enable advanced formats, and then select ASCII Text as the from type, then click ok.
- 5) This will open notepad. Create a list of call types using the following format, number followed by text within curly braces, like this:

- 1 {Pre-Sales}
- 2 {Placed Order}
- 3 {Order Status}

The code (such as 1, 2, or 3) doesn’t have to be a number, it can be a word or words. Such as:

{Prospect} {Requested More Information}
{Not Interested} {Remove from Call List}
Etc.

You can create as many different queue codes as you like. The examples above work well for a sales queue.

6) Save the changes to the file, and close notepad. Choose yes when prompted if you want to apply the changes.

Once the QCodes list is built, when agents wrapup a call, they'll see the codes in the "code" list, as seen in Figure 16:

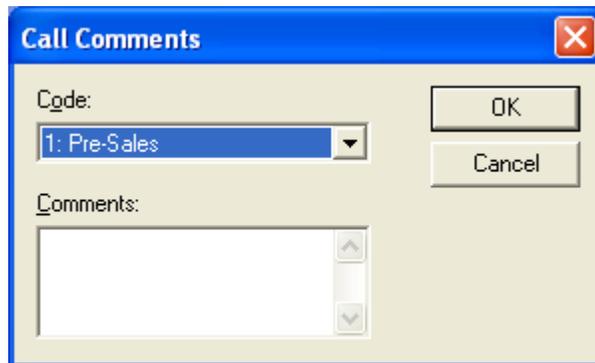


Figure 16: Example Wrapup Comments Dialog with QCodes Enabled

Selecting the drop down list the agent can select any of the other code types. Amanda saves call comment information in a database that can be reviewed later when running reports.

5.7 Call Queue Priority...

When connecting to multiple call queues, it's important to setup a queue priority list. This way when there are calls holding in more than one queue, and you make yourself available, you'll get calls sent to you from the queue with the highest priority first. To create a call queue priority list click on the queue menu and then "Call Queue priority..." and the Call Queue Priority List dialog will be shown:

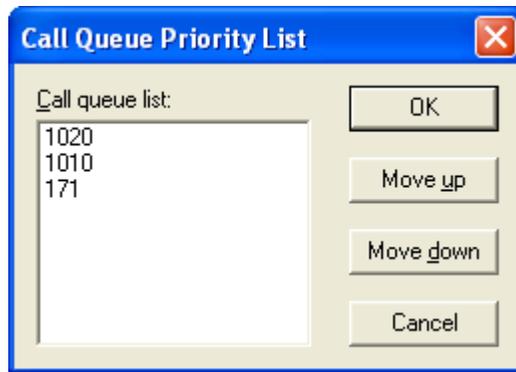


Figure 17: Call Queue Priority List

Figure 17 shows an example call queue priority list. In this example, the agent is connected to 3 queues. Queue 1020 has the highest priority, then 1010, and finally 171. Use the move up and down buttons after selecting one of the queues listed to set the call queue priority list.

6 Call Queue Agent Transfer Processes

Call queue agent mailboxes can be configured to transfer calls a few different ways, there are advantages and disadvantages depending on the transfer type chosen. The transfer type is configured using Amanda Portal Station within “Incoming Call Options”. This section explains the differences between the transfer types and a few different call scenarios.

Automatic Transfer An automatic transfer will perform an the appropriate transfer type based on the mailboxes settings. For example, if call screening is enabled, or the mailbox is the member of a call queue Amanda will perform call supervision to insure these features work properly. If the mailbox is not using call screening or a member of a call queue she will perform a blind transfer.

Blind Transfer Amanda transfers the call to the extension and hangs up releasing the call. The advantage to doing this is that the call transfer is very fast and the port performing the call transfer is released right away. The disadvantage to using a blind transfer is that if there is no answer the call will be forwarded to the mailbox of the agent where the caller can leave a message (there call will not be re-queued unless configured specifically to do so).

Supervised Transfer Amanda transfers the call to the agent’s extension and waits for an answer, no answer or busy. If the call is answered she connects the caller to the agent. If the call is not answered or the extension is busy, the call is re-queued in the same position. This is the most common configuration when using CallQ Agent. Supervised transfers only use 1 port.

Hairpin Transfer Only supported when using Intel/Dialogic voice boards. Amanda uses 2 ports to perform a hairpin transfer, and connects them internally. The advantage to this is that Amanda knows when the caller or agent hangup the phone so CallQ Agent will wrapup calls automatically.

Find Me/Follow Me Used to create a find me / follow me list of extensions and or telephone numbers. This transfer type is not recommended for use with CallQ Agent.

Scenario 1: Using Supervised Transfers

In this scenario, call queue agent mailboxes are configured to perform either an automatic or supervised transfer. In either case, Amanda will supervise the call to the extension and if answered, play a connect tone and connect the call to the extension.

If the extension is answered, the agent must say “hello” before Amanda will connect the call.

If the call goes un-answered or the extension is busy, the call is re-queued for the next available agent.

For this scenario the agent only needs one mailbox and one extension.

Scenario 2: Using Blind Transfers

In this second scenario, call queue agent mailboxes are configured to perform a blind transfer. The difference between a blind transfer and a supervised transfer is that once the call is transferred, the call is released to the extension and when answered there is an immediate connection between the caller and the called party.

The advantage to using this scenario is that transfers are immediate and there is no answer delay or cutover tone.

Using a blind transfer, the installer must rely on system integration (in-band signaling or SMDI) to get the call back to voicemail and into the queue. There are a couple of ways this can be done.

Configuration A

Using One Extension and Two Mailboxes

In this configuration 2 mailboxes are created for each agent. One for the queue and another for personal calls and messages. You'll also need to configure the queue mailbox to use a blind transfer and the personal mailbox for a supervised transfer. Additionally, the personal mailbox needs to be configured to "RNA" (retrieve the call) before the call will be forwarded from the extension.

For example if the extension is setup to forward calls after 5 rings, the mailbox should be configured to retrieve the call after 4 rings.

Considerations: The only thing to watch out for in this configuration is that the extension should not be forwarded back to voicemail if the extension is busy, only on a no answer condition. This shouldn't be a problem because the agent should not be connecting calls from the queue when busy. And if they are busy on the phone when a personal calls comes in Amanda will supervise the call pull it back when the extension is busy and take a message.

The agent box needs to be setup to use the integration data to send unanswered queue calls back into the queue using the RNA and Busy methods.

Configuration B

Using Two Extensions and Two Mailboxes

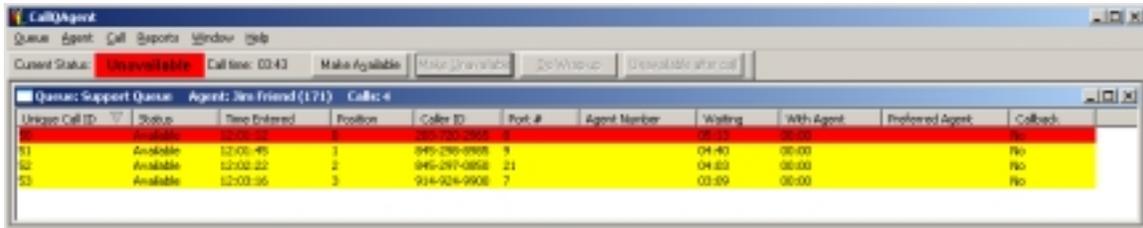
In this configuration, two mailboxes and two extensions are used. Both the personal and agent queue mailboxes are configured to perform blind transfers. Additionally, both extensions are forwarded back to voicemail when a call is not answered or the extension is busy.

Additionally, the queue mailbox must have its RNA and Busy methods setup to send the call back to the queue mailbox (this way the call is re-queued) for the next available agent.

Note: The only real disadvantage to using blind transfers instead of supervised is if the calls go un-answered. When the call gets re-queued, the caller goes back into the queue as a new call, losing their position in the queue.

7 Calls in the Queue

When a call comes into the call queue, each call has the following information associated to it. You can click on any of the column headings to sort the display by the values in column. Figure 18 shows an example of multiple callers holding in queue at the same time. It also shows how call time limit colors can be used to enhance the look and show which callers are holding the longest.



Unique Call ID	Status	Time Entered	Position	Caller ID	Port #	Agent Number	Waiting	With Agent	Preferred Agent	Callback
11	Available	12:00:40	1	945-290-9908	8		04:40	00:00		No
12	Available	12:00:22	2	945-297-0858	21		04:22	00:00		No
13	Available	12:00:36	3	914-924-9908	7		03:59	00:00		No

Figure 18: CallQ Agent Screenshot Example showing multiple Calls in Queue

Unique Call ID Each call that enters the call queue is assigned a unique call number.

Agent Mailbox This shows the mailbox of the agent on the selected call. When a call has not been answered by an agent and is holding in queue, this field is blank. Once a queued call is connected to an agent, the ID of the agent that accepted the call is shown here until the call is cleared by clicking “Do Wrap-up” or hanging up (depending on whether the agent’s telephone is connected to an Amanda port directly or to a telephone switch).

Status When a call enters a queue, there is a status showing the state each call is in. Initially, the status for a call holding in queue is “Available”. Once an agent accepts the call, the state (status box) changes depending on what happens with the call. Each call will transition from “Available” to “Waiting” to “Connecting” to “Connected” and finally “Wrapup”.

Time Entered The time the call entered the call queue.

Position This shows the call position in the queue, as the number of calls ahead of that call. Thus, position 0 has the highest priority, then position 1, then 2, etc. When multiple calls are in queue, Amanda can automatically tell the caller their position in the queue. When a call is taken from, or abandons, the queue, other calls in the queue move to the next highest position in the order they are received. Each time a call moves up in position, if the queue is configured to tell callers their position, then the waiting callers will be notified of their new position.

Caller ID This shows the telephone number for the call holding in queue. If the telephone system that Amanda Portal is connected to can pass ANI or Caller ID information to Amanda, it will be displayed in this column along with the call. If your telephone system doesn't support Caller ID, you can remove this column from the "Display Settings. . .".

Port # Shows the Amanda port the call came into the queue on.

Waiting This is the amount of time that the caller has been waiting to be connected to an agent. Once connected, the value stops incrementing but it remains to show how long that caller had to wait.

With Agent This counter will initially be zero. Once the call is connected to an agent, it will begin counting up to show the length of time that the call has been with that agent.

Preferred Agent With custom programming it's possible to designate that a particular caller, based on their Caller ID, should be directed to a particular agent. This feature might be used, for instance, if the agent had been working with that particular customer earlier on a problem. If the customer calls back, it's preferable for him to speak with the same agent rather than have to start over again with a different agent in solving the problem.

Callback This field will contain "Yes" or "No" depending on whether this call represents a callback request. Through custom programming, Amanda can be configured to allow callers to hang up while still retaining their position in the queue. When they do so, their queue "object" enters the "callback" state and it retains the phone number at which to call them. When the callback object reaches the top of the queue, Amanda will first call the selected agent, then automatically call the original caller and connect the two parties.

Once an agent attaches to a queue, the Queue menu will change to allow the agent to select queue and display settings, which are described below:

8 Agent Menu Options

From the “Agent” menu, you can choose “Agent List. . .” or “Agent Settings. . .” menu choices, which pop up related dialog boxes, as shown in Figure 19, and Figure 20.

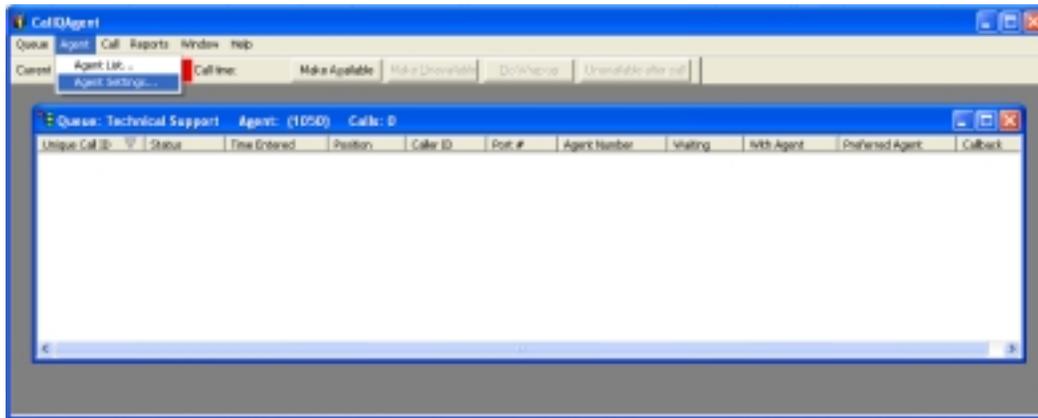


Figure 19: Agent Menu

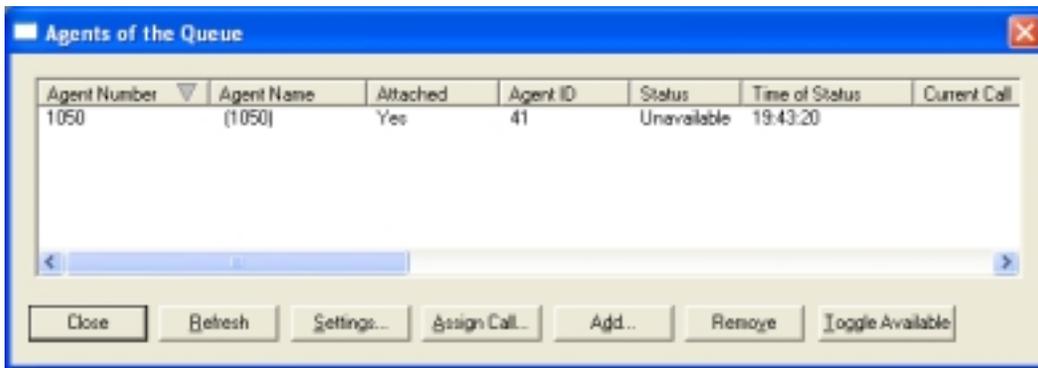


Figure 20: Agent List Dialog

8.1 Agent List. . .

The “Agent List. . .” selection shows you the list of agents for that call queue. Here you can add new agents and remove existing agents from the queue. You can also modify settings on a per-agent mailbox basis. Clicking “Agent” then “Agent List. . .” opens a window similar to that shown in Figure 18.

Agent Number	Agent Name	Attached	Agent ID	Status	Time of Status	Current Call	Available Privilege	Call Assignment Privilege	View Privilege	Rejection P
110	(110)	Yes	5	Unavailable	10:04:56		No	Yes	Yes	No
111	David Woo (111)	No		Unavailable	10:05:10		Yes	Yes	Yes	No
120	Carl Doss (120)	No		Unavailable	10:05:10		Yes	Yes	Yes	No
130	Sam Reed (130)	No		Unavailable	10:05:10		Yes	Yes	Yes	No
171	Jan Fernal (171)	Yes	2	Unavailable	10:04:56		Yes	Yes	Yes	No
188	John Miller (188)	No		Unavailable	10:05:10		Yes	Yes	Yes	No
200	Greg Romner (200)	Yes	4	Unavailable	10:04:56		Yes	Yes	Yes	No

Figure 21: Example of an Agent List display

The values shown in the columns of the Agent List are:

Agent mailbox Lists all agent mailboxes that are members of the call queue, whether logged in or not.

Agent name Shows the matching name of the mailbox.

Attached Shows whether each agent is currently attached to this call queue.

Agent ID Shows a unique identifier for each agent who is currently attached to the queue. An agent must be attached to the queue or you will not see an Agent ID number for that agent.

Status Shows the current status of the agents. Available means they're ready to accept a new call from the queue. Unavailable means they are either on an existing call, in the unavailable state, or not currently attached to the queue.

Time of Status The time that the last status change occurred for an agent.

Current call If an agent is currently on a call, this shows the unique Call ID of the call the agent is connected to.

Available privilege Shows if an agent can become unavailable. If enabled, the agent can make themselves unavailable (and available). Otherwise, the agent is considered always available.

Call assignment privilege Shows if an agent can take calls out of order or direct calls to other agents.

View privilege Allows an agent to see all call queue activity. If an agent doesn't have this privilege they can only see calls that are connected to them.

Rejection privilege Shows if an agent mailbox has the reject call privilege, if

enabled, when an agent gets a call the call assistant dialog will popup giving the agent a last chance to accept, reject, transfer or send the call to voicemail (shown in Figure 23).

Wrap-up time Shows the amount of time in seconds allowed to wrap-up an active call. If set to 0 seconds, then wrap up is not an option for this agent.

Rejection time Shows the maximum amount of time allowed for an agent to Reject a call if call rejection is enabled. After this time, if the agent has not responded, then the call will automatically be rejected. A value of zero means that the agent will not have an opportunity to reject calls.

Restrictions Shows the skills assigned to specific agent mailboxes. Agents without special skills listed are assumed to be able to take calls that do not have any special skill requirements.

Supervisor Shows if the agent is a supervisor.

Priority Level Shows the priority level of each agent. Agents with the highest priority get calls transferred to them first (0 is the highest priority, then 1, 2, etc.).

The buttons at the bottom of the dialog box allow you to take the following actions:

Close This button closes the agent list window.

Refresh This button updates the current information in the agent list window based on changes due to call queue/agent activity.

Settings This button allows the call queue administrator (the creator of the call queue) or a queue supervisor to modify agent settings on a per-agent basis. An example of the resulting pop-up dialog box is shown in Figure 22, and it's discussed in Subsection 8.2.

Assign Call This button allows the agent to assign a particular agent to a waiting call. The agent doing the assignment must have the "Call Assignment" privilege. A dialog box similar to that shown in Figure 21 will pop up to allow the agent to select what call should be routed to the selected agent, or otherwise have its state modified (primarily, sending the call to Voicemail; selecting "Hold" is normally appropriate only for personal call queues).

Add This button is used to add new agent mailboxes to a call queue. Only the call queue administrator (the queue mailbox) or a supervisor can add agents to the queue . When adding a mailbox, a mailbox list dialog will appear (as seen in Figure 21), select the mailboxes you wish to add from

the list. A mailbox that has been added to a call queue is called an agent. Once mailboxes are added to the queue, the agents can attach to the queue.

Remove This button is used to delete the selected agent mailbox from the call queue. You must be the call queue administrator or supervisor in order to do this.

Toggle Available Supervisors can use the toggle available button to change the status of unavailable agents to available.

8.2 Agent Settings. . .

Each member of the call queue can have different settings for their mailbox. The queue administrator, or a queue supervisor determines these settings. There are two ways to access the same dialog box, a sample of which is shown in Figure 19, for administering these settings. The first is through the “Agent List. . .” dialog, described in Subsection 8.1 (Figure 21). After highlighting an agent in that dialog, the administrator can click the “Settings” button to bring up the settings for that particular agent, an example is shown in Figure 22.

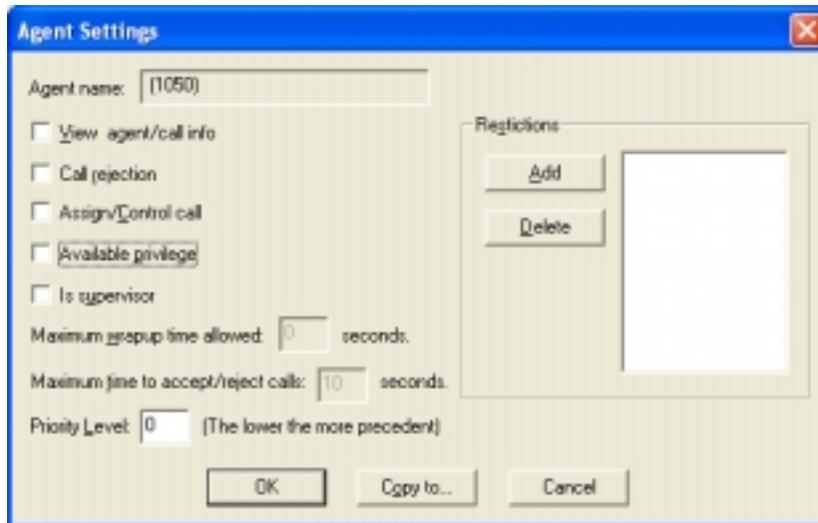


Figure 22: Agent Settings Dialog

Note: Before an agent can accept a call from the queue, the queue administrator must enable their settings. Agents with no settings enabled will automatically be assigned calls from the queue. Typical settings to enable for an agent are view agent/call info, assign/control call, and available privilege.

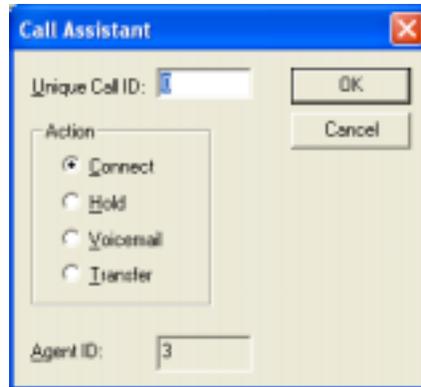


Figure 23: Call Assignment Dialog Box

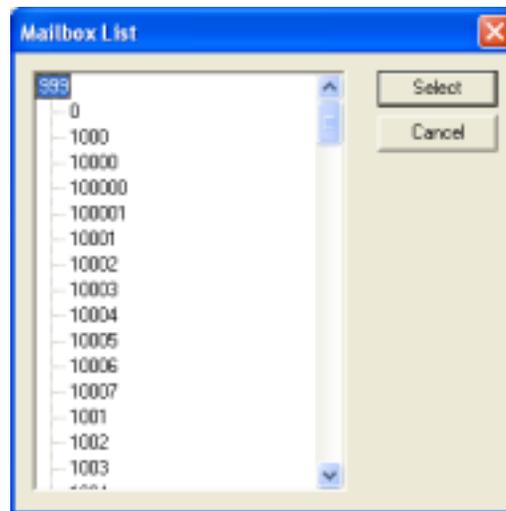


Figure 24: Mailbox Tree Dialog Box

The second way, clicking on the “Agent Settings. . .” menu choice, opens the Agent Settings dialog box for queue administrator. The following options can be enabled or disabled for all members of the call queue:

View agent/call info When enabled, when new calls come into the call queue they can be seen in the queue window. If disabled, that agent will not be able to see the call list for the queue.

Call Rejection When call rejection is enabled, then that agent will have the right to refuse to take particular calls that the queue assigns to them, via a pop-up dialog box shown in Figure 23.

Assign/Control call When enabled, this option gives the agent the ability to assign calls to themselves or to other available agents regardless of the call’s position in the queue. An agent who has been working with a

particular customer on a problem may use this. When the agent sees that customer has called in again (by the displayed Caller ID), they can take the call right away so that the customer can continue working with the same agent on the problem.

Available privilege When enabled, this option gives the agent the ability to control their “available” status. When disabled, attached agents are always considered to be available, unless already on a call.

Is supervisor A supervisor has all the privileges of the queue administrator except they can’t create or delete the queue. Supervisor’s can add or remove agents, change agent settings, run all reports, and assign calls to agents. Unlike the queue administrator, queue supervisors cannot make themselves available since they’re not a real agent (i.e. they’re a supervisor). Supervisors can only take calls selectively.

Maximum wrap-up time allowed This is the maximum number of seconds that can elapse once the “Do Wrap-up” button is selected. After this time the previous agents state of availability will become the new status. The queue must allow wrap-up in order for this setting to be used.

Maximum time to accept/reject calls This is the number of seconds the agent has to determine whether or not to accept or reject a call that’s being assigned to them, if they have the Rejection privilege for this queue.

Priority Level Each agent can have a priority level. Priority levels can be used to determine which agents will get calls sent them first when multiple agents are available. Priority levels are set from lowest to highest (with 0 being the highest priority level). When priority level is not set, all agents have the same priority level.

Copy to... Used to copy queue settings from one agent to another. The queue supervisor can save a lot of time by setting up one agent’s settings and then copying those settings to all the other agents. The copy to settings won’t be active until the supervisor and agents detach and re-attach to the queue.

Restrictions A particular call may require certain skills of the agent. For example, the caller may have expressed through an IVR interaction that he can speak only Spanish. The agent can have corresponding skills listed, so calls can be routed appropriately. The restrictions are free form text, but must match exactly to all of those required by a call, case sensitively. If a caller requires skills which no currently attached agent possesses, then the call will not be allowed to enter the queue and will then usually go to voicemail. Similarly, if a call is already in queue and the last agent who possesses skills needed for that call logs out, then the call will fall out of the queue and again go to voicemail. If there aren’t any agents logged into the queue, then calls cannot enter that queue and will go to directly to voicemail.

8.3 Enabling the Call Record Feature

Call Queue Agent can be used to record calls only if the telephone system Amanda Portal is connected to supports call monitoring (dialing a DTMF code to “listen in” on a conversation).

To enable call recording do the following:

- 1) Run Amanda Portal’s configuration utility “Configure” and add “record_port.tcl” to the global configuration parameter "tcl_source_files".
- 2) Create new configuration parameter “dl_listen” under the PBX configuration parameters. This parameter sets the token sequence to be dialed to listen in on the conversation. For example, if you have a Panasonic DBS the “dl_listen” value is “%V,4,”. Make sure your phone system can perform call monitoring by testing the code manually from a voicemail port to make sure you have the correct code before defining “dl_listen”.

Important Note: %V must be used and NOT %E to specify the extension number.

- 3) You must tell Amanda which ports will be used to perform the call recordings by specifying “record” under the port parameters “groups” list. At least one port must be set to “record” in order to use this feature (preferably more than 1).

Using the Call Recording Feature:

To record a call within CallQ Agent, double click on the call to record. There is a “Record Call” check box at the bottom of the dialog that pops up. When checked Amanda uses a record port to dial the “dl_listen” code and the call will be recorded. Un-checking call record will stop the recording. If a recording is made then a dialog will pop up to prompt for additional text notes to be entered with the recording. Finally, the recording will be sent as a message to oneself.

Supervisors can record other agents calls. A call can be marked for recording before actually taking the call, the recording starts when the caller and agent are connected. An agent can only record his or her own calls.

Note: Amanda uses an extra port for each call recording. Make sure Amanda Portal has enough ports to handle the call volume (assign at least 2 ports to “record” or there may not be enough ports setup to record calls simultaneously).

9 Call Menu Options

From the “Call” menu, you can click “Take Call. . .” or “Print Call”. You can also double click on the call itself to open the call settings dialog. This gives you an advanced set of options when working with a queued call. When a call is active, besides clicking on the call and choosing to take call, you can find out more information about the call. Double clicking on a call will pop up a dialog for the “Call Settings” similar to that shown in Figure 25. This dialog shows the call’s unique Call ID, Caller ID associated with the call if available, the time the call entered the call queue, the port the call is holding on, the status of the call, the position in queue, who’s on the call if an agent is already handling it, and what restrictions (skill requirements), if any, are applied to the call.

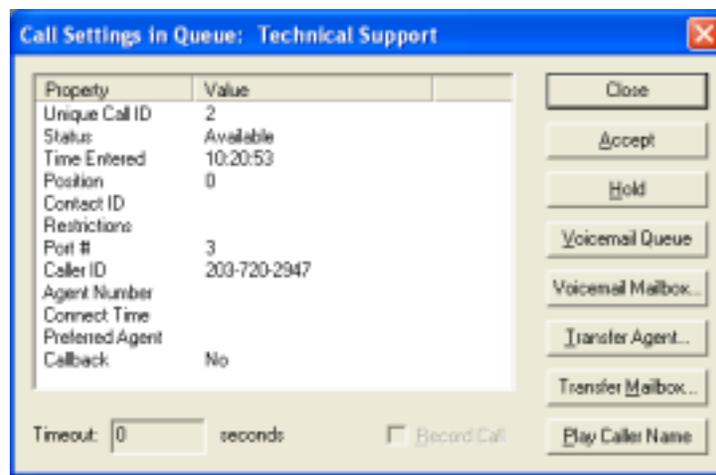


Figure 25: Call Settings Dialog Box

The Timeout field shows the accept/reject time in seconds to determine what to do with the call if the call has just be assigned to the agent and the agent has the “Call Rejection” privilege. With this dialog, you can choose to do the following:

Close This button closes this dialog without taking any action.

Accept This button connects the caller to the agent.

Hold This button continues to keep the caller in the call queue, but a greeting will be played to them specified in the queue settings in “Hold greeting”.

Voicemail Queue This button transfers the caller into voicemail for the queue mailbox.

Voicemail Mailbox The caller hears the voicemail greeting assigned to the call queue, however, the message recorded is stored in the mailbox selected

from the list.

Transfer Agent This button transfers the caller to extension of the specified agent. A dialog similar to that shown in Figure 26 will pop up allowing the agent to select whom to transfer the call to. Only Available agents will be listed, since you cannot transfer a call to an agent who is already on a call. Also note that you can send a call to an agent who is in the Unavailable state (this ignores the DND setting).

Transfer Mailbox This button transfers the caller to the selected mailbox. When using this option, the caller will be sent to that mailbox as if they dialed it directly.

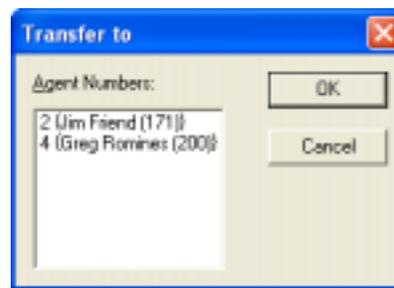


Figure 26: Example of the Transfer Call dialog box

Play Caller Name When call screening is enabled, the play caller name button can be used to hear the recording made by Amanda when screening the call. This feature is not typically used with call queues, but can be very useful when using a personal queue.

Record Call When enabled, checking the record call box will record the conversation as a message and store it in the agent's mailbox. See enabling the call record feature in section 8.3 for more information.

Timeout Shows the amount of time the agent has to accept or reject the call. This timer is only active if the agent has the call rejection privilege enabled.

10 Reports Menu Options

The Reports menu gives queue supervisors and the administrator access to a number of different types of call queue reports. The reports fall into four basic categories, which are the initial menu items displayed:

Calls. . . Call reports can be any of three sub-reports: Incoming Calls, Call Duration, and Lost Calls.

Caller ID. . . This report lets you search for calls from a specific phone number during a specified period of time.

Agents. . . Agent reports can cover the activities of a specific agent, or they can cover general activities for all agents of the queue.

Call List. . . Call List reports can cover specific agents, all agents, or dropped calls.

Print. . . Used to print CallQ Agent reports.

Print Preview. . . Used to preview CallQ Agent reports before printing.

Save Detail Data Saves the details of the report in an ASCII coma delimited text format (as a csv file).

Save Graph Data Saves the details of the graph report in an ASCII coma delimited text format (as a csv file).

In all cases, you specify the period of time that you want the report to cover. You can use short-cuts for the time period, such as specifying “Today” or “Yesterday,” for instance, or choose “Custom” and then enter manually the exact starting and ending dates and times for the report.

Most reports also let you aggregate, or summarize, the data based on time intervals. For example, if you request an Incoming Calls report by hour, then the call data for each hour of the day will be summarized and displayed. If the period of the report is yesterday and today, then the data shown for 10:00 will be a sum of the call activity during the 10 o'clock hour yesterday plus that for today. You can also summarize data by the day of the week, by the day of the month, or by month.

Once you have run a report, you can use the Reports menu choice to Print the report, or to save the report's contents as a comma-delimited ASCII file. Some reports have two sections, a data section and a graphical section. For instance, the Lost Calls report includes a bar graph showing the number of calls that hung up after a given amount of waiting time, in half-minute (30-second)

increments. Figure 27 shows the Detail portion of a Lost Calls report, while Figure 28 shows the graphical portion of the same report. Using the Reports menu, you can separately save the data underlying the graphical portion of the report.

Time	▼	Defect	Lost Calls	% Lost	Area Lost Calls	Max Lost Calls	Hangups	Queue Full	Noconnect	Raked Out	Timeout	No Agent Skills
00:00		0	0	0	00	00	0	0	0	0	0	0
01:00		0	0	0	00	00	0	0	0	0	0	0
02:00		0	0	0	00	00	0	0	0	0	0	0
03:00		0	0	0	00	00	0	0	0	0	0	0
04:00		0	0	0	00	00	0	0	0	0	0	0
05:00		0	0	0	00	00	0	0	0	0	0	0
06:00		0	0	0	00	00	0	0	0	0	0	0
07:00		2	0	0	00	00	0	0	0	0	0	0
08:00		7	0	0	00	00	0	0	0	0	0	0
09:00		1	0	0	00	00	0	0	0	0	0	0
10:00		3	0	0	00	00	0	0	0	0	0	0
11:00		7	3	42	0750	0025	0	0	0	0	0	0
12:00		0	0	0	00	00	0	0	0	0	0	0
13:00		2	0	0	00	00	0	0	0	0	0	0
14:00		1	0	0	00	00	0	0	0	0	0	0
15:00		1	0	0	00	00	0	0	0	0	0	0
16:00		0	0	0	00	00	0	0	0	0	0	0
17:00		0	0	0	00	00	0	0	0	0	0	0
18:00		0	0	0	00	00	0	0	0	0	0	0
19:00		0	0	0	00	00	0	0	0	0	0	0
20:00		0	0	0	00	00	0	0	0	0	0	0
21:00		0	0	0	00	00	0	0	0	0	0	0
22:00		0	0	0	00	00	0	0	0	0	0	0
23:00		0	0	0	00	00	0	0	0	0	0	0
Total		22	3	13	0750	0025	0	0	0	0	0	0

Figure 27: Example of the Detail portion of a Lost Calls report

Clicking set columns allows you to add, remove, or re-order columns in the report.

Clicking the remove rows button allows you to remove the selected row or rows from the report. You can select a single row or multiple rows by holding down the shift or ctrl keys. After removing rows, the totals are recalculated automatically.

For report column header descriptions see Appendix A

Table 1: Call Report Reference Table.

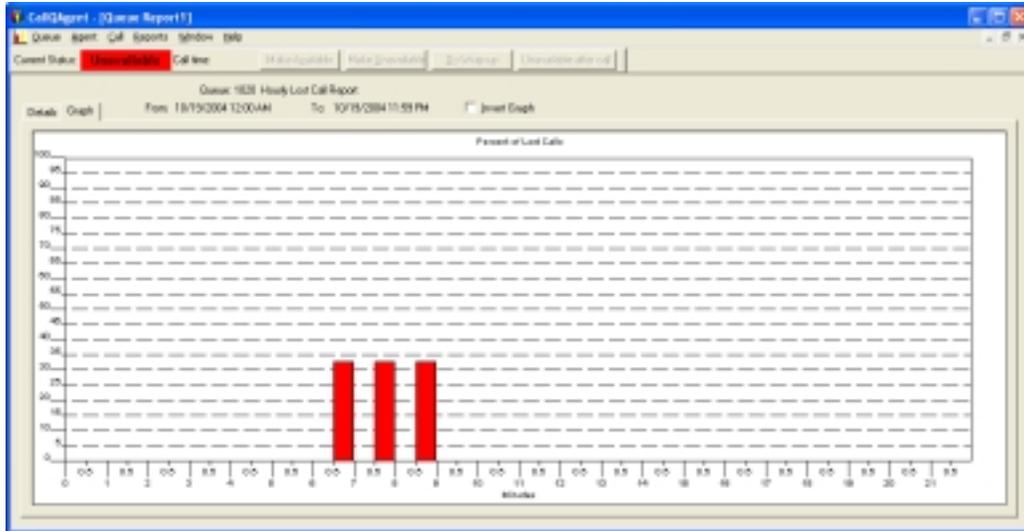


Figure 28: Example of the Graph portion of a Lost Calls report

The invert graph checkbox switches the vertical and horizontal axis of the graph.

10.1 Calls... Incoming Calls Report

The Incoming Calls Report shows the number of calls “offered” to the queue (calls that entered the queue), and what happened to those calls: the number answered and the number that were lost (hung up after the early hangup period). It also shows agent activities relative to the calls during that time period: the average talk time, wrap-up time, handling time (talk time plus wrap-up time), the average and maximum time that callers waited to reach an agent (the delay times), and the highest number of callers waiting in queue for that time period.

Time	Offnet	Account	Last	Hangup	Ave Call Time	Ave Pickup Time	Ave Handling Time	Ave Delay	Max Delay	Max In Queue
00:00	0	8	8	0	00	00	00	00	00	0
01:00	0	8	8	0	00	00	00	00	00	0
02:00	0	8	8	0	00	00	00	00	00	0
03:00	0	8	8	0	00	00	00	00	00	0
04:00	0	8	8	0	00	00	00	00	00	0
05:00	0	8	8	0	00	00	00	00	00	0
06:00	2	2	8	0	07:53	00	07:54	04:29	06:35	1
07:00	8	8	1	0	08:41	00	08:42	02:07	09:03	1
08:00	2	4	3	0	08:47	00	08:48	02:11	08:42	2
09:00	95	13	1	0	07:52	00	07:53	02:08	09:44	2
10:00	30	9	8	0	14:38	00	14:19	02:03	09:04	2
11:00	21	16	8	0	17:04	00	17:06	02:18	17:06	2
12:00	9	8	8	0	10:05	00	11:06	04:34	12:42	1
13:00	12	11	1	0	09:36	00	09:37	05:24	11:05	3
14:00	9	3	2	0	27:32	00	27:33	06:36	24:39	1
15:00	2	2	1	0	38:17	00	38:18	07:40	21:27	2
16:00	2	2	1	0	31:23	00	31:20	16:44	25:59	1
17:00	1	1	8	0	32:16	00	32:17	45:40	49:49	0
18:00	0	8	8	0	00	00	00	00	00	0
19:00	0	8	8	0	00	00	00	00	00	0
20:00	0	8	8	0	00	00	00	00	00	0
21:00	0	8	8	0	00	00	00	00	00	0
22:00	0	8	8	0	00	00	00	00	00	0
23:00	0	8	8	0	00	00	00	00	00	0
Total	97	79	95	0	13:32	00	13:30	05:17	49:49	3

Figure 29: Example Incoming Calls Report

For report column header descriptions see Appendix A

Table 1: Call Report Reference Table.

10.2 Calls... Call Duration Report

The Call Duration report is similar to the Incoming Calls report, but it shows only the number of calls and the average and maximum duration of those calls during the indicated time periods.

Time	Member Calls	Ave Duration	Max Duration
00:00	0	00	00
01:00	0	00	00
02:00	0	00	00
03:00	0	00	00
04:00	0	00	00
05:00	0	00	00
06:00	0	00	00
07:00	0	00	00
08:00	0	00	00
09:00	0	05:19	20:29
10:00	1	57:16	57:16
11:00	4	18:10	17:06
12:00	7	11:30	23:42
13:00	7	09:34	16:37
14:00	1	12:07	12:07
15:00	1	36:30	36:30
16:00	1	45:01	45:01
17:00	1	32:16	32:16
18:00	0	00	00
19:00	0	00	00
20:00	0	00	00
21:00	0	00	00
22:00	0	00	00
23:00	0	00	00
Total	31	13:22	57:16

Figure 30: Example Call Duration Report

For report column header descriptions see Appendix A

Table 1: Call Report Reference Table.

10.3 Calls... Lost Calls Report

The Lost Calls report is also similar to the Incoming Calls report, but it focuses on calls that did not reach an agent. It shows the percentage of calls that are lost during each period of time, as well as the average and maximum times that callers waited before hanging up. It also shows the number of (early) “hangup” calls.

Time	Effort	Lost Calls	% Lost	Ave Lost Delay	Max Lost Delay	Hangups	Queue Full	Voicemail	Disconnected	Toned Out
Sunday	0	0	0	0	0	0	0	0	0	0
Monday	38	8	20	84.18	24.29	0	0	0	0	2
Tuesday	22	3	13	87.58	88.58	0	0	0	0	0
Wednesday	37	4	10	89.92	21.27	0	0	0	1	1
Thursday	12	4	30	82.45	88.58	0	0	0	1	0
Friday	36	2	5	86.58	87.58	0	0	0	1	1
Saturday	0	0	0	0	0	0	0	0	0	0
Total	122	21	17	85.24	24.29	0	0	0	3	4

Figure 31: Example Weekday Lost Call Report

For report column header descriptions see Appendix A

Table 1: Call Report Reference Table.

10.4 Caller ID Report

This report searches the database for all calls from a particular phone number during the specified range of dates and times. Naturally, your system must receive the Caller ID or ANI for the caller or this report will not work. For each call located in the database, it shows when the call occurred, the delay experienced by the caller before reaching an agent or leaving the queue (as by hanging up), and if the caller reached an agent, the agent ID of the agent the caller spoke with.

Instance	Time	Delay	Agent	Talk Time
0	10/18/2004 11:02 AM	81:38		00
1	10/18/2004 11:27 AM	81:00	Jim Friend (771)	86:18
2	10/18/2004 02:22 PM	84:08		00
3	10/18/2004 02:48 PM	86:54	Jim Friend (771)	81:24
4	10/18/2004 11:25 AM	86:14	Jim Friend (771)	82:37
5	10/18/2004 12:19 PM	83:43	Jim Friend (771)	82:33
6	10/18/2004 02:33 PM	86:52		00
7	10/18/2004 05:22 PM	53	John Mule (785)	82:02
8	10/20/2004 02:23 PM	84:12	John Mule (785)	80:48
9	10/20/2004 02:38 PM	58	Jim Friend (771)	89:28
10	10/20/2004 04:54 PM	89:25	John Mule (785)	76:38
11	10/20/2004 05:39 PM	25	John Mule (785)	72:07
12	10/21/2004 11:17 AM	81:05	Jim Friend (771)	86:23

Figure 32: Example Caller ID Report

For report column header descriptions see Appendix A

Table 1: Call Report Reference Table.

10.5 All Agents Stats

The All Agents Stats report shows, for each agent of the queue, the cumulative time they were logged in and the total number of calls taken over the entire reporting period. It also computes averages for the period of each agent's talk time, wrap-up time, handling time (talk + wrap-up time), and Available time. Each agent's productivity is computed as the percentage of time that they were either on a call, in wrap-up from a call, or were available to take a call (it's a percentage against the unavailable time). Finally, the number of times that the agent was in the Available state and was presented with a call that the agent did not answer is shown.

Agent	Login Time (hr)	Calls Handled	Avg Talk Time	Avg Wrap-up Time	Avg Handling Time	Available Time	Unavailable Time	Productivity %
(830)	20.2	0	00	00	00	00	29:12:26	0
Carl Doss (126)	0.0	0	00	00	00	6:11:20	15:55:29	0
David Woot (111)	0.0	0	00	00	00	00	00	0
Eric Reed (138)	0.0	0	00	00	00	00	00	0
Gary Rowles (280)	6.9	3	42:48	00	42:54	64	45:13:54	0
Jim Friend (771)	23.7	43	70:57	07	70:58	1:12:36	18:57:16	36
John Mule (785)	27.2	54	70:58	07	70:58	58:12	15:23:42	43
Total	76.1	60	77:38	07	77:18	0:19:12	1:11:42:37	0

Figure 33: Example All Agents Stats Report

For report column header descriptions see Appendix A

Table 1: Call Report Reference Table.

10.6 Specific Agent Stats

The Specific Agent Stats report is similar to the All Agents Stats report, but it gives more details about the activities of a specified agent, including summarizing the data over desired summary periods (hourly, daily, weekly, or monthly, etc.).

Day	Logins	Calculated	Avg Talk Time	Avg Setup Time	Avg Handling Time	Available Time	Unavailable Time	Productivity %	Skipped Calls	Hold	Transfer
Sunday	88	0	00	00	00	00	00	0	0	0	0
Monday	56	12	10:24	01	11:25	03:45	212:52	42	0	0	0
Tuesday	83	11	12:00	01	12:01	06:47	0:29:06	25	0	0	0
Wednesday	78	95	10:33	01	10:35	41:17	4:06:05	41	0	0	0
Thursday	23	9	08:40	01	08:45	20:47	1:19:38	45	1	0	0
Friday	88	0	00	00	00	00	00	0	0	0	0
Saturday	88	0	00	00	00	00	00	0	0	0	0
Total	238	43	10:57	01	10:50	1:12:36	14:59:42	26	1	0	0

Figure 34: Example Specific Agent Stats Report

In addition to the information presented in the Agents report, the Individual Agent report also gives the number of times that the agent put a call on hold, the cumulative hold time for the summary period, and the number of times that the agent transferred a call somewhere else after taking it. These last items are computed only for agents who are connected to the system directly through an “MSI” card. Amanda cannot be aware of hold and transfer activities by agents who are connected by an external telephone switching system.

For report column header descriptions see Appendix A

Table 1: Call Report Reference Table.

10.7 All Q Specific Agent Stats

This report is specific to an agent for all queues that the agent is a member of. The purpose of this report is to get the global performance of the agent. For example if you did a regular agent report the numbers might look bad, because the agent was spending constructive time in another queue.

10.8 Specific Agent Actions

This report is different from the other agent reports. Instead of summarizing the activities of agents over periods of time, this report shows the individual actions of an agent with respect to the currently connected queue. Actions include logging in, becoming available or unavailable, taking a call, finishing a call, etc.

CallIQAgent - [Queue Report12]
 Queue Agent Call Reports Window Help
 Current Status: **Unavailable** Call time:

Agent Action Report for: John Muller (199)
 From: 10/17/2004 12:00 AM To: 10/21/2004 11:44 AM
 Report Time Zone: EDT Elapse time format is in hh:mm:ss

Instance	Time	Action	Queue	Caller ID	Data
0	10/18/2004 11:07 AM	attach	John Muller (199)		
1	10/18/2004 11:07 AM	attach	1010		
2	10/18/2004 11:08 AM	attach	(1020)		
3	10/18/2004 11:09 AM	checking_calls			1010
4	10/18/2004 11:09 AM	available			1020
5	10/18/2004 11:09 AM	checking_calls			1010
6	10/18/2004 11:09 AM	unavailable			1020
7	10/18/2004 11:27 AM	connecting		760-804-1571	
8	10/18/2004 11:27 AM	init_in_call		760-804-1571	
9	10/18/2004 11:27 AM	on_call		760-804-1571	
10	10/18/2004 12:08 PM	wrapup		760-804-1571	
11	10/18/2004 12:08 PM	checking_calls			1020
12	10/18/2004 12:08 PM	unavailable			1010
13	10/18/2004 12:08 PM	connecting		818-885-1402	
14	10/18/2004 12:09 PM	init_in_call		818-885-1402	
15	10/18/2004 12:09 PM	on_call		818-885-1402	
16	10/18/2004 12:10 PM	wrapup		818-885-1402	
17	10/18/2004 12:10 PM	checking_calls			1020
18	10/18/2004 12:10 PM	unavailable			1010
19	10/18/2004 12:48 PM	detach	John Muller (199)		
20	10/18/2004 12:48 PM	detach	1010		
21	10/18/2004 12:48 PM	detach	(1020)		
22	10/18/2004 12:59 PM	attach	(1020)		
23	10/18/2004 01:00 PM	attach	1010		
24	10/18/2004 01:00 PM	attach	John Muller (199)		
25	10/18/2004 01:13 PM	connecting		760-554-1244	

Figure 35: Example Specific Agent Actions Report

For report column header descriptions see Appendix A

Table 1: Call Report Reference Table.

10.9 Agent Need

This report gives the supervisor an idea of the overall activity in a queue over a period of time, broken down by a selected interval (such as, hourly). In particular, it can help the supervisor focus on which times the call center may be over or under staffed, because it evaluates the rate that the agents available were removing calls from the queue versus the rate at which calls entered the queue, during each period, and from that information, it calculates the optimum number of agents that should have been the right number to handle that call volume. This report should only be used as a historical bases and cannot predict the future.

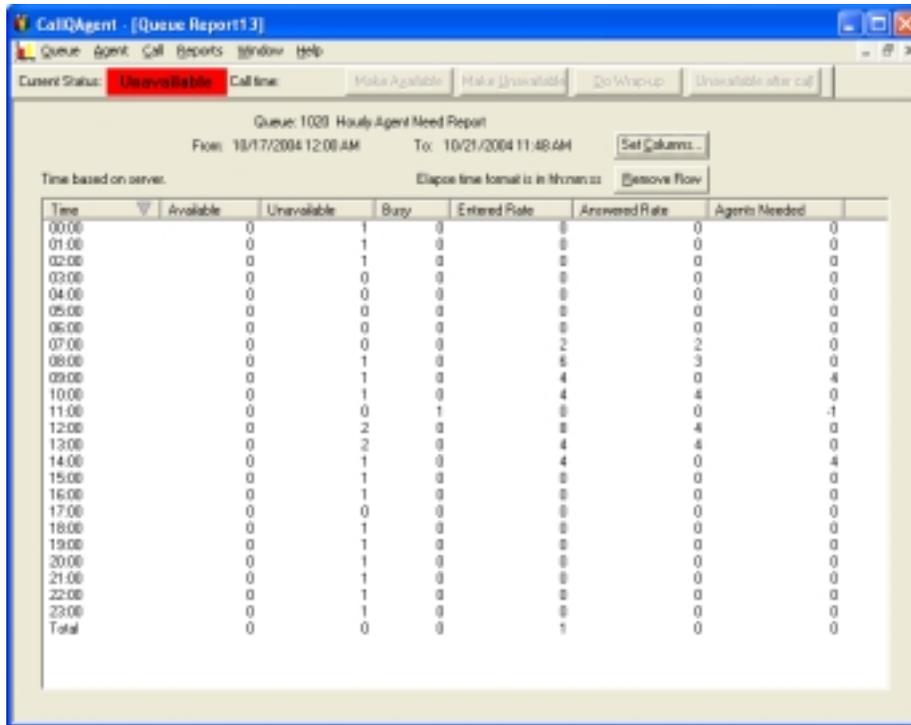


Figure 36: Example Agent Need Report

For report column header descriptions see Appendix A

Table 1: Call Report Reference Table.

10.10 Call List... Specific Agent

This report allows the supervisor to see how many calls a specific agent has taken providing important information about each specific call including the time, caller id number (if applicable), how long each caller held in queue before their call was answered (delay), how long the agent was on the call (talk time), and shows any comments entered by the agent about the call (if wrapup comments are enabled). Figure 37 shows an example Specific Agent report.

Queue: 1020 Call List Report for Agent: John Muller (199)
 From: 10/22/2004 12:00 AM To: 10/22/2004 05:42 PM
 Report Time Zone: EDT Elapse time format is in h:mm:ss

Instance	Time	Caller ID	Delay	Talk Time	Comments
0	10/22/2004 04:59 PM	3044196315	02:11	05:00	
1	10/22/2004 02:24 PM	3047412618	05:31	12:06	
2	10/22/2004 04:06 PM	4109776975	03:42	09:52	
3	10/22/2004 04:16 PM	6105871194	01:47	08:14	
4	10/22/2004 04:42 PM	8588100301	02:18	09:56	
5	10/22/2004 05:02 PM	8588100301	01:15	02:39	
6	10/22/2004 02:09 PM	9495400152	06:53	38:43	
7	10/22/2004 02:56 PM	9495400153	04:12	29:35	

Figure 37: Example Call List / Specific Agent Report

For report column header descriptions see Appendix A

Table 1: Call Report Reference Table.

10.11 Call List... All Agents

This report is very similar to the Specific Agent report except it shows answered by all agents. Figure 38 shows an example of an All Agents report.

Queue: 1020 Call List Report for all Agents
 From: 10/22/2004 12:00 AM To: 10/22/2004 05:40 PM
 Report Time Zone: EDT Elapse time format is in h:mm:ss

Instance	Time	Caller ID	Delay	Agent	Talk Time	Comments
0	10/22/2004 10:04 AM	2105086991	13:39	Greg Romines (200)	01:43	
1	10/22/2004 10:57 AM	2105086991	01:06		00	
2	10/22/2004 11:01 AM	2105086991	57	Jim Fieard (171)	02:02	
3	10/22/2004 12:16 PM	2106827181	04:46		00	
4	10/22/2004 11:40 AM	2123880199	01:17	Jim Fieard (171)	08:52	
5	10/22/2004 04:58 PM	2126747302	14		00	
6	10/22/2004 02:08 PM	2627842311	27:40		00	
7	10/22/2004 12:23 PM	3034672816	06:26		00	
8	10/22/2004 11:20 AM	3043460936	56	Jim Fieard (171)	02:57	
9	10/22/2004 04:59 PM	3044196315	02:11	John Muller (199)	05:00	
10	10/22/2004 02:24 PM	3047412618	05:31	John Muller (199)	12:06	
11	10/22/2004 01:02 PM	3147434710	57	Jim Fieard (171)	06:17	
12	10/22/2004 12:42 PM	3173246992	01:07	Jim Fieard (171)	09:06	
13	10/22/2004 11:50 AM	3173246994	38	Jim Fieard (171)	52	
14	10/22/2004 01:58 PM	3372690373	07:49		00	
15	10/22/2004 04:06 PM	4109776975	03:42	John Muller (199)	09:52	
16	10/22/2004 10:58 AM	6036267895	25	Jim Fieard (171)	02:29	
17	10/22/2004 04:16 PM	6105871194	01:47	John Muller (199)	08:14	
18	10/22/2004 10:08 AM	6182194093	17	Jim Fieard (171)	22:33	
19	10/22/2004 09:43 AM	6182194094	40	Jim Fieard (171)	05:01	
20	10/22/2004 12:48 PM	6182194094	28	Jim Fieard (171)	06:40	
21	10/22/2004 10:25 AM	8588100301	01:19	Jim Fieard (171)	10:51	
22	10/22/2004 04:42 PM	8588100301	02:18	John Muller (199)	09:56	
23	10/22/2004 05:02 PM	8588100301	01:15	John Muller (199)	02:39	
24	10/22/2004 02:09 PM	9495400152	06:53	John Muller (199)	38:43	
25	10/22/2004 02:56 PM	9495400153	04:12	John Muller (199)	29:35	
26	10/22/2004 11:31 AM	9723922999	25	Jim Fieard (171)	02:54	

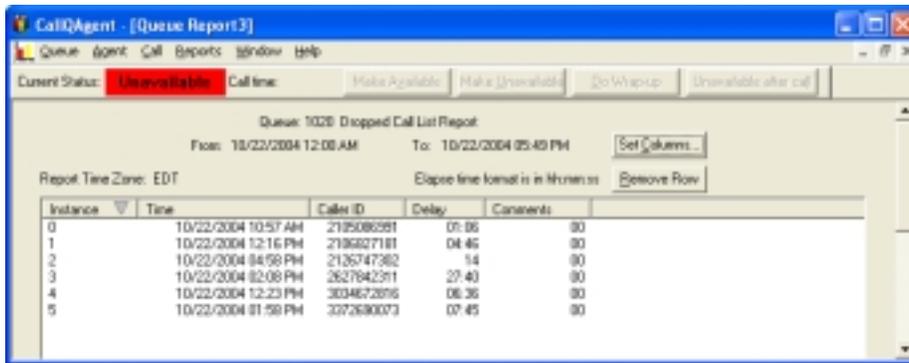
Figure 38: Example All Agents Call List Report

For report column header descriptions see Appendix A

Table 1: Call Report Reference Table.

10.12 Call List... Dropped Calls

This report is different from the other call list report because it only shows calls that were dropped from the queue before being connected to an agent. This information is useful to a supervisor where they can access the caller id numbers of the dropped calls and call them back or have an available agent return their calls. A dropped call report shows the time, caller id, and how long the caller held in queue before hanging up or dialing out of the queue. Figure 39 shows an example dropped call report.



Queue: 1020 Dropped Call List Report
From: 10/22/2004 12:08 AM To: 10/22/2004 05:49 PM
Report Time Zone: EDT Elapse time format is in Minutes
Buttons: Set Columns, Remove Row

Instance	Time	Caller ID	Delay	Comments
0	10/22/2004 10:57 AM	2195082981	01:06	90
1	10/22/2004 12:16 PM	2195027181	04:46	90
2	10/22/2004 04:59 PM	2135747362	14	90
3	10/22/2004 02:08 PM	2627642311	27:40	90
4	10/22/2004 12:23 PM	3034672816	06:36	90
5	10/22/2004 01:59 PM	3272690073	07:45	90

Figure 39: Example Dropped Call Report

For report column header descriptions see Appendix A

Table 1: Call Report Reference Table.

11 Window Menu Options

Using the Window menu, shown in Figure 40, you can customize the CallQ Agent view to your liking.

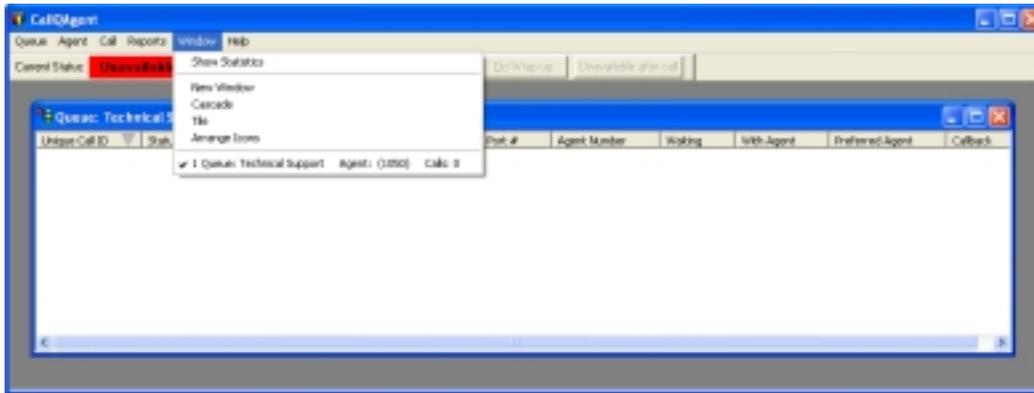


Figure 40: The Windows Menu

The following list explains what each window menu option is used for:

Show Statistics This is a “toggle” which you turn on or off (as indicated by a check mark). When on, then in addition to whatever other windows you have on the CallQ Agent screen, you’ll also have a display of the real-time statistics of the queue called the “Dashboard”. The Dashboard is described in Subsection 11.1.

New Window Used to open a connection to another call queue.

Cascade When multiple call queues are open, you can cascade windows for easier call management.

Tile When multiple call queues are open, you can tile them making it easier to see calls in multiple call queues at the same time.

Arrange Icons When connected to multiple queues, or even a single queue and call queue icons are minimized, arrange icons make it easy to organize the queues.

These features are most useful when connecting to multiple call queues at the same time. For example if you choose the tiled view while connected to two queues, you’ll see something like the screen shown in Figure 41.

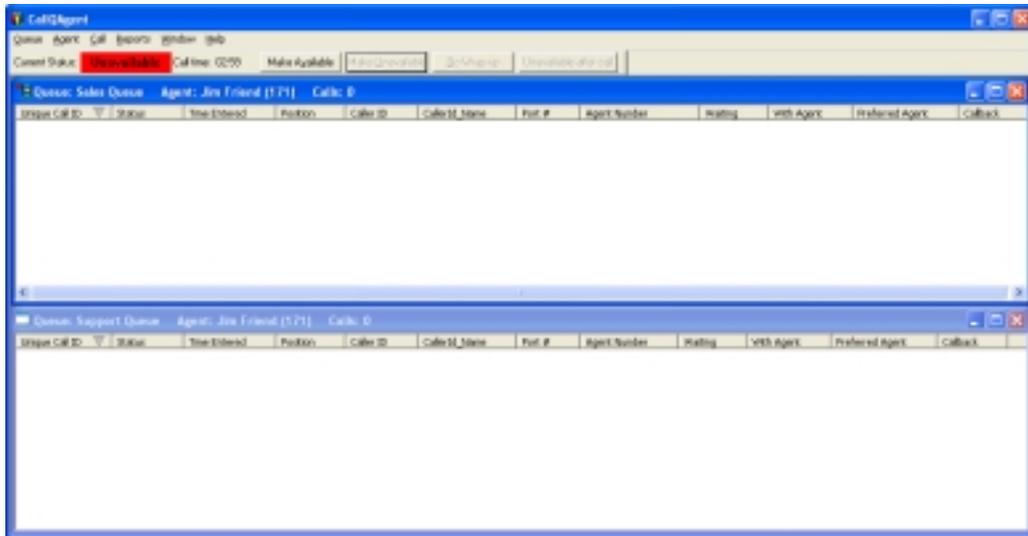


Figure 41: Example of connecting to two queues simultaneously

11.1 Real-Time Statistics Dashboard Display

An example of this display is shown in Figure 42. The information shown in this display includes:

Call Queue This control allows you to determine which of the queues to which you are connected should have its real-time statistics displayed in the Dashboard.

Calls Actively Waiting This section gives information about the calls are currently in queue holding for an agent:

Total This is the number of calls that are currently waiting to be connected to an agent.

After high time This is the number of calls which have been waiting more than the number of seconds specified for the queue in the “High Queued Time” parameter.

Longest waiting Of the calls that are currently waiting, this is time the longest-waiting call has been waiting.

Call Statistics This section displays information about calls that have entered the queue (though they are not necessarily still in the queue). The information shown is for either the current day or since the beginning of the current hour, depending on whether the “For the current hour” checkbox is marked. The information in this area includes:

Entered This shows the number of calls which entered the queue during the selected period.

Answered Shows the number of calls answered during this period. This number can potentially be higher than the number of calls entered, since the calls may have entered the queue prior to the beginning of the period.

Answered hour rate Shows the hourly rate that agents are answering calls (updated every 5 minutes). This value is also used when the system plays an estimate of the expected waiting time for callers entering the queue, by comparing the answered rate with the number of calls ahead of that caller.

Agents needed Based on the Entered and Answered hour rates, an estimate of the number of agents needed to make the Answered rate equal to the Entered rate.

Dialed out This is the number of callers who have dialed out of the queue other than going to voicemail. It will be zero for queues for which dialout is not allowed by the queue administrator.

Voicemail This is the number of calls which entered the queue and subsequently went to voicemail before reaching an agent. Such calls may not actually have left voicemail. Calls go to voicemail either by pressing the * key (if dialout is allowed for the queue) or because the maximum number of callers or maximum waiting time for the queue have been reached.

Early hangup This is the number of calls which entered the queue and Hung-up after a short time. The implication is that such callers may have entered the queue unintentionally. The time parameter for determining which hangup calls fall into this category is set by the queue administrator as the “Minimum Lost” setting.

Lost/hangup This is the number of calls which hung up during the period, excluding those counted as “Early hangup” calls.

Timed Out Shows the number of calls that held in queue for the maximum amount of time without being answered by an agent.

Time Started Shows the time the statistics started (statistics start immediately after logging into a queue).

Agent Statistics This section shows the number of agents logged into the queue, and of those, the number which are Busy on a call, Available to take a call, or are in the Unavailable state. For each of these four categories, you can press the associated button to see a list of the agents in that category.

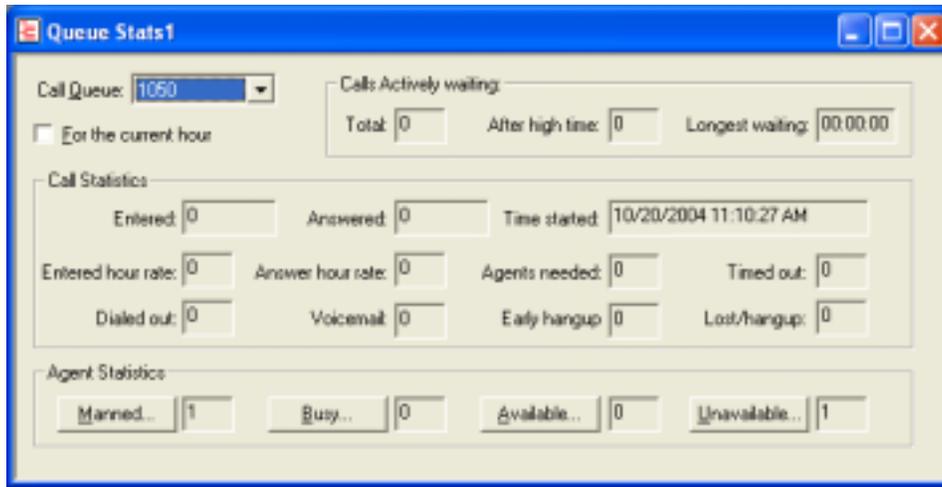


Figure 42: Example of the real-time statistics “Dashboard”

The Dashboard display shows data, which is instantaneously updated. That is, as soon as a call comes into the queue, the Entered value will be incremented. When it is connected to an agent, dials out, or hangs up, the appropriate fields will also be updated right away. In contrast, the data that is used for the Call Reports is for calls, which have completed— either finished wrap-up, or dialed out or hung up. Therefore, the Entered and Answered values will “lead” the values shown in a report for the current hour, because the include calls that will not be journaled to the statistics database until after the agent hangs up and wrap-up completes.

Appendix A

Table 1: Call Report Reference Table

Column Header	Description	Reports Used
Action	Represents actions taken by agents of the call queue. Actions can be attaching to a queue, checking for calls, making you available, unavailable, connecting a call, wrapping up a call and detaching from the queue.	Agents: Specific Agent Actions
Agent	The mailbox number and or name of each agent of the queue.	Caller ID, Agents: All Agent Stats, Call List: All Agents
Agents Needed	The number of agents needed is calculated based on the number of calls and call duration for the specified time period.	Agents: Agent Need
Agent Skills	Used for custom call routing. Calls can be routed based on skill sets. Custom programming is required to use this feature.	
Answered	The number of calls answered by agents of the queue.	Calls: Incoming Calls
Answered Rate	The rate agents are answering calls per hours. Results will vary base on how the report is summarized (i.e. based on hours, day of week, week, month, or day of month).	Agents: Agent Need
Available	The number of times within the specified time period that agents were in an available state.	Agents: Agent Need
Available Time	The amount of time the agent was in an available state over the entire reporting period.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Ave Delay	The average delay shows the average wait time before callers are being answered by agents of the queue for the given time period.	Calls: Incoming Calls
Ave Duration	Shows the average call duration for the specified time period.	Calls: Call Duration

Ave Handling Time	The average talk time plus the average wrapup time.	Calls: Incoming Calls, Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Ave Lost Delay	The average lost call delay based on the total delay time of lost calls divided by the total number of lost calls.	Calls: Lost Calls
Ave Talk Time	The average talk time per call based on the specified time period and number of connected calls. The average talk time is equal to the total talk time divided by the number of connected calls for that period of time.	Calls: Incoming Calls, Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Ave Wrapup Time	The average wrapup time. If wrapup comments are not enabled, the average wrapup time will be 0 minutes (i.e. no additional wrapup time is added).	Calls: Incoming Calls, Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Busy	The number of times agents were busy.	Agents: Agent Need
Calls Handled	Total number of calls taken over the entire reporting period.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Caller ID	A caller id number is required when running a caller id report. When running this type of report you must specify a telephone number to report on.	Agents: Specific Agent Actions, Call List: Specific Agent, Call List: All Agents, Call List: Dropped Calls
Check Call Time	The time it takes after you wrapup to determine if you're going available, waiting for a new call or being assigned an existing call.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats
Comments	Shows the Wrapup comments entered by an agent. Wrapup comments must be enabled to use this feature.	Call List: Specific Agent, Call List: All Agents, Call List: Dropped Calls
Data	Additional information relating to which queue a given action occurred for.	Agents: Specific Agent Actions
Delay	Shows how long the caller held in queue before being answered by an agent.	Caller ID, Call List: Specific Agent, Call List: All Agents, Call List: Dropped Calls
Dialed Out	The number of callers who dialed out of the queue before being answered by an agent.	Calls: Lost Calls

Dropped Calls	The number of times that the agent was in the Available state and was presented with a call that the agent did not answer.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Entered Rate	The number of calls that entered the queue per hour.	Agents: Agent Need
Hangups	The number of calls that hung-up before holding for the minimum lost duration. Callers who hold longer than the minimum lost seconds and hangup prior to being connected to an agent or dial out of the queue are considered lost calls.	Calls: Incoming Calls, Calls: Lost Calls
Holds	The number of times an agent put a call on hold. This only applies to system using MSI cards.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats
Hold Time	The total elapsed time that calls were placed on hold.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats
Instance	Each time the caller had dialed into the queue will be represented by a unique instance. The information following the instance pertains only to that particular instance (i.e. 0 is the first time they called, 1 is the second, etc.).	Caller ID, Agents: Specific Agent Actions, Call List: Specific Agent, Call List: All Agents, Call List: Dropped Calls
Login Time	The cumulative time an agent was logged into the call queue.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
%Lost	The percentage of calls that were lost based on the total number of calls offered.	Calls: Lost Calls
Lost Calls	The total number of calls that hung-up or dialed out of the queue prior to being connected to an agent, but who held for longer then the minimum lost duration.	Calls: Lost Calls
Lost	The number of calls that hung-up after the early hangup period. Callers that hang-up prior to the early hangup period are not counted as real calls.	Calls: Incoming Calls
Max Delay	The maximum delay shows the longest time a caller waited to be answered by an agent of the queue for the given time period.	Calls: Incoming Calls

Max Lost Delay	The longest amount of time a caller waited to be answered before deciding to hangup before being answered by an agent.	Calls: Lost Calls,
Max Duration	Shows the highest call duration for the specified time period.	Calls: Call Duration
Max in Queue	Shows the highest number of calls holding in queue at the same time for the given time period.	Calls: Incoming Calls
No Agent Skills	The number of times callers attempted to enter the queue with no agents available, or are in queue when there are no agents available with the required skills (when agents with those skills leave the queue).	Calls: Lost Calls
Number Calls	The total number of calls that entered the queue for the given time period.	Calls: Call Duration
Offered	The total number of calls that entered the queue for the specified time period (summarized by hour, day, day of week, day of month, week or month).	Calls: Incoming Calls, Calls: Lost Calls
Productivity %	A percentage of the amount of time being in any other state other than unavailable. If your unavailable time is high then productivity will be low.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Queue	Shows which queue an agent attached to or from.	Agents: Specific Agent Actions
Queue Full	The number of times the maximum number of allowed calls were in the queue at once. This parameter only applies when you limit the number of calls that can hold in queue at the same time.	Calls: Lost Calls
Talk Time	Shows how long the agent spoke to the caller for that call.	Caller ID, Call List: Specific Agent, Call List: All Agents
Time	Each report can be summarized by hour, day, day of week, day of month, or month. When the report is summarized by hour, the hours are shown using military time.	Calls: Incoming Calls, Calls: Call Duration, Calls: Lost Calls, Caller ID, Agents: Specific Agent Stats, Agents: Specific Agent Actions, Agents: All Q Specific Agent Stats, Agents: Agent Need, Call List: Specific Agent, Call List: All Agents, Call List: Dropped Calls
Timed Out	The number of calls who held in queue	Calls: Lost Calls

	for the maximum queue time without being answered by an agent.	
Transfers	Number of successful call transfers from the call queue to an agent.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats
Unavailable	The number of times within the specified time period that agents were in an unavailable state.	Agents: Agent Need
Unavailable Time	The amount of time the agent was unavailable over the specified reporting period.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Voicemail	The number of calls that were transferred to voicemail from the queue.	Calls: Lost Calls