TELEVANTAGE CALL CENTER ADMINISTRATOR'S GUIDE

TELEVANTAGE 5

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CHAPTER 1

INTRODUCTION

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About TeleVantage call centers

TeleVantage provides the following two systems of setting up call centers:

- Call center queues
- ACD workgroups

For a detailed comparison of the features available using call center queues or ACD workgroups, see the table beginning on page 1-3.

With either method, you can set up a call center that automatically distributes incoming calls to a group of agents. Examples of call centers include a sales workgroup, a customer support department, or any department in which multiple agents answer calls to a single number.

Call center queues

TeleVantage call center queues provide a full-featured call distribution system. A call center queue automatically answers calls, puts them in a queue, and then distributes them to ready agents. With call center queues you can customize the caller's waiting experience, play single or repeating prompts, prompt callers to enter data, configure call priority, grant specialized supervisor permissions such as the ability to monitor calls, and use the TeleVantage Call Center Reporter to run a variety of reports on call center activity.

To use call center queues, you must have purchased Call Center Agent licenses. See *Administering TeleVantage*.

Call center queues are described in Chapter 2 through Chapter 4 of this manual.

For instructions for agents who participate in call center queues, see Chapter 4.

ACD workgroups

ACD workgroups have fewer features than call center queues. They are an alternative for those who have not purchased Call Center Agent licenses.

Creating ACD workgroups and participating in them as agents are described in Chapter 5 of this manual.

Call center queue and ACD workgroup features

The following table compares the features of a call center queue to those of an ACD workgroup.

Feature	Call Center Queue	ACD Workgroup
Administration		
Single-point interface to create	✓	
Take a queue or ACD workgroup off-line and send its calls to voice mail	✓	✓
Automatically take a queue off-line when all agents are unavailable	✓	
Choice of language for system prompts	✓	✓
E-mail and pager notification of new voice mail	✓	✓
Voice titles for call center extensions	✓	✓
Overflow groups of agents for times when primary agents are busy	✓	✓
Overflow agents with individual overflow levels	✓	
Overflow agents only called after all agents are busy for a time you configure	✓	
Agents automatically placed on break if they let queue calls ring unanswered	✓	
Individual permissions for whether an agent can use personal status to make himself or herself unavailable	✓	
View call center and personal Call Log in the same Client application	✓	✓
Separate licensing required per agent	✓	
Caller Experience		
Call center automatically answers incoming calls	✓	✓
Hold music	✓	✓
Different hold music for each queue or ACD workgroup	✓	

Feature	Call Center Queue	ACD Workgroup
Extension or DID number to dial queues or ACD workgroups	✓	✓
Call center extensions listed in the dial-by-name directory	✓	✓
Greetings to welcome callers	✓	✓
Repeating messages for waiting callers	✓	✓
Conditional messages for waiting callers	✓	
Priority for individual callers that reduces wait time	✓	
Messages that tell callers their expected wait times	✓	
Messages that tell callers how many callers are ahead of them	✓	
Caller options to stop waiting and leave voicemail or transfer out of the queue to an extension	✓	
Ability to prompt callers to enter data	✓	
Agent Experience		
Call Monitor tabs for agents	✓	✓
Agents can answer any call using the TeleVantage Client	✓	✓
Agents can work from home or any remote location	✓	✓
Call center listed in Extensions view in the Client	✓	✓
Individually configurable agent wrap-up time	✓	
Agents can manually end their wrap-up time early	✓	
System-wide wrapup time		✓
Special personal statuses for agents: Available (Queue only), Available (Non-Queue) and On Break	✓	

Feature	Call Center Queue	ACD Workgroup
Agents can make themselves ready or unavailable to receive calls using the Client or telephone commands	✓	
Agents can sign in and out of individual queues using the Client or telephone commands	✓	
Visual indication of which agent will get the next call	✓	
Agents can place calls as the queue, enabling supervision and reporting of outbound calls	✓	
Supervision		
Changing an agent’s personal status	✓	✓
Signing an agent in or out of a queue	✓	
Comprehensive Queue Monitor to view real-time queue and agent statistics	✓	
Customizable shift periods for comparative statistic display	✓	
Critical queue statistics available by phone in audio format	✓	
Coaching and monitoring of agents	✓	
Viewing agents who are being monitored	✓	
Automatically setting absent agents to On Break status	✓	
Automatically recording of agent and call center calls on a periodic basis	✓	
Call Distribution		
Sequentially by agent order	✓	✓
Round robin (each agent in turn)	✓	✓
Simultaneously (ring all agents)	✓	✓
To longest idle agent	✓	
To agent with fewest calls	✓	

Feature	Call Center Queue	ACD Workgroup
To agent with least talk time	✓	
Reports		
Separate licensing required for reports	✓	✓
User Activity Report for agents includes personal status breakdown and call center details section	✓	
All other reports	✓	✓

Where to get help

You can get help through TeleVantage documentation and through technical support.

TeleVantage documentation

TeleVantage includes the following documentation:

- *Installing TeleVantage*—This manual guides you through the installation process for upgrades and fresh installations, and describes how to change hardware, configure your Server, and add licenses.
- *Administering TeleVantage*—This manual contains instructions for configuring and managing your TeleVantage system, including TeleVantage Administrator system settings, licenses, trunks and stations, users, dialing services, auto attendants, inbound and outbound call routing, and system prompts.
- *Using TeleVantage*—This manual describes how to use the TeleVantage Client, Web Client, Contact Manager Assistant, TAPI Service Provider, and telephone commands.
- *TeleVantage Call Center Administrator's Guide*—This manual contains complete instructions for setting up and maintaining a call center in which multiple agents answer calls to a single number, such as a sales or customer support department.
- *TeleVantage QuickStart Guide*—This quick-start guide for new users describes basic TeleVantage commands for the telephone and the Client.
- *TeleVantage Pocket Reference Card*—This wallet-sized card is a convenient reference for the TeleVantage telephone commands.
- *TeleVantage Developer's Guide*—This online reference describes how to extend TeleVantage's built-in features using the Client API, the IVR Plug-in API, and the Device Status API.
- *Online Help*—Context-sensitive help is available in all TeleVantage applications. In any dialog box, click the **Help** button or press F1 for help on that dialog box.

The following table shows the TeleVantage documentation set and the formats in which it is available.

Document	Printed	Online Book	Acrobat (PDF)
Installing TeleVantage	Yes	Yes	Yes
Administering TeleVantage	Yes	Yes	Yes
Using TeleVantage	Yes	Yes	Yes
TeleVantage Call Center Administrator's Guide	Yes	Yes	Yes
TeleVantage Developer's Guide	No	No	Yes
TeleVantage Pocket Reference Card	Yes	No	No
TeleVantage QuickStart Guide	Yes	No	Yes

Notes

- The online books are available in HTML-based format. To access an online book, click **Help > Online Books** in any TeleVantage application.
- The PDF-formatted books are available on the TeleVantage CD in the `manuals` directory. Use Adobe Acrobat Reader—also available on the TeleVantage CD—to view and print these files.

Technical support

Contact your TeleVantage system administrator for technical support.

CHAPTER 2

CREATING A CALL CENTER QUEUE

CHAPTER CONTENTS

About call center queues

TeleVantage call center queues provide a full-featured system for distributing calls to agents.

This chapter describes creating and maintaining a queue. For information about working as an agent in a call center queue, see Chapter 4. For information about working as a supervisor or manager in a call center queue, see Chapter 5.

For information on ACD workgroups, see Chapter 6.

When agents receive queue calls

For an agent to receive calls from a queue, the following four conditions must be true:

- **The agent is defined as a member of the queue.** A TeleVantage user who is not a member of a queue can see no part of that queue in the Client, and never receives calls from that queue. The queue administrator adds and deletes agents as members of a queue.
- **The agent is signed in to the queue.** This setting determines whether the agent receives calls from this particular queue. Agents must be signed in to the queue to receive calls from it. An agent who is signed out does not receive calls from that queue, but can still see and monitor the queue in the Client—a useful state for supervisors. An agent might be signed into some queues and signed out of others at any given time. The queue administrator determines which agents are signed in or out of each queue. You can also give individual agents permission to sign themselves in and out.
- **The agent is in an available personal status.** To receive queue calls, an agent must be in the personal status Available, Available (Queue Only), or any personal status with the **Queue calls** field set to Yes. Agents in any personal status with **Queue calls** set to No—for example, Available (Non Queue) or Do Not Disturb—do not receive calls from any queue. Agents can change their own personal status if they have permission to do so, and it can also be changed by others if they have permission to do so.
- **The agent is ready.** This agent state, viewable in the Queue Monitor (see “The Agents pane” on page 5-3), determines whether the agent is currently eligible to receive queue calls. Agents are ready when they are signed into at least one queue, are in an available personal status, are not currently in a call, and are not currently in the wrap-up period following a queue call.

What agents experience

Agents can work in a queue using the telephone alone or in conjunction with the TeleVantage Client. Agents can change their personal status to begin their shifts, take breaks, and end their shifts. After finishing each call, agents have a wrap-up time to complete paperwork before they receive the next call.

By default agents have permission to change their own personal status, enabling them to control their own workflow. You can revoke this permission for individual agents, so that a supervisor must change their personal status for them. See “Preventing agents from changing their personal status” on page 2-17.

What callers experience

Callers reach the queue either by dialing its extension directly or choosing it from your company's auto attendant (for example, "for Technical Support, press 2"). They hear an initial message, called a Welcome prompt, that introduces them to the queue. You can also have the queue prompt them to enter data at this point, such as a customer number, that can optionally modify their waiting experience. If no agents are ready, the callers are then placed on the queue to wait.

While waiting, callers hear hold music. Occasionally they hear other messages called Hold prompts. These are messages that you record to assure callers that their calls will be answered, to play them an advertisement, and so on. You can define Hold prompts that play only once, play on a repeating basis, or change based on how close the call is to being answered. Instead of waiting, callers can choose to leave a voice message or transfer out of the queue to an extension you define, such as an Operator or your auto attendant.

When an agent becomes ready, the caller is transferred to that agent.

Basic call center queue terminology

To work in a call center queue as an administrator, supervisor, or agent, you should be familiar with the following call center queue terms:

- **Agent.** A TeleVantage user who answers incoming calls to the call center.
- **Queue.** A call center that is set up at a single extension. Callers to that extension who are waiting are said to be "in the queue." A call center can have more than one queue. For example, a technical support department can have one queue for Product A and another queue for Product B. Each queue has its own list of agents who answer calls and its own method of distributing calls to agents. A user can be an agent for more than one queue.
- **Supervisor.** An agent who has special permissions. Supervisors can perform administrative maintenance on a queue by using the TeleVantage Administrator application, and they can view current queue statistics in the Client. Agents can have varying levels of supervisor permission. If you have supervisor permissions, see Chapter 5 for further information.
- **Overflow agent.** A user who answers calls to a queue only when all the queue's regular agents are busy (standby or unavailable).
- **Personal calls.** Any calls directly to an agent's extension, as opposed to calls the agent receives from a queue.

Viewing queue configuration and setup

The Call Center Queue Information report shows general information about each queue in your system, including a list of agents and their current settings. You can use this report to get a snapshot of a queue's setup. For more information, see Chapter 7.

About creating a call center queue

The queue is the backbone of a call center. A queue defines the primary and overflow agents who receive call center calls, the method by which calls are distributed to those agents, what callers experience while they are waiting, and so forth.

Licenses and permissions

To create a call center queue, you must have the appropriate licenses and permissions.

Agent licenses

To create a queue, you must first purchase and enter one Call Center Agent license for each call center agent. Only one license is required for each agent, even if agents are members of multiple queues. See *Administering TeleVantage* for more information about entering licenses.

Queue folder permission

To create or edit a queue, you must have the general TeleVantage permission **Access Queues Folder** set to **View and Edit**. You do not need other Administrator permissions, so you can manage queues without being a full TeleVantage system administrator. To set permissions, use the Users view of the Administrator. See *Administering TeleVantage*.

Overview of creating a queue

The process of creating a queue consists of the following tasks, which you perform using the tabs in the Queue dialog box. Detailed descriptions of each task follow, beginning on page 2-6.

- **Entering general information about a queue.** Use the General tab to define the queue's basic configuration, including its name, extension, and direct dial number. See page 2-6.
- **Setting up the queue's account.** Use the Account tab to set up the queue's voice mailbox, automatically record queue calls, and define the Caller ID string that accompanies outbound queue calls. See page 2-8.
- **Defining agents for the queue.** Use the Agents tab to define the agents who answer calls to the queue and their permissions. See page 2-11.
- **Configuring call distribution.** Use the Distribution tab to define how calls are distributed to agents, set caller priority based on variables, and define overflow agents who receive calls only when the primary agents are busy. See page 2-18.
- **Configuring the queue to redirect calls.** Use the Redirect tab to define how incoming calls are handled when the queue is busy or offline, or when a maximum wait time is exceeded. See page 2-30.
- **Setting up caller data entry.** Use the Entry tab to have the queue prompt callers to enter data. See page 2-34.
- **Setting up the caller's hold experience.** Use the Hold tab to set up music on hold, offer callers alternatives to waiting on hold, and create messages that callers hear while on hold. See page 2-37.

- **Creating queue greetings.** Use the Greetings tab to create a Welcome prompt and voicemail greetings for the queue. See page 2-42.
- **Setting up voice mail notifications.** Use the Notifications tab to have the system automatically send an e-mail, page, or call whenever a new voice message arrives. See page 2-45.
- **Setting up queue monitoring.** Use the Monitor tab to specify how the queue records calls and collects statistics to display in the Client's Queue Monitor. See page 2-45.

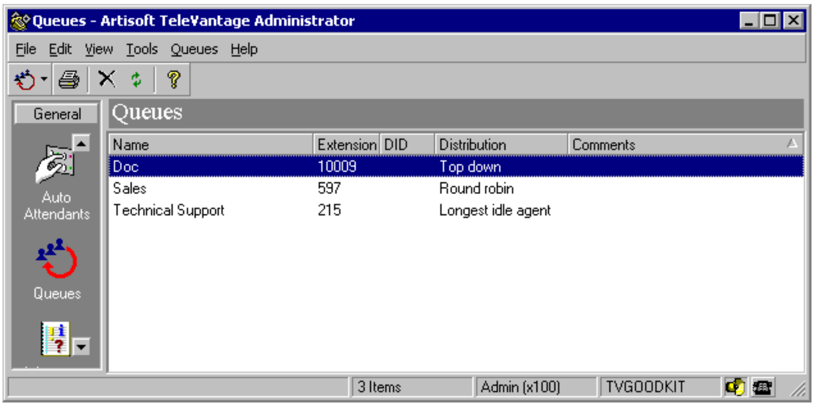
When you have finished creating a queue, you can then set up one or more methods of directing calls to it. You can:

- Create an auto attendant menu choice that sends callers to the queue. See "Setting up a menu choice for a queue" on page 2-48.
- Give the queue a DID number or route a trunk directly to the queue. See *Administering TeleVantage*.
- Create a utility user that receives calls and automatically routes them to the queue. By doing this you can use TeleVantage's advanced call-handling features with a queue, for example contact identification, intelligent call routing, time scheduling, and more. By using a utility user you can give your VIP callers special treatment. See Chapter 3.

After you have set up a method of directing calls to the queue, the queue is complete and available.

The Queues view

To create or edit a queue, open the Queues view in the TeleVantage Administrator by clicking its button in the view bar.



Each queue that you create appears as a row in the view. The following table shows the information that is displayed for each queue in the Queues view.

Column	Description
Name	Name of the queue
Extension	Extension dialed to reach the queue from the auto attendant or when transferring a call
DID	Direct Inward Dial—Phone number dialed to reach the queue directly
Distribution	Algorithm used to distribute calls to agents
Comments	Any comments about the queue

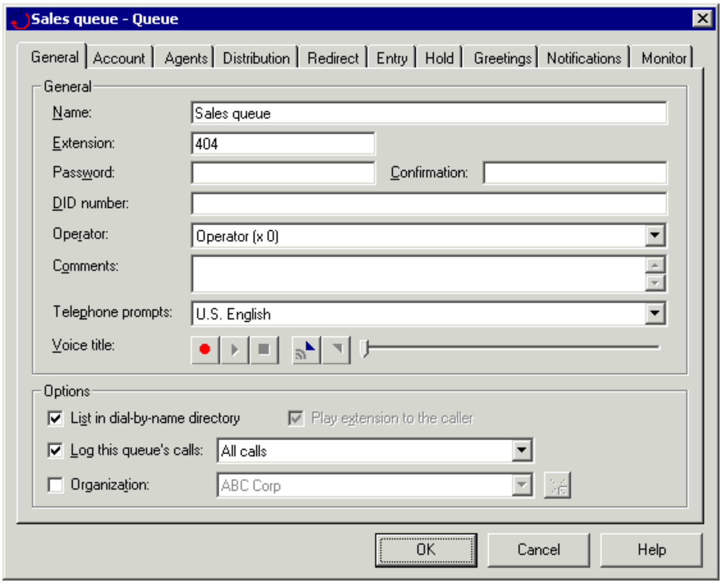
Opening the Queue dialog box

Use the Queue dialog box to create or edit a queue. To open it, do one of the following:

- To create a new queue, choose **File > New > Queue**.
- To edit an existing queue, double-click its row in the Queues view.

Entering general information about a queue

Click the General tab in the Queue dialog box.



1. Enter the following information for the queue:

   - **Name.** Give the queue a short name that will easily identify it, such as "Sales queue." When users transfer a call to this queue using the Client, they will select it by name.
   - **Extension.** Enter an extension for the queue. Users can then transfer calls to the queue by phone. The extension is generally not used by callers to dial the queue from an auto attendant. Callers should reach the queue either by dialing a Direct Inward Dial number or by making a choice on the auto attendant menu. See "Setting up a menu choice for a queue" on page 2-48.
   - **Password.** Give the queue a unique numeric password. You will need to log in with the password if you want to change the queue configuration or check the queue's voice messages when you are at a remote phone. For example, on a day when your business is closed unexpectedly, you can call, log in, and change the queue's voice-mail greeting so that callers are aware of the situation.
   - **DID Number.** Optionally, you can give the queue a Direct Inward Dial number from the block of numbers provided by your telephone company. Callers can then dial the queue directly, without going through an auto attendant.

     To assign multiple DID numbers to a queue, separate each number by a comma. For example, enter 1234,1235,1236.
   - **Operator.** Select the extension to which callers will be transferred if they press 0 while they are leaving voice mail for the queue.
   - **Comments.** Enter any descriptive information about the queue.
   - **Telephone prompts.** Select the language for the system prompts that callers to this queue will hear. Be sure that this selection matches the language of the custom prompts that you record.

2. Under **Voice title**, use the audio controls to make a short recording of just the queue's name, for example "Sales." TeleVantage plays the voice title to callers when they are transferred to the queue.

3. In the **Options** section, set the following general options for the queue:

   - **List in dial-by-name directory.** Check to include the queue in the dial-by-name directory so that callers can look it up by name from the auto attendant.
   - **Log this queue's calls.** Specify which of this queue's calls appear in the Call Log. You can log inbound calls, outbound calls, both, or none. To log no calls, uncheck the field.

     Important: If you turn off call logging for the queue, you cannot run reports on this queue.
   - **Organization.** If you are using Organizations, check to associate this queue with the Organization you select from the drop-down list. Click to create a new Organization. Inbound calls to the queue that did not reach an agent will be logged

as belonging to the selected Organization (for example, abandoned calls and calls where the caller left a voice message).

Organizations are a means to represent different companies or tenants that share a TeleVantage Server. For more information, see *Administering TeleVantage*.

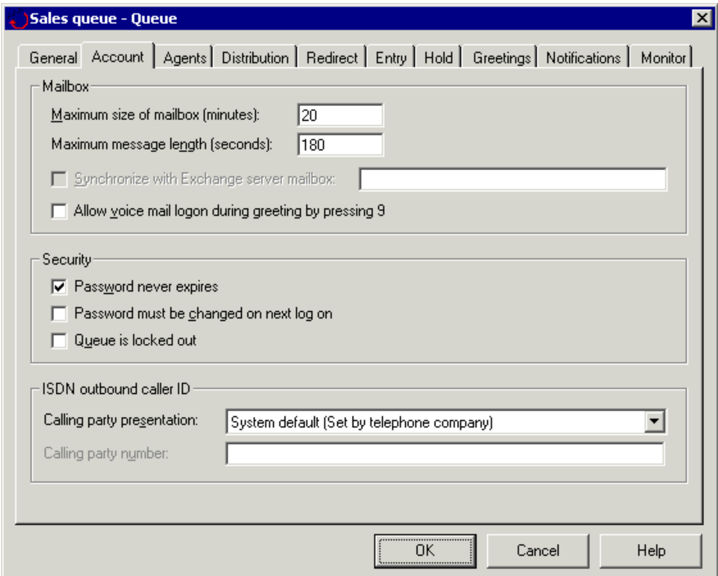
Note: Outbound calls made by users calling as the queue are not associated with the queue's Organization. They are always associated with the user's Organization, even if the user has no associated Organization.

4. Click **OK** to save the queue as you have defined it so far or go to the next section.

Setting up the queue's account

Click the Account tab in the Queue dialog box to perform the following tasks:

- Setting up the queue's voice mailbox
- Securing the queue's account
- Setting ISDN Caller ID information for outbound queue calls



Setting up the queue's voice mailbox

The queue has its own voice mailbox and can receive voice messages if you give callers the option of leaving voicemail (see "Configuring call distribution" on page 2-18).

To provide easy access to the queue's voice mailbox, set up folder sharing so that agents can see the queue's voice mailbox (in addition to their own mailboxes) in the Inbox folder of the Client's Voice Messages view. See *Using TeleVantage* for instructions. Users can also log on to the queue's account over the phone by using the telephone commands.

Note: To access the queue's voice mailbox, agents must have the **Access queue mailbox** privilege. See "Agent permissions" on page 2-15.

If you do not want queue callers to leave voicemail, uncheck **Leave voice-mail key** on the Hold tab (see "Offering the caller options while waiting on the queue" on page 2-38), and remove any instructions for leaving voicemail from your prompts. Note that the queue might still receive messages if internal callers send messages to it.

Setting mailbox size and maximum message length

Enter the maximum amount of voice message minutes that the queue's mailbox can hold in **Maximum size of mailbox (minutes)**. A minute of voice recording occupies roughly .5 MB of disk space. If the voice mailbox is full, it cannot accept new voice messages. The maximum size is 9,999 minutes.

Enter the maximum length in seconds for any voice message in **Maximum message length (seconds)**. When a voice message reaches the maximum, it is cut off and the caller hears the message option prompts.

Note: Zero is not an acceptable size for the mailbox or maximum message length. To discourage messages, uncheck **Leave voice-mail key** on the Hold tab (see "Offering the caller options while waiting on hold" on page 2-39), and remove any instructions for leaving voicemail from your prompts.

Synchronizing with Microsoft Exchange server

To enable synchronization of the queue's voice messages with the corresponding e-mail notifications in Microsoft Exchange, make the following changes on the Mailbox tab:

1. Check **Synchronize with Exchange server mailbox.** If this control is disabled, you must first set up Exchange server notification (see *Administering TeleVantage*).
2. Enter the name of the queue's Exchange server mailbox. You can obtain this name from Microsoft Exchange.

   Note: Exchange server mailboxes should not be confused with the e-mail address supplied when setting up e-mail notification for the queue (see "Setting up voice mail notifications" on page 2-45). One of the e-mail addresses specified for the queue for e-mail notification must route e-mail to the Exchange server mailbox that you specify here.

For more information about synchronization with Microsoft Exchange, see *Administering TeleVantage*.

Securing the queue's account

Use the options in the **Security** section to protect the queue's account and your TeleVantage system from unauthorized access and toll fraud. For more information about toll fraud, see Appendix C of *Administering TeleVantage*.

The following security options are available:

- **Password never expires.** If checked, the queue's password does not expire, although you can always manually change it or force it to be changed. If unchecked, the password may expire as determined by your system settings (see *Administering TeleVantage*).

  Note: Checking this field is a security risk, as long-standing passwords are easier to guess.

- **Password must be changed on next logon.** If checked, the system requires the password to be changed the next time someone logs on to the queue's account, using any workstation application or the telephone commands.
- **Queue is locked out.** If checked, the queue's account cannot log on to the system, even with the correct username and password. Depending on your system settings, lockout can occur automatically if someone repeatedly tried and failed to log on to the account. Uncheck the field to unlock the account and permit normal logging on.

Setting ISDN Caller ID information for outbound queue calls

Agents can place outbound calls that are marked as being from the queue rather than their personal extension (see "Placing calls from a queue" on page 4-8). For calls that are placed over IDN trunks, you can determine the Caller ID information that accompanies the call.

Note: On trunk types other than ISDN, outbound Caller ID is always set by the telephone company.

To determine outbound Caller ID

From the **Calling party presentation** drop-down list, select one of the following:

- **System default.** Outbound Caller ID will be whatever you have specified under **Tools > System Settings** for the TeleVantage system as a whole. The current setting is displayed in parentheses.
- **Custom.** You can specify your own Caller ID number to accompany outbound calls from the queue. Enter the Caller ID number in **Calling party number**.
- **Set by telephone company.** No specific Caller ID is attached to outbound calls from the queue. Outbound Caller ID is assigned by your telephone company network.
- **Blocked.** Caller ID is blocked on outbound calls from the queue.

When you have finished setting up the queue's account

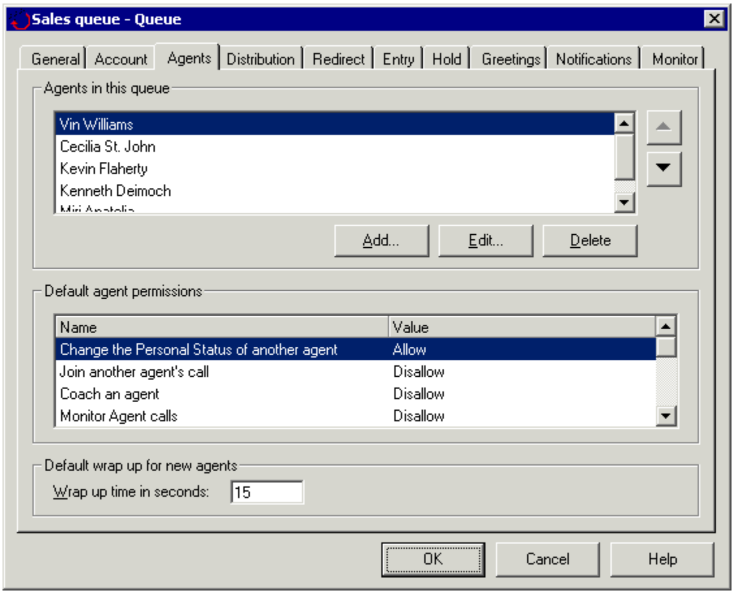
Click **OK** in the Queue dialog box to save the queue as you have defined it so far or go to the next section.

Defining agents for the queue

Use the Agents tab in the Queue dialog box to define primary and overflow agents for the queue. *Primary agents* are agents whose primary task is answering queue calls. *Overflow agents* are agents whose primary task is not answering queue calls, but who receive them when all primary agents are busy. See page 2-24 for information about creating overflow agents for your queue.

For an agent to work in more than one queue, you must add the agent separately to each of those queues.

Agents must be TeleVantage users before you can add them to a queue (see *Administering TeleVantage* for information about creating TeleVantage users).



Changing permission and wrap-up time defaults

You can set defaults for agent permissions and wrap-up time. There are two benefits to doing this:

- **To save time when adding agents.** Before adding agents, set the defaults to the way you want them to be for a typical agent. The default settings will then appear as each new agent's settings, which you can then modify for an individual agent if necessary.
- **To change a permission for several agents at once.** When you change a default agent permission, you change it for all existing agents except agents for whom you have specified an unchanging permission. For example, you might give your agents the Queue Sign In/Out permission, and then later decide to disallow it.

Setting default agent permissions

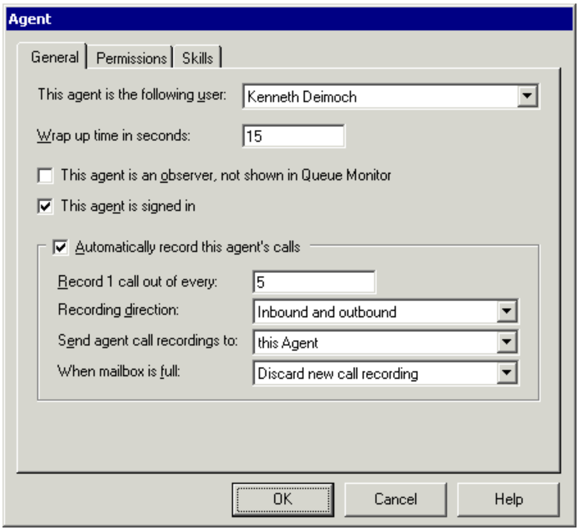
To set a default permission, click its row in the **Default agent permissions** list, and then click the arrow that appears in the **Value** column. Select the permission level you want from the drop-down list. For a description of the permissions, see “Agent permissions” on page 2-15.

Setting a default wrap-up time for agents

Use the **Wrap up time in seconds** field to set a default amount of time between calls for agents. Agents can use this time to process paperwork relating to the call. Changes to this default only affect new agents.

Adding agents to the queue

1. On the Agents tab in the Queue dialog box, click **Add.** The Agent dialog box opens at the General tab.



2. For **This agent is the following user**, select a user from the list.
3. For **Wrap up time in seconds**, accept the default or enter a different wrap-up time for the agent.

   Agents can terminate their wrap-up period early and make themselves ready to receive calls. See Chapter 4 for complete instructions on being a call center queue agent.
4. For **This agent is an observer, not shown in Queue Monitor**, select the check box to make this agent an observer who can monitor queue activity without being seen by other agents in the queue. If checked:

   - Other agents cannot see the agent in the Client in the Agents pane of the Queue Monitor (see “Viewing queue statistics in the Queue Monitor view” on page 5-3) or the queue’s tab in the Extensions view.

- The agent is automatically signed out and cannot sign in, so that the agent does not receive calls from the queue (see the next step).
- The agent cannot be given the permission **Queue Sign In/Out**.

The observer agent can view queue activity in the Queue Monitor and Call Monitor, supervise other agents' calls and perform other supervisory actions. The observer agent can also take queue calls manually by using the **Take Call** command in the Call Monitor.

If the checkbox is cleared, the agent appears in the Agents pane of the Queue Monitor, and can be signed in or out.

5. For **This agent is signed in**, select the check box if the agent receives calls from the queue when the agent is ready. Clear the check box to define a supervisor who can monitor the queue but does not receive calls from the queue.

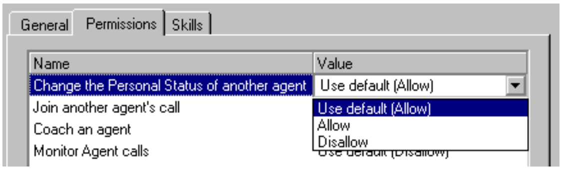
When the check box is cleared, calls from this queue are not sent to the agent, even when the agent is ready. However, the agent still sees the tab for this queue in the Call Monitor and can answer queue calls using the **Take Call** command.

Note: To receive calls from a queue, an agent must be both signed in, available for queue calls, and ready. See "When agents receive queue calls" on page 2-2.

You can use this check box to switch an agent from one queue to another, by signing the agent in for one queue and out for the other queue.

You can also give agents the permission to sign themselves in and out of a queue. See "Agent permissions" on page 2-15 and "Signing in and out of a queue" on page 4-5.

6. To change the agent's permissions from the queue's defaults, click the Permissions tab, click the permission, click the arrow in the **Value** column, and select a value for the permission. A permission other than Use Default does not change when you change the default permission (see "Setting default agent permissions" on page 2-12). For an explanation of permissions, see "Agent permissions" on page 2-15.



You do not need to use the Skills tab unless this is an overflow agent. See "Setting up overflow agents" on page 2-24.

Note: If you have set the overflow skill's default value to something other than 0, then you must set this agent's overflow skill to 0 to make this a primary agent (see "Assigning the overflow skill to agents" on page 2-27). You do not need to worry about this if you are not using overflow agents, or if you have created an overflow skill with a default value of 0.

7. To set automatic call recording for this agent, check **Automatically record this agent's calls**. See the next section for details.

8. When you have finished defining the agent, click **OK.** The Agent dialog box closes and you return to the Agents tab in the Queue dialog box.

Automatically recording an agent's calls

You can have TeleVantage automatically record an agent's queue calls on a periodic basis. The recorded calls appear as new voice messages in the voice mailbox that you select. The system records both inbound and outbound queue calls.

If you want to record all user calls, use system call recording instead. See *Administering TeleVantage*.

Note: In some U.S. states, it is illegal to record a call without notifying the caller. If you are using TeleVantage in such a state, your queue's Welcome prompt should inform callers that their calls may be recorded. See "Warning callers that their calls may be recorded" on page 2-43.

To automatically record an agent's inbound queue calls

1. Click the General tab in the Agent dialog box.
2. Check **Automatically record this agent's calls**.
3. In **Record 1 call out of every**, enter a number. Enter 1 to record every call to this agent, 2 to record every other call, 3 to record every third call, and so on.
4. From the **Recording direction** drop-down list, select whether to record inbound calls only, outbound calls only, or both. Selecting both means that you get one recording per *n* calls regardless of the calls' direction.
5. From the **Send agent call recordings to** drop-down list, select the mailbox that will receive the call recordings as new voice messages.
6. From the **When mailbox is full** drop-down list, select what happens if the destination mailbox is full when TeleVantage attempts to store a new call recording there:
   - **Discard new call recording.** TeleVantage deletes the new call recording instead of storing it.
   - **Delete oldest call recording.** TeleVantage deletes the oldest call recording in the mailbox to make room for the new recording. Only call recordings can be deleted by this method. TeleVantage never deletes voice messages in this way.
7. Click **OK**. The Agent dialog box closes.

Note: You can also record a general sampling of calls to the queue, regardless of which agent answers them. See "Automatically recording queue calls" on page 2-47.

Agent permissions

You can give agents permissions in the following areas:

Agent Permissions		
Permission	**Description**	**Default value**
Change the personal status of another user	The agent can manage other agents' workflow by changing their personal status. See "Changing an agent's personal status" on page 5-19. If agents are prevented from changing their own personal status, you must create a supervisor with this permission to manage their workflow is . See "Preventing agents from changing their personal status" on page 2-17.	Allow
Join another agent's call	The agent can enter another agent's call, such that all parties in the call hear each other. See "Supervising other agents' calls" on page 5-16.	Disallow
Coach an agent	The agent can enter another agent's call and be heard by the coached agent but not by the caller. See "Supervising other agents' calls" on page 5-16.	Disallow
Monitor Agent calls	The agent can listen in on other agents' calls without being heard by the monitored agent or the callers. See "Supervising other agents' calls" on page 5-16.	Disallow
Monitor Queue statistics	The agent can view real-time queue statistics in the Client's Queue Monitor view or listen to statistics using the telephone command *55. See "Monitoring queue statistics" on page 5-3.	Allow

Agent Permissions		
Queue sign in/out	The agent can sign in or out of individual queues. See “Signing in and out of a queue” on page 4-5. **Note:** If an agent has the general TeleVantage permission **Access Queues folder** set to “View and Edit,” and is not an observer agent, the agent can sign in and out of all queues regardless of how this queue permission is set. Agents with that permission can also sign other agents in and out of queues (see “Signing agents in or out of a queue” on page 5-21).	Disallow
View agents being monitored	The agent can see when agents’ calls—including their own—are being monitored. With this permission, agents whose calls are being monitored display in the Call Monitor with the monitoring party attached as an indented line. See “Viewing when agents are being monitored” on page 5-17.	Disallow
Access Queue call log	The agent can view a record of calls to the queue. With “View and Edit,” the agent can perform all actions in the view. See *Using TeleVantage*.	View only
Access Queue call monitor	The agent can see queue calls on a tab in the Client’s Call Monitor view. With “View and Edit,” the agent can perform all actions in the view. See “Using the Call Monitor tabs” on page 4-7.	No access
Access queue mailbox	The agent can view and play voice messages in the queue’s voice mailbox. With “View and Edit,” the agent can perform all actions in the view. See “Managing a queue’s voice mailbox” on page 5-19.	View and Edit

Permissions are granted to call center agents using the following levels:

- **Use default.** The agent's permission level is whatever the default is for that permission. The current default is shown in parentheses. If the default changes, the agent's permission changes with it. See "Setting default agent permissions" on page 2-12.
- **Allow.** The agent can perform the specified operation.
- **Disallow.** The agent cannot perform the specified operation.
- **No access.** The agent cannot view this part of the Client interface.
- **View only.** The agent can view the information in the Client, but cannot perform any commands on an item. For example, if **Access queue call monitor** is set to **View only**, the agent can see queue calls but cannot answer or transfer them.
- **View and Edit.** The agent can view the information and perform all commands.

Preventing agents from changing their personal status

By default, TeleVantage allows agents (and all users) to change their own personal status. If you want, you can prevent agents from changing their personal status by setting their user permission **Change Personal Status** to Disallow (see *Administering TeleVantage* for instructions). When on duty, such agents are unable to select a personal status to stop receiving queue calls, for example Do Not Disturb or On Break. Supervisors can still change the agents' personal status to start and end their workday and let them take breaks.

Note: When you prevent users from changing their personal status, they cannot use any of the personal status features described in *Using TeleVantage*.

Agent skills

The Skills tab of the Agent dialog box is used to create overflow agents. See "Setting up overflow agents" on page 2-24.

Changing the order of agents

On the Agents tab in the Queues dialog box, use the arrows to change the order of agents.

If you are using the **top down** or **round robin** algorithms to distribute calls to agents, the order of agents in the queue is especially important, because it determines the order in which agents receive calls.

The order of agents can also be important when using other distribution algorithms. For example, if you are using the **fewest calls** algorithm, and three agents are tied for the fewest calls, the topmost of those agents in the order gets the next call. Note that at the end of a shift all statistics are reset to zero, so all agents are tied in statistical categories, and agent order briefly becomes the method of distributing calls, until new statistics are accumulated.

For a description of the distribution algorithms, see "Configuring call distribution" on page 2-18.

Using roaming agents, or hot-desking

If your call center agents frequently move from desk to desk, or take calls at whatever phone happens to be nearest, you can set up your call center to ensure the accuracy of statistics and reports, as follows:

1. Give all agents a station ID of 0.
2. For each desk, create a placeholder user with the station ID of the desk's phone. Name the user after the desk, for example, "Cube 101" or "Desk 5."
3. Tell agents to add the following steps to their routine for beginning and ending their shifts. Following these steps ensures that TeleVantage correctly displays and reports on agent activity no matter what phones they use.
   - When agents first sit down at a new phone to receive calls, before they mark themselves as ready, they should log in and forward their calls to their current location. They can use either of the following methods:
     - To use the telephone commands, pick up the phone and log in by pressing **# <extension> # <password> #**. Once logged in, press **5 1** to forward calls to their current location.
     - To use the TeleVantage Client, start the Client. The Select Station dialog appears. Select the second login option, **Use station <x> to place and answer calls as <name>**. Check **Forward my calls to this station**.

- When agents are finished using a phone, log out from it. This ensures that subsequent calls from that phone are not added to the agent's record. To log out from a phone, either pick up the phone and press ***0 0**, or choose the Client command **File > Exit and Log Off**.

For more information, see "Working at different phones" on page 4-4.

When you have finished defining agents

Click **OK** in the Queue dialog box to save the queue as you have defined it so far or go to the next section.

Configuring call distribution

Click the Distribution tab in the Queue dialog box to perform the following tasks:

- "Choosing how queue calls are distributed to agents" (this page)
- "Placing agents on break if they do not answer calls" on page 2-20
- "Closing the queue" on page 2-21
- "Setting up call priority" on page 2-21
- "Setting up overflow agents" on page 2-24
- "Configuring expected wait time" on page 2-28

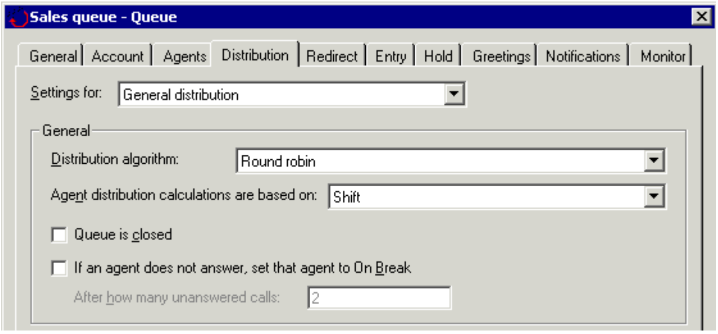
Choosing how queue calls are distributed to agents

There are several methods by which you can distribute incoming queue calls to agents. Note that calls are distributed only among agents who are both signed in and ready (see “When agents receive queue calls” on page 2-2 and “Starting your shift” on page 4-2).

To specify how the queue distributes calls to agents

1. Click the Distribution tab of the Queue dialog box.

2. Select **General distribution** from the **Settings for** drop-down list.



3. From the **Distribution algorithm** drop-down list, select one of the following:

- **Top down.** The call moves through the list of agents—from the top of the list downward—until it reaches a ready agent. For this algorithm, the order of agents in the queue is important. See “Changing the order of agents” on page 2-17.
- **Round robin.** Agents receive calls in the same sequence as with Top Down, but starting with a different agent each time. Each call starts with the agent after the one who answered the previous call.
- **Longest idle agent.** The ready agent who has waited the longest time for a call receives the next call. This algorithm is calculated by determining which agent has gone the longest period of time without being in an Active state. Non-queue calls count as being “idle,” because they put an agent in the Standby state. See the Agent State column under “Agents Pane Information” on page 5-4.
- **Fewest calls.** The ready agent who has answered the fewest calls from this queue since beginning their work shift receives the next call.
- **Least talk time.** The ready agent who has spent the least amount of time on calls from this queue since beginning their work shift receives the next call. This agent may be someone other than the agent who has handled the fewest calls.
- **Simultaneous ring.** All agents’ phones ring at the same time. The agent who answers first takes the call. This feature is especially useful for small offices or departments.

4. From the **Agent distribution calculations are based on** drop-down list, select whether to distribute calls based on totals for the current shift or the current day (since midnight). The distinction affects the algorithms Longest idle agent, Fewest calls, and Least talk time. For more information about shifts, see “Collecting queue statistics” on page 2-46.

Notes on simultaneous ring

- Simultaneous ring ignores agents who have their phones forwarded.
- Simultaneous ring does not ring the phones of overflow agents unless the overflow wait time has been exceeded. At that point it rings the phones of all agents. See “Setting up overflow agents” on page 2-24.
- If a ready agent ignores an incoming call with simultaneous ring, it does not count as an unanswered call for purposes of putting the agent automatically in On Break status. See “Placing agents on break if they do not answer calls” on page 2-20.

Placing agents on break if they do not answer calls

You can have TeleVantage automatically place agents in the On Break personal status if they fail to answer one or more consecutive queue calls. Placing a missing agent On Break ensures that the queue does not send calls to that agent and provides the caller with a smoother waiting experience. This feature is a safeguard against agents leaving their phones and forgetting to place themselves in the On Break personal status.

To automatically place missing agents On Break

1. Choose **General distribution** from the **Settings for** drop-down list.
2. Check **If an agent does not answer, set agent to On Break**.
3. In **After how many unanswered calls**, enter the number of consecutive unanswered queue calls that must occur for TeleVantage to automatically place an agent in the On Break personal status.

If an agent declines a queue call by using the call announcing options, that action is considered an unanswered call. See *Using TeleVantage* for an explanation of call announcing.

You can keep track of how often the queue automatically puts agents into On Break status, using the Queue Monitor statistics Away, No Answer, and Forced Break. See “The Agents pane” on page 5-3.

Note: Supervisors can also manually place agents in the On Break personal status or in any other personal status. See “Changing an agent’s personal status” on page 5-19.

See *Using TeleVantage* for more information about using the On Break personal status and other personal statuses.

Closing the queue

You can close the queue and prevent new incoming calls from being routed to agents, for example after business hours when your department is closed. When a queue is closed, incoming calls to it are automatically handled according to the selections you make on the Redirect tab (see “Defining how calls are redirected when the queue is closed” on page 2-33).

To close the queue

1. Choose **General distribution** from the **Settings for** drop-down list.
2. Check **Queue is closed**.
3. Click **OK**.

Note: You can have the queue close itself automatically when there are no agents signed in. See “Defining how calls are redirected when the queue is closed” on page 2-33.

Queue status when closed

Queue status displays in the Client’s Extensions view in the Personal Status Name column, and lets you see at a glance whether the queue is currently accepting calls or not. The queue statuses are:

- **Open.** The queue is distributing to its calls to ready agents as normal.
- **Closed.** The queue is redirecting calls as specified on the Redirect tab.
- **No agents.** All agents in the queue are currently signed out or unavailable, so the queue is automatically redirecting calls as specified on the Redirect tab.

For more about the Client’s Extensions view, see *Using TeleVantage*.

Setting up call priority

You can give some queue calls a higher priority than other queue calls. Calls with higher priority advance to the head of the queue quicker than other calls.

Normally, calls to a queue are answered in order of wait time. The call that has been waiting the longest number of seconds is the next one to be answered. Priority works by padding a call with extra seconds of wait time without the caller actually waiting for them. The system treats the call as if it has been waiting longer than it really has, so the call is moved closer to the head of the queue. You determine how many extra seconds priority adds to each call.

Note: The Call Monitor displays the actual wait time, not the padded wait time, in the Wait Duration column.

You set call priority using a custom data variable, as described in the following sections. For more information about using custom data variables, see “Managing custom data variables” on page 2-50.

Priority and the priority multiple

The number of extra seconds added to a call is determined by the following two numbers:

- **The priority number.** A number attached to each call in a custom data variable, that you set when the call enters the queue. The higher a call's priority number is, the higher its priority and the sooner it will reach the head of the queue.
- **The priority multiple.** A number that you set for the queue as a whole. It determines how many extra seconds of wait time each unit of priority is worth. TeleVantage multiplies a call's priority number by the priority multiple to determine how many extra seconds to add to the call.

The higher the priority multple, the greater the effect of having a high priority number. For example, if the priority multiple is 60, each unit of priority is worth a minute, so a call with priority 5 receives 5 minutes of extra wait time. If the priority multiple is 480, each unit of priority is worth 8 minutes, so a call with priority 5 receives 40 minutes of extra wait time.

Examples

The following tables illustrate how priority changes the order in which calls are answered.

Priority Multiple = 120 (Each unit of priority = 120 seconds or 2 minutes)

Order received	Real Wait Time (sec.)	Priority	Extra seconds added	Revised Wait Time (sec.)	Queue order
First	900	0	0	900	Second
Second	600	0	0	600	Fourth
Third	300	5	600	900	Third
Fourth	60	2	240	300	Fifth
Fifth	30	10	1200	**1230**	**First**
Sixth	10	1	120	130	Sixth

Priority Multiple = 500 (Each unit of priority = 500 seconds or 8 minutes 20 seconds

Order received	Real Wait Time (sec.)	Priority	Extra seconds added	Revised Wait Time (sec.)	Queue order
First	900	0	0	900	Fourth
Second	600	0	0	600	Fifth
Third	300	5	2500	2800	Second
Fourth	60	2	1000	1060	Third
Fifth	30	10	5000	**5030**	**First**
Sixth	10	1	500	510	Sixth

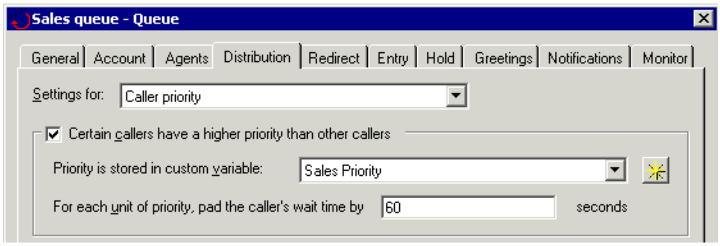
Note: Redirection overrides caller priority. If the queue is currently redirecting callers based on the criteria you defined (see “Configuring the queue to redirect calls” on page 2-30), then calls are redirected no matter how high their priority would have been.

Configuring a queue to use call priority

To configure a queue for call priority, you must specify the custom data variable to use for priority (or create a new one) and specify the priority multiple, as shown in the following procedure.

To configure a queue to use call priority

1. In the Queue dialog box, click the Distribution tab.
2. Select **Caller priority** from the **Settings for** drop-down list.
3. Check **Certain callers have a higher priority than other callers**.



4. Under **Priority is stored in custom variable**, do one of the following:
   - Select an existing custom data variable.
   - Click  to create a new custom data variable. For instructions see “Creating a custom data variable” on page 2-50.

   Make sure the variable is of **Data Type** Long and has a **Default value** of 0.

   The variable you select here is the queue’s priority variable. Its value for each call is that call’s priority number.
5. In **For each unit of priority, pad the caller’s wait time by __ seconds**, enter the priority multiple. This number is multiplied by the value of a call’s priority variable to determine how many extra seconds of wait time is added to the time already waited.
6. Click **OK** to save the queue as you have defined it so far or go to the next section.

Assigning priority to calls

You assign priority to an incoming call by assigning a value to the custom data variable that you selected in the previous procedure. You can assign value to the variable using any of the following methods:

- **With an auto attendant.** Callers receive priority based on the phone number that they dial or menu choice they select. You could have a special phone number that you give out to your premier customers that gives them a high priority when they call that number. See *Administering TeleVantage* for more information about creating custom data variables.
- **With an IVR Plug-in.** Your IVR Plug-in application can assign priority based on analysis of the call (for example, you could give international callers a high priority) or based on information that the caller enters (for example, account number). See *Administering TeleVantage* for more information about creating custom data variables.
- **With queue data entry.** The queue can assign priority directly from a number that the caller enters (for example, you could give out customer numbers that range from 1 to 10 and have the queue prompt callers to enter them). See "Setting up caller data entry" on page 2-34 for more information about creating custom variables.
- **With the TeleVantage Call Classifier.** This TeleVantage add-on application can benefit call centers in many ways. Among other things it can automatically assign priority to calls based on issue number, Caller ID, or caller identification against your company database. For more information about the Call Classifier, see "Using the Call Classifier" on page 2-50.

Setting up overflow agents

Overflow agents are agents who receive calls from a queue only if the queue's primary agents are all busy for a certain number of minutes. Overflow agents can be users whose main focus is another task, but who are available to take queue calls if needed. You can set up multiple tiers of overflow agents, so that overflow 1 agents receive calls only when all primary agents are busy, overflow 2 agents receive calls only when all primary agents and overflow 1 agents are busy, and so on.

Calls are distributed among each tier of overflow agents according to the queue's distribution algorithm. For example, if the algorithm is Top Down, the call rings the topmost ready primary agent. If all primary agents are busy, the call rings the topmost ready overflow 1 agent. If all primary and overflow 1 agents are busy, the call rings the topmost ready overflow 2 agent, and so on.

Note: With the Simultaneous Ring algorithm, if the overflow wait time has been exceeded, the phones of all primary and overflow agents ring regardless of overflow level.

Setting up an overflow group of agents consists of the following tasks:

- Creating the overflow skill
- Setting the overflow wait time
- Assigning the overflow skill to agents

Creating the overflow skill

You define overflow agents by assigning specific agents in the queue a special skill that you create, known as the *overflow skill*. Agents in the queue with a skill value of 0 are primary agents. Agents with a skill value higher than 0 are overflow agents. (For information about adding agents to the queue, see “Adding agents to the queue” on page 2-12.)

Note: Agents who do not have the overflow skill at all are primary agents, as long as the overflow skill default is set to 0.

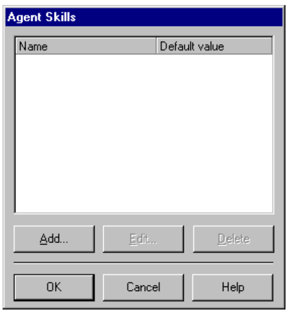
Example: To make an overflow group for a Sales queue, you create a skill called “Sales Overflow” with a default value of 0. That skill is the overflow skill. You then give six of your agents the “Sales Overflow” skill. Those six agents become overflow agents. The queue does not send calls to them unless all the primary agents are busy.

To set up multiple tiers of overflow agents, give agents different values for the overflow skill. An agent with a value of 1 in the overflow skill is a first-tier overflow agent. An agent with a value of 2 in the overflow skill is a second-tier overflow agent, and so on. (An agent with a value of 0 in the overflow skill is a primary agent.)

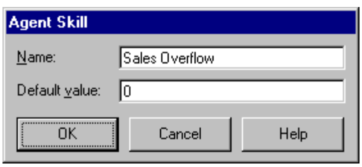
Note: You do not have to number overflow skill levels sequentially. Only the order is important. For example, you could have skill levels 1, 5, 6, and 10.

To create the overflow skill

1. Choose the Distribution tab in the Queue dialog box.
2. Select **Overflow agents** from the **Settings for** drop-down list.
3. Check **Certain agents are only called when other agents are busy**.
4. In **Overflow agent tiers are identified by the value of this skill**, click to create a new skill. The Agent Skills dialog box opens.



5. Click **Add**. The Agent Skill dialog box opens.



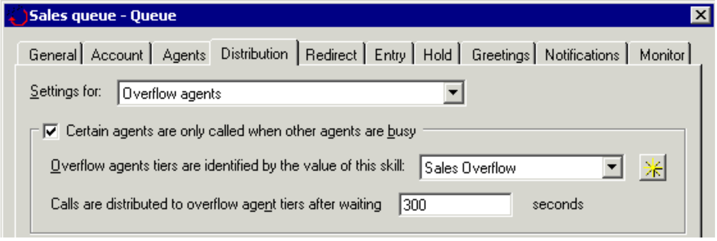
6. Enter a name for the overflow skill in **Name.**

7. Set **Default value** to 0, which indicates a primary agent. It is important to set this value to 0, because TeleVantage treats agents without the overflow skill as if they had the default value. By setting it to 0, agents without the overflow skill are primary agents.

8. Click **OK.** The skill now appears in the Agent Skills dialog box.

9. Click **OK** to close the Agent Skills dialog box and return to the Distribution tab.

10. Make sure that the overflow skill you just created is selected in the **Overflow agent tiers are identified by the value of this skill** drop-down list.



11. Keep the Distribution tab open and continue to the next section, where you will specify the overflow wait time.

Specifying the overflow wait time

The overflow wait time determines how long calls wait for a primary agent before being sent to an overflow agent. After the overflow wait time has passed, the call is sent to the lowest-tier ready agent.

Example: The overflow wait time is 5 minutes. If a call arrives while all primary agents are unavailable, it is waits for 5 minutes for a primary agent to become ready. If the 5 minutes pass without a primary agent becoming ready, the call is sent to the lowest-level ready overflow agent.

Note: The overflow wait time does not apply to calls moving from one overflow tier to the next. After the overflow wait time has been exceeded, and overflow agents start receiving calls, the calls will ring higher-numbered tiers as soon as all lower-numbered tiers and primary agents are busy.

To specify the overflow wait time

1. Choose the Distribution tab in the Queue dialog box if it is not already open, and select **Overflow agents** from the **Settings for** drop-down list.

2. Enter the wait time in seconds in **Calls are distributed to overflow agent tiers after waiting __ seconds**.

3. Click **OK**.

Assigning the overflow skill to agents

You identify overflow agents by assigning the overflow skill to those agents. If you have not defined the overflow skill yet, go to “Creating the overflow skill” on page 2-25.

Important: Make sure there are some primary agents in the queue. (To create primary agents, do not give them the overflow skill, or give them the overflow skill set to 0). If a queue consists only of overflow agents, all calls will wait until the overflow wait time expires before ringing an agent’s phone.

1. Choose the Agents tab of the Queue dialog box.
2. Select an agent who will be an overflow agent and click **Edit**. The Agent dialog box opens. To define a new agent for the queue, see “Adding agents to the queue” on page 2-12.
3. Click the Skills tab in the Agent dialog box.
4. Click **Add**. The Agent Skill dialog box opens.

5. Select the overflow skill in **Name**.
6. In the **Value** field, enter the number of this agent’s overflow tier. For example, enter 1 to make this agent a first-tier overflow agent who receives calls when all primary agents are busy. Enter 2 to make this agent a second-tier overflow agent who receives calls when all primary and first-tier overflow agents are busy, and so on.

   Important: A value of 0 in the overflow skill represents a primary agent. You can also define primary agents by not giving them the overflow skill at all if the default is 0.

7. Click **OK** to close the Agent Skill dialog box.
8. Click **OK** to close the Agent dialog box.
9. Click **OK** to save the Queue as you have defined it so far or go to the next procedure.

Configuring expected wait time

The queue continuously calculates the expected wait time for each caller. You can use expected wait time in the following ways:

- Announce it to callers as a courtesy to inform them of the expected wait. See "Creating Hold prompts" on page 2-39.
- Use it to determine whether or not a conditional Hold prompt plays to a caller. See "Creating conditional Hold prompts" on page 2-41.
- Automatically redirect new callers when the expected wait time is too high. See "Defining how calls are redirected when the queue is too busy" on page 2-30.

About the expected wait time estimate

Expected wait time is an estimate based on how many agents are currently ready to take queue calls and the average length of a call. The formula is as follows:

MinWaitTime + AvgCallLnth * (CallerPosition -1) / (max(AgentsAvailable, MinimumAgents))

Parameter	Description
MinWaitTime	Minimum wait time if entered (see the next section)
AvgCallLnth	Estimated average call length (see the next section)
CallerPosition	Position of the caller in the queue (includes priority)
AgentsAvailable	Number of agents currently signed in and in the personal status Available or Available (Queue Only).
MinimumAgents	Minimum agent count if entered (see the next section)

Note: The formula uses whichever is larger, AgentsAvailable or MinimumAgents.

Example: in a queue with 10 available agents and an estimated average call length of 300 seconds, with MinWaitTime of 60, the expected wait time for the fifth caller in the queue would be:

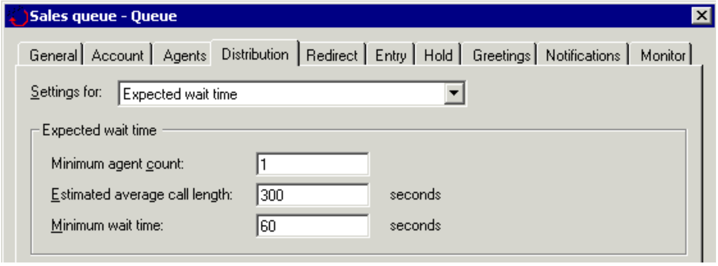
60 + 300 * (4 / 10) = 180 seconds or 3 minutes.

This calculation is most reliable in a call center with many agents and short calls, and in which agents take calls from only one queue at a time. Though you can improve the estimate (see the next section), you should consider not using expected wait time if your call center has very few agents and long calls, or if most of your agents work in multiple queues at once.

Improving the expected wait time estimate

You can improve the expected wait time estimate, and make queue behavior based on it smoother. To do so:

1. Choose the Distribution tab in the Queue dialog box if it is not already open.
2. Select **Expected wait time** from the **Settings for** drop-down list.



3. Enter the following parameters:

   - **Minimum agent count.** If you enter a minimum agent count, the expected wait time estimate will never be based on fewer available agents than this number, even if there are in fact fewer available agents. A minimum agent count makes the calculation more accurate over brief drops in agent availability.

     For example, if the queue is redirecting calls based on expected wait time, it can be vulnerable to agents taking short breaks or a general shift changeover. With fewer available agents, even for a moment, the expected wait time rises and incoming calls may be redirected when there would have been agents available in a few minutes to take them. Entering a minimum agent count overcomes that problem.

   - **Estimated average call length.** This number is crucial to the accuracy of the expected wait time calculation. Enter the average length of a call in this queue, in seconds. Include only the talk time plus wrap-up time, not the wait time. To get the best estimate, use the Queue Monitor's Avg. Talk Time statistic at the end of a period or shift (see "The Queue Statistics pane" on page 5-7), and the Activity History by Queue report (see "Activity History by Queue worksheet totals" on page 7-15). More importantly, base the number on your overall experience with the queue.

     If you have agents who work in multiple queues, make this number higher to account for the time they spend in calls from other queues. In general you can adjust this number to correct for expected wait time inaccuracies. See the next section.

   - **Minimum wait time.** If you enter a minimum wait time, the calculated expected wait time will never be less than this number, even when it otherwise would have been. Using a minimum wait time can avoid inaccurate results for the first callers into a queue. Note that if an agent is ready when a call enters the queue, the expected wait time is still 0 and the call is sent immediately to that agent.

4. Click **OK**.

Correcting expected wait time inaccuracies

Various factors may cause the expected wait time calculation to consistently be too high or too low. For example, the use of overflow agents can cause expected wait time to be too high, while agents working in multiple queues at once can cause it to be too low.

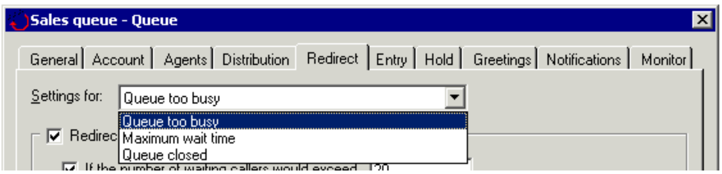
You can easily adjust the expected wait time result by adjusting the **Estimated average call length** number (see the previous section). Raising this number makes the expected wait time result higher; lowering it makes the result lower.

Configuring the queue to redirect calls

Click the Redirect tab in the Queue dialog box to define how incoming calls are handled in the following situations:

- When the queue is too busy
- When a call exceeds the maximum wait time
- When the queue is closed

Use the **Settings for** drop-down list to choose which of these options to define. The rest of the tab changes depending on your selection.



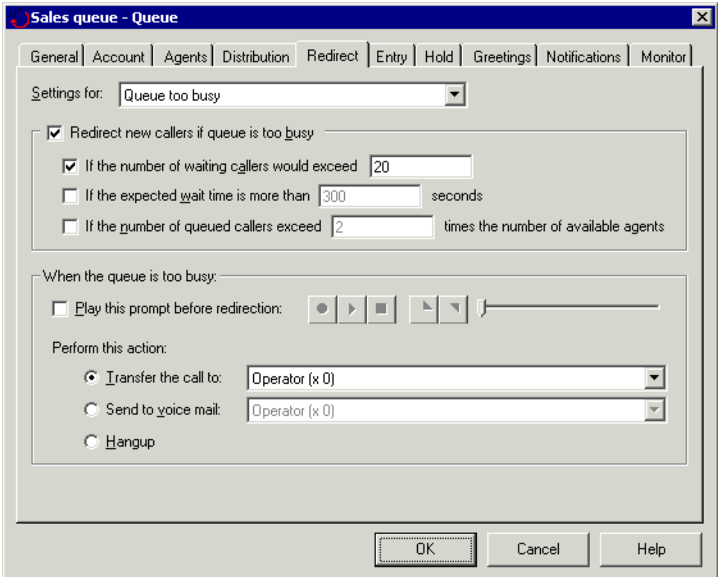
Note: You can follow how many calls a queue is redirecting using the Redirection statistic in the Queue Monitor. See "The Queue Statistics pane" on page 5-7.

Defining how calls are redirected when the queue is too busy

You can have the queue automatically divert new calls out of the queue when the queue hits a certain level of traffic that you define. For example, if the expected wait time is longer than 30 minutes, you can play a message to callers telling them that the queue is currently too busy to accept new calls, then transfer them to another destination such as voicemail or your auto attendant.

To define redirect options when the queue is too busy

1. Choose **Queue too busy** from the **Settings for** drop-down list.



2. To have the queue redirect calls when it becomes too busy, check **Redirect callers if queue is too busy**. If this field is unchecked, all incoming calls enter the queue regardless of how busy it is.

3. To define the “too busy” threshold at which the queue begins to redirect new calls, choose any combination of the following options. New calls are redirected if any of the checked thresholds are met.

   - **If the number of waiting callers would exceed __.** Check this option to redirect new calls if they would cause the number of calls in the queue to exceed the number you enter. Calls in the queue include those connected with agents as well as those waiting.

   - **If the expected wait time is more than __ seconds.** Check this option to redirect calls when the expected wait time meets or exceeds the number of seconds you enter. For information on how the expected wait time is calculated and how to improve its accuracy, see “Configuring expected wait time” on page 2-28.

   - **If the number of queued callers exceeds __ times the number of available agents.** Check this option to redirect calls when the number of calls waiting in the queue is greater than the number of available agents by the factor you enter. For example, if you enter 2 then redirection begins when there are twice as many calls waiting in the queue as available agents. Available agents are signed-in agents in the personal status Available or Available (Queue Only).

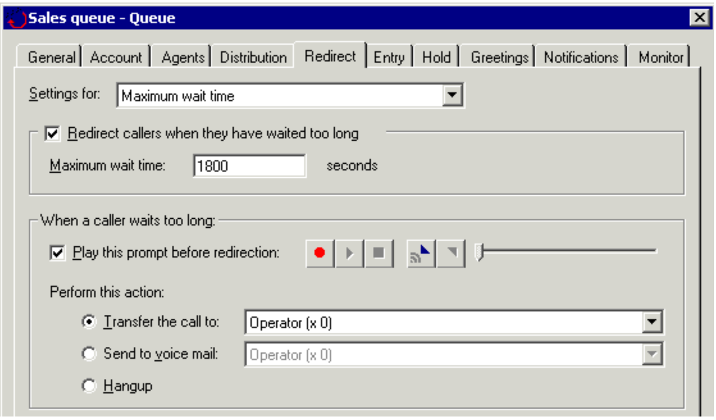
4. To play a message to callers who are about to be redirected, check **Play this prompt before redirection**. Use the audio controls to record or import the message.
5. To define how calls are redirected, choose one of the following options under **Perform this action**:
   - **Transfer the call to.** Redirected calls are transferred to the extension you select.
   - **Send to voice mail.** Redirected calls are transferred directly to the voicemail of the extension you select.

     Note: If you chose to play a redirection message in step 4, the caller will hear the redirection message followed by the voicemail greeting. You can use the combination to create full messages. For example, the redirection message can say "I'm sorry, we're temporarily closed," and the voicemail greeting can add, "Please leave a message."
   - **Hangup.** Redirected calls are disconnected.
6. Click **OK**.

Defining a maximum wait time

You can have individuals calls automatically redirected when they have waited on the queue for a length of time that you define.

1. Choose **Maximum wait time** from the **Settings for** drop-down list.



2. To redirect calls that meet the maximum wait time, check **Redirect callers when they have waited too long**. If unchecked, the maximum wait time has no effect.
3. Enter the maximum wait time in **Maximum wait time**.
4. To play a message to callers who are about to redirected, check **Play this prompt before redirection**. Use the audio controls to record or import the message.
5. To define how calls are redirected, choose an option under **Perform this action**:
   - **Transfer the call to.** Redirected calls are transferred to the extension you select.

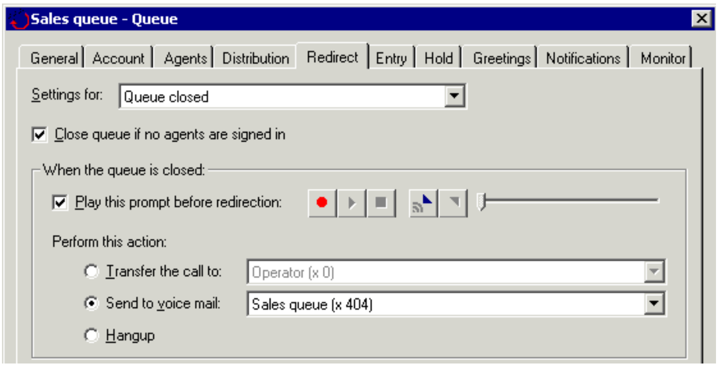
- **Send to voice mail.** Redirected calls are transferred directly to the voicemail of the extension you select.
- **Hangup.** Redirected calls are disconnected.

6. Click **OK**.

Defining how calls are redirected when the queue is closed

This section describes how to redirect incoming calls when the queue is closed. To close the queue, use the **Queue is closed** checkbox on the Distribution tab (see “Closing the queue” on page 2-21). You can also have the queue close automatically whenever there are no agents signed in, as described in the following steps.

1. Choose **Queue closed** from the **Settings for** drop-down list.



2. To have the queue close automatically when no agents are signed in, check **Close queue if no agents are signed in**.

   If the queue closes for this reason, it will reopen automatically when an agent signs in. You can also reopen it manually by unchecking this field.

   Note: This field does not affect the **Queue is closed** checkbox on the Distribution tab. For example, if that field is checked the queue remains closed regardless of how many agents are signed in or out.

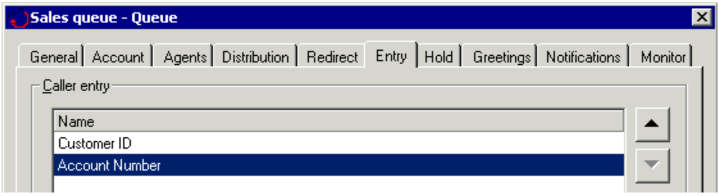
3. To play a message to callers who are about to redirected, check **Play this prompt before redirection**. Use the audio controls to record or import the message.
4. To define how calls are redirected, choose an option under **Perform this action**:
   - **Transfer the call to.** Redirected calls are transferred to the extension you select.
   - **Send to voice mail.** Redirected calls are transferred directly to the voicemail of the extension you select.
   - **Hangup.** Redirected calls are disconnected.
5. Click **OK**.

Setting up caller data entry

You can set up the queue to prompt callers to enter data by using the keys on their telephones. Data entry prompts play immediately after the Welcome prompt. You can, for example, prompt callers to enter their customer identification numbers. The data is stored in a custom data variable that you define. The data accompanies the call, and you can then use the data in the following ways:

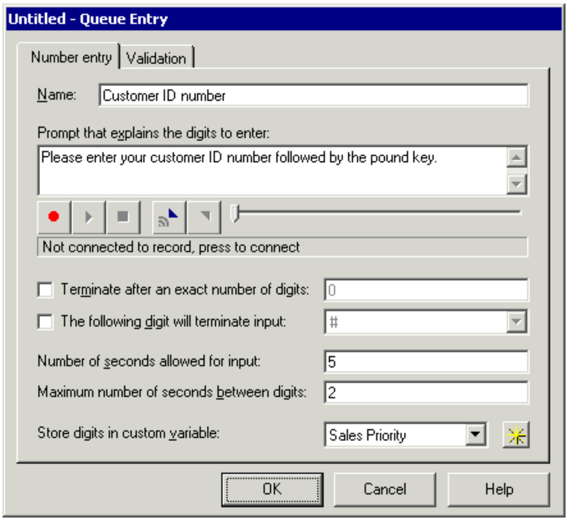
- As a condition for a Hold prompt to play. See "Using custom data variables to play conditional Hold prompts" on page 2-42.
- As a column displayed in agents' Call Monitors.

You can create as many data entry prompts as you want. They play in the order that they are listed on the Entry tab of the Queue dialog box. To move a data entry prompt up or down in the list, click the arrows to the right of the list.



To prompt the caller to enter data

1. Click the Entry tab in the Queue dialog box.
2. Click **Add.** The Queue Entry dialog box opens.



3. In **Name,** enter a name for the data that you are collecting.

4. Under **Prompt that explains the digits to enter**, type the text of the prompt or a description of it.

5. Use the audio controls to record the prompt that tells the caller to enter data. See *Administering TeleVantage* for instructions. For example, “Please enter your customer ID number followed by the pound key. If you don’t have a customer ID number, just press the pound key.”

   Note: While callers are entering data, they can press ***** and they will return to the previous data entry prompt. If callers press ***** during the first data entry prompt, they can choose to end the call or stay on the line. If they choose to stay on the line, they are transferred either to the auto attendant (if they started there) or to the queue operator (if they dialed the queue directly). You can optionally describe these options in your data entry prompts.

6. Specify the following optional information about the data entry:

   - **Terminate after an exact number of digits.** If the data must be an exact length, check this box and enter the number of digits.
   - **The following digit will terminate input.** To speed up data entry, check this box and select a key for callers to press when they have finished entering digits. The terminate key is usually #. Be sure to mention this key in the prompt that you record. If you do not specify a terminate key, TeleVantage assumes the data is complete whenever the caller exceeds the **Maximum number of seconds between digits** setting.
   - **Number of seconds allowed for input.** Specify the length of time within which the caller can enter the data. If the caller does not complete data entry within that time, TeleVantage attempts to validate the data. If you are not validating the data (see “Validating caller data” on page 2-35), the call proceeds into the queue without any data.
   - **Maximum number of seconds between digits.** Specify how long callers can pause while entering digits. If the caller exceeds that pause, TeleVantage assumes that the data entry is complete.

7. In the **Store digits in custom variable** drop-down list, select the custom variable that will hold the data entered by callers. To create a new custom variable, click next to the list (for instructions see “Creating a custom data variable” on page 2-50).

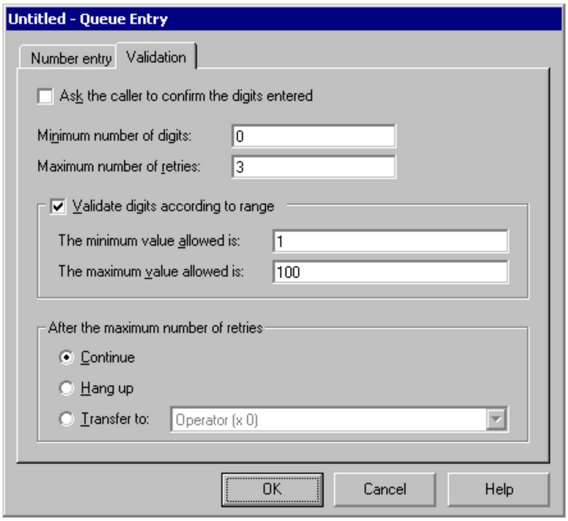
8. Click **OK** to return to the Entry tab in the Queue dialog box.

Validating caller data

The queue can validate the data or accept it exactly as the caller enters it. When you validate data, you are checking it for accuracy.

To set up validation for data entry

1. Click the Validation tab in the Queue Entry dialog box.



2. In **Minimum number of digits,** enter a number. The length of the data must be equal to or greater than the number that will be validated. If the length of the data is less than the number in this field, the caller will be prompted to enter the data again.
3. In **Maximum number of retries,** enter the maximum number of times the caller can reject an entry and enter it again. For what happens to callers who fail the maximum number of retries, see step 5.
4. Choose either or both of the following methods of validating data:
   - Check **Ask the caller to confirm the digits entered** to have TeleVantage repeat the caller's entry back to them and prompt the caller to confirm that the number is correct. If the entry is incorrect, the caller can enter it again.
   - Check **Validate data according to range** to compare the entry made to an acceptable range of values. To use this method, enter the minimum acceptable value in **The minimum value allowed is**, and enter the maximum acceptable value in **The maximum value allowed is**. If the entry falls within the range, it is validated. If it falls outside the range, the caller is prompted to enter it again.
5. Choose how to handle callers whose data is not validated after a specific number of attempts. Under **After the maximum number of retries,** choose one of the following options:
   - **Continue.** Continue with the next data entry prompt. If this is the last data entry prompt, place the caller on the queue without any data associated with the call.
   - **Hangup.** Terminate the call.
   - **Transfer to.** Select the destination to which the caller is transferred.

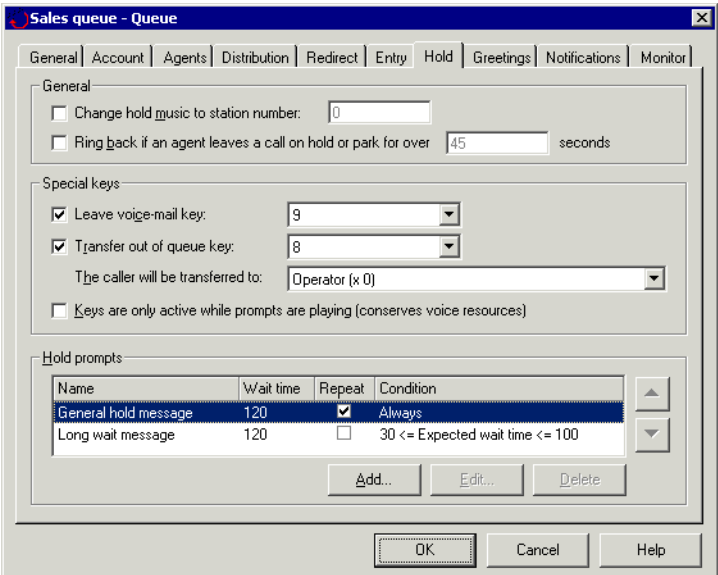
Note: If you need more validation or data entry options, use the TeleVantage Call Classifier, which can prompt callers for any numeric information, validate it based on any ODBC database, then send the resulting profile information to the agent. See “Using the Call Classifier” on page 2-50.

Setting up the caller’s hold experience

To configure aspects of the caller’s hold experience, click the Hold tab in the Queue dialog box.

Use this tab to perform the following hold-related tasks:

- Setting up hold music
- Configuring hold and park ringback
- Offering the caller options while waiting on the queue
- Creating Hold prompts



Setting up hold music

By default, callers waiting on this queue hear the hold music that you have specified for the system as a whole (see *Administering TeleVantage*). Optionally, you can have each queue play hold music from a different music-on-hold device. Check **Change hold music to station number** and enter the station number of an attached CD player or other music-on-hold device.

If unchecked, callers hear the system hold music while they are waiting.

Configuring hold and park ringback

If an agent places a queue call on hold or parks it, you can have TeleVantage automatically ring the agent's phone after a certain amount of time to reconnect him or her with the call. Check **Ring back if an agent leaves a call on hold or parked for over __ seconds**, and enter the number of seconds before ringback occurs.

Offering the caller options while waiting on the queue

Under **Special keys**, check any of the following options to offer them to waiting callers:

- **Leave voice-mail key.** Callers can press a key to stop waiting and be transferred to the queue's voice mailbox. Select the key that you want callers to press.
- **Transfer out of queue key.** Callers can transfer out of the queue to a destination you define. This destination can be a supervisor's voice mailbox, an auto attendant, another queue, or any other extension. Select the key that you want callers to press and then select the transfer destination under **The caller will be transferred to**.

Note: If you offer callers these options, you should mention them in your queue's Welcome prompt or in a Hold prompt.

Choosing when the special keys are active

You can choose whether the special keys are available to callers at any time while they are waiting, or only while prompts are playing. Limiting their availability to while prompts are playing conserves voice resources on your system.

Voice resources are hardware elements associated with the Dialogic telephony boards in the TeleVantage Server computer that handle all phone usage in your TeleVantage system. For more information about voice resources, see Appendix A of *Installing TeleVantage*.

Use the **Keys are only active while prompts are playing** check box to determine when the special keys are active, as follows:

- If checked, the special keys are active only while Hold prompts are playing. If a caller presses special keys between prompts, for example, during hold music, the system does not respond. If checked, a voice resource is allocated to a waiting caller only while a prompt plays for that caller. Because prompts play to different callers at different times, only a few voice resources are needed to support several waiting callers.

  Note: If you check this box, be sure to record a few seconds of silence at the end of each prompt so that callers have enough time to press the keys before the keys become inactive. See "Creating Hold prompts" on page 2-39.

- If unchecked, the special keys are active at all times, even during hold music and silence. The system allocates one voice resource to each waiting caller for the entire wait time, and callers can press the special keys at any time.

Note: If the special keys are active only while the prompts are playing, you should record a brief period of silence at the end of each prompt to allow time to press the keys.

Creating Hold prompts

You can make one or more recordings for callers to hear while waiting, for example, to reassure them that they are still in the queue. You can choose to have a Hold prompt play only once, play on a repeating basis, or play only when a certain condition has been met. A Hold prompt might say, "Your call is very important to us. Please wait for the next available representative."

Hold prompts are listed on the Hold tab under **Hold prompts**. They are listed in the order that they play to callers. While the caller is waiting, TeleVantage plays the Hold prompts from the top to the bottom of the list—with customizable pauses between them—and then repeats the cycle, starting at the top again. The cycle of Hold prompts repeats as long as the caller remains waiting.

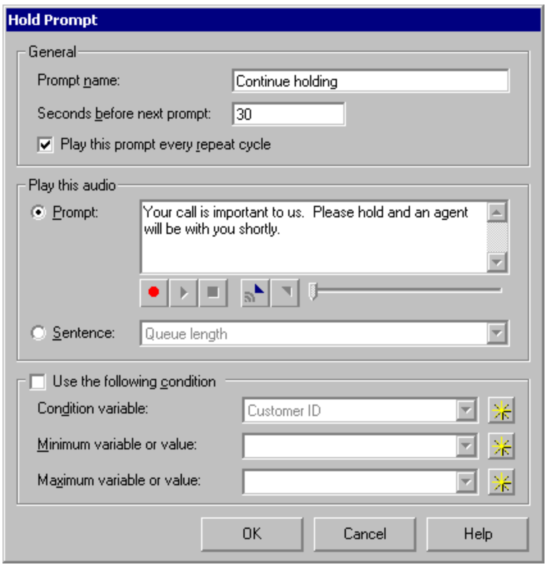
You can choose whether a Hold prompt is part of the repeat cycle or whether it is played to the caller only once. If it is played only once, TeleVantage plays it the first time through the cycle and then skips it on subsequent cycles.

Note: If the system hardware has no voice resources available when a prompt would normally play to a caller, the prompt is delayed slightly until a voice resource becomes available. An entry appears in the Windows Event Log if this occurs (see *Administering TeleVantage*).

For instructions on recording a Welcome prompt, which plays callers once when they first enter the queue, see "Creating a Welcome prompt" on page 2-43.

To create a Hold prompt

1. Click the Hold tab in the Queue dialog box. The **Hold prompts** list shows existing Hold prompts in the order that they play to the caller.
2. Under **Hold prompts,** click **Add.** The Hold Prompt dialog box opens.



3. Under **General**, enter the following information about the Hold prompt:
   - **Prompt name.** A descriptive name for the prompt.
   - **Seconds before next prompt.** The amount of time between the playing of this prompt and the playing of the next prompt.
   - **Play this prompt every repeat cycle.** Check to have this prompt play every time in the repeat cycle. Uncheck to have the prompt play only once. If unchecked, the prompt will play only the first time through the cycle (unless it is a conditional prompt that does not play at all because the required condition has not been met).
4. Under **Play this audio**, choose one of the following options for the Hold prompt recording:
   - **Prompt.** Record the Hold prompt yourself using the audio controls. See *Administering TeleVantage* for instructions. Enter the text of the prompt or a description in the text field.

     Note: If you are offering special-key options in this queue, with the special keys active only during prompts, then you should record a few seconds of silence at the end of each Hold prompt to give callers time to press the special keys before they become inactive. See “Offering the caller options while waiting on the queue” on page 2-38.
   - **Sentence: Queue length.** Choose this option to play the prerecorded message: “There are <number> callers waiting ahead of you,” where <number> is the number of callers that TeleVantage detects are ahead of a caller in the queue. If there is no one ahead of the caller in the queue, the message changes to: “Your call will be handled by the next available agent.”
   - **Sentence: Wait time.** Choose this option to play the prerecorded message: “The expected wait time is <number> minutes” where <number> is the number of minutes that TeleVantage estimates will elapse before the call is answered. For information on how TeleVantage calculates this number, and how to make it more accurate, see “Configuring expected wait time” on page 2-28.

     Note: The wait time prompt does not play if the expected wait time is less than 1 minute or if it is infinite. An infinite wait time results if no agents are signed in and in the personal status Available or Available (Queue Only).
5. Optionally, select or create a condition under which this Hold prompt plays. See the next section, “Creating conditional Hold prompts.”
6. Click **OK** to add the Hold prompt to the list on the Prompts tab.
7. Click **OK** to save the queue as defined so far or go to the next section.

Creating conditional Hold prompts

You can create Hold prompts that play only when a certain condition is met. For example, if the estimated wait time on the queue is 10 minutes or longer, you could play a prompt that says, “We are currently experiencing a heavy volume of calls. We recommend that you call back later or leave a voice message.”

Conditional Hold prompts can either repeat in the repeat cycle or play only once. If they repeat, the condition is checked each time through the cycle. For example, a prompt that played when the estimated wait time was over 10 minutes would repeat until the wait time dropped below 10 minutes and then stop playing.

To create a conditional Hold prompt

1. On the Hold tab in the Queue dialog box, click **Add** under **Hold prompts**. The Hold prompt dialog box opens.
2. Enter the general information and create the audio for the Hold prompt as shown in the previous section.
3. Check **Use the following condition**.
4. From the **Condition variable** drop-down list, select the custom data variable whose value the system will use to determine if the prompt plays.

   TeleVantage comes with two predefined custom data variables to be used as Hold prompt conditions:

   - **Number of people ahead.** Returns the number of waiting callers who entered the queue before this one.
   - **Expected Wait Time.** Returns the estimated number of seconds until the call is answered. For information on how TeleVantage calculates this number, and how to make it more accurate, see “Configuring expected wait time” on page 2-28.

   You can also create your own condition variable by clicking next to the **Condition variable** field. See the next section, “Using custom data variables to play conditional Hold prompts.”
5. In **Minimum variable or value** and **Maximum variable or value**, enter the minimum and maximum values that will cause the prompt to play. The prompt plays if the value is >= the minimum and <= the maximum.

   For example, to play the prompt when the expected wait time is 10 minutes or more, select **Expected wait time** and set **Minimum variable or value** to 600 (600 seconds=10 minutes). If you are using a custom variable of Account Number (see the example in the next section), you could set the prompt to play for callers with a Account Number value within a specific range.
6. Click **OK**.

Using custom data variables to play conditional Hold prompts

Whatever variable you select in the **Condition variable** field of the Hold prompt dialog box is the one whose value is used to determine whether the prompt plays. You can create your own custom data variables and use them to trigger Hold prompts. For instructions on creating a custom data variable, see "Creating a custom data variable" on page 2-50.

Example: By creating a variable called Account Number, you can play a Hold prompt only for certain customers, such as your newest customers. First, you prompt callers to enter their account numbers, which you store in the Account Number variable (see "Setting up caller data entry" on page 2-34). Then you create a conditional Hold prompt that plays only if Account Number is within a certain range. A range of 1000 to 2000 might represent your newest customers, and you could specify that range for your Hold prompt, which would play only for your newest customers.

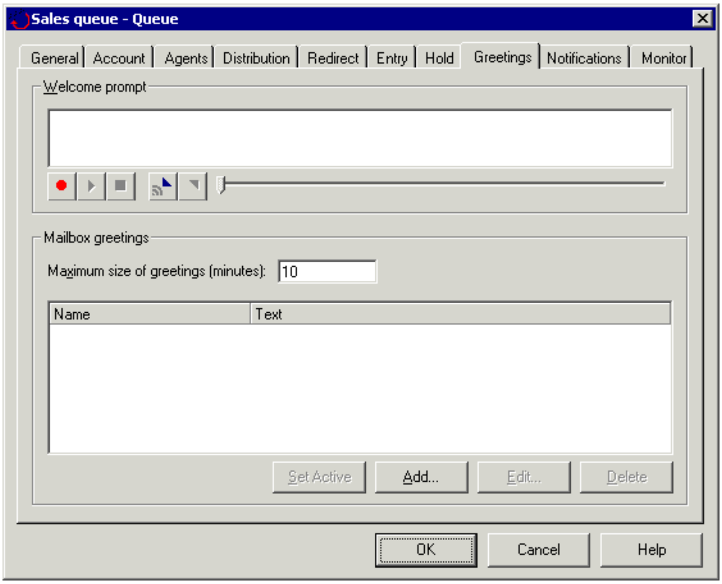
Note: Text variables are sorted alphabetically and so can have a "range," for example A-E. A range of A-E means that the Hold prompt will play if the variable value begins with an A, B, C, D, or E.

You can also use auto attendant menu choices and IVR Plug-ins to pass custom variables to a queue and use those variables as Hold prompt condition variables. See "Using IVR Plug-ins with a call center queue" on page 2-49. For more information, see *Administering TeleVantage*.

Creating queue greetings

Click the Greetings tab in the Queue dialog box to create the following types of recorded messages for the queue:

- **The Welcome prompt.** Callers hear this recording once when they reach the queue. It might say, "Thank you for calling Julep technical support. Please hold. The next available agent will be with you shortly."
- **Voice-mail greetings.** Callers hear the active voicemail greeting when they reach the queue's voice mailbox.



Creating a Welcome prompt

1. Under **Welcome prompt**, type the text of the prompt or a description of it.
2. Record the Welcome prompt using the audio controls. See *Administering TeleVantage* for instructions.
3. Click **OK** to save the queue as you have defined it so far or go to the next section.

Warning callers that their calls may be recorded

In some U.S. states it is illegal to record a call without notifying the caller. TeleVantage provides a professionally-recorded prompt, `MayBeMonitored.vox`, that you can import as a Welcome prompt. It says, “Your call may be monitored or recorded.” By default the prompt is in the following location:

```
C:\Program Files\Televantage Server\vfiles\EN00\MayBeMonitored.Vox
```

Creating voice-mail greetings

You can create and store as many different voice-mail greetings as you want, and you can easily change the active greeting, which is the one played to callers who reach the queue's voice mail. The greetings appear on the Greetings tab in the Queue dialog box. The active greeting appears in bold.

Enabling callers to leave a callback phone number

While leaving voice mail, callers can press 7 and then enter a phone number at which an agent can call them back. If callers use this feature, agents can call them back quickly by selecting the message in the Voice Messages view and choosing Speed Dial. This method of getting callback numbers is often a better alternative to asking callers to record their own phone numbers on the voice message.

If you want callers to enter a callback phone number, record instructions for how to do so in your voice-mail greeting. For example, your greeting might say, "We're sorry no one was available to take your call. To leave a message and have an agent call you back, press 7." Callers can press 7 during your greeting, while recording their message, or after recording their message.

Note: Entering a callback number while recording the message ends the message. However, the caller can then add more to the message by pressing **4**.

To create a voice-mail greeting

1. Click **Add** on the Greetings tab. The Greeting dialog box opens.

2. Under **Name**, enter a name for the greeting.
3. Under **Contents**, type the text of the greeting or a description of it.
4. Record the greeting using the audio controls. See *Administering TeleVantage* for instructions.
5. Click **OK** to save the greeting, which will now appear in the list on the Greetings tab.
6. To make this greeting the active greeting, click **Set Active** on the Greetings tab.
7. Click **OK** to save the queue as you have defined it so far or go to the next section.

Setting a maximum size of greetings

In **Maximum size of greetings (minutes)** on the Greetings tab, enter the maximum number (in minutes) for all voice-mail greetings for the queue.

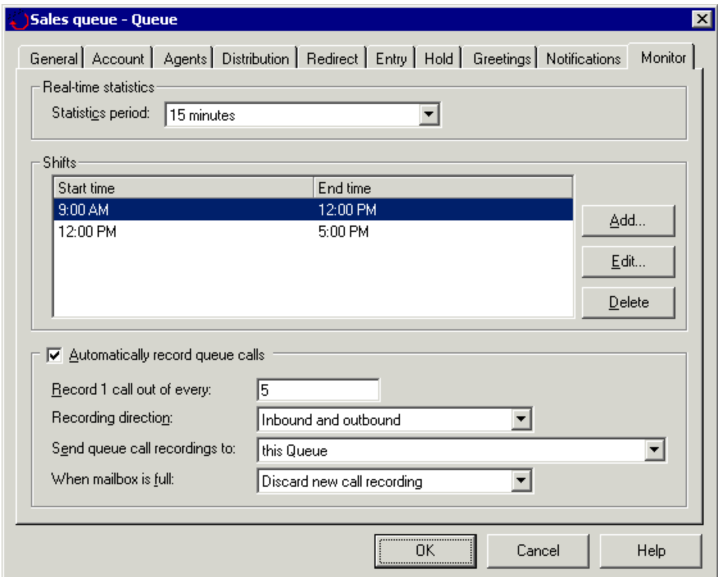
Setting up voice mail notifications

TeleVantage can automatically notify you by e-mail, pager, or call whenever the queue receives a new voice message. Click the Notification tab to set up notification of new queue voice messages. The feature is identical to the notification feature for users (see *Administering TeleVantage* or *Using TeleVantage*).

Setting up queue monitoring

Click the Monitor tab in the Queue dialog box to perform the following tasks:

- "Collecting queue statistics" (this page)
- "Automatically recording queue calls" on page 2-47



Collecting queue statistics

TeleVantage call centers record a wide variety of statistics that measure caller experience and agent effectiveness. Agents with the required permission can view real-time queue statistics by using the Client's Queue Monitor view. See "Monitoring queue statistics" on page 5-3.

In the TeleVantage Administrator, you can set the following options for how statistics are displayed:

- The statistics period
- Shifts

Both are used for display purposes only, to compare previous with current performance. The Queue Monitor displays statistics for the previous period and current period, and for the previous shift and current shift.

Defining the statistics period

On the **Statistics period** drop-down list, select how often the statistics period changes. The statistics period defines a length of time that you use to compare performance throughout the day. For example, if you set the statistics period to one hour, the Queue Monitor displays totals for the previous hour and the current hour.

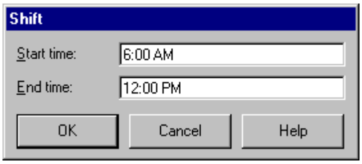
Configuring shifts

The Client shows agent statistics by shift. It shows queue statistics for the current shift and the previous shift. These shifts are arbitrary divisions of the workday that you define for the sole purpose of grouping statistics for display. For example, you can break the workday into a morning shift and an afternoon shift. During the afternoon you can then view the statistics for the ongoing afternoon shift and compare them to the statistics for the morning shift.

Defining shifts is unrelated to scheduling agent work periods, which is something you do outside of TeleVantage. It can be helpful to define your shifts that govern statistics display so that they match your company's actual work schedules, but it is not required.

To break the workday into shifts for statistics display

1. On the Statistics tab of the Queue dialog box, click **Add.** The Shift dialog box opens.



2. Enter the beginning time and end time of the shift in **Start time** and **End time.**

   Note: The duration of a shift must be greater than the statistics period of the queue.

3. Click **OK**.
4. Repeat to add as many shifts per day as you want.

Note: It is recommended that you configure one shift to begin on the same minute that another one leaves off, for example a 9:00 AM - 12:00 PM shift followed by a 12:00 PM - 5:00 PM shift. If you leave a gap between shifts, calls that begin and end in the gap will not be included in the Queue Monitor totals.

Automatically recording queue calls

You can have TeleVantage automatically record a queue's calls on a periodic basis. The recorded calls appear as new voice messages in the voice mailbox that you select. The system records both inbound and outbound queue calls.

To automatically record all calls in the TeleVantage system, queue or otherwise, use system call recording as described in *Administering TeleVantage*.

Note: In some U.S. states, it is illegal to record a call without notifying the caller. If you are using TeleVantage in such a state, your queue's Welcome prompt should inform callers that their calls may be recorded. See "Warning callers that their calls may be recorded" on page 2-43.

To record a queue's calls

1. Check **Automatically record queue calls**.
2. In **Record 1 call out of every**, enter a number. Enter 1 to record every call, 2 to record every other call, 3 to record every third call, and so on.
3. From the **Recording direction** drop-down list, select whether to record inbound calls only, outbound calls only, or both. Selecting both means that you get one recording per *n* calls regardless of the calls' direction.
4. From the **Send queue call recordings to** drop-down list, select the mailbox that will receive the call recordings as new voice messages.
5. From the **When mailbox is full** drop-down list, select what happens if the destination mailbox is full when TeleVantage attempts to store a new recorded message there:
   - **Discard new call recording.** TeleVantage deletes the new call recording instead of storing it.
   - **Delete oldest call recording.** TeleVantage deletes the oldest call recording in the mailbox to make room for the new recording. Only call recordings can be deleted by this method. Voice messages are never deleted this way.

You can also automatically record an individual agent's calls. See "Automatically recording an agent's calls" on page 2-14.

Setting up a menu choice for a queue

When your queue is ready to be used by the public, you can create a menu choice that transfers callers to the queue from your company's main auto attendant. For example, your menu choice could be, "For sales, press 2."

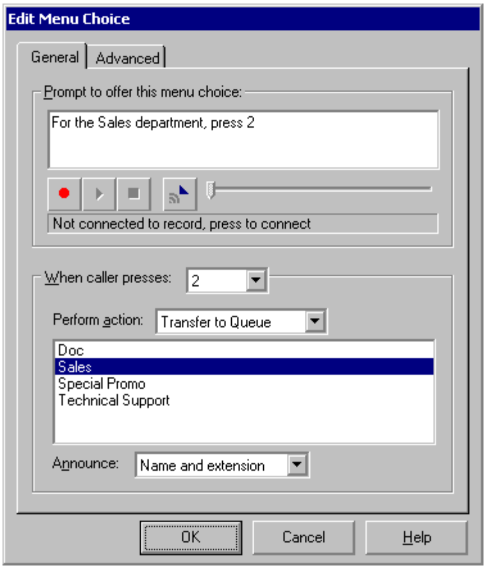
You can also give the queue a full phone number, so that callers can dial it directly. To do so, give it a DID number on the General tab (see "Entering general information about a queue" on page 2-6). Your phone lines must support DID to use this option. You can also direct a trunk line to the queue (see *Administering TeleVantage*).

To set up a menu choice in an auto attendant for a queue

1. In the Administrator, open the Auto Attendants view and double-click the auto attendant that you want to use to offer the queue to callers. The Auto Attendant dialog box opens.

   If you have multiple auto attendants, perform these steps for each one on which you want to offer callers the choice of transferring to the queue.

2. Click the Menu Choices tab.
3. Click **Add**. The Edit Menu Choice dialog box opens.



4. Record the prompt that you want callers to hear as part of your main menu, for example, "For the Sales department, press 2."
5. From the **When Caller Presses** drop-down list, select the key that you want callers to press to be transferred to the queue.
6. Do one of the following in the **Perform Action** drop-down list:

- Select **Transfer to Queue** and select the queue to which you want to transfer callers.
- If you are using a utility user to transfer calls to the queue, select **Transfer to user** and select the utility user. See Chapter 3 for instructions on using a utility user.

7. Click **OK** in the Edit Menu Choice dialog box.
8. Click **OK** in the Auto Attendant dialog box.

Using IVR Plug-ins with a call center queue

An *IVR Plug-in* is a custom application that acts as an extension on the TeleVantage system. You can use an IVR Plug-in to answer incoming calls to a call center queue. You also can capture caller information such as customer ID, address, and so forth by using an IVR Plug-in. You can then pass that information to the queue in the form of custom variables. The queue can use that information in the following ways:

- The information can be presented to agents in their Call Monitor views.
- You can pass call priority to the queue. See “Setting up call priority” on page 2-21.
- You can create conditional Hold prompts that play based on the information. See “Using custom data variables to play conditional Hold prompts” on page 2-42.

Passing information from an IVR Plug-in to a queue

TeleVantage passes information from an IVR Plug-in to a queue by means of custom variables. As long as the same variable exists in both the IVR Plug-in and the TeleVantage queue, the information is automatically passed to the queue from the IVR Plug-in.

To pass information from an IVR Plug-in to a queue

1. Create an IVR Plug-in that answers calls to the queue and then passes them to the queue.

   For instructions, see *TeleVantage Developer’s Guide,* available as a PDF file, `TvSDK.pdf`. The default location of the file is `C:\Program Files\TeleVantage SDK\TvSDK.pdf` on the TeleVantage Server computer.

2. Create a custom variable in the IVR Plug-in and set its value using the SetCustomPartyData or GetCustomPartyData methods. Make a note of the custom variable’s name.

   For instructions, see *TeleVantage Developer’s Guide.*

3. Create a custom variable in the queue that has the same name as the variable in the IVR Plug-in. When you type the name, match uppercase and lowercase letters.

   For instructions, see “Creating a custom data variable” in the next section.

Using the Call Classifier

The TeleVantage Call Classifier is a powerful TeleVantage Add-on Solution that can greatly improve the productivity of call centers. It connects with TeleVantage as an IVR Plug-in and can identify callers, intelligently route calls, and present call center agents with scripts and related caller information before they answer the phone.

To display detailed caller information on agents' screens, the Call Classifier can query any ODBC-compliant database (for example, Microsoft Access, SQL Server, Excel, Oracle, etc.) or the ThinkDirectMarketing DigitalDATA service of more than 120 million North American businesses and residences. In addition the Call Classifier can verify caller data and route callers to the optimal agent using custom business rules.

For more information about the Call Classifier, see www.artisoft.com or contact your TeleVantage provider.

Managing custom data variables

Custom data variables let you attach any kind of information to incoming calls. Each custom data variable represents a different field of information—for example, caller priority—and the value of that variable can be set individually for each incoming call—for example, each call can have a different priority value.

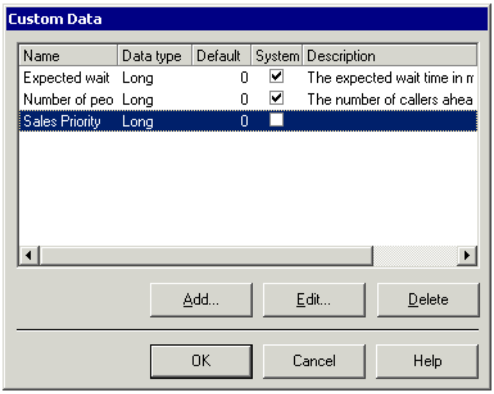
You can use custom data variables with a call center queue in the following ways:

- To determine whether a Hold prompt plays. See "Creating conditional Hold prompts" on page 2-41.
- To give high-priority callers less wait time. See "Setting up call priority" on page 2-21.
- To prompt callers to enter information that is then displayed to agents. See "Setting up caller data entry" on page 2-34.

Creating a custom data variable

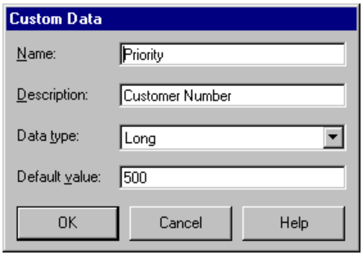
Use the following procedure to create a custom data variable for any of the above uses:

1. Choose **Tools > Custom Data**. The first Custom Data dialog box opens and shows any existing variables.



Note: TeleVantage comes with two pre-defined custom data variables, Expected wait time and Number of people ahead. For instructions on using them with conditional Hold prompts, see "Creating conditional Hold prompts" on page 2-41.

2. Click **Add**. The next Custom Data dialog box opens.



3. Enter the following information:

   - **Name.** Enter the variable's name. If you are using a variable that is passed from an IVR Plug-in, be sure to spell the variable name correctly. Upper and lower case letters are important.
   - **Description.** Enter a description that helps you remember the purpose of the variable.
   - **Data type.** Choose one of the following:
     - **Long.** The variable holds integer numbers only.
     - **Double.** The variable can hold integer numbers or decimal point numbers.
     - **Boolean.** The variable can hold the numbers 0 or 1 only.
     - **String.** The variable holds text.

   Note: If you are creating a custom data variable to set caller priority, select type Long.

- **Default value.** The variable will be set to the value you enter for every caller that enters the queue, if it has not received a value elsewhere.

4. Click **OK**. The variable appears in the list.
5. Click **OK** to close the Custom Data list dialog box.

CHAPTER 3

USING CONTACTS AND CALL RULES WITH A QUEUE

CHAPTER CONTENTS

About using contacts and call rules with a queue

This chapter describes how to use contacts and call rules with a queue. This procedure is optional—you can run a call center queue without using contacts and call rules.

For complete information about contacts and call rules, see *Using TeleVantage*.

To use contacts and call rules with a queue, you create a *utility user,* which is a dummy user whose routing list contains only a final action of transferring calls to the queue. The utility user does not represent a real person. Its function is to receive queue calls, identify the callers if possible, apply call rules when appropriate, and then transfer the calls to the queue for distribution to agents. Callers are not aware of the utility user.

Benefits of using contacts with a queue

By setting up contacts for the queue that represent important customers or business contacts, you can enjoy the following benefits:

- TeleVantage can identify the queue's contacts when they call, so that calls appear in the agents' Call Monitors labelled with the contact's name.
- All agents in the queue can view the queue's contacts in their Shared Folders lists and place calls to them if necessary.
- After a call, an agent can update a contact's record with notes that all other agents can see.

Benefits of applying call rules to queue calls

By applying call rules to incoming queue calls, you can handle individual calls based upon the caller and the time of day. For example, you can:

- Greet important customers with a special message before they enter the queue.You can record a Welcome message that gives callers a code for a special discount, and you can play the message only to favored customers.
- Change greetings and automatically transfer calls based upon the time of day. For example, instead of using the manual **Queue is closed** field (see "Closing the queue" on page 2-21), you can use your Business Hours schedule to have the queue automatically play a "We're closed" greeting and route calls to a voice mailbox when your business is closed. You can use different schedules for different queues.

  You can use an auto attendant as well as a utility user to play greetings and transfer calls based on time of day (see *Administering TeleVantage*).

Setting up a utility user for a queue

To set up a utility user for a queue, you must complete the following tasks, which are described in detail in the next two procedures in this section:

- Creating the utility user
- Editing the utility user's routing list

Creating the utility user

Use the following procedure to create a utility user:

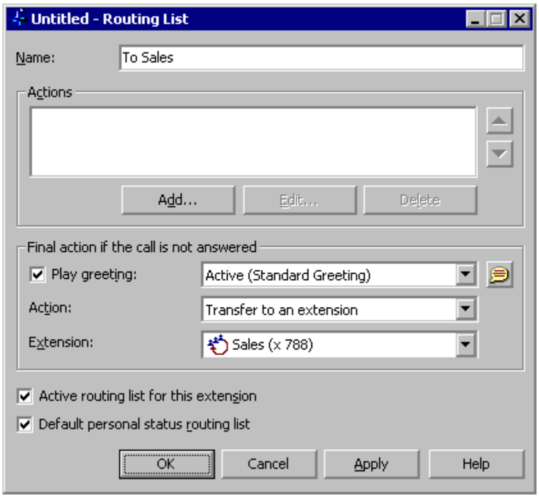
1. In the Administrator, choose **File > New > User**. The User dialog box opens.
2. Under **Type**, choose **User**.
3. Give the user a **Last Name** that identifies the queue for anyone transferring calls to it. For example, "Sales." Users who transfer calls to the queue will do so by transferring them to this user.
4. Give the user an **Extension** and **Password**.
5. Give the user a **Station ID** of 0. The utility user has no phone associated with it.
6. Click the Recordings tab.
7. Select **No Mailbox**. Voice messages for the queue will be stored in the queue's voice mailbox, so the utility user does not need one.
8. Under **Voice title**, use the audio controls to record the queue's name, for example, "Sales queue."
9. Click the Call Handling tab.
10. Under **Call handling**, uncheck all options.
11. Check **List in dial-by-name directory** if you want callers and users to be able to find the queue by name. If you do, you should uncheck this field for the queue itself, so users do not hear two entries for the queue.
12. Click **OK**.

Editing the utility user's routing list

1. Log on to the Client using the utility user's name and password.
2. Choose **File > New > Routing List**. The Routing List dialog box opens.
3. Give the Routing List a **Name** to help you identify it with the queue, such as "To Sales."
4. Select the action "Call Me Where I Am" and click **Delete**. The Actions list should be empty. If it is not, delete all other actions in the list.

5. Under **Final action if the call is not answered**, do the following:
   - Uncheck **Play greeting**.
   - Under **Action**, select **Transfer to an extension**.
   - Under **Extension**, select the queue to which you want the utility user to send calls.
6. Check **Active routing list for this extension**.
7. Check **Default personal status routing list**.

   Your dialog box should look similar to the following example:



8. Click **OK**.

When you are finished editing the utility user's routing list, make sure the utility's user's personal status is set to Available. See *Using TeleVantage* for instructions on selecting a personal status.

Creating and sharing queue contacts

You create contacts for the queue by creating contacts for the utility user and then sharing these contacts with the agents, as follows:

1. Log on to the Client as the utility user.
2. Choose **File > New > Contact** to add a contact. See *Using TeleVantage* for instructions. Repeat this step to add as many contacts as you want.
3. Choose **File > Folder > Share "Contacts."** The Contacts Properties dialog box opens at the Sharing tab.
4. In the **Available Users** pane, select the agents or other users to whom you want to give access to the queue's contacts. Press CTRL as you click users to select multiple users.

The users with whom you share access to the queue's contacts do not need to be the users who are the agents in the queue.

5. Click **Add** to move the selected users to the **Share with these users** pane.
6. Use the **Permission** drop-down list to determine each user's level of access to the queue's contacts. The options are:
   - **View only.** The user can view the queue's contacts, place calls to them, and associate calls with them.
   - **View and Edit.** The user can view, edit, and delete shared queue contacts.
7. Click **OK**.

For instructions on how users access shared queue contacts, see *Using TeleVantage*.

Setting up call rules for a queue

You set up call rules for a queue by creating call rules for the utility user, as follows:

1. Log on to the Client as the utility user.
2. Choose **File > New > Call Rule**. The Call Rule dialog box opens.
3. Define the call rule as described in the next section, "Using routing lists to define queue call rules." See *Using TeleVantage* for complete information about defining call rules.

   To activate call rules based on individual callers, define those callers as contacts for the utility user. See "Creating and sharing queue contacts" on page 3-4.
4. Make sure that **Enable this call rule** is checked.
5. Click **OK**. Repeat this procedure to create other call rules.

Using routing lists to define queue call rules

Each call rule that you define for a queue must handle calls by using a particular routing list. Use only the call rule's **Routing List** field and custom non-active routing lists to determine how calls are handled. Do not use the call rule's Personal Status or Taking Calls fields. If you use these fields, calls may be lost.

Example: To define a call rule that plays certain callers (contacts) a special Welcome message before they enter the queue, you would create a call rule that sends calls to a custom routing list (a routing list created for the utility user) that has the following features:

- No actions
- A greeting that plays the Welcome message before the final action
- A final action of **Transfer to Extension** that transfers calls to the queue

CHAPTER 4

WORKING AS AN AGENT IN A CALL CENTER QUEUE

CHAPTER CONTENTS

Whether this chapter applies to you

This chapter provides instructions for working as an agent in a TeleVantage call center. Whether or not this chapter applies to you depends on the TeleVantage call distribution method that your office uses, as follows:

- **Use this chapter** if you are an agent in a TeleVantage call center queue that was set up by using the separately licensed call center add-on.
- **Do not use this chapter** if you are an agent in a TeleVantage ACD workgroup that was set up by using an ACD workgroup user and a routing list that sends calls to agents who are members of a workgroup. If you are an agent in an ACD workgroup, see “Participating in an ACD workgroup” on page 6-14.

Starting and ending your shift, and taking breaks

Important: ***Do not use this section*** if you are disallowed from changing your own personal status. In that case, a supervisor will control your workflow. Talk to your queue manager or administrator about how to work in the queue.

As a call center agent, you control your workday by changing your personal status. At the beginning of your shift, you make yourself ready. At the end of your shift, you make yourself unavailable. While you are ready, you receive calls from all queues for which you are signed in. When you make yourself unavailable, queues stop sending calls to you.

Important: If you have to temporarily leave your phone during your shift, choose TeleVantage’s On Break personal status.

The following sections describe which personal statuses to use to make yourself ready and unavailable. For instructions on changing your personal status, see *Using TeleVantage*.

Starting your shift

To start your shift and begin receiving queue calls, make yourself ready by doing either of the following:

- Using your telephone keypad, press either of the following at a dial tone:
  - ***50.** This selects the Available personal status.
  - ***51.** This selects the Available (Queue Only) personal status.
- In the Client, select either of the following personal statuses:
  - **Available**. You receive personal calls (calls to your extension) as well as queue calls.
  - **Available (Queue Only)**. You receive only queue calls. Personal calls are sent directly to your voice mail.

If you will be making outgoing calls from the queue, see “Placing calls from a queue” on page 4-8.

Ending your shift

Important: Use this procedure at the end of your shift only. To take a break during your shift, use the **On Break** personal status to ensure the integrity of call center statistics. See the next section, "Taking a break."

To end your shift and stop receiving queue calls, make yourself unavailable by doing either of the following:

- Using your telephone keypad, press ***52** at a dial tone. This selects the personal status Available (Non-Queue).
- In the Client, select any personal status whose **Queue calls** preference is set to No, other than On Break. For example, select the Personal status Available (Non-Queue) to receive personal calls without receiving queue calls.

Important: If you have used the ***14** command to mark your outbound calls as being from the queue, you must pick up the phone and press ***14#** to mark your subsequent outbound calls as being personal calls from yourself. Otherwise your outbound calls will continue to be marked as coming from the queue (and may be monitored), even though you have ended your shift. See "Placing calls from a queue" on page 4-8.

Taking a break

To take a break from answering queue calls during your shift, do one of the following:

- Pick up the phone and press ***53**.
- In the Client, select the personal status **On Break**.

Important: Select the On Break personal status whenever you leave your phone during your shift, even for a short time. If you leave your phone without selecting On Break, queue calls might be sent to your phone, and callers will hear an interval of ringing before they are placed back on the queue.

When you finish your break and are ready to receive calls again, make yourself ready again. Press ***51** on your phone or select the personal status **Available** or **Available (Queue Only)**.

What call center agents need to know to get the job done

If you are working as a call center agent, you should be aware of the following:

- **While you are ready, always take queue calls that are sent to you.** If a queue call rings your phone and you do not answer, the caller will hear ringing and then be placed back on the queue. Also, if you do not pick up a ringing queue call, or decline it using the call announcing options, the queue might automatically place you in the On Break personal status.
- **Use the On Break personal status only to leave your phone during your shift.** Making yourself unavailable by using other statuses, such as Available (Non-Queue) or Do Not Disturb, signals TeleVantage that you are ending your shift (these statistics are reset daily).

- **Your personal status can be changed by others.** If you do not answer queue calls that ring your phone, the queue can automatically place you in the On Break personal status. Also, a supervisor can change your personal status at any time.

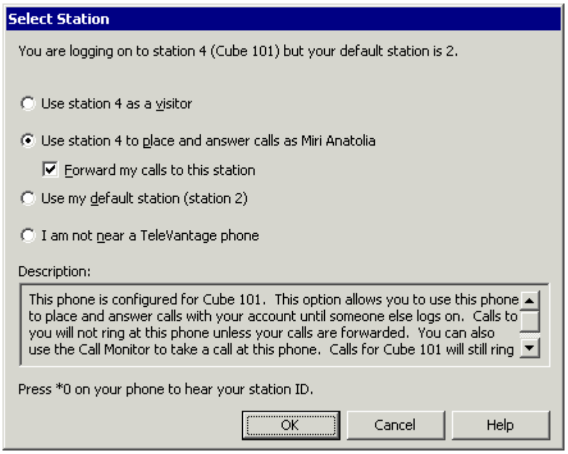
Working at different phones

If you need to work at a phone other than your default station, or if you have no default station and always work at a variety of phones, add the following steps to your routine:

1. When you first sit down at a new phone to receive calls, before marking yourself as Available, log on and forward your calls to your current location. Otherwise, your call center performance might be logged under another agent's name. Use either of the following methods:

   - Pick up the phone and log in by pressing **# <extension> # <password> #**. Once logged in, press **5 1** to forward calls to your current location.

   - Start the Client. The Select Station dialog appears. Select the second logon option, **Use station <x> to place and answer calls as <name>**. Check **Forward my calls to this station**.



2. After you have logged on, make yourself ready as described in "Starting your shift" on page 4-2.

3. When you are finished using a phone, log off by either picking up the phone and pressing ***0 0**, or by exiting the Client.

Note: When you are logged in at a station other than your own, voice message indicators apply to you. For example, if you hear stutter dial tone or see a message waiting light on the phone, it means you have new voice messages.

Signing in and out of a queue

You can be either signed in or signed out of each queue to which you belong. Only when you are signed in do you receive calls from the queue. When you are signed out of a queue, you can see and affect its calls in the Call Monitor, but the queue does not send calls to your phone.

As an agent, you might be signed out for the following reasons:

- You are a supervisor who wants to observe a queue and manually take calls if necessary, but you do not want queue calls to ring your phone.
- You are an agent who is a member of multiple queues, and you periodically change which queue you receive calls from. You receive calls only from the queues to which you are signed in.

To sign in or out of a queue

You must have permission to sign yourself in or out of queues. If you do not have permission, talk to your TeleVantage system administrator about signing in and out.

Using the Client

1. Choose **Tools > Queue Sign In/Out**. The Queue Sign In/Out dialog box opens, displaying all queues for which you are a member. A check mark for a queue indicates that you are signed in to that queue.
2. Check the box next to a queue's name to sign in to that queue, or clear the checkbox to sign out.
3. Click **OK**.

Note: In the Queue Monitor or Call Monitor view, you can also right-click a queue tab to sign in or out of that queue.

Using the telephone

Using your telephone keypad, press ***56** at a dial tone. Enter the extension of the queue for which you want to sign in or out followed by #, for example, "*56 102 #".

Seeing whether you are signed in or out of a queue

In the Queue Monitor and Call Monitor views, the tab for a queue displays an asterisk (*) if you are signed out from that queue.

Receiving and handling queue calls

You can receive and handle queue calls by using either the telephone commands or the Client. When the queue sends a call to you, your phone rings and the call appears in the Client's Call Monitor view.

To answer a call, do either of the following:

- Pick up the phone.
- Click the incoming call in the Call Monitor and choose **Actions > Take Call**. If your phone is on-hook, it rings to connect you to the call.

After you are connected to a queue call, you can use any TeleVantage call-handling features such as transfer, park, mute, and so forth. For instructions on handling calls using the phone or TeleVantage Client, see *Using TeleVantage*.

Note: Your queue calls are not shared, even if you are sharing your Call Monitor view.

Viewing your position in the queue

If you have permission to see the Client's Queue Monitor view, you can use it to monitor your position in the queue, and determine when you are likely to receive the next call. See "Monitoring the position of agents in the queue" on page 5-13.

Being monitored or coached by a supervisor

Call Center supervisors have the ability to supervise your queue calls on the following levels:

- **Monitoring.** A supervisor may listen in on any of your calls without you or the caller hearing. You will be unaware of the monitoring unless you have the permission **View agents being monitored**. If you do, the monitor appears in the Call Monitor as an indented line under the call.
- **Coaching.** A supervisor may speak to you during a call without the caller hearing. Coaching appears in the Call Monitor as a separate line under the call. If you are being coached, try not to speak to the coach, as the caller will not be aware of the coach's presence on the line.
- **Joining.** A supervisor may join your call, essentially creating a three-way conference call in which all parties can hear each other. For more about conference calls, see *Using TeleVantage*.

Only queue calls are susceptible to being supervised. This includes inbound queue calls and outbound calls that you have associated with a queue after using the ***14** command. Supervisors cannot monitor your personal (non-queue) calls in any way.

Having your calls recorded

The queue may be configured to record some or all of your queue calls. You receive no indication that a call is being recorded. The queue may be configured to place call recordings in your Inbox as new voice messages.

Your non-queue calls will not be recorded unless the TeleVantage system has been configured to record all calls.

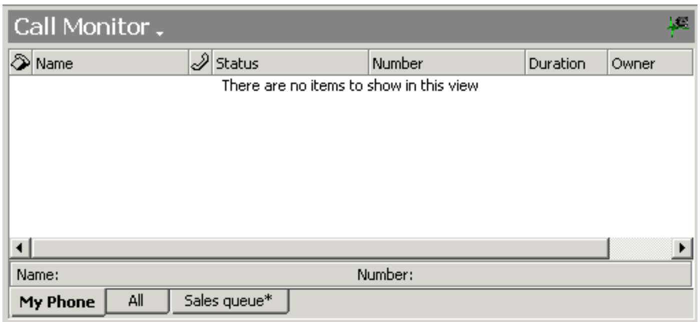
Using the Call Monitor tabs

When you are an agent in a call center queue, your Call Monitor view displays the following tabs:

- A tab that shows the queue's calls, with the name of the queue on it. If the tab name appears with an asterisk, it means that you are signed out from that queue.

  Note: You must have permission to see this tab. If you do not see it, see your TeleVantage system administrator.

- The My Phone tab, which shows all the calls that are being handled by your phone, including any queue calls you have taken.
- The All tab, which shows all your queue and personal calls together.



If you are an agent in multiple queues, the Call Monitor displays a tab for each queue.

Click the My Phone tab or a queue tab to view only the calls for that tab. Click the All tab to view all calls at once.

Note: Your Call Monitor view may display other tabs than the ones described in this section. See *Using TeleVantage* for a full description of the Call Monitor.

Wrap-up time

After you finish a queue call, you are given wrap-up time to complete any work relating to the call. During your wrap-up time you will not receive any queue calls. Your TeleVantage system administrator sets how much wrap-up time you have.

While you are in wrap-up time, appears in the Client status bar.

Terminating your wrap-up time early

To terminate your wrap-up time early and mark yourself as ready to take queue calls again, do either of the following:

- Click in the Client status bar.
- Using your telephone keypad, press ***54** at a dial tone.

Viewing queue activity

The Queue Monitor view in the Client displays a list of agents in the queue and up-to-date queue statistics. You can use it to see the status of other agents in the queue and your current position in the queue, among other things.

To see the Queue Monitor view in your Client, you must have the appropriate permission. For a description of the Queue Monitor view, see "Monitoring queue statistics" on page 5-3.

Placing calls from a queue

If you are a call center agent and you place a call at your desk using the telephone or the Client, by default TeleVantage treats the call as one made by you. You can choose instead to place calls as a queue, which may be necessary for your work as a call center agent. When you place calls as a queue, TeleVantage treats the call as if the queue placed it. Other agents can see it in their Call Monitors, it can be monitored by supervisors, and statistics and reports can accurately reflect queue activity.

To place calls as a queue, use your telephone keypad to press ***14<queue's extension>#** at a dial tone. TeleVantage treats subsequent calls from your station as being placed by the queue, until you switch back to calling as yourself. Note when calling as a queue, your calls appear on both the My Phone tab and the queue tab in your Call Monitor. The calls are logged both in your personal Call Log and the queue's Call Log, with the queue name in the **From** column.

To switch back to calling as yourself, use your telephone keypad to press ***14#** at a dial tone. Subsequent calls from your station are now marked as being placed by you. These calls appear only in your Call Monitor and only in your Call Log.

Important: When you are done placing calls as a queue, be sure to press ***14#** to switch back to calling as yourself. If not, your personal calls will be treated as queue calls, meaning they will be seen by all agents and subject to monitoring by supervisors.

Determining whom you are calling as

The Client's status bar (at the bottom of the Client window) displays whether the system is treating outbound calls from its station as being from you or from someone else.

You can also learn from whom a station is placing outbound calls by picking up the station and pressing *0. The station information recording includes the line, "The current extension is **<Ext.>** calling as **<Queue>**."

- **<Ext.>** is the extension of the last user who logged in at the station.
- **<Queue>** is the name of the queue that outbound calls are marked as being from.

For example, the recording might say, "The current extension is **555**, calling as **Sales Queue**."

Popping up caller information

You can use the TeleVantage Contact Manager Assistant to pop up information about callers that you have in another contact manager application. Callers must be contacts in one of the following contact manager or customer relationship management applications:

- Act! 3.0, 4.0, and 2000
- Goldmine 4.0 and 5.0, and Goldmine Business Contact Manager 5.7
- Goldmine FrontOffice 2000
- Microsoft Outlook 98, 2000, and XP

For instructions on configuring the TeleVantage Contact Manager Assistant, see its online Help.

Act! does not require the Contact Manager Assistant to pop up contact information.

Note: Your office might also use a custom screen pop application created with the Client API. If this is the case, see your TeleVantage system administrator for instructions on using it.

Working remotely

By forwarding your calls, you can work as an agent at a remote phone, for example, your home phone. For instructions on using the Client remotely, see *Using TeleVantage*.

CHAPTER 5

SUPERVISING A CALL CENTER QUEUE

CHAPTER CONTENTS

About supervising queues

You can assign agents any number of queue permissions that give them the ability to supervise a queue. Supervisory tasks include the following:

- Configuring the queue in the Administrator, including the agents that belong to it
- Signing agents in or out for the queue
- Viewing real-time queue statistics in the TeleVantage Client
- Changing an agent's personal status
- Managing a queue's voice mailbox
- Supervising agent conversations by monitoring or coaching

You assign permissions separately for each queue. To give an agent supervisor permissions in more than one queue, you must edit the agent separately in each queue.

For instructions on adding agents to a queue and setting their permission levels, see "Defining agents for the queue" on page 2-11. For a list of queue permissions, see "Agent permissions" on page 2-15.

Exempting supervisors from receiving queue calls

Because supervisors are agents in the queue, by default they receive queue calls when they are ready, just as other agents do. To exempt a supervisor from receiving calls from a queue, sign the supervisor out for that queue.

When supervisors are signed out from a queue, the queue does not send calls to them. However, supervisors can watch queue calls in the Call Monitor view and answer them if necessary using the **Take call** command. They can also perform all other queue monitoring and managing tasks when they are signed out.

For instructions on signing a supervisor out, see "Signing agents in or out of a queue" on page 5-18.

Monitoring current queue calls

Supervisors with the permission **Access Queue call monitor** can view all current queue activity on the queue's tab in the Client's Call Monitor view. Note that only calls associated with the queue appear in the queue's tab. If the agent is on a personal call or a call from another queue, it does not appear in the queue tab.

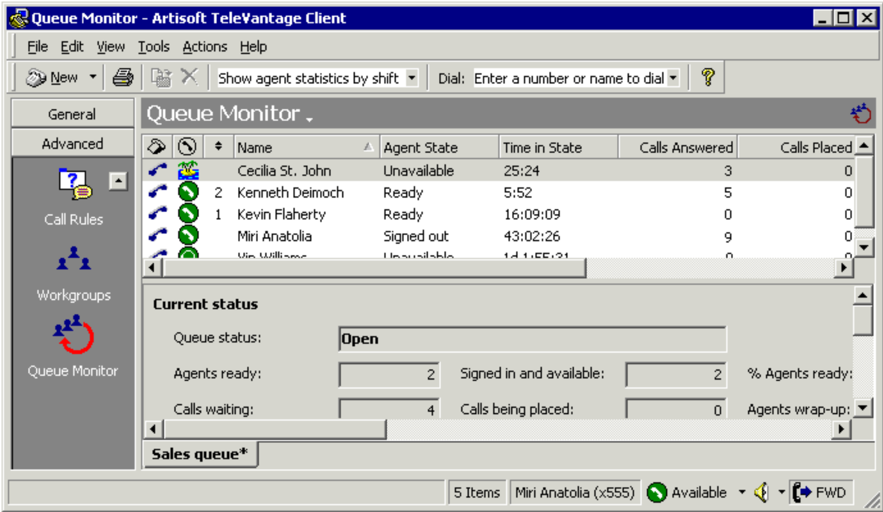
For more information, see "Using the Call Monitor tabs" on page 4-7.

Monitoring queue statistics

Agents who have the permission **Monitor queue statistics** set to Allow can monitor a queue's performance by using either the telephone commands or the Queue Monitor view in the Client.

Viewing queue statistics in the Queue Monitor view

To open the Queue Monitor view, click its shortcut in the Advanced section of the view bar.



Each queue for which you have permission to view statistics appears as a tab at the bottom of the view. Click a queue's tab to see statistics for that queue and the agents in that queue.

For a detailed description of when Queue Monitor statistics reset to zero, see "When statistics are reset" on page 5-12.

Note: You can continue to use the Call Monitor while you are in the Queue Monitor. Choose **View > Calls Pane** to add the Call Monitor to the Queue Monitor view as a separate pane.

The Agents pane

At the top of the Queue Monitor view, the Agents pane displays the names of all agents in the queue, their current statuses, and their performance, including inbound and outbound calls.

You can have the Agents pane display statistics by day or by shift. Choose **Actions > Show agent statistics by day/shift**. For information about shifts, see "Configuring shifts" on page 2-46.

Note: The Agents pane's statistics are those for the selected queue only. For example, the **Calls answered** field shows the number of calls an agent has answered for this queue. The agent may have answered other calls such as personal calls or calls from other queues.

The Agents pane displays the information shown in the following table. Some columns may be hidden by default. To show them, choose **View > Current View > Show Columns**.

Agents Pane Information	
 **Availability**	Icon showing the agent's phone as on-hook or off-hook.
 **Personal Status icon**	Icon for the agent's current personal status.
 **Distribution Order**	The order in which agents are scheduled to receive calls. The order is dependent on the queue's distribution algorithm. The agent who will receive the next call is the agent with the lowest number among currently Ready agents.
Name	Agent's name.

Agents Pane Information	
Agent State	Agent’s current level of availability to take calls from this queue. Note than an agent can be in different states for different queues at the same time. The possible states are: **Ready.** The agent is signed in, and in the personal status Available or Available (Queue Only), and the phone is on-hook. The agent is ready to take a call. **Active Inbound.** The agent is on an inbound call from this queue. **Active Outbound.** The agent is on an outbound call associated with this queue. **Wrap-up Inbound.** The agent is in the wrap-up period immediately following the end of an inbound call associated with this queue. **Wrap-up Outbound.** The agent is in the wrap-up period immediately following the end of an outbound call associated with this queue. **Standby.** The agent is On Break, or is in a non-queue call (such as a personal call or a call from another queue.) **Signed out.** The agent is signed out of this queue and so is not taking calls from this queue. **Unavailable.** The agent is in a personal status other than Available or Available (Queue Only), and so is not taking queue calls. **No answer.** The agent did not answer the last queue call. The queue does not send calls to agents in the No Answer status. TeleVantage automatically removes the agent from No Answer status after a certain time based on what caused the No Answer status. **Offering.** The agent's phone is ringing with a call from this queue, but the agent has not accepted the call yet.

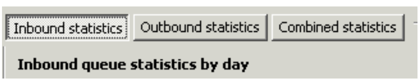
Agents Pane Information	
Time in State	The length of time that the agent has been in the current state for this queue. Times are displayed in the following format: days: hours:minutes:seconds.
Calls answered	Number of calls from this queue that the agent has answered since the beginning of the queue's current display period.
Calls placed	Number of outbound calls associated with this queue that the agent has placed since the beginning of the queue's current display period.
Time on calls	The total time the agent has spent on this queue's calls since the beginning of the shift. You can show this column separately for inbound calls, outbound calls, and all calls.
Longest call	The length of time of the longest queue call (including wrap-up time) that the agent handled since the beginning of the shift. You can show this column separately for inbound calls and outbound calls.
Avg. call	Average length of the agents' queue calls (including wrap-up time) since the beginning of the shift. You can show this column separately for inbound calls, outbound calls, and all calls.
Longest talk	The length of time of the longest single call the agent handled (not including wrap-up time). You can show this column separately for inbound calls, outbound calls, and all calls.
Away	A check mark indicates that the agent has been automatically placed in On Break status by the queue for having let his or her most recent queue calls ring unanswered. See "Placing agents on break if they do not answer calls" on page 2-20.

Agents Pane Information	
Forced Break	Number of times the queue has automatically placed the agent in On Break status for letting queue calls ring unanswered, since the beginning of the current display period. See “Placing agents on break if they do not answer calls” on page 2-20.
Longest wrap-up	The length of time that the agent spent in the longest wrap-up after a call.
No Answer	Number of queue calls to the agent that rang unanswered, since the beginning of the current display period.
Overflow	The agent’s overflow tier. If no number is listed the agent is a primary agent (assuming the overflow skill default is set to 0).
Personal Status Name	Name of the agent’s current personal status.
Queue	Name of the agent’s queue.
Signed in	A check mark indicates that the agent is signed in to this queue.
Total calls - All	The total number of calls associated with this queue in which the agent has participated since the beginning of the queue’s current display period. Includes inbound and outbound calls.

The Queue Statistics pane

At the bottom of the Queue Monitor view, the Queue Statistics pane displays statistics for the queue as a whole. To show or hide the Queue Statistics pane, choose **View > Queue Statistics Pane**.

You can display queue statistics for inbound calls only, outbound calls only, or all calls, by clicking the appropriate button above the **Queue statistics by day section**.



Note: For outbound calls to appear in the Outbound Statistics section, agents must place calls as the queue. See “Placing calls from a queue” on page 4-8.

The Queue Statistics pane is divided into the following sections:

- **Current status.** Statistics for the number of agents and calls currently in the queue.
- **Queue statistics by day.** Statistics for calls since the beginning of the current day. These statistics automatically reset to zero at midnight.
- **Queue statistics by period and shift.** Statistics for calls during the current period and shift, compared to the previous period and shift. When the current period or shift ends, the current statistics automatically reset to zero, and the totals that had accumulated are moved into the **Previous** column.

For instructions on defining the statistics period and shifts, see "Setting up queue monitoring" on page 2-45. For detailed descriptions of when day, period, and shift statistics reset to zero, see "When statistics are reset" on page 5-12.

Note: Queue statistics by shift are not updated during gaps between shifts. For example, if one shift ends at noon and the next shift begins at 12:30, queue activity between 12:00 and 12:30 is not reflected in the shift totals.

The Queue Statistics pane displays the statistics shown in the following table.

Queue Statistics Pane	
Current Status	
Queue status	Whether the queue is currently distributing calls to agents. The possible statuses are: **Open.** The queue is distributing its calls to ready agents as normal. **Closed.** The queue is closed. No calls are being distributed to agents. **No agents.** All agents in the queue are currently signed out, so the queue is automatically sending its calls directly to voice mail.
Agents ready	Number of agents waiting to receive queue calls. Ready agents are those who are signed in, have their personal statuses set to Available or Available (Queue Only), and are not currently off hook or in a wrap-up period.
Signed in and available	Number of agents eligible to receive queue calls, including those currently on a call or in wrap-up period. To receive queue calls an agent must be signed in and in a personal status whose **Queue calls** field is set to "Yes," such as Available or Available (Queue Only.)

Queue Statistics Pane	
% agents ready	The percentage of agents eligible to receive queue calls who are currently waiting for a call. The others are either off hook or in a wrap-up period.
Calls waiting	Number of calls currently waiting on the queue.
Calls being placed	Number outbound calls in the process of being placed. (Connected outbound calls are not counted.)
Agents wrap-up	Number of agents currently in the wrap-up period following a queue call.
Inbound Statistics	
Calls answered	Number of calls answered by an agent.
Calls completed	Number of completed calls in which a caller finished talked with an agent. Completed calls are calls that ended by hanging up or transferring.
Calls received	Total number of calls received, including abandoned calls.
Calls abandoned	Number of callers who decided not to talk to an agent and either hung up or chose a special key option to leave the queue (see “Offering the caller options while waiting on the queue” on page 2-38).
Avg. talk time	Length of the average time that callers spent talking with agents.
Total talk time	Total number of minutes that callers have spent talking with agents.
Total call time	Total number of minutes agents have spent on calls (talk time plus wrap-up time).

Queue Statistics Pane	
Longest time	Length of the longest time in each of the following categories (by day only): **Call time.** Length of call, counting talk time plus wrap-up time. **Talk time.** Time spent talking with an agent. **Wait time.** Time spent waiting on the queue.
Average wait time	Average length of time callers waited on the queue for each of the following categories: **All calls.** All inbound calls to the queue. **Answered calls.** All calls to the queue in which the caller spoke with an agent. **Abandoned calls.** All calls to the queue in which the caller hung up or left a voice message.
Redirection	Number of calls that have been automatically redirected by the queue, for each of the following categories: **Maximum wait.** Calls that reached the maximum wait time without being answered (see page 2-32). **Queue busy.** Calls that were redirected because the queue was too busy (see page 2-30). **Queue closed.** Calls that were redirected because the queue was closed (see page 2-21).
Outbound Statistics	
Calls placed	Number of outbound calls placed by this queue.
Calls completed	Number of connected calls that are now over.
Calls connected	Number of currently active connected calls.
Calls not completed	Number of outbound calls that did not find the called party.
Longest time*	Length of the longest time by one call.
Average time*	Length of the average time over all calls.

Queue Statistics Pane	
Total time*	Total number of minutes from all calls.
* See “Time statistics” on page 5-11.	
Combined Statistics	
Calls attempted	Total number of inbound calls answered and outbound calls placed.
Calls completed	Total number of inbound and outbound calls completed.
Calls connected	Total number of inbound calls that were connected with an agent and outbound calls that were connected with the called party.
Calls not completed	Total number of inbound calls abandoned and outbound calls not completed.
Longest time*	Longest call and talk time counting both inbound and outbound calls.
Average time*	Average call and talk time counting both inbound and outbound calls.
Total time*	Total call and talk time adding inbound and outbound calls.
* See the next section, “Time statistics.”	

Time statistics

The time statistics in the Queue Statistics pane use the following categories:

- **Call time.** Talk time plus wrap-up time.
- **Talk time.** Time spent talking with an agent.
- **Wrap-up time.** Time spent in wrap-up state after a call.

When statistics are reset

Statistics are reset to zero at the following times:

Statistic type	When reset
Statistics by day	At midnight, or when the Server is restarted.
Statistics by period	On 15, 30, or 60 minute intervals, depending on your configuration for **Statistics period** interval (see “Setting up queue monitoring” on page 2-45). The intervals are counted from midnight, so a 15-minute interval would reset at 12:15, 12:30, 12:45, etc. All queues that share the same statistics period interval reset at the same clock time. **Note**: Period statistics are always reset counting from midnight, not from the time of a Server restart. This could result in a short period. For example, if the Server was started at 9:50, the period would still end at 10:00, resulting in a 10-minute period.
Statistics by shift	At the end of the shift, as you defined it (see “Configuring shifts” on page 2-46).

Note: When a call overlaps a reset time, some statistics for it will appear in the first grouping, some in the second, depending on when the statistic is counted. For example, Calls Answered is counted as soon as the call is answered, while Calls Completed is counted when the call ends. Therefore, if a call lasts from 11:58 PM to 12:20 AM, it would be counted as a Call Answered in Day 1, and a Call Completed in Day 2.

When statistics are refreshed

By default the Queue Monitor view refreshes with new statistics as soon as they become available, providing a real-time picture of queue activity. You can enter a slower refresh rate to improve the responsiveness of agents’ Client applications. You should change this setting if you find that agents’ Client applications are responding too slowly.

To change the Queue Monitor refresh rate

1. In the TeleVantage Administrator, choose **Tools > System Settings**.
2. On the General tab, enter the refresh rate you want (in milliseconds) in **Queue statistics refresh interval**.
3. Click **OK**.

About agents’ personal status and state

It is important to distinguish between an agent’s personal status and state.

- **Personal status.** Determines whether the agent receives queue calls. An agent's personal status is the same across all queues.
- **State.** Displays the agent's current activity, for example, whether the agent is currently in a queue call. An agent's state can be different in different queues. For example, if an agent is a member of Queue A and Queue B, and the agent is currently in a call for Queue A, his state would be Active in Queue A and Standby in Queue B.

For a description of agent states, see the Agent State column in the Agents pane table on page 5-4.

Monitoring the position of agents in the queue

The Queue Monitor’s Distribution Order column—displayed as  in the Agents pane—shows the order in which ready agents are scheduled to receive calls. The agent with a 1 in the column is scheduled to receive the next call, followed by the agent with a 2 in the column, and so on. Unavailable agents do not receive a position number. Unavailable agents include agents who are signed out or in a personal status that makes them unavailable such as Do Not Disturb or Available (Non-Queue).

The agent with a 1 in the distribution order will not necessarily receive the next call. The distribution order reflects the scheduled order according to the queue’s distribution algorithm, but it does *not* reflect which agents are currently Ready. A Ready agent might have 5 in the Distribution Order column and yet receive the next call because all other agents are busy at the moment. The agent who will receive the next call is the agent with the lowest distribution order number among Ready agents.

Distribution order numbers for overflow agents follow those for primary agents. For example, if a queue has 10 ready primary agents, the first scheduled overflow agent will display 11 in the Distribution Order column. The distribution order of overflow agents is determined first by tier, and then within each tier by the queue’s distribution algorithm. For more about overflow agents, see “Setting up overflow agents” on page 2-24.

The following table shows how agent positions are calculated for each distribution algorithm. The descriptions apply separately to primary agents and to each tier of overflow agents.

Algorithm	Agent positions
Top down	Agents' positions are ordered by their order in the queue and do not change.
Round robin	Agents' positions are reordered according to which agent answered the previous queue call. Whenever an agent answers a queue call, the next agent down in the list becomes 1, the agent after that becomes 2, and so on. When the bottom of the queue is reached, the order continues from the top down until it meets the agent who answered the most recent call.
Longest idle agent	Agent positions are ordered according to the length of time without being in an Active state. The agent who has gone the longest without being Active inbound is in position 1. Note that talking on non-queue calls and being in the On Break personal status place an agent in the Standby state, so that the time since the agent was Active continues to increase. Likewise, Wrap-up is not an Active state, so agents' wrap-up time also increases their "idle" time. Only receiving a queue call makes an agent Active and resets the agent's "idle" time. An agent's position is reduced by 1 whenever an agent with a longer time since being Active receives or places a queue call. The only way for an agent's position to increase is for the agent to receive a queue call.
Fewest calls	Agent positions are ordered according to which agent has received the fewest queue calls during the current display period. The agent who has received the fewest queue calls since the beginning of the shift is at position 1. Note that the length of time spent on a queue call is not significant for adjusting position, only the number of queue calls participated in.

Algorithm	Agent positions
Least talk time	Agent positions are ordered according to which agent has spent the least time on inbound queue calls during the current display period. The agent who has spent the least time on inbound queue calls since the beginning of the shift is at position 1. Note that only calls from a queue count as talk time in that queue. An agent working in two queues will have a different talk time in each.
Simultaneous ring	Agents have no position, as each call rings all agents' phones simultaneously.

Note: The distribution algorithms Longest idle, Fewest calls, Least talk time count inbound queue calls only.

Monitoring queue statistics using the phone

Agents who have permission to monitor queue statistics can hear the current statistics for a queue at any time by picking up a TeleVantage phone and dialing ***55**. The system prompts them to select the queue for which they want to hear statistics.

Dialing ***55** plays the queue statistics shown in the following table. Statistic totals are kept since midnight at the beginning of the current day.

*55 Queue Statistics	
Callers waiting	Number of callers waiting on the queue.
Expected wait time	Rough estimate of how long callers can expect to wait if they called right now. The formula used is <total wait time of all answered calls so far this day> / <number of answered calls so far this day>.
Active agents	Number of agents currently available. This includes all agents who are signed in and in the personal status Available or Available (Queue Only).
Total calls	Total number of calls received today (since the last midnight).
Abandon rate	Abandoned calls as a percentage of total calls.

Supervising other agents' calls

You can assign agents permission to supervise other agents' calls in the following ways:

- **Monitoring an agent's call.** The supervisor can listen to another agent's call without being heard by the other agent or the caller.
- **Coaching an agent on a call.** The supervisor can coach another agent without being heard by the caller. The agent hears the supervisor but the caller does not. The supervisors can hear all parties.
- **Joining an agent's call.** The supervisor can be conferenced in to another agent's call as a full participant and be heard by both parties.

To participate in another agent's call using any of these methods, agents must have permission to do so. See "Agent permissions" on page 2-15.

Note: You can supervise an agent's outbound queue calls only if the agent has used ***14** to associate outbound calls with the queue. See "Placing calls from a queue" on page 4-8.

To monitor, coach, or join an agent's call using the Client

1. In the Call Monitor, select the call that you want to supervise.
2. Choose **Actions > Supervise**, and choose **Monitor**, **Coach**, or **Join** from the submenu.

To monitor, coach, or join an agent's call using the telephone commands

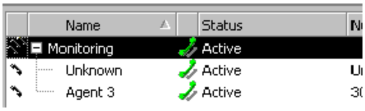
3. Using your telephone keypad, enter one of the following commands at the dial tone:
   - ***57.** Monitor.
   - ***58.** Coach.
   - ***59.** Join.
4. Enter the extension of the agent whose call you want to monitor, coach, or join, followed by **#**.
5. Press **1** to confirm the extension, or press ***** to enter a different extension.

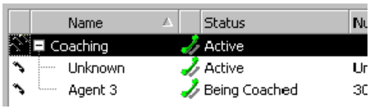
   Note: You can enter the complete digit string rapidly without waiting for the prompts. For example, ***58 3098# 1** to coach extension 3098.
6. Once connected to the call, you can use the following telephone command options:
   - To change the supervising mode—for example, from monitoring to coaching—press **Flash**, then enter the code for the new mode (see step 3).
   - To supervise a different agent, press **Flash #** to return to the dial tone, then begin again at step 3.

If the agent whose call you are supervising transfers the call to another party, or parks it and it is unparked by another party, you are disconnected.

How monitoring and coaching appear in the Call Monitor

When you are monitoring or coaching an agent on a call, the call appears in your Call Monitor showing all three parties to the call. Your row, the top row in the call, is labelled “Monitoring” or Coaching.”



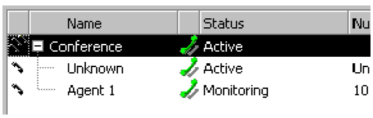


If you are coaching an agent, the agent sees you as a party in the call. If you are monitoring an agent, the agent does not see you as a party, unless that agent has the permission **View agents being monitored** set to Allow. See the next section.

Note: When you join another agent’s call, the call appears as a normal conference call.

Viewing when agents are being monitored

Agents who have the permission **View agents being monitored** set to Allow can see when an agent is being monitored by another agent. The monitoring agent appears in the Call Monitor as another party in the call, identified by the Status “Monitoring.”



Agents who have the permission set to Disallow (the default) cannot see when they or other agents are being monitored.

Note: The Call Log does not keep a record of agents were monitored.

Managing agents’ status

With supervisor permissions, agents can directly control the status of other agents in the queue in the following ways:

- Signing agents in or out of a queue
- Changing an agent’s personal status

Signing agents in or out of a queue

An agent who is signed in to a queue receives calls from that queue when ready. When signed out, the agent is still a member of the queue, but does not receive queue calls. An agent who is signed out can still view queue calls in the Call Monitor view and answer them if necessary by using the **Take Call** command.

Supervisors can use the sign in/out feature to move agents among queues without having to delete them from one queue and add them to another. For example, if Kim works as an agent in the Sales queue in the morning and in the Support queue in the afternoon, a supervisor can sign Kim out for the Sales queue at midday and sign her in for the Support queue.

Note: Agents with the **Queue Sign In/Out** permission can sign themselves in and out of the queue. See "Signing in and out of a queue" on page 4-5.

You can sign agents in or out using either the Client or the Administrator.

Signing agents in or out using the Client

To use this procedure you must have the queue permission **Monitor Queue statistics** (see "Agent permissions" on page 2-15) and the general TeleVantage permission **Access Queues folder** (see *Administering TeleVantage*).

1. Open the Queue Monitor view by clicking its icon in the Folder List.
2. If there are tabs for more than one queue, click the tab of the queue for which you want to sign the agent in or out.
3. In the Agents pane, select the agent.
4. Choose **Actions > Sign this agent into queue** or **Sign this agent out of queue**. The command signs the agent in or out.

Signing agents in or out using the Administrator

To use this procedure you must have the general TeleVantage permission **Access Queues Folder** (see *Administering TeleVantage*).

1. Open the Queues view and double-click the queue for which you want the agent to be signed in or out. The Queue dialog box opens.
2. Click the Agents tab and double-click the agent's name in the **Agents in this queue** list. The Agent dialog box opens.
3. Check or uncheck **This agent is signed in**.
4. Click **OK** to close the Agent dialog box.
5. Click **OK** to close the Queue dialog box.

Changing an agent's personal status

A agent who has the permission **Change an agent's personal status** set to Allow can directly change the personal statuses of agents in the queue. A supervisor can use this feature in the following situations:

- When agents are prevented from changing their own personal status. In this case you must manage their workflow for them, changing their personal status to begin and end their workday and to let them take breaks.
- When agents leave their phones and forget to change their personal statuses themselves. In this case, you can set the personal statuses of the agents to On Break.
- When the queue is configured to automatically place agents On Break if they let calls from the queue go unanswered. In this case, you ensure that agents become ready when they return to their desks.
- When agents leave for the day and are still ready. In this case, you can change their personal statuses to make the agents unavailable.

Important: If agents leave at the end of their workday without making themselves unavailable, you must make them unavailable before the start of the next workday, or the reports data will be inaccurate.

To change an agent's personal status

1. In the Client, select the agent on the appropriate tab in any of the following locations:
   - The Extensions view
   - The Extensions pane in the Call Monitor view
   - The Agents pane in the Queue Monitor view
2. Choose **Actions > Apply Personal Status**, and then select a personal status.

For more information about how to use personal statuses, see *Using TeleVantage*.

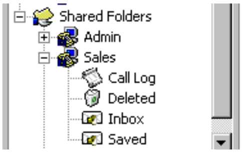
Managing a queue's voice mailbox

Agents who have the permission **Access queue mailbox** set to View and Edit can manage voice messages that callers leave in the queue's voice mailbox. They can listen to messages, reply to them, and delete them. They also can create voice mailbox folders and move messages among those folders.

Agents who have the permission set to View Only can see and listen to voice messages, but not perform any other commands on them.

To access the queue's voice mailbox

1. In the Client, open the queue by going to **Shared Folders** in the Folder List and clicking the plus sign next to the queue's name.



2. Click Inbox, Saved, or another voice mailbox folder to view the contents of that folder.

For complete instructions on managing voice messages using the Client, see *Using TeleVantage*.

Managing queue voice messages on the telephone

You can also manage a queue's voice mail using the telephone by logging in as the queue. When logging in, use the queue's extension and password.

For instructions on logging in and managing voice messages using the telephone commands, see *Using TeleVantage*.

CHAPTER 6

ACD WORKGROUPS

CHAPTER CONTENTS

About ACD workgroups

This chapter provides instructions for setting up and using an Automatic Call Distribution (ACD) workgroup. ACD workgroups enable you to distribute incoming calls among several agents. If all agents are busy, calls remain on hold until agents become ready to answer them. You can use an ACD workgroup in a sales department, a customer support organization, or any department in which multiple agents answer calls to a single number.

ACD workgroups are an alternative to the separately-licensed TeleVantage call center queues system (see Chapter 2 through Chapter 5). It is recommended that you use call center queues as your call center system, since they provide more features. However, you can use either system with TeleVantage.

TeleVantage ACD features

For a full list of ACD features, and a comparison with call center features, see "Call center queue and ACD workgroup features" on page 1-3.

What agents experience

Ready ACD agents can wait for their phones to ring or they can answer calls by choosing **Actions > Take Call** in the Call Monitor view in the Client. Taking calls in this way does not affect their position if they are in a round-robin workgroup. To use the Client with the ACD workgroup, agents log on to their own accounts and view ACD workgroup calls in a shared Call Monitor view tab. All agents can see the ACD workgroup's calls. After an agent answers a call, the other agents continue to see it in their Call Monitor views, but they cannot interrupt or affect it.

For instructions on participating as an agent in an ACD workgroup, see "Participating in an ACD workgroup" on page 6-14.

What callers experience

Callers choose an option from the auto attendant main menu to go to a department (for example, "For Sales, press 2"). If all agents in the ACD workgroup are busy, callers are placed on hold. They hear a recorded message periodically that you can customize. While they are on hold, callers can enter **1** to stop waiting and leave a voice message. They can also enter **0** to transfer to the Operator, or they can remain on hold indefinitely until the call is answered.

You also can create an overflow workgroup that handles calls when all agents are busy, and you can create multiple groups that handle different work shifts. Both of these options are described in "Creating an overflow workgroup" on page 6-11.

Important: It is highly recommended that you use music-on-hold for callers who are waiting for an agent. If you do not have a station set up to play music-on-hold, callers hear the ringing tone as they wait for an agent.

Overview of setting up an ACD workgroup

To set up an ACD workgroup, you must create the following items:

- A new TeleVantage user of the type **ACD workgroup user**. This user does not represent a real person. It functions as a mechanism for distributing calls to agents.
- A new TeleVantage workgroup whose members are the users who will work as agents.
- A routing list for the ACD workgroup user that directs incoming calls to the workgroup.

Note: The term *ACD workgroup* refers to the complete system that exists after the three items in the previous list have been created.

How to direct calls to the ACD workgroup

You direct incoming calls to the ACD workgroup by sending them to the ACD workgroup user. The ACD workgroup user's routing list then automatically distributes the calls to agents (see the next section).

You can send calls to the ACD workgroup user in any of the ways that you send calls to a normal user, as follows:

- Give the ACD workgroup user's extension a menu option from the auto attendant, so that callers can choose, for example, "Press 1 for Technical Support." The option transfers the call to the ACD workgroup user.
- Give the ACD workgroup user a DID number, which allows callers to dial a complete phone number and reach the ACD workgroup user directly. Your phone lines must support DID to use this option.
- Dedicate a trunk to the ACD workgroup user, so that all incoming calls on the trunk are sent to the ACD workgroup user.
- Give the ACD workgroup user an extension, so that other users in the company can transfer calls to the ACD workgroup.

How calls are distributed to agents

Calls to the ACD workgroup are automatically distributed to agents by means of the ACD workgroup user's routing list. When calls are sent to the ACD workgroup user (see the previous section), its routing list automatically puts them on hold until an agent becomes ready, plays them any messages that you record for that purpose, and finally transfers them to a ready agent.

You can customize several aspects of the routing list, such as what messages play to callers while they wait on hold and how calls are distributed among ready agents.

Creating an ACD workgroup

To set up an ACD workgroup, you will use both the TeleVantage Administrator and the TeleVantage Client.

Creating an ACD workgroup involves the following steps. The first sentence in each step corresponds to the heading of a section in this chapter that explains the step in detail.

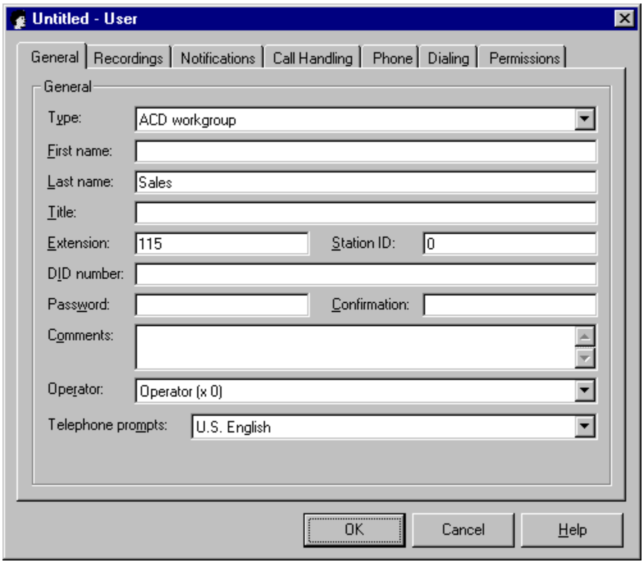
1. **Creating the ACD workgroup user.** In the Administrator, create a new user of the type **ACD workgroup user.** Name it for the ACD workgroup (for example, “Sales”). See page 6-5.
2. **Creating the workgroup for the ACD agents.** In the Client, create a workgroup that contains the agents who will participate in the ACD workgroup. You can create more than one workgroup of agents if you want a primary workgroup and backup groups. See page 6-6.
3. **Creating the ACD workgroup user’s routing list.** In the Client, give the ACD workgroup user an active routing list with the “Call me at multiple locations” action. This routing list then distributes calls to the agents in the workgroup. Give the routing list a final action of Hold/Restart, so that if all agents are busy, the caller remains on hold until an agent is ready. See page 6-7.
4. **Sharing the ACD workgroup user’s Call Monitor, voice message folders, Call Log, and Contacts folders.** In the Client, share these folders to the workgroup of agents, so that the agents can manage incoming queue calls, the queue’s voice mail, the queue’s call history, and the queue’s contacts. See page 6-11.
5. **Creating the menu choice in the auto attendant.** In the Administrator, create an auto attendant menu choice that transfers callers to the ACD workgroup user’s extension (for example, “For Sales, press 2”). See page 6-13.

Creating the ACD workgroup user

The ACD workgroup user does not represent a real person with a phone. It is a mechanism that keeps calls on hold and then sends them to members of one or more workgroups.

To create the ACD workgroup user

1. In the Administrator, choose **File > New > User**.



2. From the **Type** drop-down list, select **ACD workgroup user.**

3. Name the user after the workgroup that you will create. In the example given here, the workgroup represents the Sales department, so the name “Sales” has been entered in the **Last name** field.

4. Accept the extension suggested or enter a different one. Give the user a password. Assign a station ID of 0. The workgroup user does not have a phone and calls to this extension are routed to the agents’ phones by the user’s routing list in the Client.

   Note: You can also give the ACD workgroup user a Direct Inward Dial (DID) number if you want a dedicated phone number for the workgroup. This number can be instead of or in addition to a menu choice from the auto attendant. Your phone lines must support DID to use this option.

5. Click the Recordings tab. As a voice title for the ACD workgroup user, record the name of the workgroup (for example, “Sales”). Callers who choose the workgroup from the main menu will hear “Transferring to” followed by the voice title.

6. On the Recordings tab you can give the ACD workgroup user a mailbox so that callers can leave a voice message instead of waiting on hold. It is recommended that you increase the size of the mailbox if the number of agents in the workgroup or the volume of calls is high.

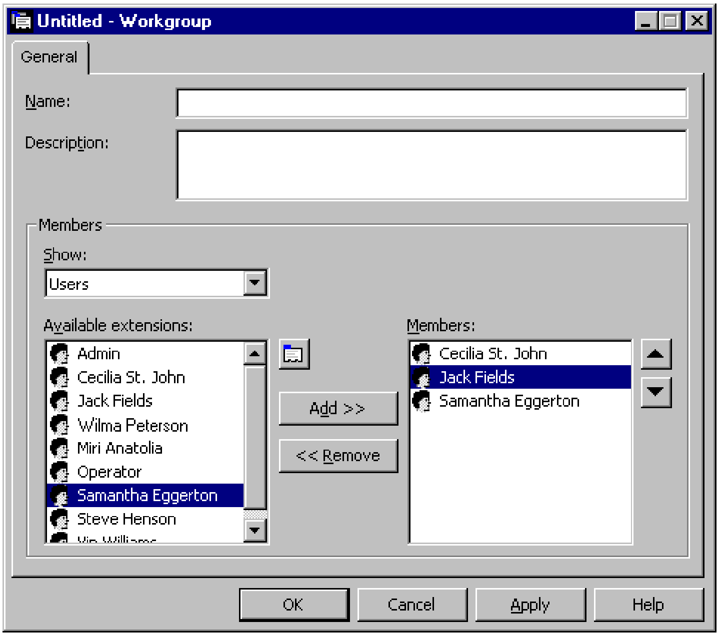
7. Click the Call Handling tab. Under **Screen and announce the caller for these types of calls**, uncheck **Internal**, **External**, and **External Direct**. If these types of calls are left checked, callers receive prompts to state their names.

8. Click **OK**.

Creating the workgroup for the ACD agents

1. Log on to the Client as the ACD workgroup user.

2. Choose **File > New > Workgroup**. The Workgroup dialog box opens.



3. Name the workgroup after the ACD workgroup, for example, "Sales."

4. Build the workgroup by selecting each agent in the **Available Extensions** list, and then clicking **Add**. Press CTRL to select multiple agents. Added agents appear in the **Members** list.

   To have agents answer calls from home, have them forward their calls to the external phone. You could also define them as contacts and add them to the workgroup here.

   Note: Contacts in an ACD workgroup and users with call forwarding are ignored if you use the Simultaneous distribution method.

5. Use the arrows next to the **Members** list to change the order of agents in the workgroup. The Top Down method of distributing calls starts at the top of the workgroup, so if you are using that method you might want your most skilled agent

listed first. The Round Robin method is also slightly affected by the order of the workgroup. For the Simultaneous method, workgroup order is ignored.

6. Click **Apply** or **OK**.

Repeat the steps above if you need to create other workgroups. You might create more than one workgroup if you are defining overflow agents or shifts. See “Using multiple groups for specific shifts” on page 6-10 and “Creating an overflow workgroup” on page 6-11.

Note: Agents can answer incoming calls for a workgroup whether or not they are in the workgroup. As long as you have shared the ACD workgroup user’s Call Monitor view with them, they can answer incoming calls by using the **Actions > Take Call** command in the Call Monitor view. The Take Call command overrides the first-in, first-out hold sequence. In this way their phones do not ring with ACD calls, but they can relieve the burden on workgroup members if several callers are waiting on hold.

Creating an Extensions view tab that shows the agents

You can have the agents of the ACD workgroup appear in a separate tab in the Client’s Extensions view. The tab shows the members of the workgroup, making it easy to see all agents and their current status. The tab is visible to all agents.

To create an Extensions view tab for the agents

1. Using the Administrator, create a new public workgroup.
2. Populate the workgroup with the ACD workgroup agents, just like the personal workgroup that you created in the previous section. Include in the public workgroup all the ACD workgroup’s agents, even if you had split them between multiple personal workgroups to create overflow agents or shifts.

Because the workgroup is public, it automatically appears as a tab in the Extensions view of its members. The ACD workgroup does not use this workgroup to distribute calls—the workgroup’s only function is to provide the Extensions view tab.

Note: If you add or remove agents from the personal workgroup attached to the ACD workgroup user’s routing list, remember to add or remove the same agents from the public workgroup.

Creating the ACD workgroup user’s routing list

The ACD workgroup user’s routing list takes incoming calls to the ACD workgroup user and distributes them to the agents. To do this, the routing list uses the action **Call a workgroup**, which rings agents in a workgroup.

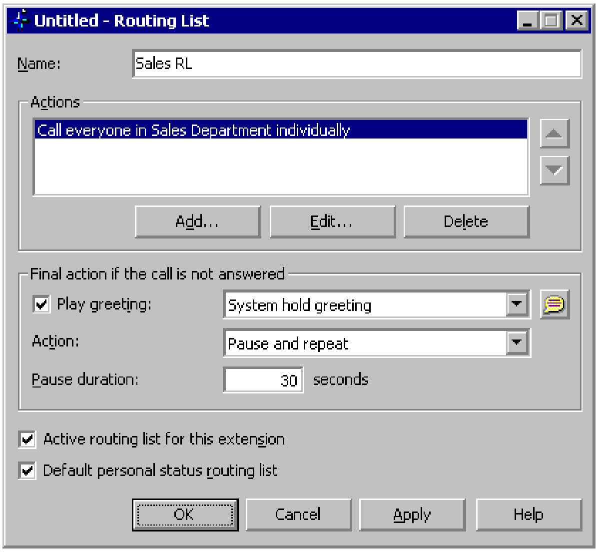
If an agent is already on the phone, the routing list skips that agent and proceeds to the next agent in the workgroup. If an agent does not answer the phone, the routing list rings it for the number of seconds that you specify and then proceeds to the next agent. If all agents are unavailable, the call continues to the next action in the routing list, if there is one. You can configure the next action to send calls to a second, overflow workgroup.

If no one in the workgroup is ready, TeleVantage plays the caller a hold message, and the routing list begins at the first action again. The call continues to cycle until it is answered or until the caller chooses to stop waiting.

Important: It is highly recommended that you use music on hold for callers waiting for an agent. If you do not have a station set up to play music on hold, callers hear the ringing tone as they wait for their calls to be answered. For more information about playing music for callers on hold, see *Administering TeleVantage*.

To create the ACD workgroup user's routing list

1. Log on to the Client as the ACD workgroup user.
2. In the Routing Lists view, choose **Routing Lists > New Routing List.** The Routing List dialog box opens.



3. Enter a name for the routing list.
4. Delete the action **Call me where I am** from the **Actions** list. You will add the new action in step 7.
5. Under **Final action if the call is not answered**, set the following options:
   - Under **Action**, choose **Pause and Repeat**. This setting ensures that if all agents are busy, callers remain on hold and cycle through the routing list again. The result is that they remain on hold until their calls are answered.
   - Optionally, change the greeting in the **Play Greeting** drop-down list, or uncheck the field to have no greeting play. Note that if all agents are busy, callers hear the greeting multiple times, separated by the **Pause Duration** setting, until their calls are answered. This recording can be a special one that you make that assures callers that their calls are important and will be answered. You can choose the System Hold Greeting, which says, "The person you are calling is unavailable. To hold, please

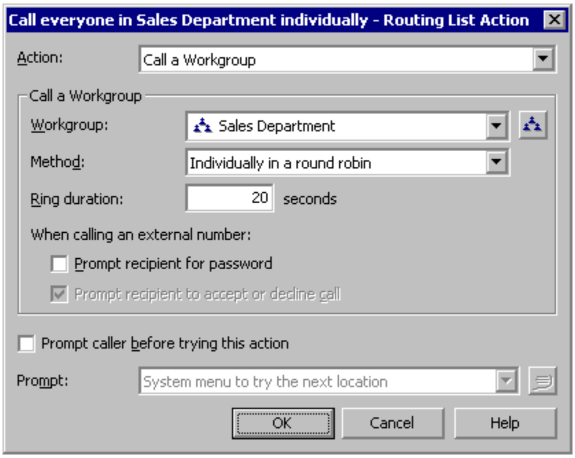
stay on the line. To leave a message, press 1.” To record a new greeting directly from this dialog box, click the button next to the field. See *Using TeleVantage* for instructions on how to record greetings.

Note: The caller options of pressing **0** or **1** (to transfer out of hold or leave voice mail) work only while the greeting is playing. After the caller goes back on hold, key presses are inactivated. Therefore, be sure to record a few seconds of silence at the end of your greeting so that the caller has enough time to press a key.

- Under **Pause Duration**, specify how long calls pause after each cycle before beginning the routing list again. If you play a greeting, you should set this to at least 30 seconds, because if all agents in the routing list are busy, callers will hear the greeting over and over again, separated only by the time you enter here.

6. Check **Active routing list for this extension** and **Default personal status routing list**.

7. Click **Add** to add a new routing list action to the **Actions** list that will distribute calls to the ACD agent workgroup. The Routing List Action dialog box opens.



8. From the **Action** drop-down list, select **Call a workgroup**.

9. From the **Workgroup** drop-down list, select the workgroup that contains the ACD agents. Be sure to select the ACD workgroup user’s personal workgroup, not the public workgroup that you created for purposes of showing Extensions view tabs (see “Creating the workgroup for the ACD agents” on page 6-6).

   You can create a new workgroup directly from this dialog box by clicking the button next to the field.

10. Choose one of the following distribution methods:

    - **Sequentially from the top down.** Calls try the agents in a fixed sequence. Each call goes to the agent at the top of the list first. If that agent is busy, the call goes to the next agent on the list, and so on.

- **Individually in a round robin.** Calls try the agents in the same sequence as with Top Down, but starting with the next agent each time. If the first call was answered by the first agent on the list, the next call starts by trying the second agent on the list, and so on. This option distributes calls equally throughout your workgroup.
- **Simultaneously.** All phones ring at once, and the first agent to answer the call takes it. This feature is especially handy for small offices or departments. Call forwarding is ignored, so that only the agents' default phones are tried. Any contacts in the workgroup are ignored, unlike the other two methods.

Note: For information about reordering a workgroup, see "Creating the workgroup for the ACD agents" on page 6-6.

11. In the **Ring duration** field, set the minimum number of seconds that TeleVantage should ring each agent. TeleVantage rings each ready agent in the workgroup for the amount of time entered here. External contacts ring for at least 30 seconds even if you specify a lower number.
12. Under **When calling an external number**, uncheck **Prompt recipient for password**. This setting ensures that agents working at external phones can answer ACD calls without any delay.
13. Uncheck **Prompt caller before trying this action**.
14. Click **OK** to close the Routing List Action dialog box.
15. In the Routing List dialog box, click **OK**.

See *Using TeleVantage* for more information about routing lists.

Note: Always set the routing list to send calls to a workgroup as described here. If you set the routing list to send calls to individual agents, first-in, first-out (FIFO) hold will not work.

Using multiple groups for specific shifts

If your ACD workgroup has different agents that replace each other in shifts, you can create multiple groups to represent the different shifts of agents. When a shift changes, you can edit the routing list so that it points to the new workgroup, as follows:

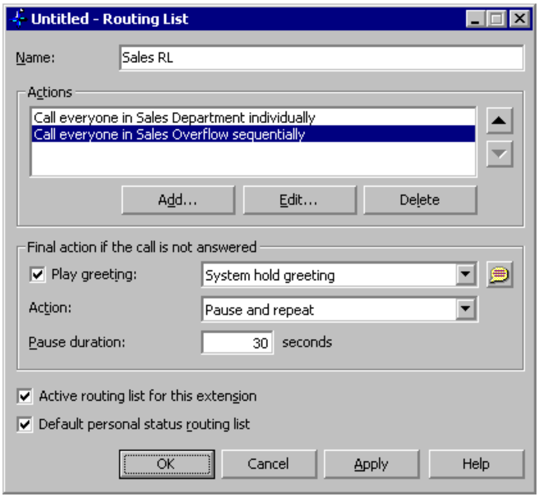
1. In the Routing List view in the Client, double-click the active routing list for the ACD workgroup user.
2. Double-click the action **Call workgroup.**
3. Under **Workgroup**, select a different workgroup.
4. Click **OK** to close the Routing List Action dialog box.
5. Click **OK** to close the Routing List dialog box.

You can also support specific shifts by adding or deleting members of a single workgroup.

Creating an overflow workgroup

You can create one or more overflow groups of agents that receive ACD calls if all agents in the primary ACD workgroup are busy.

1. Create a second workgroup that contains the agents that you want to be in the overflow workgroup. See “Creating the workgroup for the ACD agents” on page 6-6 for instructions.
2. Create a second action in the ACD workgroup user’s routing list that is similar to the first action, but that points instead to the overflow workgroup. A call cycles through all agents in the first workgroup. If they are busy, the call proceeds to the overflow workgroup.



Continue creating the routing list action as shown in “Creating the ACD workgroup user’s routing list” on page 6-7.

Sharing the ACD workgroup user’s folders to the agents

You can share the following folders from the ACD workgroup user’s account to the agents, giving the agents the ability to access the folders in their Clients.

- **The Call Monitor.** Agents can see a separate tab in their Call Monitor views that displays ACD workgroup calls. Agents can switch between that tab and the All tab, which shows their ACD and non-ACD calls together.
- **Voice message folders.** If you share the Inbox, agents can listen to and manage the queue’s new voice messages. If you share the Deleted folder, agents can delete the queue’s voice messages. If you share other voice message folders, such as the Saved folder, agents can move the queue’s messages between folders.
- **The Call Log.** Agents can view and respond to the queue’s call history.
- **Contacts folders.** Agents can view and edit the queue’s contacts.

To share an ACD workgroup user’s folder to the agents

1. Log on to the Client as the ACD workgroup user.
2. If the Folder List is not showing, choose **View > Folder List**.
3. Right-click a folder that you want to share and choose **Share**. The Folder Properties dialog box opens to the Sharing tab.
4. In the **Available users** list, select the ACD workgroup.
5. Click **Add.** The members of the workgroup are added to the **Share with these users** list.
6. Click **OK**.
7. Repeat steps 3-6 to share other folders.

Notes

- You do not have to share every folder with every agent. For example, you could share the voice message folders only with certain agents, so that only they would be able to manage the queue’s voice mail. To remove an agent from the **Share with these users** list, select the agent and click **Remove**.
- You can share a folder with other users in addition to agents by adding them to the **Share with these users** list. Because the other users are not in the workgroup, they will not receive ACD workgroup calls. However, they will be able to see and manage the ACD workgroup folders. If you share the Call Monitor to other users, they will see ACD workgroup calls in their Call Monitor views, and they will be able to answer a call using the **Take Call** command.

Creating the menu choice in the auto attendant

This step adds a choice to your company's auto attendant main menu that transfers callers to the ACD workgroup user.

Important: When you complete the following procedure, your ACD workgroup will be available to callers, and you might start receiving calls. For information about taking the ACD workgroup temporarily offline, so that calls to it are sent directly to voice mail, see "Taking the ACD workgroup offline" on page 6-17.

For other ways to direct calls to the ACD workgroup user, see "Overview of setting up an ACD workgroup" on page 6-3.

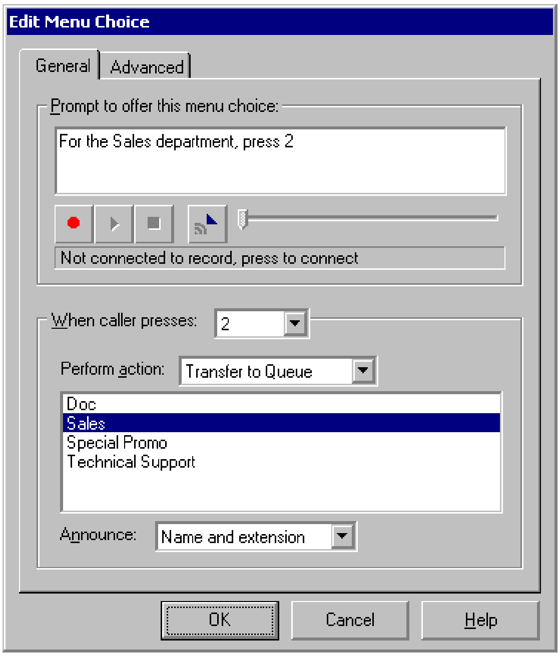
To create the menu choice in the auto attendant

1. In the Administrator, open the Auto Attendants view and double-click your auto attendant. The Auto Attendant dialog box opens.

   If you have multiple auto attendants, perform these steps for each auto attendant in which you want to offer callers the menu choice of transferring to the ACD workgroup.

2. Click the Menu Choices tab.

3. Click **Add**. The Edit Menu Choice dialog box opens.



4. Record the prompt that you want callers to hear as part of your main menu, for example, "For the Sales department, press 2."

5. From the **When caller presses** drop-down list, choose the key that the caller must press to be transferred to the ACD workgroup.
6. From the **Perform action** drop-down list, choose **Transfer to user**, and then click the name of the ACD workgroup user in the list of users.
7. Click **OK** to close the Edit Menu Choice dialog box and then click **OK** in the Auto Attendant dialog box to close it.

Participating in an ACD workgroup

This section describes how agents participate in an ACD workgroup.

Important: This section covers instructions for working in an ACD workgroup only. For instructions on working in a call center queue, see Chapter 4.

Use of the TeleVantage Client

Agents in an ACD workgroup must use the TeleVantage Client. Without the Client, there is no way for agents to control whether or not they receive calls from the ACD workgroup. Agents require the Client to begin and end their workday and to take breaks during it, as described in the next section.

Marking yourself ready and unavailable

To mark yourself as ready to receive ACD workgroup calls:

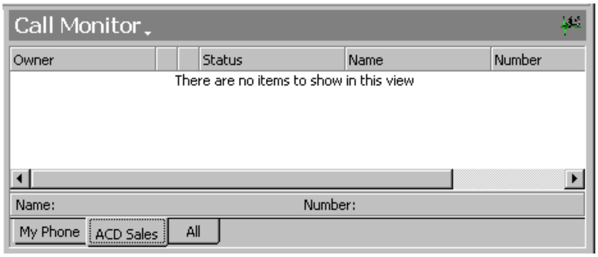
1. Log on to the Client using your own name and password.
2. Click **Tools > Options**.
3. Click the Incoming calls tab.
4. Check **Accept ACD Workgroup calls**.
5. Click **OK**.

To mark yourself as unavailable, which stops ACD workgroup calls from being sent to you, uncheck **Accept ACD Workgroup calls**.

Note: If your ACD workgroup uses the simultaneous ring method, you cannot make yourself available while a call is ringing and answer it. Because you were not available when the call started ringing, your phone will not be rung for that call.

Using the Call Monitor

To use the Call Monitor to handle ACD workgroup calls, agents log on to the Client using their own names and passwords. They can view incoming ACD workgroup calls by using the ACD workgroup tab in their Call Monitor views.



Call Monitor view tabs work as follows:

- **My Phone.** Displays non-ACD calls.
- **<ACD workgroup user name>.** Displays ACD workgroup calls only.
- **All.** Displays all calls together.

Important: For agents to see the ACD workgroup tab in their Call Monitor views, you must have shared the ACD workgroup user's Call Monitor with them. See "Sharing the ACD workgroup user's folders to the agents" on page 6-11.

Receiving a call

When a call to the ACD workgroup arrives, the phones in the workgroup ring according to the method specified by the routing list. Calls continue to ring agents until they are answered or until the caller chooses to leave a message or hang up.

Incoming calls appear in all participating agents' Call Monitor views immediately. Agents do not have to wait for their phones to ring to take a call. As soon as an incoming call appears, they can click it in the Call Monitor view and choose **Actions > Take Call**.

The status of a call in progress appears in agents' Call Monitor views as "Active." Agents cannot affect other agents' active calls. However, they can perform any action on their own calls, such as Hold, Transfer, Mute, and so forth.

Placing ACD workgroup calls

If you are an ACD workgroup agent and you place a call at your desk using the telephone or the Client, by default TeleVantage marks the call as a call made by you. However, you may need to place outgoing calls as part of your work as an ACD workgroup agent. Such calls in TeleVantage can be marked as calls from the ACD workgroup—not as calls from your extension—so that reports on ACD workgroup activity accurately reflect agent performance.

To mark all subsequent outbound calls as ACD workgroup calls, use your telephone keypad to press ***14<ACD workgroup user’s extension>#** at a dial tone. All calls that are made from your station are now logged as calls that are made by the ACD workgroup user. The calls appear in the Call Monitors of all agents in the workgroup. The calls do not appear on the My Phone tab in your Call Monitor. The calls are logged both in your personal Call Log and the ACD workgroup user’s Call Log, with the queue name in the **From** column.

To switch back, and mark subsequent outbound calls as being from you, press ***14#** at a dial tone again. All subsequent calls from your station are now marked as being placed by you. These calls appear only in your Call Monitor and only in your Call Log.

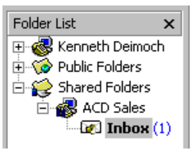
Taking a break

To take a break during your work shift, uncheck **Accept ACD Workgroup calls** as described in “Marking yourself ready and unavailable” on page 6-14.

Note: The Do Not Disturb personal status does not stop ACD workgroup calls from ringing your phone.

Listening to the ACD workgroup’s voice mail

If you have shared the ACD workgroup user’s Inbox with other agents, and given those agents the required permission, they can play and respond to the ACD workgroup’s voice messages. To do so, they go to the ACD workgroup’s Inbox under **Shared Folders** in the Folder List.



Agents can play and respond to the ACD workgroup’s voice messages exactly as they work with their own voice messages.

Viewing the ACD workgroup’s contacts and Call Log

If the ACD workgroup’s contacts and Call Log have been shared with you, you can view those folders under **Shared Folders** in the Folder List.

Taking the ACD workgroup offline

You can take the entire ACD workgroup offline by logging on to the ACD workgroup user's account and selecting the Do Not Disturb personal status. All calls to the ACD workgroup are then sent directly to voice mail.

To bring the ACD workgroup back online, select the Available personal status for the ACD workgroup user.

Analyzing ACD workgroup traffic

The Call Log view in the TeleVantage Client is an excellent tool for analyzing ACD workgroup traffic. The Call Log view is described in detail in *Using TeleVantage*. This section focuses on the columns in the Call Log that are of particular interest when analyzing ACD traffic.

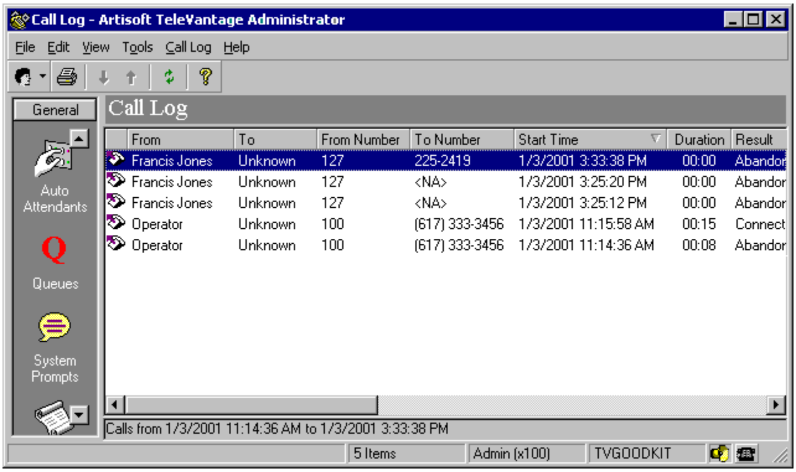
A more comprehensive tool for analyzing ACD traffic is the TeleVantage Call Center Reporter, which generates detailed reports in Microsoft Excel. For information about licensing and using the Call Center Reporter, see Chapter 7, "Running Call Center Reports."

Viewing Call Log view columns

Some of the Call Log columns that are helpful for analyzing ACD traffic are hidden by default. To view them, choose **View > Current View > Show Columns**.

Reading the Call Log view

Using the Call Log view is discussed in detail in *Using TeleVantage*.



Columns of interest in analyzing ACD workgroup activity are:

- **Wait Time.** Shows how long the caller waited on hold beginning at the moment a menu choice was made that transferred the caller to the workgroup and ending at the moment the call was answered.
- **Answered by.** Shows the name of the agent who accepted the call.
- **Placed by.** Shows the name of the agent who placed place an outbound call associated with the ACD workgroup.
- **Duration.** Shows how long the active call lasted, beginning at the moment the connection began and ending when the call was disconnected.
- **Left message.** If checked, the caller left a message.
- **Result.** Shows how the call ended. The possible results are:
- **Abandoned.** The caller hung up before the call was answered.
    - **Connected.** The call was accepted by an agent.
    - **To voice mail.** The caller was sent to voice mail. This result does not necessarily mean that the caller left a message. If the caller left a message, the Left Message column is checked.
    - **Blind transfer/Supervised transfer.** The caller was transferred to a new party at some point during the call.

Sorting by column

Click a column header to sort the information according to that column. Click the header again to sort in the opposite direction. By sorting on different columns you can see various aspects of agent and workgroup performance, such as:

- The agent who handled the most calls
- The agents who had the longest calls
- The time of day during which callers wait longest on hold
- The agents who handled calls from specific callers

CHAPTER 7

RUNNING CALL CENTER REPORTS

CHAPTER CONTENTS

About the Call Center Reporter

The Call Center Reporter allows you to run more than a dozen detailed reports on call activity and telephone usage in TeleVantage. By carefully tracking only the call activity on which you want to report, it allows you to quickly identify how effectively your phone system is being used by agents, queues, or trunks.

With the Call Center Reporter, you can analyze data from both types of TeleVantage call distribution systems—call center queues and ACD workgroups. You can also analyze general system data not related to call distribution systems, such as the activity on your trunks.

You can configure each report to show information over any time period, from a single day to months or even years.

Important notes

- You cannot run reports on time periods for which you have archived the Call Log. Archiving removes information from the TeleVantage database and makes it unavailable for reports.
- If you are running the Call Center Reporter on a computer other than the TeleVantage Server computer, make sure that the clocks on the two computers are synchronized. All report times and dates are based on the clock of the local PC.

Call Center Reporter requirements

To run the Call Center Reporter, you need the following:

- Microsoft Excel 2000 or Office XP installed on your system. TeleVantage uses Excel to display reports.
- Permission to run reports. You must have the permission **Access Call Center Reporter** set to Allow. See *Administering TeleVantage* for instructions on setting permissions.
- At least 4 Call Center Agent licenses.

Reporting on data from an earlier version of TeleVantage

Some reports cannot include data from earlier versions of TeleVantage. When you run those reports, you see only data since the date of your upgrade, even if you select a time range that begins earlier. The table in the next section shows which reports can and cannot report on data from earlier versions of TeleVantage.

Reports you can produce

You can produce the reports listed in the following table. For detailed examples of the reports, see the sections referenced in the table.

Call Center Reports		
Name	**Description**	**Requires data from this version or higher**
Activity History by Agent report (see page 7-12)	Shows an agent's activity history by displaying a row for every change in agent state, and how long the agent spent in each state, for all the queues to which the agent belongs.	5.0
Activity History by Queue report (see page 7-14)	Shows a history of all of the agent activity in a queue by displaying a row for every change in agent state, and how long each agent in the queue spent in each state. Shows data for all agent activity in the queue.	5.0
Agent Performance Trends report (see page 7-16)	By hour, day, or any time interval, shows number of calls a user made or received and average talk time. Shows totals for all queues to which the agent belongs.	3.5
Agent Performance Trends by Queue report (see page 7-17)	By hour, day, or any time interval, shows number of calls an agent made or received while working in a queue and average talk time.	3.5
Average Wait Time and Call Volume by Time of Day report (see page 7-18)	By hour, shows average wait time and inbound call volume for a queue or workgroup.	4.0
Call Center Queue Information report (see page 7-19)	Lists all general information for each queue in your system, including a list of all agents and their settings.	3.5
Call Log report (see page 7-20)	By any time interval, shows all the information that appears in the Call Log for the entire system or the selected user or queue, in a spreadsheet form that is easy to sort or filter.	3.5

Call Center Reports		
Name	**Description**	**Requires data from this version or higher**
Call Trends report (see page 7-21)	By hour, day, or any time interval, shows total outbound calls made by agents in a queue.	3.5
Call Volume by Account Code report (see page 7-22)	By account code, shows the number of inbound and outbound calls made using each account code and the total talk time, for a user, queue, workgroup, or all calls in the system.	4.0
Call Volume by Identified Caller report (see page 7-23)	By TeleVantage contact, shows total calls a user, queue, or workgroup received and average talk duration. For example, if you created 5 contacts, each to track a different promotional advertisement code (using PIN numbers to identify each contact), this report would show how many people called for each promotion.	4.0
Cumulative Calls and Average Talk Time by Agent report (see page 7-24)	By agent, shows total calls made and received and average talk time for any queue or workgroup.	3.5
Custom Data	Total calls and average talk time associated with calls from a user, queue, or all system calls, that are identified by a specific custom data variable. For example, an auto attendant could be configured to set the “Product” custom variable to “Apples” or “Oranges” based on the menu choice selected. This report would show how many callers selected Apples versus Oranges, and the average length of those calls.	4.0

Call Center Reports		
Name	**Description**	**Requires data from this version or higher**
Inbound Call Outcome Trends report (see page 7-25)	By hour, day, or any time interval, shows total calls handled by one agent, multiple agents, abandoned, sent to voice mail, and the total number of calls for any queue.	4.0
Inbound Call Volume Trends report (see page 7-26)	By hour, day, or any time interval, shows the total calls a queue received, average wait time, and longest wait time.	4.0
Queue Comparison report (see page 7-27)	Compares all queues on total number of calls, average wait time, and total calls handled, abandoned, and sent to voice mail. For example, you can see how well your sales queue performs compared to your technical support queue.	4.0
Service Level report (see page 7-28)	By wait time, shows the percentage of calls answered, abandoned, or sent to voice mail during a time range for a queue.	4.0
Trunk Performance report (see page 7-29)	By hour, shows the average number of inbound and outbound calls handled by the trunks you specify and the percentage of these trunks in use. Tells you if you need to add or remove trunks from your TeleVantage system, and can also help you predict future trunk performance.	4.0
User Activity report (see page 7-31)	Pie charts showing the percentage of an agent's time spent in active versus other statuses. Shows the kinds of calls that make up the active calls.	4.0
Wait by Outcome report (see page 7-32)	By hour, day, or any time interval, shows how long callers waited before their calls were handled, abandoned, or sent to voice mail.	4.0

Running a report

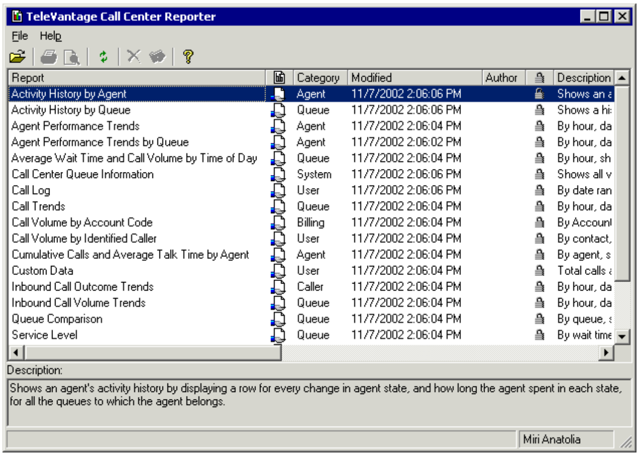
The following steps describe how to start the Call Center Reporter and run a report.

Note: You can run reports on public workgroups only, not personal workgroups. To run a report on an ACD workgroup, select the name of the ACD workgroup user.

1. Do one of the following:

   - In the TeleVantage Client, choose **Tools > Reports**.
   - Run the program `TVReporter.exe`. If you start the Reporter using this method you must log on using your user name and password. By default, the full path for this file is:
     `C:\Program Files\TeleVantage Client\ClientReporter\TVReporter.exe`

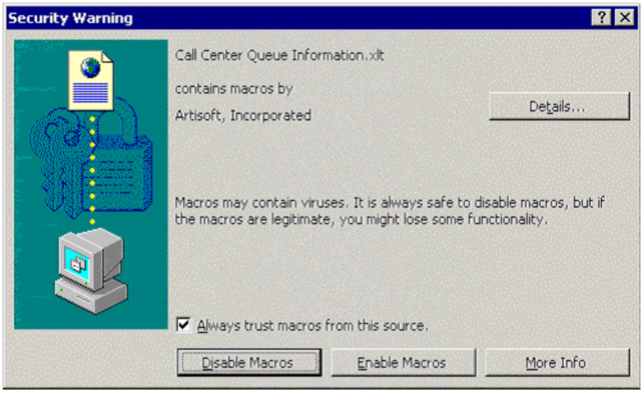
   The TeleVantage Call Center Reporter dialog box opens.



2. In the **Report Name** column, double-click the name of the report that you want to run. The report template opens in Microsoft Excel and shows data according to the options most recently set for that report.

   If the following prompt regarding macros appears while Excel is opening, check

Always trust macros from this source. Then click **Enable Macros**.



3. To run the report according to new options, click **Report Options** on the Excel Reporter toolbar. See "Using the Call Center Reporter toolbar in Excel" on page 7-8.
4. Enter information in the fields of the Reports Options dialog box to specify the parameters of the report. See "Using report options" on page 7-10 for more information.
5. Click **OK**. The report runs and appears in Excel.
6. Use Excel's options to view the report in graphical or spreadsheet format.

The Reports dialog box remains open. To run another report, double-click another report name in the Reports dialog box.

Viewing report headers and footers

You must have a printer installed on your computer in order to view the headers and footers on reports. The headers and footers include such data as report title, agent and queue name, date range, date printed, and the days of the week for the report. If you do not have a printer (local or network) configured on your computer, the headers and footers will be blank.

Using the Call Center Reporter toolbar in Excel

TeleVantage makes Call Center Reporter options available to you from within Excel on a Reporter toolbar. To display the Call Center Reporter Toolbar in Excel, choose **View > Toolbars > Call Center Reporter Toolbar**.

Note: For the Call Center Reporter toolbar to be available, you must have opened a report from the TeleVantage Call Center Reporter dialog box.

The Call Center Reporter toolbar offers buttons for the commands listed in the following table.

Call Center Reporter toolbar buttons	
	New TeleVantage Report. Opens the Reports dialog box or brings it to the front if it is already open, so that you can select a report to run. See “Running a report” on page 7-6.
	Report Options. Opens the Report Options dialog box for the report currently showing, so that you can change the report parameters and run the report again.
	Refresh Report. Runs the report again with the same options as were used to generate the current report. Use to update the report with the latest data.
	Help. Opens the TeleVantage Call Center Reporter online Help.

Shared and local reports

Reports can be either shared or local, as follows:

- **Shared reports** are stored on the TeleVantage Server computer and can be run from any TeleVantage Client workstation. Shared reports are indicated in the Reporter dialog box by or in the Shared/Data column.

  The default path for local reports is
  `C:\Program Files\TeleVantage\Client\Reporter\Reports`

- **Local reports** are stored on the TeleVantage Client computer and can only be run from that computer. Local reports are indicated in the Reports dialog box by in the Shared/Data column.

  The default path for shared reports on the Server computer is
  `C:\Program Files\TeleVantage Server\Reports`

The reports that come with TeleVantage are all shared reports.

To share a local report

1. Select the report in the Reports dialog box.
2. Choose **File > Share**.

After sharing a report, click the **Refresh** button on the Reports dialog box toolbar ( ) to see the shared report in the Reports dialog box.

Reporting on internal calls

Whether or not your reports include internal (station-to-station) calls depends on whether you are logging that data. To specify whether or not you are logging internal calls, do the following:

1. In the Administrator, choose **Tools > System Settings**.
2. Click the Call Log tab.
3. To log internal calls, select **Log internal calls**.

   To stop logging internal calls, clear the check box.
4. Click **OK**.

Reporting on outbound call center calls

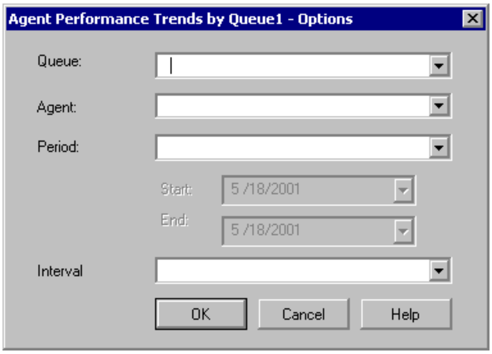
For agents' outbound calls to appear in reports, the agents must mark their outbound calls as calls that are placed from the call center. Agents can do this by picking up the phone, pressing ***14** and entering the extension of the queue or ACD workgroup. See "Placing calls from a queue" on page 4-8 and "Placing ACD workgroup calls" on page 6-16.

Backups of original reports

Because a user can accidentally overwrite a shared report by sharing one of his own reports with the same name, backup copies of the original TeleVantage report templates are provided in the `Reports_backup` directory in the TeleVantage Server directory.

Using report options

Click **Report Options** on the Reporter toolbar to customize a report, for example, if you want to choose a date range for a report. The following figure shows the Report Options dialog box for the Agent Performance Trends by Queue report.



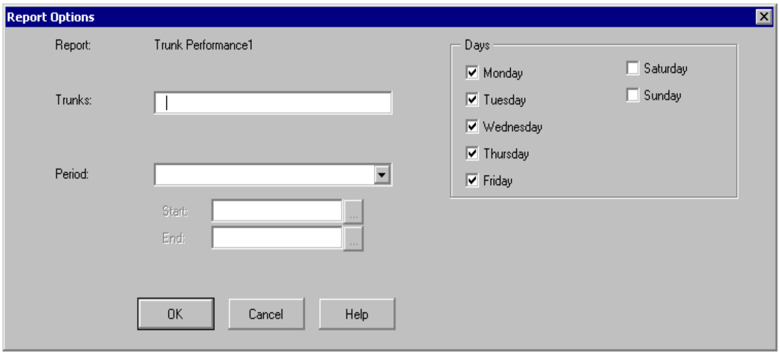
The following options are available for most reports:

- **Queue.** Select the queue on which you want to run the report.
- **Agent.** Select the agent on whom you want to run the report.
- **Period.** Select the time frame for which you want to report. Use the **Start** and **End** fields for custom time frames.
- **Interval.** Select the length of time reflected by the report, such as hours, days, or months. The time periods appear on the x-axis of the report.

Click **OK** in the Report Options dialog box to run the report according to the options that you selected.

Report Options for the Trunk Performance report

The Trunk Performance report has specific fields (see the next figure) that do not appear in the Options dialog box for other reports.



Under **Trunks**, enter the TeleVantage trunk numbers of the trunks on which you want to report. Use hyphens to indicate a range of trunks and commas to separate individual trunk numbers or a series of trunk ranges. The following examples are all valid entries:

- 1, 2, 3
- 1-10
- 1-10, 15-20
- 1, 4, 5, 10-20, 25-30, 40

Do not use overlapping trunk ranges, such as 1-10, 9-15. Be sure to use commas, not semicolons, to separate entries.

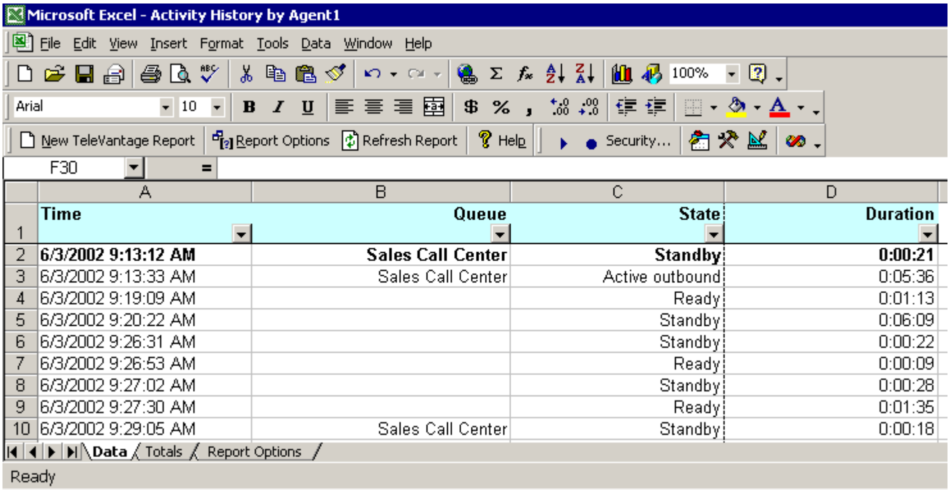
Under **Days**, check each day of the week for which you want trunk usage reported. For example, to report on weekday trunk performance, check each day except Saturday and Sunday.

Under **Period**, select a date range as with other reports (see the previous section). The report will cover the time from the first call through the selected trunks within the date range, to the last call through the selected trunks within the date range. The report ignores calls made before the upgrade to TeleVantage 4.0.

Activity History by Agent report

The Activity History by Agent report displays a row for every change in agent state, and how long the agent spent in each state, for all the queues to which the agent belongs.

Note: This report can return a very large amount of data, so you should run it for only the date range that you need, otherwise it could affect network performance.



Reading this report

This report is in data form only. It shows the following data by column:

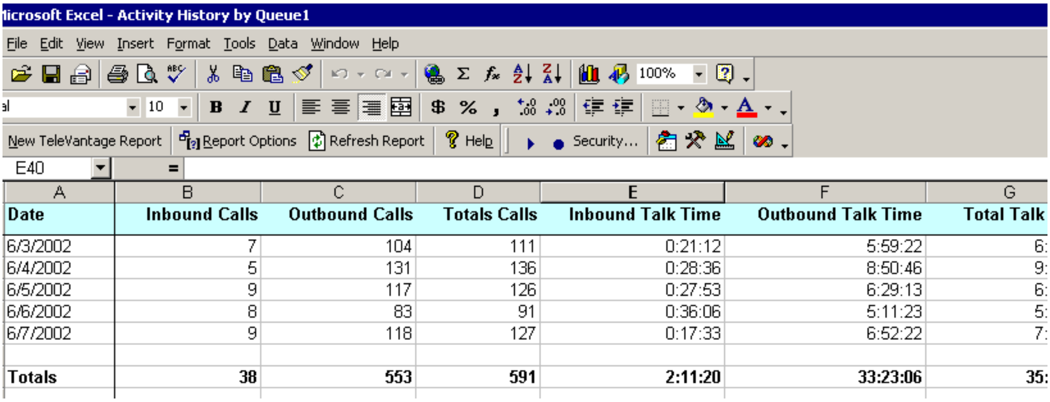
- **Time.** Date/time at which the agent changed state.
- **Queue.** Name of the queue in which this state change was made.
- **State.** The state to which the agent changed. For an explanation of states see "The Agents pane" on page 5-3.
- **Duration.** How long the agent remained in the state.

Filtering the report

To view all the entries of one type only, click the arrow button in any column header and select the element you want to view. The report is filtered to display only the records for that element. For example, you could filter by the State column for "Standby" to see how many times the agent was checking voicemail, on break or on a non-queue call.

Activity History by Agent worksheet totals

To view performance subtotals for the agent, click the Totals tab at the bottom of the report.



Date	Inbound Calls	Outbound Calls	Totals Calls	Inbound Talk Time	Outbound Talk Time	Total Talk
6/3/2002	7	104	111	0:21:12	5:59:22	6:
6/4/2002	5	131	136	0:28:36	8:50:46	9:
6/5/2002	9	117	126	0:27:53	6:29:13	6:
6/6/2002	8	83	91	0:36:06	5:11:23	5:
6/7/2002	9	118	127	0:17:33	6:52:22	7:
Totals	**38**	**553**	**591**	**2:11:20**	**33:23:06**	**35:**

The worksheet for the Activity History by Agent report displays the following statistics for the agent for each date in the date range:

Inbound calls. Total number of inbound calls

Outbound calls. Total number of outbound calls.

Total calls. Total number of calls including inbound and outbound.

Inbound talk time. Total talk time plus wrap-up time for inbound calls.

Outbound talk time. Total talk time plus wrap-up time for outbound calls.

Total talk time. Total talk time plus wrap-up time for all calls.

Avg. talk time IB. Average talk time plus wrap-up time for inbound calls.

Avg. talk time OB. Average talk time plus wrap-up time for outbound calls.

Average talk time. Average talk time plus wrap-up time for all calls.

First Activity. Time of the agents' first state change that day.

Last Activity. Time of the agents' last state change that day.

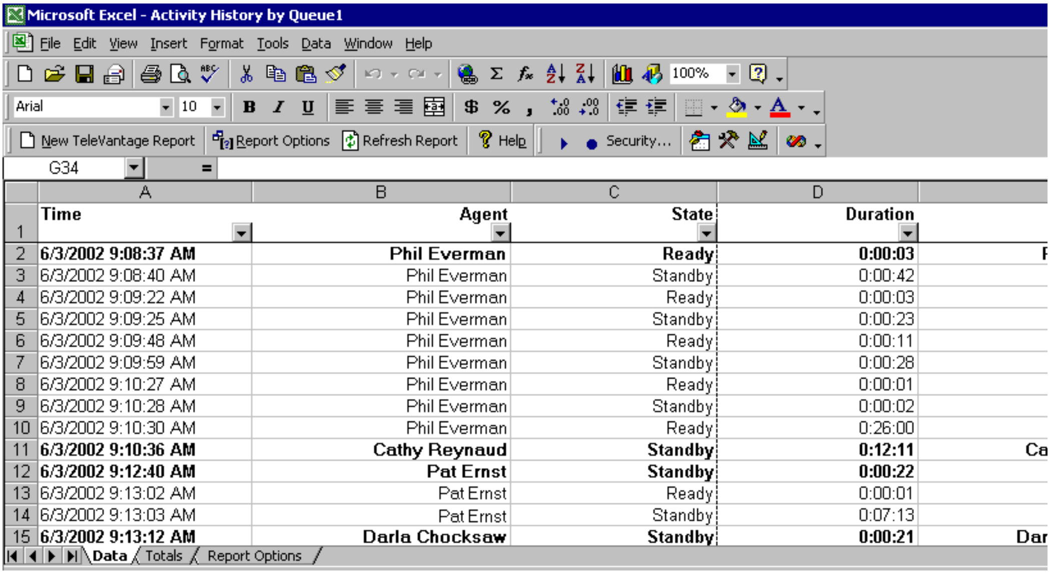
First Queue Call. Time of the agent's first queue call that day.

Last Queue Call. Time of the agent's last queue call that day.

Activity History by Queue report

The Activity History by Queue report shows a row for every change in agent state, and how long each agent in the queue spent in each state.

This report can return a very large amount of data, so you should run it for only the date range that you need, otherwise it could affect network performance.



Reading this report

This report is in data form only. It shows the following data by column:

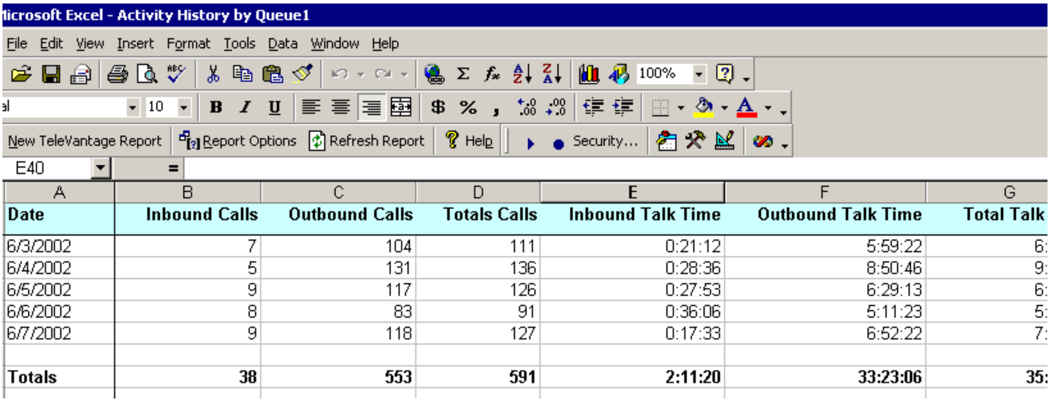
- **Time.** Date/time at which the agent changed state.
- **Agent.** Agent's name. The first and last activity of each day is displayed in bold face for each agent.
- **State.** The state to which the agent changed. For an explanation of states see "The Agents pane" on page 5-3.
- **Duration.** How long the agent remained in the state.
- **Signed in/out.** Displays when an agent signed in or out of the queue.

Filtering the report

To view all the entries of one type only, click the arrow button in any column header and select the element you want to view. The report is filtered to display only the records for that element. For example, you could filter by The Agent column for "Melody Altan" to see the activity of that agent only.

Activity History by Queue worksheet totals

To view performance subtotals for each agent and totals for the queue as a whole, click the Totals tab at the bottom of the report.



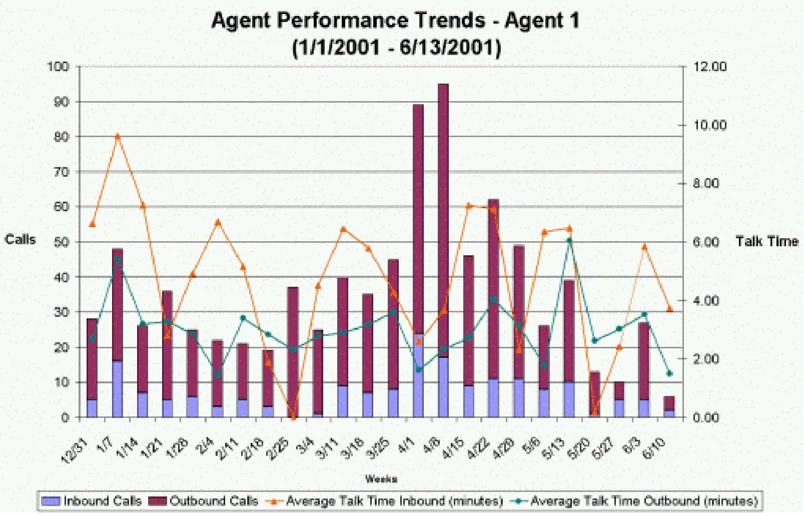
Date	Inbound Calls	Outbound Calls	Totals Calls	Inbound Talk Time	Outbound Talk Time	Total Talk
6/3/2002	7	104	111	0:21:12	5:59:22	6:
6/4/2002	5	131	136	0:28:36	8:50:46	9:
6/5/2002	9	117	126	0:27:53	6:29:13	6:
6/6/2002	8	83	91	0:36:06	5:11:23	5:
6/7/2002	9	118	127	0:17:33	6:52:22	7:
Totals	**38**	**553**	**591**	**2:11:20**	**33:23:06**	**35:**

The Totals sheet for the Activity History by Queue report displays the following statistics for each agent and for the queue as a whole:

- **Inbound calls.** Total number of inbound calls.
- **Outbound calls.** Total number of outbound calls.
- **Total calls.** Total number of calls including inbound and outbound.
- **Inbound talk time.** Total talk time plus wrap-up time for inbound calls.
- **Outbound talk time.** Total talk time plus wrap-up time for outbound calls.
- **Total talk time.** Total talk time and wrap-up time for all calls.
- **Avg. talk time IB.** Average talk time plus wrap-up time for inbound calls.
- **Avg. talk time OB.** Average talk time plus wrap-up time for outbound calls.
- **Average talk time.** Average talk time plus wrap-up time for all calls.

Agent Performance Trends report

The Agent Performance Trends report shows the total number of calls an agent made or received and the average talk time. All calls involving this agent are counted (personal calls as well as calls to and from all queues in which the agent participates).



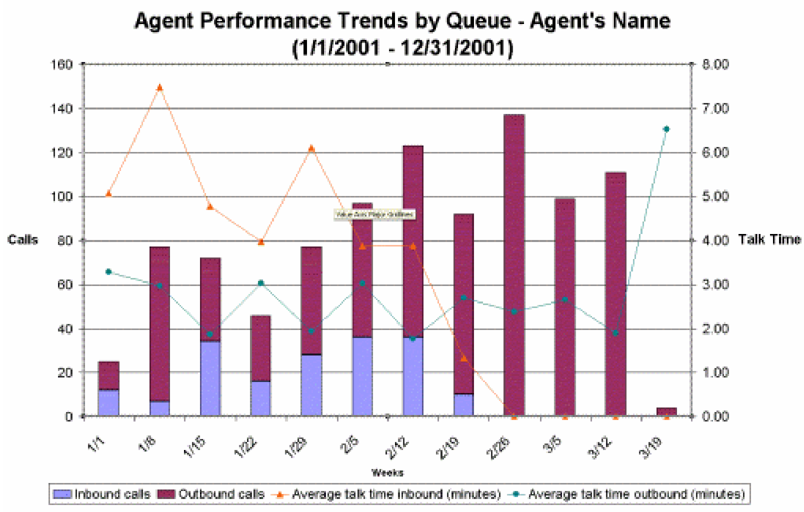
Reading this report

The following fields appear in this report:

- **Interval.** Displays as the x-axis of the report.
- **Total Number of Calls.** Displays as stacked bars, one bar for inbound calls and one bar for outbound calls. Read against the left y-axis of the report.
- **Average Talk Time.** Displays as two lines, one for inbound calls and one for outbound calls. Read against the right y-axis of the report.

Agent Performance Trends by Queue report

The Agent Performance Trends by Queue report shows the number of calls a user made or received for a particular queue and the average talk time. Personal calls—those sent directly to or made from the user's extension—are not included. Station-to-station calls are not included in this report unless the Administrator selects the Log Internal Calls option.



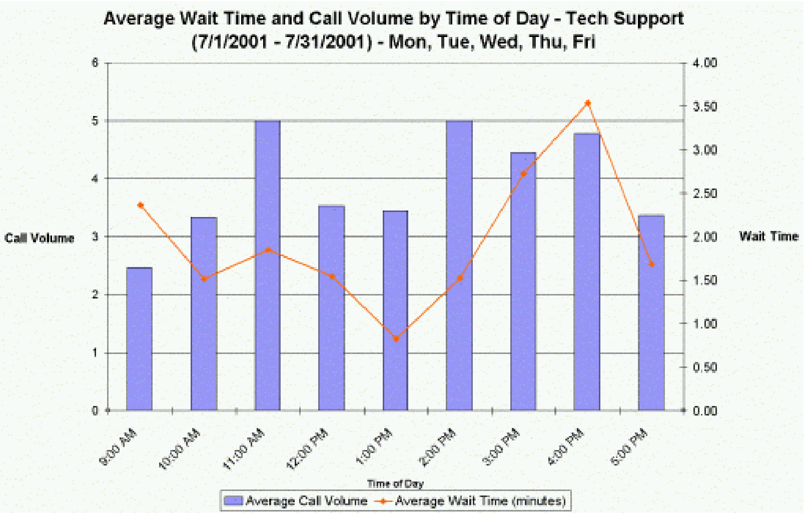
Reading this report

The following fields appear in this report:

- **Interval.** Displays as the x-axis of the report.
- **Total number of calls.** Displays as stacked bars, one bar for inbound calls and one bar for outbound calls. Read against the left y-axis of the report.
- **Average talk time.** Displays as two lines, one for inbound calls and one for outbound calls. Read against the right y-axis of the report.

Average Wait Time and Call Volume by Time of Day report

The Average Wait Time and Call Volume by Time of Day report shows the average time that callers waited and the average call volume for all inbound calls to a queue or workgroup, displayed by time of day.



Reading this report

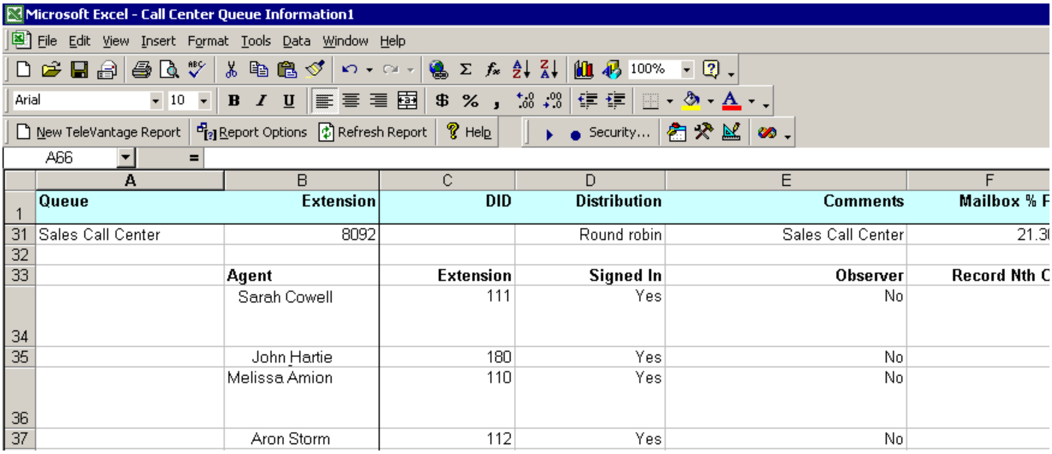
The following fields appear in this report:

- **Time of Day.** Displays as the x-axis of the report.
- **Average Call Volume.** The average number of calls for each hour. Displays as a bar for that hour. Read against the left y-axis of the report.
- **Average Wait Time.** The time from arrival of the call in the TeleVantage system until an agent answered the call, averaged for all the calls in each hour. Displays as a line. Read against the right y-axis of the report.

Note: Calls are logged under the hour in which they arrive in TeleVantage, not the hour in which they are answered. For example, if a call arrives at 1:59 and is answered at 2:01, it is included in the 1:00 group.

Call Center Queue Information report

The Call Center Queue Information report shows general information about each queue in your system, including a list of agents and their current settings. Use this report to get a snapshot of a queue's setup without using the Administrator.



Microsoft Excel - Call Center Queue Information1

	A	B	C	D	E	F
1	Queue	Extension	DID	Distribution	Comments	Mailbox % F
31	Sales Call Center	8092		Round robin	Sales Call Center	21.3(
32						
33		Agent	Extension	Signed In	Observer	Record Nth C
34		Sarah Cowell	111	Yes	No	
35		John Hartie	180	Yes	No	
36		Melissa Amion	110	Yes	No	
37		Aron Storm	112	Yes	No	

Reading this report

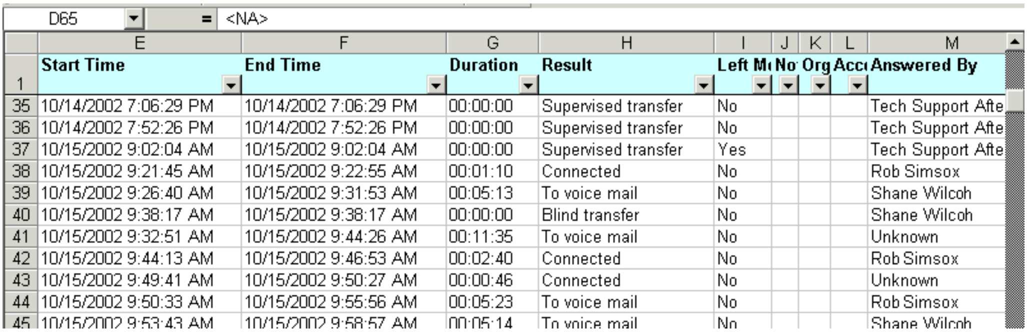
This report is in data form only. For each queue, it shows general information about the queue on the top line. Below the queue line, it shows the following information for each agent in the queue:

- **Extension.** The agents' extension.
- **Signed in.** Whether or not the agent can receive calls from the queue. See "Signing in and out of a queue" on page 4-5.
- **Observer.** Whether or not the agent is an observer. Observer agents can monitor the queue without being seen by other agents. See "Adding agents to the queue" on page 2-12.
- **Record Nth Call.** How often TeleVantage automatically records the agent's queue calls.
- **Permissions.** The agent's permissions. See "Agent permissions" on page 2-15.
- **Skills.** Whether the agent is a primary or overflow agent. See "Setting up overflow agents" on page 2-24. An overflow skill of 0 indicates a primary agent. A number above 0 indicates the agent's overflow tier.

Call Log report

The Call Log report shows all the information that appears in the Call Log for a user or a queue, in a spreadsheet form that is easy to sort or filter. Using Microsoft Excel's drop-down filtering tools, you can filter by any column to see just the calls you want.

Note: By default you can report only on the Call Log of the user or queue you are logged in as. To report on any Call Log, you must have the TeleVantage permission **Report on all call logs** set to Allow. See *Administering TeleVantage*.

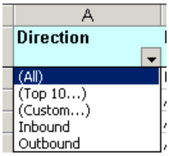

D65 = <NA>

	E	F	G	H	I	J	K	L	M
1	Start Time	End Time	Duration	Result	Left M	No	Org	Acc	Answered By
35	10/14/2002 7:06:29 PM	10/14/2002 7:06:29 PM	00:00:00	Supervised transfer	No				Tech Support Afte
36	10/14/2002 7:52:26 PM	10/14/2002 7:52:26 PM	00:00:00	Supervised transfer	No				Tech Support Afte
37	10/15/2002 9:02:04 AM	10/15/2002 9:02:04 AM	00:00:00	Supervised transfer	Yes				Tech Support Afte
38	10/15/2002 9:21:45 AM	10/15/2002 9:22:55 AM	00:01:10	Connected	No				Rob Simsox
39	10/15/2002 9:26:40 AM	10/15/2002 9:31:53 AM	00:05:13	To voice mail	No				Shane Wilcoh
40	10/15/2002 9:38:17 AM	10/15/2002 9:38:17 AM	00:00:00	Blind transfer	No				Shane Wilcoh
41	10/15/2002 9:32:51 AM	10/15/2002 9:44:26 AM	00:11:35	To voice mail	No				Unknown
42	10/15/2002 9:44:13 AM	10/15/2002 9:46:53 AM	00:02:40	Connected	No				Rob Simsox
43	10/15/2002 9:49:41 AM	10/15/2002 9:50:27 AM	00:00:46	Connected	No				Unknown
44	10/15/2002 9:50:33 AM	10/15/2002 9:55:56 AM	00:05:23	To voice mail	No				Rob Simsox
45	10/15/2002 9:53:43 AM	10/15/2002 9:58:57 AM	00:05:14	To voice mail	No				Shane Wilcoh

For a description of the columns, see the description of the Call Log in *Using TeleVantage* or *Administering TeleVantage*.

Filtering Call Log data by column

To filter the report by column, click the arrow on any column header. From the drop-down list, select the column entry that you want to display. The report shows only calls with that column entry. Alternately, select **Custom** to filter by more complex criteria.

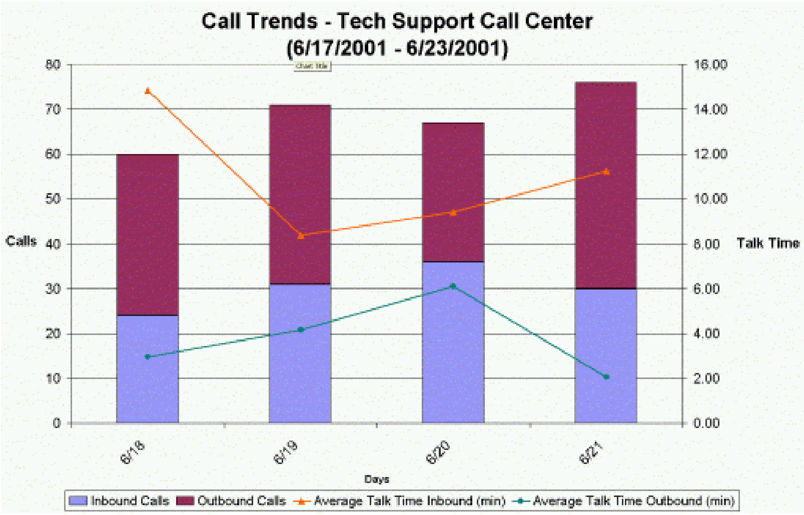


Examples of using the filter include viewing the following:

- All calls with account code 55 (Account Code column)
- All inbound or all outbound calls (Direction column)
- All calls longer than 30 minutes (Duration column, select **Custom**)
- All abandoned calls (Result column)
- All calls that were automatically recorded by the queue (Recorded by Queue column)

Call Trends report

The Call Trends report shows total outbound calls made for a call center queue or an ACD workgroup by its agents. The agents must activate the outbound queue-calling feature (***14**) for calls to be reported. This report is useful for tracking calls made to customers or calls made during marketing campaigns. It does not include personal calls (calls made when the outbound queue-calling feature was not activated).



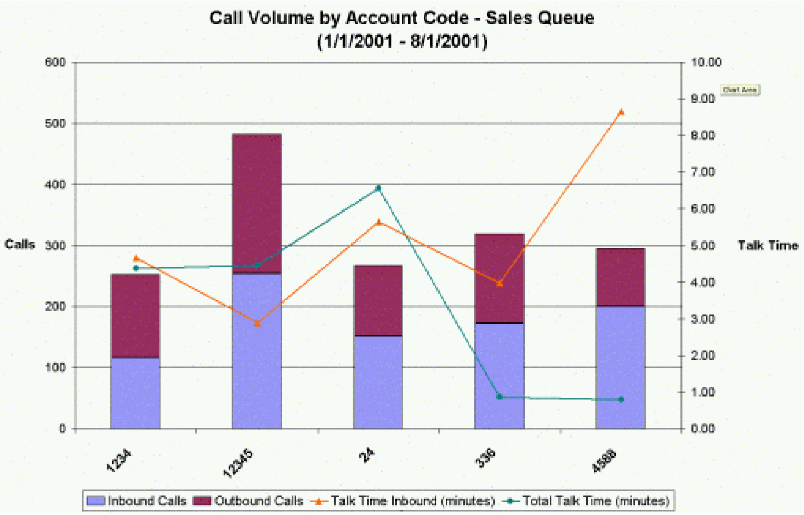
Reading this report

The following fields appear in this report:

- **Interval.** Displays on the x-axis of the report.
- **Total Outbound Calls.** Displays as bars. Read against the left y-axis of the report.
- **Average Talk Time.** Displays as a line. Read against the right y-axis of the report.

Call Volume by Account Code report

The Call Volume by Account Code report shows the inbound calls, total calls (inbound and outbound), and talk time for all calls for which an agent entered an account code. This report is useful for billing customers for service given to them over the phone or for tracking marketing campaigns.



You can report on calls that used account codes from any of the following categories:

- All calls handled by a particular agent or other user
- All calls handled by a queue, regardless of the agent involved
- All calls system-wide

Reading this report

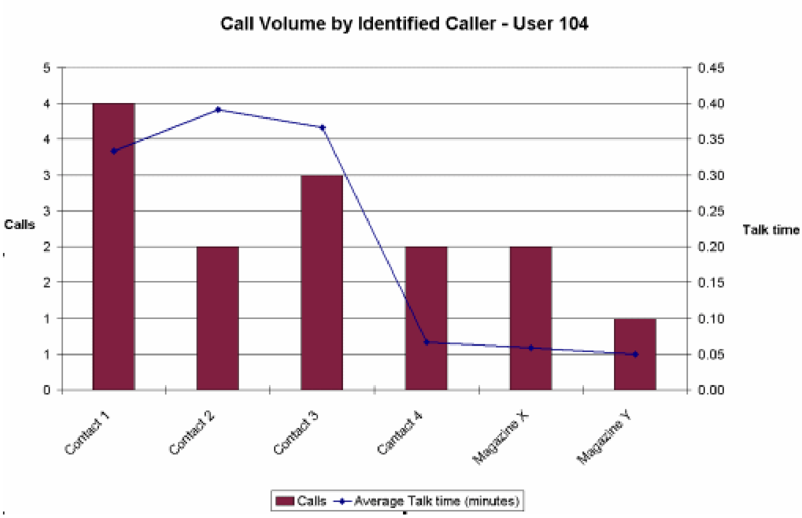
The following fields appear in this report:

- **Account code.** Displays as the x-axis of the report.
- **Inbound Calls and Total Calls.** Displays as stacked bars for each account code. Read against the left y-axis of the report.
- **Total Talk Time for Inbound Calls.** Displays as a line. Read against the right y-axis of the report.
- **Total Talk Time for All Calls.** Displays as a line. Read against the right y-axis of the report.

Note: The entire call is included in **Talk Time**, regardless of at what time the account code was entered during the call.

Call Volume by Identified Caller report

The Call Volume by Identified Caller report shows the number of calls a user or queue received from each identified contact and the average talk time.



Notes

- To run the report for an ACD workgroup, select the ACD workgroup user.
- When reporting on a queue, only calls from public contacts are listed, since the queue has no personal contacts.
- When reporting on a call center queue agent, all personal calls sent to the agent are listed, even if someone else answered the call. Calls sent to other agents are not reported on, even if the agent answered them.

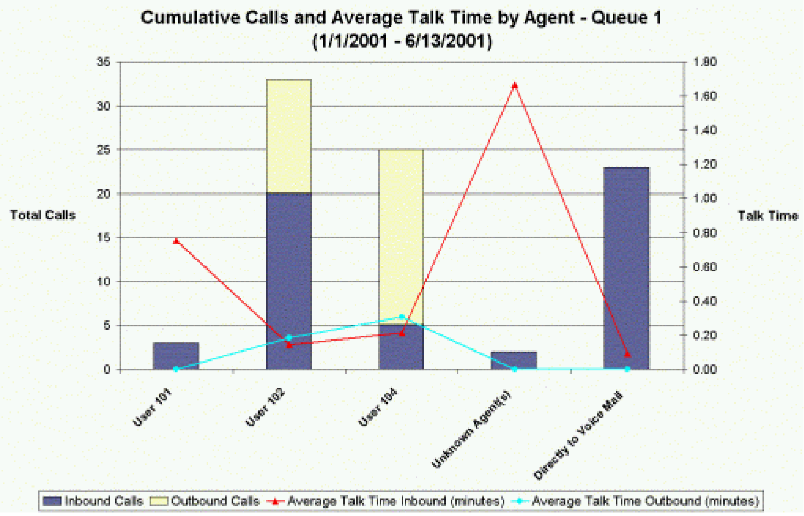
Reading this report

The following fields appear in this report:

- **Contacts.** Displays on the x-axis of the report. Public and private contacts are both listed.
- **Calls.** The total number of calls from each contact. Displays as a bar for each contact. Read against the left y-axis of the report.
- **Average Talk Time.** The average time the agent spent talking with each contact. Displays as a line. Read against the right y-axis of the report.

Cumulative Calls and Average Talk Time by Agent report

The Cumulative Calls and Average Talk Time by Agent report shows the total queue or workgroup calls an agent received and made (inbound and outbound) and the average talk time. The agent's personal calls are not included in this report.



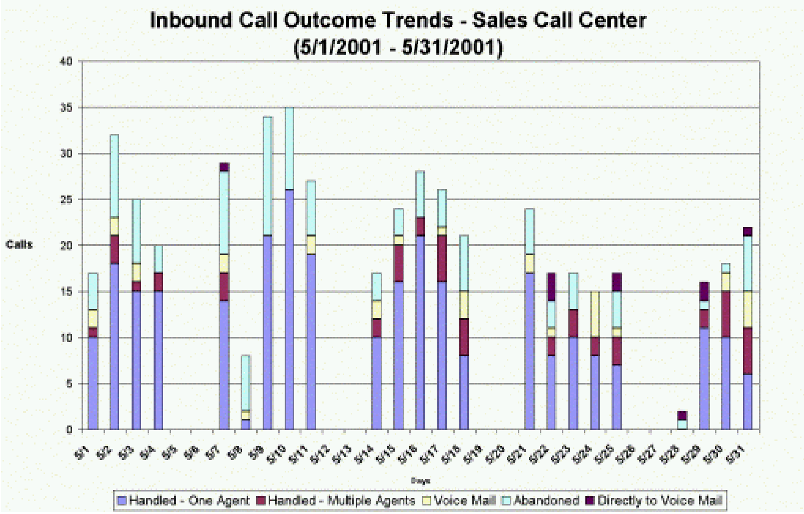
Reading this report

The following fields appear in this report:

- **Agents.** Displays on the x-axis of the report.
- **Unknown agents.** Calls involving users who have been deleted from TeleVantage.
- **Directly to voice mail.** Calls that the queue sent directly to voice mail without ringing any agent's phone.
- **Inbound and outbound calls.** Displays as stacked bars for each agent. Read against the left y-axis of the report.
- **Average Talk Time for Inbound and Outbound Calls.** Displays as two lines. Read against the right y-axis of the report.

Inbound Call Outcome Trends report

The Inbound Call Outcome Trends report shows the total number of calls to a queue and how those calls were handled, including the total calls handled by one agent, handled by multiple agents, sent to voice mail, and abandoned.



Reading this report

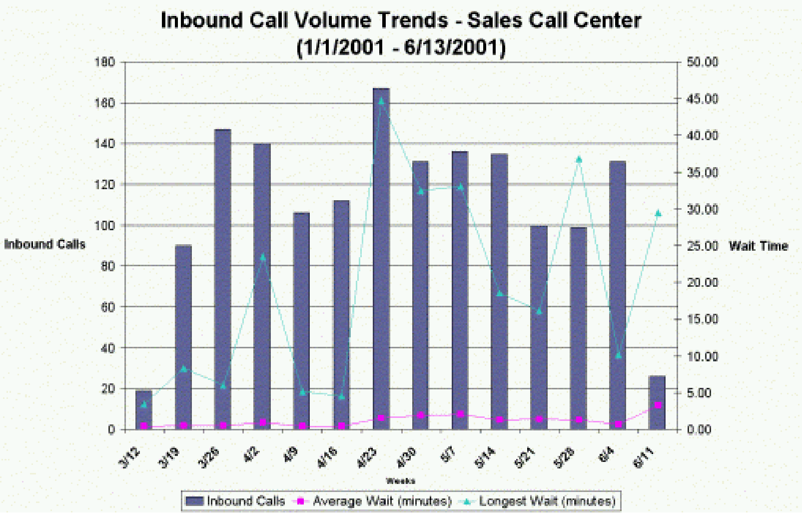
The following fields appear in this report:

- **Period.** Displays as the x-axis of the report.
- **Calls handled by one agent, calls handled by multiple agents, calls sent to voice mail, calls abandoned.** Displays as stacked bars. Read against the left y-axis of the report. For the total number of calls in each category, click the Data tab in Excel.

Note: If the queue was configured to send calls directly to voice mail, those calls appear in a separate **Direct to Voice mail** bar. The normal **Voice mail** category counts calls that went to voice mail while the queue was sending calls to agents.

Inbound Call Volume Trends report

The Inbound Call Volume Trends report shows the number of calls that a queue received, the average time callers waited, and the longest time a caller waited.



Reading this report

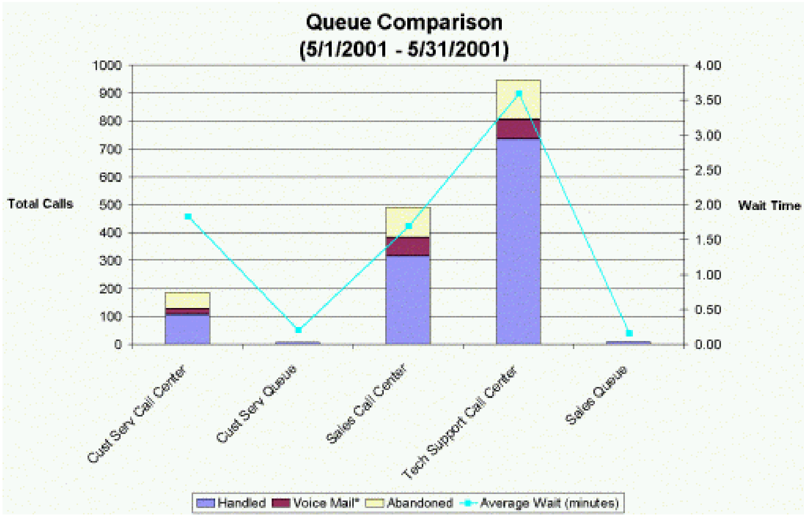
The following fields appear in this report:

- **Interval.** Displays as the x-axis of the report.
- **Inbound Calls.** The total number of inbound calls. Displays as bars. Read against the left y-axis of the report.
- **Average Wait Time and Longest Wait Time.** Displays as two lines. Read against the right y-axis of the report.

Note: If the queue was configured to send calls directly to voice mail, those calls are included in the report and are treated as having a wait time of 0.

Queue Comparison report

The Queue Comparison report compares the performance of all queues in terms of total number of calls, average wait time, and the number of calls handled, abandoned, and sent to voice mail. For example, you can see how well the sales queue performs compared to the technical support queue.



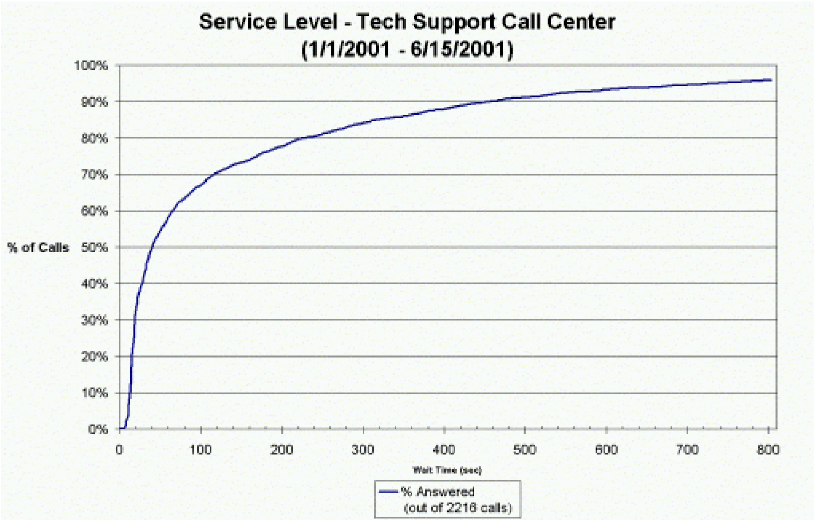
Reading this report

The following fields appear in this report:

- **Queues.** Displays on the x-axis of the report.
- **Handled, Sent to voice mail, Abandoned.** Displays as stacked bars. Read against the left y-axis of the report. For the exact number of each category, click the Data tab in Excel.
- **Average wait time.** Displays as a line. Read against the right y-axis of the report.

Service Level report

The Service Level report tracks wait time by showing the percentage of calls to a queue that has been answered, sent to voice mail, and abandoned as wait time progresses. The total number of calls in each category is shown in parentheses at the bottom of the report.



Note: In order to plot the curve smoothly on the chart, the curve only shows 100% of the calls if there is not a large difference between the 95th% and the 100th%. Frequently, there are a few calls in a set of records that have an extremely long wait time before something happens to the call. These calls can cause the plotted curve to seem very long and disproportionate. In these cases, TeleVantage plots only the top 95th% of calls (as shown in the preceding illustration).

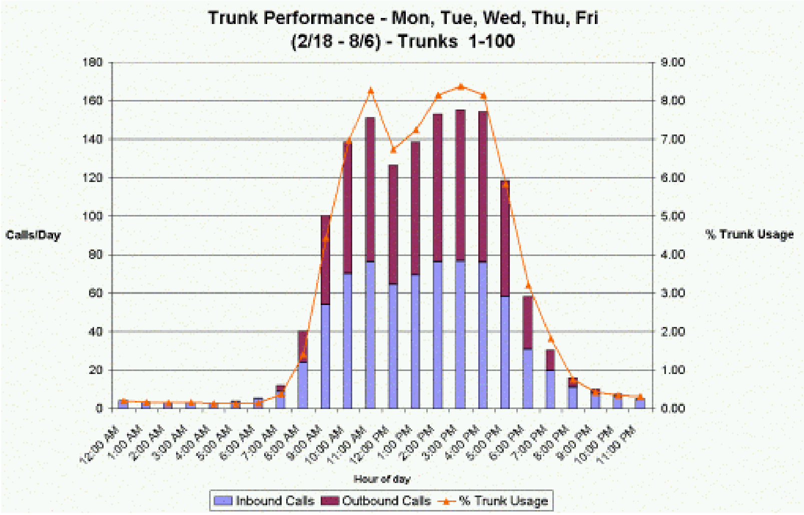
Reading this report

The following fields appear in this report:

- **Wait time.** Displays on the x-axis of the report.
- **% Answered.** Displays as a line. Read against the x-axis and y-axis of the report to find what percentage of calls reached a result by that length of wait time.

Trunk Performance report

The Trunk Performance report shows the average number of inbound and outbound calls handled by the trunks you specify and the percentage of those trunks that was in use. Use this report to see whether you need to add or remove trunks from the system. This report can also help you to predict future trunk performance. See page 7-11 for the report options for this report.



Note: This report is most meaningful when you run it on only the trunks in a single hunt group, because then the failure rate reflects a single phone number. If you run the report for multiple phone numbers, the failure rate is averaged between them, so a high failure rate on one phone number might not be apparent.

Reading this report

The following fields appear on the Chart tab of this report:

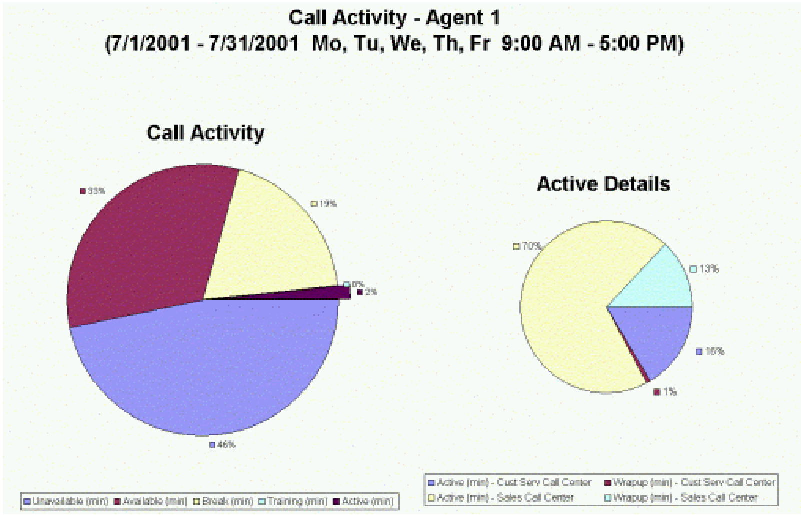
- **Hour of Day.** Displays as the x-axis of the report.
- **Inbound and Outbound Calls.** Displays as stacked bars. Read against the left y-axis of the report.
- **% Trunk Usage.** Displays as a line. Read against the right y-axis of the report.

The following fields appear on the Data tab of this report:

- **Busiest Hour.** The hour of the day that had the most trunks in use based on the CCS calculation (see **CCS** in this list).
- **CCS.** 100 call-seconds. One call-second is equivalent to 1 call that was 1 second long.
- **Erlangs.** A decimal number showing the ratio of the time during which a trunk group is occupied to the time that the trunk group is available for calls. The Erlangs value in this report is based on the Busiest Hour calculation (see **Busiest Hour** in this list).
- **Actual Failure Rate.** The percentage of calls that did not go through.
- **Number of trunks.** Initially this number equals the number of trunks that you entered in the report options. You can enter different numbers and use Excel's calculation functions to predict how many trunks you will need to give a desired failure rate.
- **Load Increase.** An expected increase in call volume. You can combine this and the **Number of trunks** entry to decide whether you need to add or remove trunks from your system.
- **Resulting Failure Rate.** The percentage of calls that will be abandoned after calculating your system with the **Number of Trunks** and **Load Increase** fields. You can adjust those two values until you have your optimum failure rate.

User Activity report

The User Activity report breaks down an agent’s time by activity in pie-chart form, showing both total activity and activity by queue.



Note: The **Active Details** pie chart appears only for agents in call center queues.

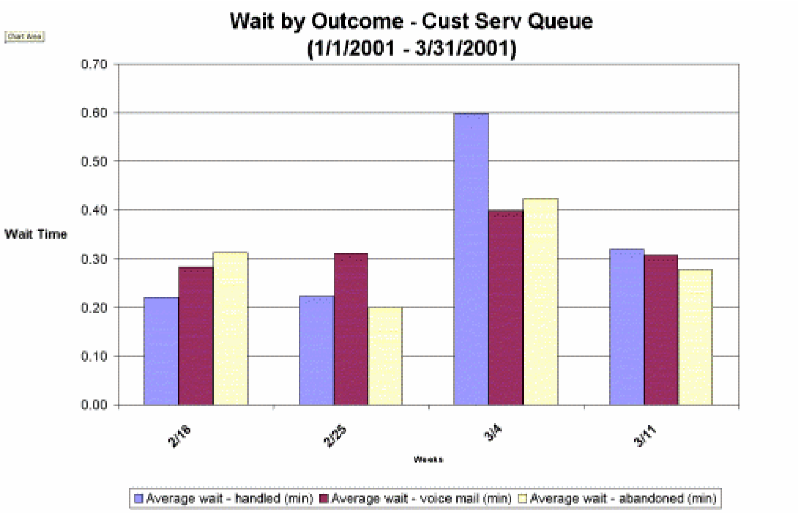
Reading this report

The **User Activity** pie chart shows the percentage of time that the user spent in each of several states. The following table shows how the states correspond to personal statuses and other states for agents and non-agent users.

User Activity States and Personal Statuses		
State	**Agent Personal Status**	**Non-Agent Personal Status**
Unavailable	Available (Non-Queue)	N/A
Available	Available Available (Queue Only)	Available
Break	On Break In a personal call	In a Meeting Out of the Office
Training	In a Meeting	N/A
Active	In a queue call	

Wait by Outcome report

The Wait by Outcome report shows how long callers waited before their calls were handled, abandoned, or sent to voice mail.



Reading this report

The following fields appear in this report:

- **Interval.** Displays on the x-axis of the report.
- **Average wait - handled, Average wait - voice mail, Average wait - abandoned.** Displays as bars. Read against the y-axis of the report.

Printing and scheduling reports with the Report Runner

The Report Runner enables you to create a desktop shortcut for running and printing a report. You can then run the report just by clicking the shortcut. You can choose whether to send the report to a printer or a file.

You can also use the Windows Task Scheduler to run the Report Runner at any time and interval you choose. See Windows Online Help for the Task Scheduler for more information.

To create a Report Runner shortcut for running a report

1. Create a shortcut to the Report Runner file, `Tvrrun.exe`. The default location for the Report Runner file is:

   `C:\Program Files\TeleVantage\Client\reporter\Tvrrun.exe`

   For instructions on creating a shortcut, see your Microsoft Windows documentation.
2. Right-click the shortcut and choose **Properties**.
3. In the **Target** field, add the following after the path:
   - The path to the .xls file of the report you want to run.
   - (optional) -C to send the chart report to your default printer.
   - (optional) -T to send the data report to your default printer.
   - (optional) -S <output file> to print the report to a file. If you do not specify an output file, the new report overwrites the source .xls file. **Note:** Do not use quotes around the file path.

   See the next section for examples of the **Target** statement.
4. Click **OK**.

Examples of the shortcut Target statement

The following are examples of how the shortcut's **Target** field might look:

- `C:\Program Files\TeleVantage\Client\reporter\Reports\Tvrrun.exe C:\Program Files\TeleVantage\Client\reporter\Reports\`
  `Wait by Outcome1.xls -C`

  The chart for the Wait by Outcome1.xls report is sent to the printer.
- `C:\Program Files\TeleVantage\Client\reporter\Reports\Tvrrun.exe C:\Program Files\TeleVantage\Client\reporter\Reports\Trunk Performance.xls -C -T`

  The chart and the data sheet for the Trunk Performance Report are sent to the printer.

- `C:\Program Files\TeleVantage\Client\reporter\Reports\Tvrrun.exe C:\Program Files\TeleVantage\Client\reporter\Reports\User Activity.xls -S`

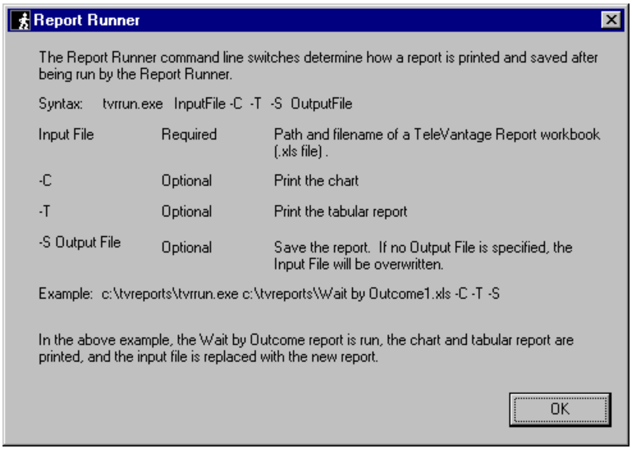
  The .xls file of the User Activity report is overwritten with the new report.

- `C:\Program Files\TeleVantage\Client\reporter\Reports\Tvrrun.exe C:\Program Files\TeleVantage\Client\reporter\Reports\User Activity.xls -S C:\Program Files\TeleVantage\Client\reporter\Reports\Fred_Sanders.xls`

  The User Activity report is written to the file Fred_Sanders.xls in the Reports directory (Note no quotes around the file path).

Running the Report Runner without a command line statement

If you run the file `Tvrrun.exe` without modifying its command line, the system opens a Help topic that explains the Report Runner commands.



APPENDIX A

CREATING CUSTOM REPORTS

CHAPTER CONTENTS

About custom reports

The database used for the TeleVantage data is Microsoft SQL Server. By using a third-party reporting application such as Microsoft Access®, Microsoft Excel®, or Crystal Reports® to query the SQL Server database, you can create your own reports that report on TeleVantage call center and other data.

This appendix provides the database schema in which TeleVantage report data is stored in the SQL Server database.

Connecting to the TeleVantage database

To access TeleVantage data, use the following settings:

Server	Your TeleVantage Server computer name
Database	TVDB
Login ID	tv_browse
Password	(blank)

These settings provide read-only access.

The TeleVantage database schema

The TeleVantage database contains the following tables that are used for reporting:

- CallLog
- PartyLog (page A-5)
- QueueEncounter (page A-8)
- AgentStateChange (page A-8)
- UserStateChange (page A-9)
- TrunkLog (page A-10)

As call center agent states change and calls are completed, the TeleVantage Server uses SQL Server stored procedures to write the appropriate data into these tables for later reporting. In some cases the stored procedures themselves calculate the values of other fields to improve the performance of later data retrieval.

The CallLog table

The CallLog table contains data for each completed call. At the completion of each call, a single row is added to the table. The majority of columns in the table contain redundant data that can be found in other tables; they are included only to speed up data retrieval for the Administrator and Client application Call Log views.

The following are columns are unique to the CallLog table:

Name	Description
ID	Unique identifier for the call.
Direction	Direction of the call from the point of view of the server: 0 = Inbound 1 = Outbound 2 = Internal (station to station) 3 = Conference
StartTime	Timestamp for when the call started. This is when the server picks up the call.
StopTime	Timestamp for when the call ended. This is when the server drops the call.
AssocPbeID	ID of the row in the PhoneBookEntry table that is associated with this call. This is either the user or contact that one of the users associated with the call.
AssocFirstName	First name of the associated person.
AssocLastName	Last name of the associated person.
HoldTime	Number of seconds the caller was on hold.
PbeList	Separated list of all PhoneBookEntry ID values that were involved in the call. This is used to speed performance of loading the Call Log views.
PartyCount	Number of parties in the call.
AnsweredBy	PhoneBookEntry ID of the person who answered the call.
AnsweredByFirstName	First name of the person who answered the call.
AnsweredByLastName	Last name of the person who answered the call.

Name	Description
PlacedBy	PhoneBookEntry ID of the person who placed the call.
PlacedByFirstName	First name of the person who placed the call.
PlacedByLastName	Last name of the person who placed the call.
FromPhoneNumber	Obsolete.

The following CallLog table columns are copies of data from the PartyLog table (see page A-5) for either the "from" party (the first party in the call), the "to" party (the last party in the call), or both.

"From" Column	"To" Column	PartyLog Column
FromID	ToID	PartyPbeID
FromFirstName	ToFirstName	FirstName
FromLastName	ToLastName	PrimaryName
CallerIDName		CallerIDName
CallerIDNumber	ToPhoneNumber	CallerIDNumber
CallerIDAccessCode	ServiceAccessCode	ServiceAccessCode
CallerIDType	ToPhoneNumberType	CallerIDType
CallerIDQ931Type	ToPhoneNumberSub Type	CallerIDQ931Type
CustomData		CustomData
CallbackAddress		CallbackAddress
Result		Result
DIDNumber		DIDNumber
DevID	ToDevID	DevID
MessageID		MessageID
	DialString	DialString
	AccountCode	AccountCode

The PartyLog table

The PartyLog table contains data for each party in a completed call. Each person in the call counts as a party, so there can be multiple rows in this table for a single row in the CallLog table.

The following are the columns in the PartyLog table:

Name	Description
ID	Unique identifier for the party.
CallID	ID of the call that owns the party row.
PartyPbeID	ID of the row in the PhoneBookEntry table that is associated with this party. This is either the user or contact that represents the party. If TeleVantage does not know who the party is (for example, no contact match) the column contains 33 which is the "unknown" ID.
FirstName	First name of the user or contact represented by the PartyPbeID column.
PrimaryName	Last name of the user or contact represented by the PartyPbeID column.
StartTime	Timestamp for when this party was added to the call.
StopTime	Timestamp for when this party was removed from the call.
CallerIDName	Name portion (if any) for the Caller ID data for this party.
CallerIDNumber	Number portion (if any) for the Caller ID data for this party.
DevID	Device number used for this party. Positive values are stations and negative values are trunks.
MessageID	ID of a row in the Message table for a message (if any) left by this party.
DialString	The exact sequence of digits dialed by the server for this party.
Direction	The direction for this party: 0 = Callee 1 = Caller

Name	Description
Role	What role the party played in the call: 0 = Peer 1 = Monitor 2 = Pupil 3 = Coach
ReasonForLeaving	The reason this party was removed from the call: 0 = Caller abandoned before party answered 1 = Party hung up 2 = Call was hung up on this party 3 = Party hung up before anyone answered 4 = Party went to voice mail 5 = Party was blind transferred 6 = Party was supervised transferred
DIDNumber	DID digits that were received from the device for this party.
AcceptedTime	Timestamp for when this party accepted the call.
AnsweredBy	ID of the user who accepted the call. This can be different from PartyPbeID for an ACD workgroup situation: in this case the PartyPbeID is the ID of the ACD workgroup and the AnsweredBy value is the ID of the user who answered for the workgroup.
GroupID	ID of the workgroup that accepted the call (if any). In the case of a Routing List that calls several workgroups this will be the ID of the one that accepted.
CallerIDType	The type of phone number used for the Caller ID number: 1 = Phone number 2 = IP address 6 = Centrex or Internal (Internal if ServiceAccessCode is blank, otherwise Centrex)
CallerIDQ931Type	Whether phone number parsing rules were used: 0 = No 8 = Yes

Name	Description
ServiceAccessCode	Access code for the service used by the party. For outbound calls this is the dialing service selected. For inbound calls this is the service that received the call (if known).
CustomData	String containing any custom data written to the call for third-party applications.
CallbackAddress	ID of a row in the Address table that describes the callback number the caller left.
PartyClass	Class value that represents what type of party this is: 1301 = User 0901 = Queue 0501 = Contact
AccountCode	Account code sequence (if any) entered for this party.
PartyNumber	Sequence number (starting at 0) that determines the order the parties entered the call.
ACDPartyNumber	Sequence number (starting at 1) that determines the party in an ACD call.

The QueueEncounter table

Name	Description
ID	Unique identifier of the encounter entry.
CallID	ID of the CallLog entry for this encounter.
QueueID	ID of the Queue entry that had this encounter.
Time	Timestamp for when the encounter occurred.
WaitTime	Total time in seconds the caller waited.
ActiveTime	Total time in seconds the call was active.
AgentTalkTime	Total time in seconds that agents talked to the caller.
NumberAgents	How many agents were involved.
FirstAgent	The ACDPartyNumber from the CallLog table for the first agent who handled the call.
Result	Same as the ReasonForLeaving column in the PartyLog table.

The AgentStateChange table

The AgentStateChange table contains data that tracks the state of agents.

Name	Description
PbeID	ID of the PhoneBookEntry row that represents the user.
QueueID	ID of the Queue row that represents the Queue that this change was made in.
Time	Timestamp for when the user entered the state.
Duration	Number of seconds the user was in the state before it changed.

Name	Description
State	The state the agent was in before the change. The state values are: 0 = Logout 1 = Available 2 = Standby 3 = Wrapup 4 = Offering 5 = No answer 6 = Active 7 = Active outbound 8 = Wrapup outbound
ToState	The state the agent was in after the change. The state values are the same as the **State** column values.

The UserStateChange table

The UserStateChange table contains data that tracks the state of users.

Name	Description
PbeID	ID of the PhoneBookEntry row that represents the user.
Time	Timestamp for when the user entered the state.
Duration	Number of seconds the user was in the state before it changed.
State	The state the user was in before the change. The state values are: 0 = Sign out 1 = Ready 2 = Break 3 = Training 4 = Unavailable 5 = ACD Active 6 = Non ACD Active 7 = Sign out Active
ToState	The state the user was in after the change. The state values are the same as the **State** column values.

The TrunkLog table

The TrunkLog table contains data that tracks information on trunk usage.

Name	Description
ID	Unique ID of this trunk usage row.
PartyLogID	ID of the PartyLog row whose trunk usage is being reported on.
DeviceID	Device number for the trunk being used.
StartTime	Timestamp for when the trunk started to be used.
StopTime	Timestamp for when the trunk stopped being used.
Direction	The direction for this trunk usage: 0 = Inbound 1 = Outbound
SubIntervalCount	Counter for each portion of an hour the party active. For example, if a party was on a call from 2:45 to 4:15, there will be three TrunkLog rows—one with a value of 0 for the 2:00 hour, one with a value of 1 for the 3:00 hour, and one with a value of 2 for the 4:00 hour.

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