

CT Control

CT Control is the heart of NEC's UC for Business and gives managers complete control over the delivery of phone, email, fax and web-based contacts. The intelligence and flexibility of CT Control allow you to tailor your contact center environment to meet your organization's unique requirements and cater to the needs of your most valuable callers. Sophisticated reporting and administration tools give you the power to continuously monitor your contact center in real-time and make changes on-the-fly without requiring third-party assistance or specialist in-house resources.



Introduction

CT Control is the core component of every UC for Business (UCB) solution - the toolkit that managers use to increase revenues, decrease costs and boost customer satisfaction.

Table of contents

Overview.....	1
Features	1
Benefits	2
Queues.....	3
About Queues.....	3
Queue Modes	3
Queue Schedules.....	5
Queues Schedule Example.....	5
Personal Queues.....	5
Queue Blocking	5
Mode Change on Zero Agents.....	6
Multiple Call Handling.....	6
Alerts.....	6
Delivery.....	7
Agent Login IDs	7
Flexible Delivery.....	7
Call priority and Skills-based Routing.....	8
Priority Example	8
Oops! No agents are logged in!	8
Worktime and Worktime Override	8
Last Called Agent.....	9
Query	9
Benefits of Query	10
Reporting.....	10
Call Center and System Configuration Reports	10
Display Wallboards.....	10
Wrapup Codes.....	10
Wrapup Codes Example.....	10
Administration	11
Wizards	11
Online Help and Tutorials.....	12
Verify System Configuration.....	12
Copy Manager	12
Security	12
Dynamic Monitoring	12
Backups and Redundancy	13
Queue Redundancy	13

Overview

CT Control manages the queuing and delivery of all phone, email, fax, web chat and web callback interactions coming into the contact center. With labor being the single biggest cost component in any contact center, maximizing the efficiency of your agents is a top priority. CT Control increases the rate of 'first call resolution' – minimizing call handling and agent talk time. Service levels are enhanced by delivering calls to the most appropriate agent based on:

- Duration of wait time
- Time of day and day of week
- Caller ID (CLI)
- Data entered by the caller
- Skill sets of available agents
- Priority of call or caller
- Last called agent
- Media type

At the heart of CT Control is skills-based routing which matches agent skills and experience to a number of different queues and delivers each call to the most appropriately skilled agent available. CT Control has the intelligence to not only distribute calls to the right agent, but also to significantly reduce caller wait times, resulting in higher levels of customer satisfaction. And CT Control encompasses an array of other features and functionality, such as resolution codes, worktime allowances, queue blocking, alerts and wallboard control that are designed to increase the efficiency of your contact center both from a management and agent perspective.

In today's fast-paced world, information is power. Without meaningful and easily analyzed data, contact center managers cannot accurately measure the performance of their contact center operations. CT Control supplies the statistical outputs to ensure that your contact center is appropriately configured and staffed to handle fluctuations in call volumes, resulting in lower caller abandonment rates and increased revenues. Having the information to make the right management decisions at the right time can have

an immediate positive impact on your contact center's bottom line.

For organizations that have high inter-departmental security requirements or operate in a multi-company tenanted environment, CT Control offers a comprehensive set of security features which allow companies to restrict functionality, viewing and editing rights in order to protect individual set up and operating parameters. The security features of the system can also be used to control telephony costs.

And system administration is a breeze, avoiding the need to rely on highly paid technical staff or third-party organizations to make changes. UCB incorporates a graphical user interface, wizards, default settings and variety of other tools that make administration both quick and easy while minimizing the total cost of ownership.

Features

CT Control offers contact centers a comprehensive range of functionality:

- Accommodate multimedia contacts such as phone, fax, email, web chat and web callback (requires multimedia modules)
- Overflow queue calls to multiple agent groups
- Determine and change the action of the queue depending on time of day, day of the week, day of year, or other criteria
- Delivery of calls to agents based on wait time, agent skills and/or call priority
- Prioritize calls based on Caller ID (CLI) or number dialed
- Query a caller to identify themselves using their telephone keypad and then deliver the call based on this information
- Select certain agents to answer calls depending on who is calling
- Real-time agent and queue status information with support for multiple wall display units showing data on each board

- Call and queue information can be screen popped to agents as calls are delivered to them (requires Agent Desktop module)
- Offer agents automatic or manual after-call 'worktime'
- Automatically log agents out if they do not answer a queue call
- Alert agents and supervisors when the queues reach a specific load
- Block queues to restrict the number of calls waiting and activate alternatives such as a busy message, the ability to request a Callback (requires Callback module) or transfer callers elsewhere
- Apply wrap-up codes to record call type or result of the call and view this information in reports
- Set up internal queues and personal agent queues
- Report statistics and call delivery information based on agent ID rather than extension number
- Agents can log in from any PC (requires Agent Desktop module) or extension and receive queue calls as they normally would
- Online help and tutorials support end users and administrators so that they continue learning about the applications as they use them
- Detailed report data presented in easily understood formats
- Assign a security class to each user or user group based on their role within the organization
- Simple administration interface
- Tools to verify system configuration and finish incomplete tasks
- Supervisory monitoring of agent calls

CT Control queues and prioritizes calls to your contact center. Agents can log out or take a break from Agent Desktop. Once CT Control recognizes

that an agent is available to take delivery of a call, it then routes the call to Agent Desktop.

Benefits

The sophisticated features of CT Control deliver a wide range of benefits:

- Optimal utilization of contact center agents
- Callers are delivered to the most suitable agent based on their skill set ensuring maximum customer satisfaction
- Agents and supervisors are kept informed of contact center status which improves operational management
- Higher priority customers are given better service
- Agents are identified individually resulting in better performance monitoring
- Providing agents with call details prepares them for the call and allows them to provide a higher level of service
- The ability to automatically log an agent out means that queue calls will not go unanswered on an agent's extension but instead will be delivered to another agent
- After-call worktime gives agents the chance to finish any work required for the previous call before taking delivery of the next call
- Alerting the contact center to the status of a queue ensures that service affecting situations can be dealt with immediately
- Coding calls provides statistics on call types and results of calls, assisting in the management of both the contact center and the business
- Queue modes offer flexibility when requirements change (e.g. from day to afterhours service)
- Intuitive administration interface and easily accessible online help eliminate the need to employ specialist in-house resources or third-party assistance while ensuring accurate configuration
- Security classes allow companies to co-exist in multi-company or multi-department

environments without sharing access to their individual applications, functionality, configurations and reports

- Telephony costs, such as external transfers to mobile phones, can be more tightly managed using security features
- Contact center managers can easily alter system parameters on the fly, allowing them to be instantly responsive to changing contact center requirements
- Detailed reports provide the statistical information required to optimize contact center staffing, configuration and processes
- Service-level reporting ensures that the contact center can measure its performance against its service level commitments
- Supervisors and managers have access to real-time data on contact center activity, allowing them to address any shortfalls as or before they happen

Queues

About Queues

UCB utilizes the queuing functionality in the telephony switch and overlays this with its own intelligent routing. Each queue within UCB is unique and can be configured differently from other queues with its own queue name, announcements and delivery patterns. When configuring queues, the administrator selects which medium the queue will handle (i.e. phone, email, fax, web callback, web chat) and the administration interface displays the applicable fields for the chosen medium. UCB's ability to manage multimedia contacts within a single contact center environment ensures optimal utilization of agents while providing consistency of contact handling.

While CT Control provides the core queuing functionality, the following modules are required to allow for multimedia delivery¹:

- Email Queuing
- Web Callback Queuing
- Web Chat Queuing
- Fax Queuing

Intelligent call delivery to multiple queues improves service levels and response times as calls are delivered to the most appropriate agent the first time. Reporting on a per-queue basis allows contact center managers to analyze each business area independently as well as the contact center as a whole, promoting a more strategic approach to contact center management.

Queue Modes

Queue Modes determine the action taken by UCB when a call arrives in the queue. Queue Modes allow the queues to be flexible and respond appropriately to different requirements depending on the time of day, day of week or an unexpected situation. Multimedia Modes extend these modes to all types of media that use queuing including phone, email, fax, web chat and web callback.

Each queue can have a maximum of 98 configured modes, which means that a queue can be in any one of 98 different states, and each of the 98 modes can activate one of 10 possible mode actions. Each queue can be programmed to have a maximum of six scheduled automatic mode changes within a 24-hour period. Other mode changes can be activated manually. A mode can be selected in an emergency and/or it can be forced. For example, callers can be forced to leave a callback rather than wait in the queue or a forced-mode announcement can be played immediately when the call arrives in the queue. Supervisors of the system can manually change modes using the Agent Desktop interface or the telephone².

¹ Please refer to individual module for each medium

² Feature is platform specific.

All media types can receive dynamic announcements based on caller, queue or email information. In the case of email, web chat and web callback, voice announcements are replaced by text notifications which are created using text templates.

Queue modes give contact centers flexibility when dealing with differing queue requirements for inbound calls. Modes also enable contact centers

to provide a range of different options to callers and allow supervisors to respond quickly to unexpected situations such as an emergency evacuation.

The table below lists the different mode actions available for each medium. All mode types are available for the Phone medium:

	Mode type	Behavior	Phone	Email	Web Chat	Web Callback	Fax
1.	Normal Queuing	Queues the call for delivery	√	√	√	√	√
2.	Force Callback	Callers are unable to queue; they must request a Callback	√				
3.	Auto Attendant	Plays an auto attendant menu	√				
4.	Play Announcement	Plays a message then queues the call	√	√	√	√	
5.	Hang up	Plays a message then hangs up on the caller	√		√		
6.	Query Call	Asks the caller for a customer number then queues the call	√				
7.	Transfer Call	Immediately transfers the call to another destination	√	√	√	√	√
8.	Busy Tone	The caller hears busy tone and can do nothing except hang up	√				
9.	Transfer to Voice Messaging	Transfers the call to Voice Messaging	√				
10.	IVR	Offers IVR options	√				
11.	Forward No Answer	Calls queue normally, but if not answered, they are redirected to another destination	√	√	√	√	

Queue Schedules

The queue schedule is a seven-day a week, 24-hour-a-day schedule that determines the particular mode a queue is in at any given time. Different schedules can be set up for each queue with up to six scheduled mode changes per day per queue. The queue follows this schedule and automatically changes modes without any operator or management intervention; however, the queue schedule can be manually overridden by a supervisor if required. Queue schedules provide operational flexibility without the need for manual intervention unless an emergency situation dictates.

Queues Schedule Example



Figure 1: Queue Schedule

Based on the modes scheduled in the example above, calls will be handled as follows:

- Monday between midnight and 8:30am the queue will go into Night Mode (Hang up) – a night message is played before hanging up on the caller.
- Monday 8:30am to 5pm the queue will go into Day Mode (Normal Queuing) – calls go straight into the queue for delivery; if no agents are free after 10 seconds a customized announcement is played.
- Tuesday 10:30am to 3pm the queue will go into Promotion Mode (Query) – the caller is

asked to enter their customer number before being delivered to the appropriate agent, based on their keyed entry.

- Friday 11am to 5pm the queue will go into Skeleton Staff Mode (Auto Attendant) – the auto attendant can offer callers information such as business hours or locations while still allowing access to the call center should callers wish to speak with an agent.

Note that some modes, such as the emergency mode, are not utilized during the seven-day schedule. This mode is purely for an emergency situation and the supervisor has to manually put the queue into this mode when required. When a queue is manually put into a mode, it overrides the current schedule until it is manually put back into automatic schedule mode by the supervisor. Alternatively, the system can be configured to automatically revert to automatic schedule mode at midnight.

Personal Queues

Personal queues are standard queues but only one person takes delivery of calls from a personal queue. Personal queues are useful for staff who receive regular calls from customers or suppliers and require these callers to be able to queue for them. If a personal queue is configured, callers can wait for a staff member instead of being forced to use voice messaging. Offering callback on a personal queue gives callers the choice of waiting or leaving a callback message. Queue announcements can also be customized specifically for the person the queue is assigned to.

Personal queues are configured using the Administrator application and contact center managers can report on the call statistics for the individual agent's calls.

Queue Blocking

In certain situations it may be necessary to limit the number of phone calls allowed into a queue. For example, a queue that continually has a large number of calls waiting due to a promotion or special offer can take up all available incoming lines which may be required for other types of calls in the business. Queue blocking gives contact center managers the option of managing queues by

restricting, where necessary, calls into individual queues.

Parameters are set so that once a certain number of calls are in the queue; any additional calls are dealt with in another manner. For example, these callers can:

- receive busy tone
- be transferred off-site
- hear a hang-up message notifying them of the current situation
- be offered the option of a callback

Queue blocking allows calls to be taken at rates that a contact center can handle and helps control queue wait times. Telephony network costs on free phone (800) numbers can be controlled, as calls cannot queue beyond specified thresholds. The number of calls waiting in the queue must reduce to a pre-set number, as defined by the supervisor, before new calls are queued.

Mode Change on Zero Agents

Mode Change on Zero Agents allows the system to change the queue mode when the queue is in a delivery mode (such as Normal Queuing) but there are no agents logged in. For example, the queue is scheduled to open at 8:00 am but at 8:00 am the agents are setting up for their day's work and have not logged on yet. Rather than calls arriving in the queue and having to wait, or the queue remaining in Night mode and callers hearing an announcement telling them that opening hours are 8:00 am, the queue automatically switches to another mode, such as callback. When the first agent logs in, the queue automatically reverts to the normal scheduled mode.

Mode Change on Zero Agents ensures that callers are not left waiting in a queue when no agents are available to take their calls, thus reducing the number of unnecessary abandonments. Mode Change reports can be used to identify when this feature is invoked so that managers can address any scheduling or process issues that may be resulting in agents being unavailable to take calls.

Multiple Call Handling

Multiple Call Handling³ allows agents to receive queue calls when they are already connected to a non-queue call. A queue call will be presented to an agent who is already on a non-queue call only if there are no idle agents available.

Managers can determine which agent classes and queues have access to the Multiple Call Handling feature. Agents can also be given more time to answer the queue call if Multiple Call Handling is invoked. The auto-logout time can be configured to automatically double so that agents have twice as much time to make themselves available to take the queue call before being auto-logged out.

Alerts

An alert is a sound or announcement in the form of a .WAV or .VOX file that is played through the PC speakers. Alerts let the agents know when a queue has reached a specified critical threshold.

There are three parameters that can be set to trigger an alert:

- The amount of time that calls have been waiting in the queue has exceeded a specified period (parameters vary by media type)
- The number of calls waiting in the queue has exceeded a pre-specified number
- The ratio of current calls to prime agents is greater than a pre-specified number

³ Feature is platform specific.

Delivery

When a 'call' is delivered to an agent, UCB presents information about the call on the LCD of a digital phone⁴ or within Agent Desktop. The call information, and where it is displayed, varies depending on the medium, as shown below. For a detailed description of Agent Desktop, please refer to the Agent Desktop white paper.

Medium	'Call' information presented in		
	Agent Desktop	Microsoft Outlook	Telephone LCD
Phone	CLI, any data keyed in by the caller (i.e. customer number)		CLI, any data keyed in by the caller (i.e. customer number)
Fax	CLI Content of the Fax		CLI
Email	Sender's email address, subject line, indication if there is an attachment	Content of the Email	
Web Callback	Caller name, phone number, text message		
Web Chat	Email address, caller's name, text conversation		

Call information is vital for agents who receive calls from multiple queues as it identifies what type of call they are receiving and allows them to prepare

⁴ Feature is platform specific.

for the call, for example, by going to the relevant screen in the company database. Information regarding call wait times is also useful as it alerts the agent that the caller may be annoyed if they have been waiting for an extended period of time.

Agent Login IDs

Each UCB agent is provided with a unique login identification number that identifies who they are and which login class they belong to. Agents can log into UCB via the LAN application, Agent Desktop or from their digital⁵ or analog phone.

When agents log into UCB, their unique login ID, the time they logged in, and how long they are logged in for are recorded for reporting purposes.

Agents are assigned one of three login types:

- Single Login - Agent logged in at extension 'A' can only log in at extension 'B' after logging off at extension 'A' first
- Multiple Login - Agents can log in at multiple extensions simultaneously
- Follow-me Login - If an agent is logged into a phone, doesn't log out and then attempts to login into another extension, UCB will log the agent out of the first extension and allow them to log into the second extension

UCB supports queue hot seating because Login IDs identify agents wherever they are logged in, regardless of the phone or PC they are using.

Agent login IDs are vital to the successful use of skills-based routing as delivery can be configured individually based on an agent's mix of skills.

The unique Login ID also allows for full reporting on a per agent basis, an essential tool if contact center managers wish to individually assess and evaluate agents.

Flexible Delivery

UCB can deliver calls via any combination of queues to any combination of agents.

Agent Login Classes and Delivery Patterns in UCB Administrator allow Contact Center managers to set delivery rules for their calls and their agents.

⁵ Feature is platform specific.

Supervisors can match the skills of their agents with the appropriate phone calls, emails, faxes and web interactions entering the various queues.

Call priority and Skills-based Routing

Delivery patterns determine which agents will receive a call, email, fax, web chat or web callback from which queue. Priority is based on four key factors:

- The priority given to the queue
- The priority given to a particular caller, based on their CLI
- How long a call has been waiting for
- Whether 'Last Called Agent' (see below) is enabled

Priority values are from one (lowest) to nine (highest). All calls in a queue can be given the same priority, in which case, the oldest call waiting is delivered to the next available agent. However, a priority adjustment can be made against a particular call (using Calling Line ID to identify the caller) allowing that call in the queue to have a higher or lower priority over other calls in the queue.

Priority adjustments can also be made to calls based on their wait time. This ensures that no calls wait an excessive amount of time and will always be delivered as long as agents become available and the caller doesn't abandon. This is an important factor in providing excellent customer service.

Priority values tell UCB which calls are more or less important or valuable to the contact center, which in turn allows managers greater flexibility when managing the customer base. Using Calling Line ID allows the contact center to identify certain callers and treat them differently by placing them in a different queue or giving them a higher or lower priority. This means callers can be recognized and treated as individuals.

By using priority values, agents with higher skill sets are always delivered calls before agents with a lower skill set. Agents with the highest skill sets are assigned as 'prime agents' while those with lesser skill sets are made 'backup agents'.

For example, if a prime agent becomes available at the same time as a backup agent, UCB would

always deliver the call to the prime agent. In this way, the caller is always answered by the most highly skilled agent available at that time. This also means that agents with a lower skill set are not under as much pressure to take calls and can increase their skill set in a more 'learning friendly' environment.

In some cases, when there are an excessive number of calls in the queue, the system can utilize a group of 'overflow agents'. These agents are typically set up to receive calls on a time delay and at a lower priority than prime or backup agents.

Priority Example

Here is an example of how priorities can be used to answer VIP callers first without significantly affecting the level of service offered to general callers:

A general sales queue call is assigned a priority of five (which is midway between the highest and lowest priority settings available).

A **VIP** sales queue call is assigned a priority of six. This ensures the VIP callers are always answered first. However, if VIP calls are always given priority there is the risk of a General Sales call never being answered.

To avoid this, the general sales calls priority must be upgraded after a set period of time. For example, the priority of a General Sales call could be upgraded after a pre-set time of 60 seconds to a priority of six, thus giving it equal priority to a VIP sales call.

Once all calls have the same priority, the oldest call waiting is delivered to the next available agent.

Oops! No agents are logged in!

When no prime agents are available, callers are delivered to a second set of 'backup' agents.

However, if no prime agents are actually logged in, callers do not have to wait the set period of time before the backup agents are considered. UCB allows the administrator to have calls delivered immediately to backup agents.

Worktime and Worktime Override

Contact center administrators can specify a period of after call worktime to agents before the next call is delivered. This is determined by the class the

agent is logged into at the time and the queue the call is delivered from. Worktime gives an agent time to finish off work from the previous call, to prepare for the next call or to simply take a short break between calls.

UCB can be configured to allow after-call worktime only if current calls in the queue has been waiting less than a specified time. The administrator can choose whether to allow UCB to override this worktime and deliver calls waiting in the queue. Worktime Override eliminates the risk of callers waiting too long while agents are actually available but in worktime.

Last Called Agent

When a call is delivered from a second-time caller, 'Last Called Agent' information is displayed. This information is activated by a number/address that is matched in the Phonebook. This feature can be used for information display only, or for both information display and last agent delivery:

- Information Display only - Information regarding the last xx (configurable) calls that a recognized caller made is displayed in Agent Desktop for the agent's use.
- Last Agent Delivery - UCB attempts to deliver the call to the last agent who dealt with this caller. If the agent is unavailable, the system will try the second-to-last agent who dealt with this caller and so on; depending on how many agents UCB has been configured to attempt to deliver to. After a pre-set time, the system delivers the call to the next available agent, regardless of whether they have previously handled a communication from this contact or not.

Last Called Agent improves customer service levels by delivering the caller to the last agent dealt with, effectively reducing call handling times and increasing the efficiency of the contact center.

Last Called Agent also increases customer satisfaction as agents are presented with the caller's contact history and can make more informed decisions about how to handle the caller.

Query

Queries are used to identify and differentiate callers from others that have come into the same queue.

Phone calls can be recognized by their Caller ID, or the Custom Announce module can prompt the caller to enter data as a means of identifying themselves - for example their customer number. Recognition of the Caller ID can be specific, right up to maximum digits, or by matching only the first digits or area code can simply identify the area the call has come from.

Emails, web chats and web callbacks can be identified by their email address.

The Query Database stores customer data that is matched against the data entry. Once the data is entered or verified (optional) the call is directed accordingly with any of the adjustments below:

- The priority is adjusted
- The call is redirected into a different queue
- The call can be delivered to a preferred agent
- The query information, such as the customer number, can be sent to the LCD on a digital phone⁶ or to Agent Desktop (if Agent Desktop is installed) when the call is delivered
- The caller's name or selected information (such as 'VIP Customer') can be sent to Agent Desktop when the call is delivered
- The call is sent to an auto attendant
- The caller can be played an announcement
- The caller can be re-queried
- The caller is prompted to leave a callback

Transferring the caller into a different queue means UCB can:

- Play a different greeting to the caller
- Gather separate statistics for those calls (reporting)
- Give the queue a higher priority
- Give callers different options via the mode selected for that queue (such callback, auto attendant, etc.)

⁶ Feature is platform specific.

Benefits of Query

Query Database gives contact center managers the ability to handle certain callers differently to other callers and can be used to shorten the wait times of the most valuable callers.

It also provides agents with information about the caller so that they can deliver a higher level of service, for example, by greeting the caller by name or accessing customer data sooner.

Customer service levels can also be enhanced by sending callers directly to a preferred agent or a higher skilled agent. It is even possible to set individual wait times for preferred agents within the Query Database. Identifying a call's geographic origin can be used to give higher priority to calls from areas that have higher telecommunications network costs. A shorter wait time can equate to reduced network costs for the contact center.

Reporting

In today's fast paced contact center environment, information is power. UCB reporting tools supply data that is meaningful and easy to analyze so that managers can accurately measure contact center performance and make informed management decisions.

Information can be provided on a per-agent basis because each agent logs on to UCB using a unique ID. Individual agent reports allow contact center managers to accurately assess agent performance based on quantitative information and compare it to benchmarks and standards from previous reports.

Call Center and System Configuration Reports

UCB has an onboard database that collects 'cradle to grave' statistics on every facet of every call, whether it be phone, email, fax, web chat or web callback. Contact center managers have easy access to a comprehensive range of reports that can be presented in a variety of formats including charts and graphs.

Display Wallboards

UCB can be linked to a number of different third-party wallboards. Wallboards allow anyone entering

the contact center to have immediate access to real-time information on queue status and current performance levels at a glance. They can be configured individually or in groups, with the queue or queues to be displayed. Information can flash or roll and different queues can be displayed intermittently or all together.

Wrap-up Codes

UCB can be configured to prompt agents for Wrap-up data during or after a call. The Wrap-up code provides a record of how the call concluded or specifics relating to the type of call, such as the reason for the call or the result of the call. Wrap-ups can be performed using Agent Desktop or a digital phone⁷.

Contact center managers can create Wrap-ups against every queue in the system if they wish. Managers can review the Wrap-up data in a number of different reports.

Wrap-up codes are a simple and effective way to evaluate the types of calls each queue receives and the results of each call. Having this information at their fingertips allows contact center managers to make better decisions regarding staffing levels and agent skill sets required to provide the highest level of service to callers.

Wrap-up Codes Example

- 1 Calls requiring Wrap-up are displayed in the Agent Desktop 'call resolutions' window.
- 2 To complete a Wrap-up, agents choose one item from each available list.

⁷ Feature is platform specific.

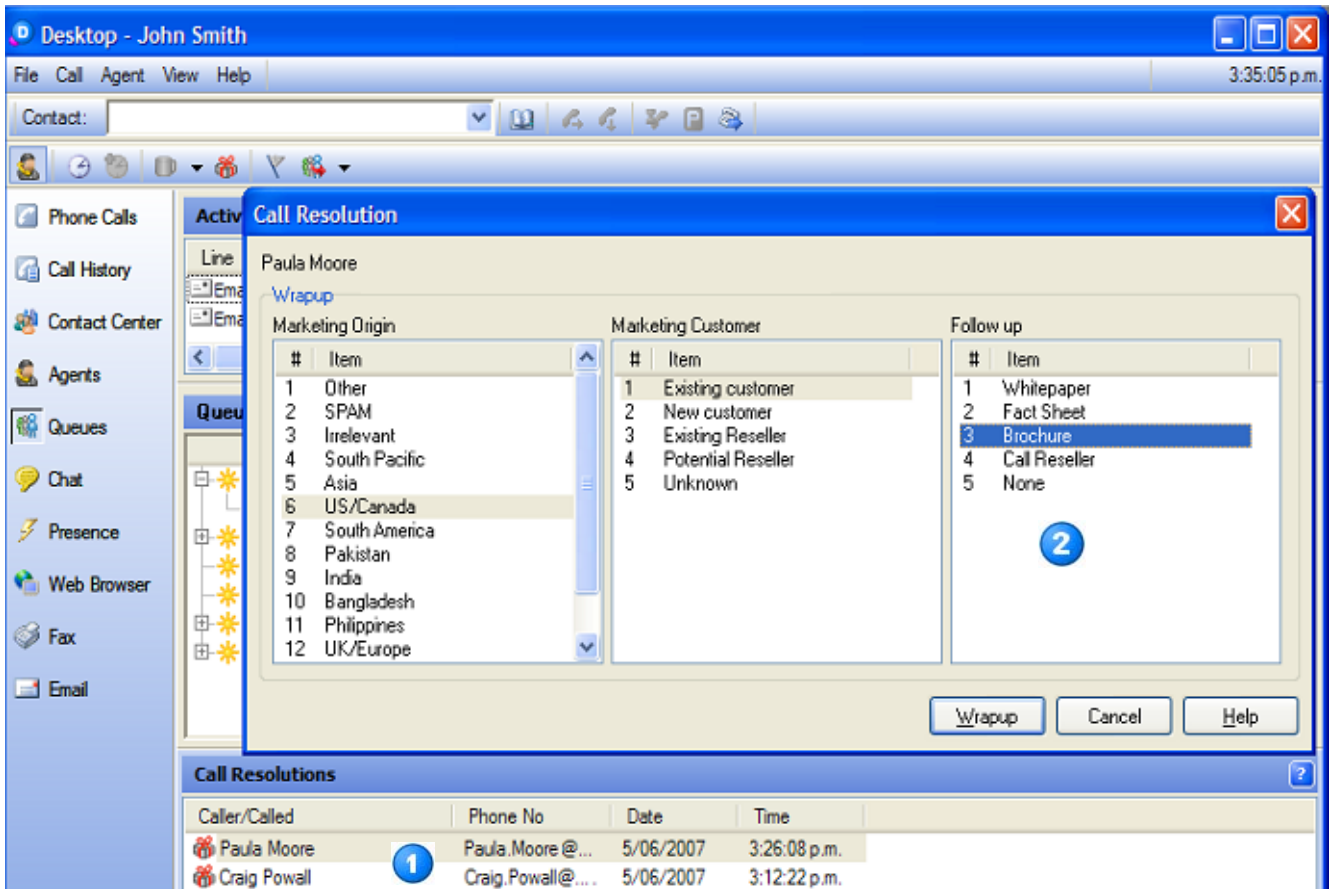


Figure 2: Agent Desktop Wrap-up Window

Administration

Setting up and managing your contact center environment has never been easier as every aspect of UCB can be altered with a click of the mouse.

UCB simplifies administration tasks by providing administrators with wizards; add/edit screens, default settings and a graphical user interface (GUI) to set up agents, queues, patterns and other system parameters. Online help and built-in tutorials give administrators (and users) immediate access to relevant, step-by-step information as they need it. And the Copy Manager saves time by allowing administrators to duplicate the properties of one system setting (i.e. a queue or class) when creating a new one. Multi-editing facilities save even more time by allowing

the system administrator to access groups of entries simultaneously.

Integrated live updates mean that any changes made will take effect immediately. A full audit trail tracks all changes to the Administrator settings and the three-tier client server architecture supports remote administration while maintaining data integrity.

Wizards

UCB's system administration interface uses wizards to make common configuration tasks quick and easy to perform. Configuration wizards not only reduce setup time but also reduce configuration errors. When first launching the

Administrator application, users are presented with a welcome screen which gives them immediate access to a list of common configuration tasks, including:

- Add a new contact to Phonebook
- Reset PIN
- Add new Mailbox
- Add new Agent
- Add new Queue
- Add a new Mode for a Queue
- Create a new Delivery Pattern
- Assign/change Agent's Login Classes
- Add a new Announcement

Alternatively, the administrator can access a complete list of configuration wizards from the File menu under Wizards.

Online Help and Tutorials

Assistance and information is always available by clicking the Help button from within any UCB application and selecting from the Contents, Index or Search tabs.

Clicking the desired topic or feature takes the user to the corresponding lesson. The Search tab allows users to find information by keying in a word or phrase. The Search can be further refined by selecting options such as similar word matches, a previous results list or searching topic titles only.

UCB also offers context-sensitive help from within each screen. Detailed information relating to the current screen can be accessed by clicking on the Help button.

Tutorials are step-by-step lessons that are designed to teach users the fundamentals of UCB. Each tutorial also contains video tutorials which provide animated 'walk throughs'. Tutorials are an effective and friendly means of getting beginner through intermediate level users up-to-speed and providing them with the resources they need to continue learning as they become more familiar with the system.

Verify System Configuration

System Administrators can check the system for inconsistencies in configuration. A tool generates a list of incomplete tasks and provides information explaining each issue in more detail. Each incomplete task displays links to the interface required to complete the configuration.

Copy Manager

Copy Manager saves system administrators time by allowing them to reuse settings and data. For example, the administrator may use Copy Manager to copy Callback limits and parameters into another queue.

Security

For organizations that have high inter-departmental security requirements or operate in a multi-company environment, UCB offers a comprehensive set of security features. These features are included as part of CT Control and allow companies to restrict viewing and editing rights in order to protect individual set up and operating parameters.

The security features of the system can also be used to control costs as they allow organizations to restrict access to specific functionality, such as transferring from a user's presence greeting to their mobile telephone. Access to functions and fields within the software can be defined for every user using general security class permissions and/or individual user permissions.

Dynamic Monitoring

Dynamic Monitoring⁸ allows CT Control to monitor extensions only as required rather than continuously, reducing the number of line/extension cards required within the PBX and increasing the overall capacity of the system.

Dynamic Monitoring is typically used in environments that have a large number of trunks and extensions but only a small contact center. All call center extensions are permanently monitored; however, lines which are not associated with the call center are monitored only when connected to a

⁸ Feature is platform specific.

call center line. In other words, lines are monitored when they are in conversation with a monitored extension, calling the queue, or when a queue call is transferred to an unmonitored extension. The unmonitored extension is dynamically monitored for the duration of that call but at the end of the call the extension reverts to being unmonitored.

Backups and Redundancy

A graphical user interface allows administrators to schedule backups of voice messaging, configuration and report data. Backups can be made to a local or network location and, if required, administrators can run an MSI-based installer to restore the data with a single click.

Automatic scheduling of backups eliminates the need to remember to manually backup the system, ensures that regular backups are done and leaves administrators free to attend to other tasks.

Queue Redundancy

In the case of a system failure, wherever possible the default queuing within the telephony switch is used to take over the delivery of calls. This is manually initiated by the agents or automatically activated by CT Control. The functionality achieved depends on the features of the telephony switch but the following redundancy features are generally available across most supported switches:

- Client PC failure - Calls will continue to be delivered to the agent extension with no loss of historical reporting or announcements. Agents will lose the ability to view and utilize Agent Desktop but log-on, log-off and break functions can still be performed with an analog login or the assistance of a supervisor.

- Server PC failure with no redundancy - Calls arriving at UCB queues will be passed to a hunt group where call delivery will proceed according to the hunt group configuration. There is an associated loss of reporting data and announcements during the down time.
- Server PC Failure with redundant server - A secondary server is set up which contains a fully duplicated database due to daily replication with the main server. In the event of a primary server failure, this server takes over all UCB activity but requires a manual switchover at the time of failure. Historical reporting data accumulated between the time of the last backup and the time of the server failure will be lost when the changeover occurs. This data exists on the primary server but cannot be merged with any new data being gathered on the secondary server.
- Server PC Hard Drive Failure with backup hard drive option - The server hard drive is backed up daily to another drive that can be substituted in the event of primary disk failure. The effect will be the same as having a redundant server in terms of loss of data and reporting for the period between last backup and time of failure.
- Server PC Hard Drive Failure with RAID option - A hard drive failure will not impact on a contact center operation with this configuration.

Contact center managers need to create a switch specific redundancy delivery plan to manage any potential failures.

© 2009 NEC Corporation. All rights reserved. NEC, NEC logo, and UNIVERGE are trademarks or registered trademarks of NEC Corporation that may be registered in Japan and other jurisdictions. All trademarks identified with ® or ™ are registered trademarks or trademarks respectively. Please refer to your local NEC representatives for further details.