

# MiCollab Advanced Messaging Call Processor Mailbox Administration Guide

For version 9.2 and above

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# Preface

This document explains how to create and configure MiCollab AM Call Processor mailboxes.

This guide is written for Mitel-certified administrators and technicians who are familiar with MiCollab Advanced Messaging (MiCollab AM) procedures and terminology, the **MiCollab AM Admin** utility.

Before implementing any procedures in this guide, ensure that MiCollab AM software is installed and running successfully.

## References

A catalog of technical documentation is included on the MiCollab AM Installation Media. If you are installing any advanced applications, such as Networking and Fax Server applications, you should refer to the appropriate technical documentation for application and installation information.

## Documentation

The technical documentation is produced in the PDF format and requires the PDF reader to view it. The MiCollab AM Documentation Library includes the following documents and resources:

- **Administration Documentation.** Available as a PDF only. Contains the following:
  - **Administration Guides.** Available as a PDF only. Contains administrative guides for administrators about how to manage and configure the messaging system.
  - **Quick Reference Cards (QRC).** Contains shortcuts and quick instructions telling subscribers how to access and use the messaging system.
  - **User Guides.** Available as a PDF only. Contains user guides for subscribers about accessing the messaging system and checking and sending messages.
- **Server Documentation.** Available as a PDF only. Contains the following:
  - **Developer Resources.** Contains programming guides and API references for developers for integrating the server clients and web applications with MiCollab AM.
  - **Installation and Configuration.** Available as a PDF only. Contains installation and configuration guides for server administrators about how to install and configure the messaging system.
  - **Integration Technical Notes (ITN).** Contains a set of guides that describe the integration methods and instructions for a variety of phone systems to work with MiCollab AM. The ITNs are generally used by resellers or administrators who are experienced with MiCollab AM and familiar with the integration procedures and terminology.
  - **Spare Parts Documentation.** Contains a set of guides that describe the instructions for installing and configuring hardware parts to work with MiCollab AM. These documents are

written for Mitel-certified MiCollab AM technicians who are experienced with MiCollab AM and familiar with the procedures and terminology.

- **Software Release Notice (SRN).** This notice introduces the new features, capabilities, and hardware/software requirements for the corresponding MiCollab AM version.

## Documentation Updates

Documentation updates may be available from the following sources:

- Mitel-certified technicians can view or download documents and program files from our partner web site: [www.mitel.com](http://www.mitel.com)

## Help

The primary source of information about MiCollab AM is the online help available within any of its administrative utilities. You can access **Help** by clicking the **Help** button in the dialog box or window in which you are working.

## Document Conventions

The following conventions are used in this document:

- **Key Names.** Names of keys on the keyboard are shown in a box.

Example: **Enter**

When two keys must be pressed simultaneously, they are joined by a + sign.

Example: **Alt** + **Tab**

- **Reference to Document** Titles of other documents are shown in italics.

Example: See the *System Installation and Configuration Guide*.

- **User Interface (UI) Element Names.** Names of UI elements such as dialog boxes, windows, screens, menu items, tabs, buttons, and icons are shown in bold.

Example: On the **Startup** screen, click the **Start** icon.

- **User Input.** Information required to be typed is shown in italics.

Example: Type the password *voicemail*.

- **Warning, Caution, Important, and Notes.** Text for the contents that require attention are shown as follows:

**WARNING** A warning paragraph advises you of circumstances that can result in the loss of data, harm to the MiCollab AM System Server platform, or personal harm.

**CAUTION** Failure to follow these recommendations can result in unauthorized access to the system and consequent loss of data.

**IMPORTANT** An important paragraph gives decision-making information or informs you of the order in which tasks need to be completed.

**NOTE** A note gives additional information, provides an explanation, or indicates an exception to the information in the preceding text.

For more related documents, refer to the following list of references:

Table 1. References

| Document Type                | Document Title   |
|------------------------------|--|
| Administration Documentation | <i>System Administration Guide</i>                       |
| Administration Documentation | <i>Automatic Speech Recognition Administration Guide</i> |
| Server Documentation         | Software Release Note                                    |
| Server Documentation         | <i>System Installation and Configuration Guide</i>       |
| Online help                  | MiCollab AM online help system                           |

## Frequently Used Terms

Table 2. Frequently Used Terms

| Terms         | Description   |
|---------------|---|
| System Server | <p>Term refers to an organization's computer platform(s) that have MiCollab AM software installed and handles the core system functions such as storing messages, database.</p> <p>It can also refer generically to the System Server platform, the Call Server platform, or both. The term is most often used to describe a software or hardware installation or configuration practice where the role of the server platform is not specifically expressed.</p> |
| Call Server   | <p>Term refers to an organization's computer platforms that have MiCollab AM software installed and serve as the interface to the system (PBX). The Call Server(s) interface with the System Server for the purpose of accessing messages, and database.</p>  |



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**Neverfail Cluster**

The term refers to a pair or trio of like MiCollab AM System Servers participating in a Neverfail High Availability or Disaster Recovery configuration.

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# Overview

The Call Processor mailbox is the application tool that enables you to create call-processing applications in MiCollab AM. It provides the flexibility and the versatility to create a simple or detailed messaging application depending on the requirements of your application. The Call Processor mailbox is not a messaging mailbox—you cannot leave a message in a Call Processor mailbox. The Call Processor mailbox is more like a distribution center for directing and dispersing callers to subscribers, departments, voice messaging, and other call-processing applications.

A Call Processor mailbox generally answers all non-integrated incoming calls; it is the heart of the automated attendant. Callers listen to audio menus and make their selection using the telephone user interface (TUI) or using the voice user interface (VUI). Callers can request directory services, perform transfers, initiate messaging sessions to subscribers, launch interactive voice response (IVR) applications, send faxes, and log onto their Subscriber mailbox through the Call Processor mailbox. Multi-tiered applications link together through Call Processor mailboxes. Call Processor mailboxes utilized throughout MiCollab AM provide automated attendant functions, custom applications, departmental menus, or extension specific processing (ESP) for subscribers.

The automated attendant functions depend on the Call Processor mailbox configured with Call Routing or Schedule mailbox. Call Processor mailboxes assigned to schedule time blocks in a Schedule mailbox provide a scheduled routine, by which a defined Call Processor mailbox answers calls, plays a welcome greeting and provides an audio menu based on the business hours of the organization.

This document discusses the parameters, the Key/Events, the Action types, and Arguments of the Call Processor mailbox. Use this document in conjunction with the *System Installation and Configuration Guide*, the *System Administration Guide*, and the MiCollab AM online help system.

# Call Processor Field and Parameter Definitions

The Call Processor mailbox has a set of parameters and fields, in which you assign the name, number, language, and switch section, assign successive Call Processor mailboxes, and configure the parameters necessary to control how the Call Processor responds when certain conditions exist. These fields and parameters are defined in this section. You access mailboxes and system configuration tabs from MiCollab AM Admin. You must have administrator privileges to access this functionality.

Call Processor Mailbox - Demonstration System

Number: 0000

Sponsor: [...]

Language: Default

Max Msg Length (sec): 2700

Timeout (sec): 2

Max No Match Retries: 4

Max Mismatch Retries: 0

☒ Use Speech Recognition Timeout Rules

☐ Log System Port Usage

☒ Two-Part Greeting

☒ Use Answer Mode Operator

☐ Always Confirm Names

Name: >AY MAIN MENU

Next Call Processor

CP: [...]

☐ Go To Answer Mode

Switch

Section: Asterisk Asterisk Section

Node: [...]

No ASR Call Processor

CP: [...]

Call Processor Actions

View: Combined Add Edit Delete

| Key / Event | Action               | Arguments | Speech Command   |
|-------------|----------------------|-----------|------------------|
| Speech      | Blind Transfer       | 0         | Customer Service |
| Speech      | Blind Transfer       |           | Directory: All   |
| *           | Hangup               |           | Goodbye          |
| Speech      | Go To Call Processor | 0300      | Help             |
| Speech      | Go To Call Processor | 0000      | Main Menu        |
| 0           | Blind Transfer       | 0         | Operator         |
| Speech      | Go To Call Processor | 0300      | Options          |

English - United States

Figure 1. Call Processor Mailbox

## Number

The mailbox number is assigned to the mailbox when the mailbox is first added to the system. This is the number used to reference the mailbox and access the mailbox within the system. The number must be unique and the length must match the numbering plan of the system, in the range of 2 to 10 digits. Once the mailbox is added to the system the **Number** field is grayed out and no longer accessible. To change the mailbox number you must use the Renumber option of the Mailbox menu in MiCollab AM Admin.

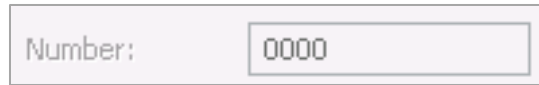
A form field with the label "Number:" and a text input box containing the value "0000".

Figure 2. Mailbox number

## Name

The name assigned to the mailbox. It is important to name mailboxes with a descriptive name that briefly describes what the mailbox does within the application. For example, mailboxes with the name, Day Main Menu, Night Main Menu, Day Sales Department, or Smith, John ESP provide a good description of the mailbox use.

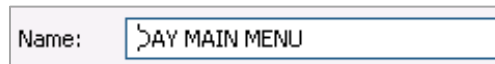
A form field with the label "Name:" and a text input box containing the value "DAY MAIN MENU".

Figure 3. Mailbox name region

## Sponsor

The sponsor is a Subscriber mailbox. Click **Browse** to display the list of Subscriber mailboxes, select the mailbox you want to add as a sponsor, and then click **OK**. Adding a sponsor to a Call Processor mailbox gives the subscriber the rights to change the announcement recordings of the particular mailbox without having to have administrative permissions to modify the configuration via the TUI. A sponsor is not required. A subscriber with the system access privilege *Record Announcements* enabled on the **Recordings** tab of the Subscriber mailbox can change the recording of any announcement in the system.

Sponsored mailboxes are linked in the database to the Subscriber mailbox that sponsors it. If a sponsor's Subscriber mailbox is deleted, the system prompts with the pop-up window:

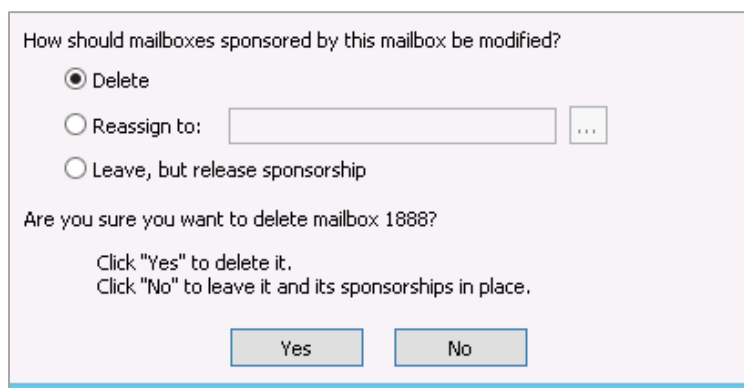
A dialog box titled "How should mailboxes sponsored by this mailbox be modified?". It contains three radio button options: "Delete" (selected), "Reassign to:" (with a text input field and a dropdown arrow), and "Leave, but release sponsorship". Below the options, it asks "Are you sure you want to delete mailbox 1888?" and provides instructions: "Click 'Yes' to delete it." and "Click 'No' to leave it and its sponsorships in place." At the bottom are "Yes" and "No" buttons.

Figure 4. Deleting Mailbox window

The default selection is to delete all sponsored mailboxes. Click **Yes** only if you want to delete all sponsored mailboxes. Otherwise, reassign the sponsorship to another Subscriber mailbox or release the sponsorship from all sponsored mailboxes. You can use the Mailbox Reference report in the Reports utility to find all sponsored mailboxes associated with a particular Subscriber mailbox.

## Language

This field allows the administrator to select the language to be played to the caller when multiple Language Packs are installed. Language Packs determine the prompt set and ASR, if installed, that will be used. The default is the Language Pack specified as default in the **Language** tab of MiCollab AM Configuration, or if the application allows callers to change the language they hear, the default is the language chosen by a particular caller. Click the drop-down box to open the list and select a language.

**NOTE** Leave the Language setting as default unless there is a specific reason to change it.

A screenshot of a web form showing a label 'Language:' followed by a dropdown menu. The dropdown menu is currently set to 'Default' and has a small downward arrow icon on the right side.

Figure 5. Language dropdown menu

## Max Msg Length (Sec)

This timer sets the maximum length of a non-subscriber message when this Call Processor mailbox has control of the call. The Record and Subscriber Message action types use this timer, and any non-subscriber message left after an incomplete call or aborted transfer. The default is 2700 seconds. This is the maximum time allowed for recording as a non-subscriber. Setting this timer too low can abruptly end recording before the caller has finished leaving a message.

**NOTE** The Non-Subscriber Msg Length timer under the **Messaging** tab of System Configuration in MiCollab AM Admin supersedes this field. This timer controls the length of the recording session for the system. The default length for this timer is 999 seconds. The Max Msg Length timer in the Call Processor mailbox can only be used to reduce the maximum length of a non-subscriber message from the value defined in System Configuration.

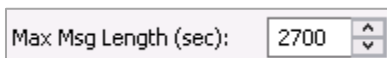
A screenshot of a web form showing a label 'Max Msg Length (sec):' followed by a text input field containing the value '2700' and a small upward/downward arrow icon on the right side.

Figure 6. Max Msg Length setting

## Timeout (Sec)

The Timeout is the length of time in seconds that MiCollab AM waits after the Call Processor's instruction announcement ends before invoking the Timeout Action. The range of values for this timer is 0-9 seconds. The default is 3 seconds. MiCollab AM initiates the timeout action only when a caller does not invoke a command during or after the announcement plays but before the number of seconds equal to the Timeout value. If the Call Processor is assigned to a Schedule mailbox and has a two-part greeting enabled, this action automatically becomes a Hang-up action after the instruction announcement plays a second time.

A screenshot of a web form showing a label 'Timeout (sec):' followed by a text input field containing the value '2' and a small upward/downward arrow icon on the right side.

Figure 7. Timeout setting

## Max No Match Retries

The Max No Match Retries parameter is a Speech related parameter. It triggers the Final No Match Key/Event of the Call Processor. The system counts the number of consecutive attempts the system tries to match a speech command with the caller's spoken request and is unsuccessful. Once the maximum number of retries is exceeded, the Final No Match action Key/Event action initiates. The accepted values for this parameter are 0–9.

- A value of zero suppresses the system prompt that indicates the system did not recognize what the caller said, and then immediately initiates the Final No Match action when defined.
- A value of one is the same as zero except that a system prompt is played to advise the caller of a missed recognition, and then immediately initiates the Final No Match action when defined.

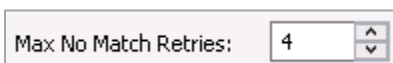


Figure 8. Max No Match Retries setting

## Max Mismatch Retries

This parameter is used in Call Processor Speech applications. It triggers the Final Mismatch Recognition action of the Call Processor. The system counts the number of times a caller is presented with confirmation dialogue and the number of consecutive times the caller rejects the recognition result, while in the same Call Processor. When the number of consecutive declined confirmation attempts equals the Max Mismatch Retries value, the Final Mismatch Recognition action is initiated. The Max Mismatch Retries counter is ignored if this value is set to zero, the default. The accepted values for this parameter are zero (disabled), and one through nine.

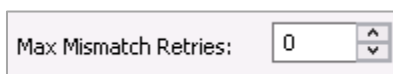


Figure 9. Max Mismatch Retries setting

## Use Speech Recognition Timeout Rules

The Use Speech Recognition Timeout parameter is a Speech related parameter. It defines how MiCollab AM treats a call when a speech command is not given. When this parameter is enabled, multiple timeouts can occur before going to the Final Timeout action of the Call Processor. When disabled, the traditional one timeout occurrence triggers the Final Timeout action.

When a caller is answered by a speech enabled Call Processor, the system plays the announcements and waits for an audio response. If no response is received, the system prompts the caller indicating that it did not hear anything and waits again for input. If the Use Speech Recognition Timeout Rules parameter is not enabled, the dialog exits and the Final Timeout event is initiated.

If the systems detects audio but fails to recognize the input, the result is a failed recognition. The system prompts the caller that the command was not recognized. Once the dialog attempts for input are exhausted and the input is not recognized, the Final Timeout event is initiated.

In a noisy environment, the noise can trigger an immediate mis-rec (missed recognition). When two immediate mis-recs occur, the system switches in to hot word mode. The hot word mode response is slower to respond to the caller's request but accuracy improves in a noisy environment.

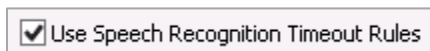


Figure 10. User Speech Recognition Timeout Rules checkbox

## Log System Port Usage

Select Log System Port Usage to accrue complete call records for the mailbox, including peg counters and system usage, in the Report utility. This feature tracks how many calls are processed by the particular mailbox. Logging can also be useful in troubleshooting problems. Port usage data is not collected for this mailbox when the box is left unchecked. The default is unchecked.

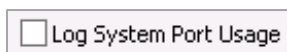


Figure 11. Log System Port Usage checkbox

## Two-Part Greeting

The Two-Part greeting allows the recording and the playback of two separate announcement recordings, the Introduction announcement, and the Instruction announcement. When the two-part greeting is enabled, the mailbox plays both an Introduction and an Instruction announcement. When disabled (unchecked), only the Instruction announcement plays.

When a two-part greeting is enabled, the caller hears the Introduction announcement, followed by the Instruction announcement the first time, and then only the Instruction announcement any other time the call is returned to the same mailbox for the duration of the call. For example, the Introduction or welcome announcement might be, *Thank you for calling ABC Company, an operator will be with you in a moment.* The Instruction announcement might be, *At any time during this greeting you can simply say the name of the person or the department you want to reach. For a list of options, say Options.* The two-part greeting eliminates the Introduction or welcome announcement whenever a caller returns to the mailbox during the same call.

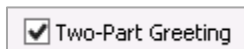


Figure 12. Two-Part Greeting checkbox

This feature eliminates the necessity of a Next Call Processor mailbox. When the two-part greeting is used, the timeout action for this Call Processor is only valid until an action other than Go to Call Processor is performed. If the caller returns to this Call Processor mailbox, a timeout is treated as a hang-up.

**IMPORTANT** Use the Two-Part Greeting feature with Call Processors defined in Call Routing or Schedule mailbox only. The Two-Part Greeting feature does not work with an ESP Call Processor mailbox. If a two-part greeting is desired for an ESP mailbox, record a personal greeting in the Subscriber mailbox, and then enable the option **Play Greeting First** in the **Answering** tab of the Subscriber mailbox. Then, the caller hears the personal greeting in the Subscriber mailbox followed by the announcement in the ESP Call Processor mailbox. If

the caller returns to the ESP Call Processor after an action completes, the caller hears only the announcement of the ESP Call Processor mailbox.

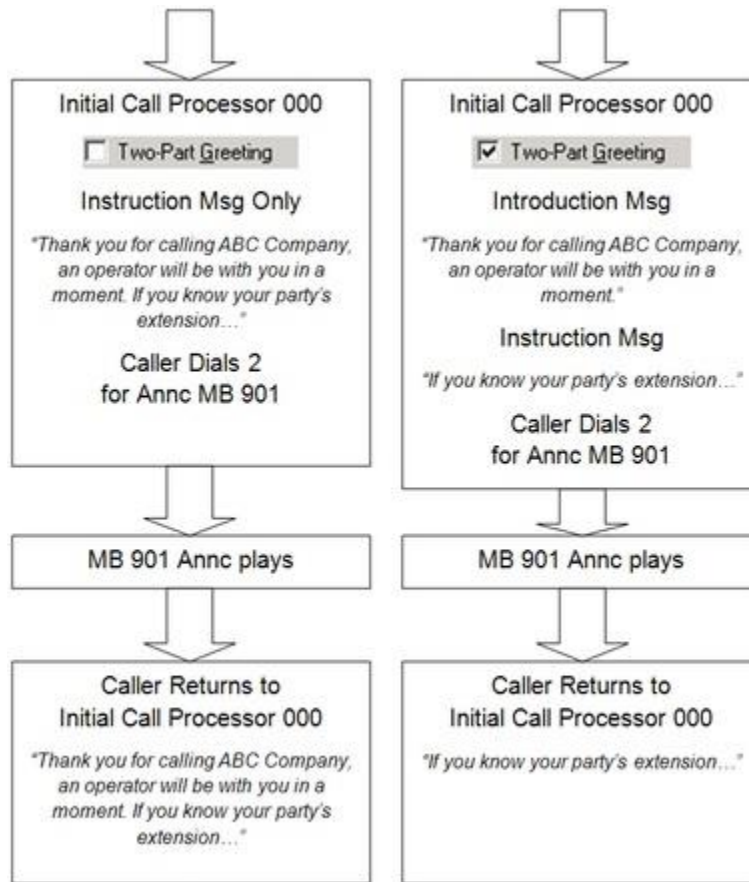


Figure 13. Two-Part Greeting Disabled (left), Two-Part Greeting Enabled (right)

## Use Answer Mode Operator

When this box is selected, callers that press zero in the Call Processor mailbox invoke the 0-key action defined in the initial Call Processor mailbox selected by Call Routing or a Schedule mailbox. It gives the initial Call Processor the control of whether an operator is available based on Time of Day. This controls whether a caller can transfer to an operator while listening to a subscriber's personal greeting based on the company's normal business hours. The default for this feature is enabled.

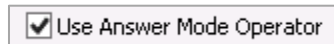


Figure 14. Use Answer Mode Operator checkbox

**NOTE** The box is cleared by default on mailboxes created prior to version 7.00 SP1 to prevent the behavior of existing applications from changing unexpectedly.



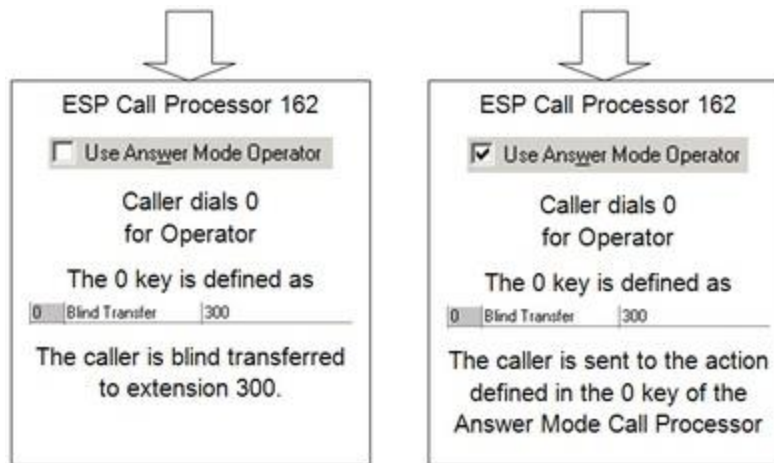


Figure 15. Answer mode operator disabled (left), Answer mode operator enabled (right)

## Always Confirm Names

Always Confirm Names is a Speech related parameter. When enabled it requires the caller to confirm the recognition match for any subscriber name. The result of the confirmation applies to the Final No Match Key/Event. If the caller does not confirm a match, the Final No Match action initiates. The feature is disabled by default.

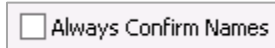


Figure 16. Always Confirm Names checkbox

**NOTE** This parameter applies only applied to Call Processor mailboxes that contain a Directory <DIR> speech command. The recognition result for a Call Processor may contain multiple values that match commands and directory entries. These results are presented to the caller with the highest confidence values listed first. If this value is a command, then its associated action is invoked. When the first recognition result is from the directory and the confidence value is less than the configured name-confidence-threshold, the caller is asked to confirm the result. When the caller declines the confirmation the system retries the list from the top. The parameter does not constrain further recognition attempts to the directory command.

## Next Call Processor

The Next Call Processor (NCP) is the Call Processor mailbox to which MiCollab AM routes a caller after a previously selected action in the Call Processor mailbox that initiated the action has completed. If an action initiated in the Call Processor mailbox results in the caller staying in MiCollab AM when the action is completed, the caller is sent to the Next Call Processor mailbox, when assigned. The Next Call Processor becomes the active Call Processor mailbox for the caller. Its purpose might be to present the caller with a different recorded announcement or offer a new audio list of commands.

Figure 17. Next Call Processor area

For example, if a caller dials two to hear directions to the company in an Announcement mailbox, and a Next Call Processor is assigned, the call is sent to the Next Call Processor mailbox once the announcement has completed. When no Next Call Processor is assigned, the caller returns to the Call Processor mailbox from which the action was initiated. Click **Browse** to display the Mailbox Selection dialog box, highlight the Call Processor to use, and then click **OK**.

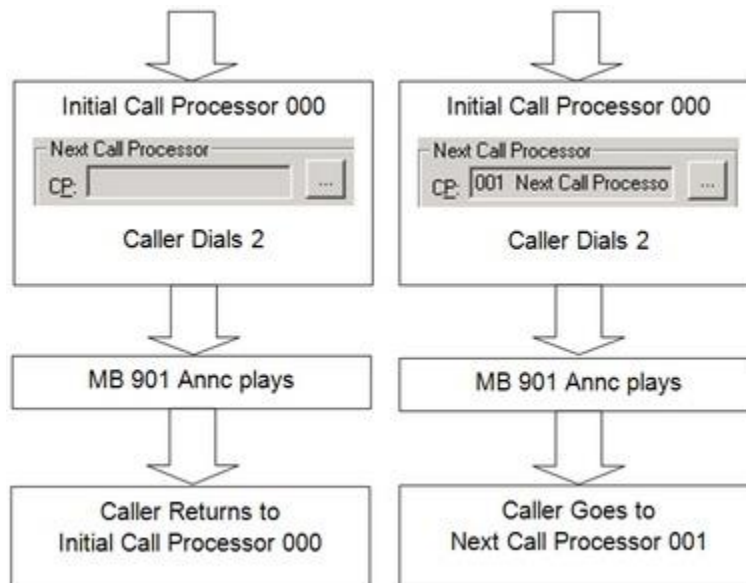


Figure 18. No Next Call Processor (left), Mailbox 001 assigned as NPC (right)

## Go to Answer Mode

When the **Go to Answer Mode** box is selected, and a previously selected action has completed, the caller is sent to the current initial Call Processor mailbox defined in Call Routing or a Schedule mailbox. The initial Call Processor becomes the next active Call Processor for the caller. This allows time of day call processing to take place. This feature is used in Extension Specific Processing (ESP) applications and multi-level applications to return callers to the initial Call Processor selected at the time of answer. If Call Routing is used to modify the initial Call Processor, the caller is returned to the modified Call Processor mailbox. Call Routing is discussed later in this document.

**NOTE** The **Go to Answer Mode** feature and the **Next Call Processor** feature are mutually exclusive. If you enable the **Go to Answer Mode** feature the **Next Call Processor** field becomes grayed out and is no longer an available option. Similarly, if you use a **Next Call Processor**, then the **Go to Answer Mode** feature is no longer an option.

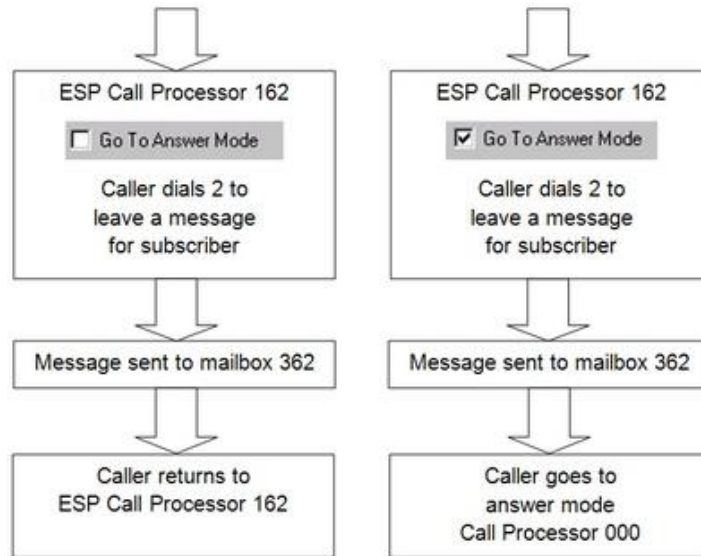


Figure 19. Go to Answer Mode disabled (left), Go to Answer Mode enabled (right)

## Switch Section

This field identifies the Call Processor mailbox for a particular Switch Section. Switch Sections differentiate: multiple integrations, multiple telephone system nodes, or multiple telephone systems connected to MiCollab AM.

You must configure the mailbox to be part of the switch section they serve. Callers can only access mailboxes from within the Switch Section they are calling. The default Switch Section is the first Switch Section created when the database was initialized. Click the drop-down box to select from the list of Switch sections.

The form is titled 'Switch' and contains two fields. The first field is labeled 'Section:' and has a dropdown menu with 'Asterisk Asterisk Section' selected. The second field is labeled 'Node:' and is an empty text input box.

Figure 20. Switch Section

## No ASR Call Processor CP

The No ASR Call Processor is also referred to as a No Speech Fallback Call Processor mailbox (NSFCP). When a Speech enabled Call Processor mailbox is unable to acquire an ASR Speech license it passes control to the defined Call Processor in this field, typically a Call Processor mailbox configured for DTMF initiated actions only. If a Call Processor is not defined in this field, the caller continues to use the current Call Processor. The caller has no ASR capability; however, the caller can use the TUI interface to initiate any DTMF enabled action.

No ASR Call Processor

CP:
0333 DTMF Only CP

Figure 21. No ASR Call Processor section

## Call Processor Actions (View)

Click the drop-down box to filter the view of the Call Processor Actions. Speech commands and DTMF key actions with their associated Actions and Arguments are viewed differently based on the view selected. The default view is Condensed.

**NOTE** Due to the large number of possible options, you may need to scroll down to see the entire list of options.

In the Condensed View, the DTMF Key/Events and Speech Commands that have assigned actions display.

Call Processor Actions

View: Condensed Add Edit Delete

| Key / Event | Action               | Arguments | Speech Command   |
|-------------|----------------------|-----------|------------------|
| Speech      | Blind Transfer       | 0         | Customer Service |
| Speech      | Blind Transfer       |           | Directory: All   |
| *           | Hangup               |           | Goodbye          |
| Speech      | Go To Call Processor | 0300      | Help             |
| Speech      | Go To Call Processor | 0000      | Main Menu        |
| 0           | Blind Transfer       | 0         | Operator         |
| Speech      | Go To Call Processor | 0300      | Options          |

English - United States

Figure 22. Call processor actions view

In the DTMF Only view, all DTMF Key/Events display, including the Key/Events with undefined actions.

Call Processor Actions

View: DTMF Only

| Key | Action          | Arguments |
|-----|-----------------|-----------|
| T0  | Blind Transfer  | 0         |
| 0   | Blind Transfer  | 0         |
| 1   | 1 Key Directory |           |
| 2   | Blind Transfer  | XXXX      |
| 3   | Blind Transfer  | XXXX      |
| 4   | Blind Transfer  | XXXX      |
| 5   | Blind Transfer  | XXXX      |
| 6   | Blind Transfer  | XXXX      |
| 7   | Blind Transfer  | XXXX      |

| Key | Action             | Arguments |
|-----|--------------------|-----------|
| 8   | Blind Transfer     | XXXX      |
| 9   | Subscriber Message |           |
| A   | Undefined          |           |
| B   | Undefined          |           |
| C   | Undefined          |           |
| D   | Undefined          |           |
| *   | Hangup             |           |
| #   | Access Messages    |           |
| Fax | Undefined          |           |

Figure 23. DTMF Only View

In the Speech Only view, the Speech Commands that have assigned actions display. If the same action has a DTMF Key/Event assigned, it too displays.

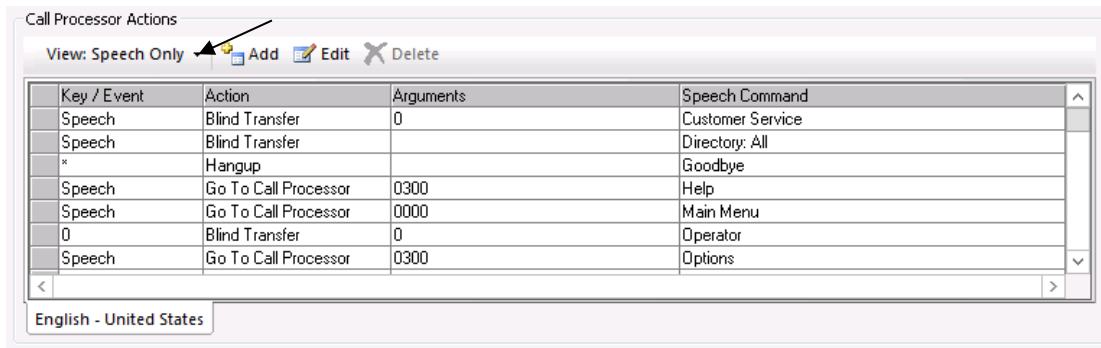


Figure 24. Speech Only view

The Combined View is the most verbose. This view displays all Speech Commands and Key/Events, whether or not an action is assigned to them.

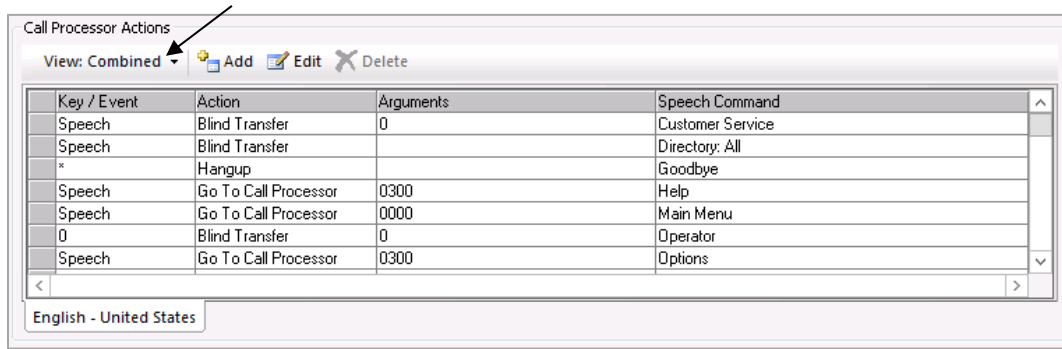


Figure 25. Combined View

## View References

The **View References** button allows you to see the logical relationships between your Call Processor mailboxes in a 'tree view,' meaning that Call Processor mailboxes that are called (triggered through a 'Key Event') from the current Call Processor mailbox are nested under one or more plus (+) signs. You can click these plus (+) signs to expand the views of each of the connected Call Processor mailboxes. In addition, the right-side pane displays the Key/Event configurations for each Call Processor mailbox you highlight.

For example, if a Key/Event is assigned a Go to Call Processor action with the Argument 030 in the current Call Processor mailbox 000, the Call Processor 030 is listed in the references. Click the referenced mailbox in the list to view its current Key/Event configuration and its references.

Mailboxes references that appear in **red** in the left column are not valid mailboxes; the Key/Event action of the Call Processor is referencing a non-existent mailbox.

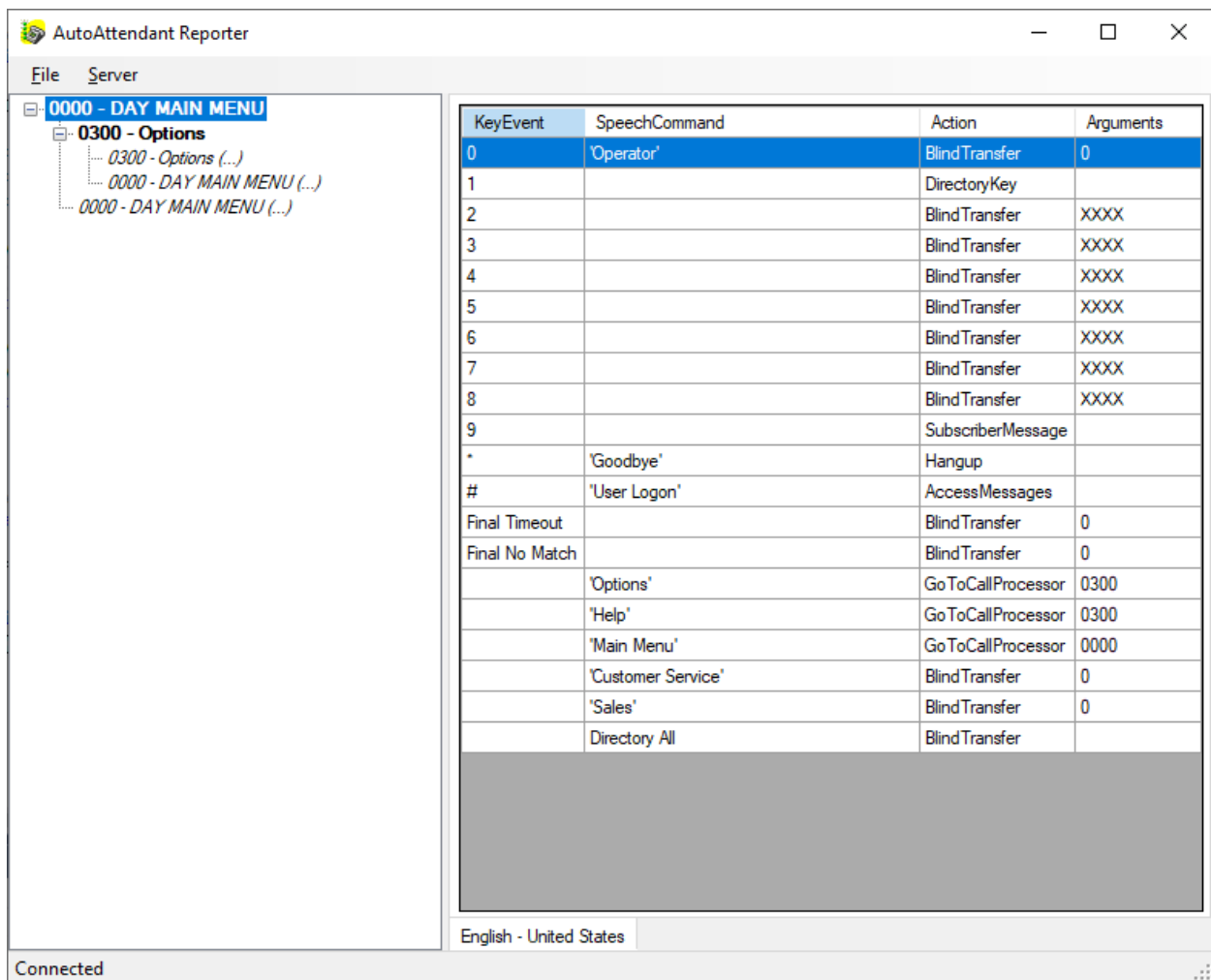


Figure 26. AutoAttendant Reporter

# The Call Processor Keys and Events

Key/Events are the DTMF keys, the timeout events, and the Speech Commands that initiate an action during an incoming call. Keys, Events, and Speech Commands initiate the action types assigned to them. Action types and their associated arguments define what they do. The Key/Events are:

- Speech commands - Speech commands are created first, and then they are associated to actions. The caller speaks the command to initiate the action. Speech commands should be specified for each installed ASR language.
- Final Timeout (TO) - The Final Timeout event initiates an action if the caller sends no DTMF or speech commands. The action is initiated when the announcement recording ends and the length of time defined by the timeout parameter is exceeded.
- Final Mismatch - The Max Mismatch event is initiated by the Max Mismatch Speech parameter of the Call Processor mailbox. The system counts the number of consecutive times a caller is presented with confirmation dialogue and the number of times the caller rejects the recognition result, while in the same Call Processor. When the number of consecutive declined confirmation attempts equals the Max Mismatch Retries value, the Final Mismatch Recognition action is initiated.
- Final No Match - The Final No Match event is initiated by the Max No Match Retries parameter of the Call Processor mailbox. The system counts the number of attempts the system tries to match a speech command with the caller's spoken request. Once the maximum number of attempts is reached, the Final No Match action Key/Event is initiated.
- Fax - The Fax event is initiated when Fax tones are sent to the system. Incoming Fax tones are recognized by the system and the action is initiated. For example, the call is transferred to an available Fax port. (Additional hardware, software, and licensing requirements apply to Fax applications).

**NOTE** Not all integrations support fax tone detection. Refer to the related *Integration Technical Note* for more information about your particular integration.

Use keys, events, and speech commands with any action type in the Call Processor mailbox. The default action type for all keys and events is undefined. When a key or event that is undefined is initiated, the Call Server plays the prompt, *Invalid Entry*.

# Call Processor Action Types

The action types of the Call Processor mailbox are the building blocks of call processing applications within MiCollab AM. Action types have specific functions; no two perform the same function although some produce the same result. For example, there are four types of transfers. All of them produce the same result—a transferred call, but all four execute the transfer uniquely. The Action types are:

## Access Messages (Access Msgs) Action

The Access Messages action allows subscribers to log on to their mailboxes from a telephone. When a caller presses a key or speaks a command defined with this action and there is nothing defined in the number field the Call Server prompts, *Please enter your mailbox number*. This prompt is referred to as the logon prompt. Leave the number field blank for the logon prompt to play.

Use the Access Messages action to logon or access any mailbox including Call Processor mailboxes. This is useful when troubleshooting an application or verifying recordings. Use this action type in conjunction with a Message Center mailbox to build messaging applications.

A valid argument for the Access Messages action is:

- None (blank)
- A mailbox number
- A Message Center mailbox number
- A Message Center mailbox number and Subscriber mailbox number
- A Message Center mailbox number and Distribution List mailbox number
- A string of template characters

The following example describes five different ways the Access Msgs action type is used. Mailbox 555 is the Message Center mailbox, mailbox 362 is a Subscriber mailbox, and mailbox 925 is a Distribution List mailbox. When invoked, each action plays a different prompt.

- The prompt played for the three key is, *Please enter your mailbox number*.
- The prompt for the four key is, *Please enter your security code*.
- The prompt for the five key is, *Enter the mailbox number of the person to whom you wish to forward this message*.
- The prompt for the six key is, *The person you want to reach is not currently available. To leave a message for (Subscriber mailbox name); please begin speaking at the tone*.
- The prompt for the seven key is, *To leave a message for (Distribution List mailbox name) please begin speaking at the tone*.



|   |             |        |
|---|-------------|--------|
| 3 | Access Msgs |        |
| 4 | Access Msgs | 362    |
| 5 | Access Msgs | 555    |
| 6 | Access Msgs | 555362 |
| 7 | Access Msgs | 555925 |

Figure 27. Access Messages

## Blind Transfer Action

Use the Blind Transfer action to perform an unsupervised transfer and release the call. The Call Server initiates the transfer to the number specified or dialed by the caller, and then hangs up. This action allows the Call Server to perform a transfer and release the call as quickly as possible. The caller hears ringing if the telephone system provides it.

Use this action to transfer calls to the operator when an operator is always available or to transfer to extensions in an integrated environment where the telephone system provides forwarding to the Call Server on ring-no-answer (RNA) and busy conditions.

A valid argument field for the Blind Transfer action is an extension number or a string of template characters.

**NOTE** The Call Screening feature is not available with this action.

**IMPORTANT** Before using this action type, verify that the telephone system allows blind transfers. If a telephone system disconnects callers on blind transfers to busy extensions, use the monitor transfer action instead.

## Confirm Transfer Action

The Confirm Transfer action puts the caller on hold and initiates a transfer to the requested extension. While the extension is ringing, the Call Server plays the prompt, *Attendant transfer. To accept the call, press one, to reject the call, press nine*. The Call Server repeats this prompt for the number of times specified in the **Transfer Rings** field of the **Features** tab in the associated Subscriber mailbox, plus one, or until the called party accepts or rejects the call. MiCollab AM does not listen for call progress tones, nor does it listen for a human voice. It does not connect the call unless the recipient presses one. If the called party rejects the call by pressing nine, the Call Server aborts the transfer and sends the caller to the associated Subscriber mailbox.

**IMPORTANT** The called party must hang up immediately after rejecting a call. If not, a three-party conference with the calling party and the Call Server may be initiated by the telephone system.

Use the Confirm Transfer action **only** when the telephone system does not provide reliable call progress tones that the Call Server can detect. Use the Blind Transfer, Monitor Transfer, or Transfer actions instead.

A valid argument for the Confirm Transfer action is an extension number, a valid telephone number, or a string of template characters.

## Directory Action (DTMF)

The Directory action provides the ability to access an audio list of subscriber extensions. When a caller presses a key defined with this action, the caller is prompted to use the keypad to spell out the name of the called party. When selected, the directory action plays the prompt, *Enter the first few letters of the person's first/last name. For the letter Q, use the seven key. For the letter Z, use the nine key. Please enter the letters now.* The caller can spell through the complete name if desired, or enter a few characters that match the person's name followed by the pound (#) key.

When a caller enters one or more letters, the Call Server searches the subscriber database for all combinations of names that match the letters on the keys that were entered. The Call Server plays back a list of matching recorded subscriber names in groups of up to nine at a time. Each name that matches the caller's entry is announced, followed by the subscriber's extension number. When a caller hears the desired extension, he can enter it immediately without listening to the rest of the list.

A valid argument for the Directory action is none (blank).

**NOTE** The Directory action searches for matching names from the name fields of the Subscriber mailbox. The query begins at the first character and continues to find matches from left to right in this field. When a match is found, the name recorded in the Subscriber mailbox of any matching record is played back to the caller.

If you choose to sort the Directory by Last Name, the directory search begins in the last name field of the Subscriber mailbox. If you choose to sort the Directory by First Name, the directory search begins in the first name field of the Subscriber mailbox. The server administrator can change the prompt that is played to the caller using the **Directory** tab in **MiCollab AM Configuration**.

## 1-Key Directory Action (DTMF)

The 1-Key Directory action provides an audio list of Subscriber extensions or general department extensions. When a caller presses a key defined with this action, the caller is prompted to use the keypad to spell out the name of the called party. When selected, the Directory action plays the prompt, *Enter the first few letters of the person's first/last name. For the letter Q, use the seven key. For the letter Z, use the nine key. Please enter the letters now.* The caller can spell through the complete name, if desired, or enter a few characters that match the person's name followed by the pound key.

The Call Server plays back a list of matching recorded subscriber names in groups of up to eight at a time, and then gives the caller the option of pressing a single key, 1–8, to transfer to the desired extension. If there are more than eight matches, the caller is prompted to press nine for additional matching names. When the caller makes a selection, a prompt repeats the name chosen, and the extension number for future reference, and transfers the caller. For long lists of matching entries, the directory announces the first three names and then prompts, *For more listings, press nine. To re-enter the name or extension, press the pound sign key. To leave the directory, press the star key.*

A valid argument for the 1-Key Directory action is none (blank).

**NOTE** The Directory action searches for matching names from the name fields of the Subscriber mailbox. The query begins at the first character and continues to find matches from left to right in this

field. When a match is found, the name recorded in the Subscriber mailbox of any matching record is played back to the caller.

If you choose to sort the Directory by last name, the directory search begins in the Last Name field of the Subscriber mailbox. If you choose to sort the Directory by first name, the directory search begins in the First Name field of the Subscriber mailbox. The server administrator can change the prompt that is played to the caller using the **Directory** tab in **MiCollab AM Configuration**.

## Execute Action

The Execute action allows a caller to run a program or start an application outside of MiCollab AM. A valid argument for the Execute action is the executable file name, including the file extension, in double quotations (" "), optionally followed by a space character and a parameter consisting of a number or a string of template characters. For example, a string such as "AppName.exe" 500. In this example, an outside application named "AppName.exe" executes and the number 500 is sent to the application as a parameter.

**IMPORTANT** Incorrect use of this action type can cause irreparable harm to MiCollab AM or its ability to process calls. Avoid executing commands that require large amounts of system resources, or cause programs or processes to stop.

## Fax Action

The Fax action allows callers to retrieve fax documents from a library of documents. Valid arguments for this action is a document number, a string of template characters, or leave the argument field blank to allow the caller to input a document number. Specifying a document number sends the fax document with the associated number to the destination machine.

Configure the Fax action as *same-call fax* for callers who call from a fax machine. In this situation, the Call Server transfers the caller to a fax port and releases the voice port.

Configure the Fax action as *callback fax* for callers who want to send the fax to a specific fax machine number. In this situation, the Call Server asks for the telephone number of the destination fax machine, and then sends the request to the fax software. The caller can disconnect or continue to access other Call Server actions. You must configure the dial plan for the callback fax to function properly.

The following list describes the valid characters used in the argument field for a Fax action.

Table 3. Valid Characters for a Fax Action

| Character | Action Description                                      |
|-----------|---|
| 0-9       | Any number from 0–9 used to select a specific document. |

|   |   |
|---|---|
| L | <p>Same-call fax only. L allows the caller to request multiple fax documents in a single telephone call. L tells the Call Server to add the specified document number to a fax list and returns the caller to the current Call Processor or the Next Call Processor mailbox. Place it at the end of the argument.</p> <p>To receive all of the selected documents, the caller must then press a key configured with the Fax action with nothing specified in the <b>Number</b> field. In other words, the Call Server lets a caller request documents until that caller presses a key configured with an unqualified Fax action. Then the Call Server transfers the caller to a fax port and disconnects from the line.</p> |
| Q | <p>Specifies that the fax should be sent using callback delivery; place it at the end of the argument.</p> <p>The first time a caller triggers a Fax action with a Q in its argument field the Call Server queries the caller for the telephone number that should receive the requested documents. The number persists for the remainder of the call. If the caller triggers additional Fax actions with Qs in the argument field, the Call Server sends the additional documents to the original number without querying for additional destinations.</p>   |
| X | Allows digits typed by a caller to be used as a document number   |
| I | Directs the Call Server to ignore the digit entered by the caller   |

For more information on Fax action, please refer to the *Fax Messaging for RightFax* or *Faxtext for RightFax* online books.

## Go to Answer Mode Action

The Go to Answer Mode action sends the caller to the currently active Call Processor mailbox that was originally selected at the time of answer by Call Routing or a Schedule mailbox.

Use this action in multi-level menu applications and in ESP Call Processor mailboxes to return the caller to a known starting point, giving the caller the opportunity to continue with call processing.

A valid argument for the Go to Answer Mode action is none (blank).

## Go to Call Processor Action

The Go to Call Processor action sends the caller to the Call Processor mailbox specified in the argument field. Use it to create multi-level menu applications. When the Go to Call Processor action initiates, the caller is routed to the Call Processor mailbox specified; it becomes the active mailbox that controls the call.

A valid argument for the Go to Call Processor action is a Call Processor mailbox number or a string of template characters.

## Group Directory

The Group Directory action creates a dial-by-name directory that is limited to one or more groups. An administrator may also specify one or more groups that will limit the directory results. The results are limited to subscribers that are members of at least one of the specified groups.

**NOTE** When the Group Directory action is selected, the Argument column displays All Groups, which indicates that no group is selected for this action. The directory results will not be limited until group(s) are selected.

In order to assign a group, double-click the *Argument* cell or click the ... button in the cell to open the *Group Assignment* dialog box. In the dialog box, select the group that will apply to this action.

Any group or group types can be selected, and the results of the directory are limited to subscribers who are members of one group OR the other.

### For example:

If you selected groups *Location: Seattle* and *Department: Marketing*, any subscribers that are members of *Seattle* OR *Marketing* will be included in the directory results.

To use the feature through TUI/VUI, call into the system and access the Call Processor mailbox. Press the key or say the speech command configured for the desired Group Directory.

**NOTE** The Group Directory behaves exactly same as the 1-Key Directory action with the added steps to filter results based on mailbox groups (if specified). If groups are not specified, the directory will invoke the 1-Key directory logic.

## Hang-up Action

The Hang-up action directs the Call Server to disconnect the line when the action initiates. When the caller initiates a hang-up action, the Call Server plays the prompt, *Thank you for calling*, and releases the call.

A valid argument for the Hang-up action is none (blank) or Q for a silent hang up. Specifying Q suppresses the *Thank you for calling* prompt.

## Interactive Action

The Interactive action routes the caller to an Interactive mailbox to start an audio questionnaire. At the end of the interactive session, the caller returns to the same Call Processor, or the Next Call Processor if defined, unless the closing Announcement mailbox of the Interactive mailbox is configured to disconnect the call after playing the announcement.

A valid argument for the Interactive action is an Interactive mailbox number or a string of template characters.

## Language Action

The Language action allows the caller to select the Call Server Language Pack. The Language Pack determines the language for prompts, announcements, and personal greetings. It also defines the ASR language, if speech is enabled. The Language Pack chosen by a caller becomes the default language for that call. If a language is not selected, the Call Server uses the Language Pack specified as the system default on the **Language** tab of the MiCollab AM Configuration utility.

After a caller selects the language action, the Call Server passes the caller to the Next Call Processor if defined; otherwise, the caller hears the instruction announcement of the same Call Processor mailbox in the alternate language. All ASR/TTS, if installed, prompts, and recorded announcements for the remainder of the call play in the selected language, or until a new language is encountered in a target mailbox.

Callers hear mailbox announcements and personal greetings in the chosen language only if they are recorded in that language. If the application is using more than one language, then provide the choices to the caller at the beginning of the call in the Introduction announcement. For example, *You've reached ABC Company. You can interact with our system in either French or English. Pour écouter les instructions en français, composez la touche 1 maintenant.*

The argument for the language action is selected from the presented list of Language Packs.

## Live Record Action

The Live Record action allows subscribers to record telephone conversations into Subscriber mailboxes for later reference.

**IMPORTANT** Local, state, or federal regulations may affect how this feature is used.

In general, when a subscriber wants to record a conversation, the subscriber initiates a conference call, and then dials the number of the Call Server. The subscriber accesses the Call Processor mailbox configured for the Live Record action and then selects this action. The Call Server then prompts the subscriber for the Subscriber mailbox to receive the recording. After entering the mailbox number, the subscriber creates a three-party conference with the original caller and the Call Server. When the call terminates, the recording is sent to the specified mailbox as a voice message.

On telephone systems with a designated record button on the telephone, it is possible to send an integrated message to the Call Server that initiates the Live Record action automatically from the Call Processor mailbox. Refer to the documentation that came with the telephone system to determine if it supports a record button. When available, a subscriber pressing the record button on the telephone automatically starts the recording action. The conversation is then recorded and it is automatically delivered to the subscriber's mailbox when the call is terminated.

Configure the Live Record functions on the **Messaging** tab of System Configuration. Configure the action to play or not play a beep tone at the beginning of the recording session, allow a DTMF tone to pause the recording, allow a DTMF tone to abort recording, or to ignore DTMFs during the recording session. The recording length is controlled by the Call Processor mailbox from which the action was initiated.

A valid argument for the Live Record action is a Subscriber mailbox number or a string of template characters.

**NOTE** Not all telephone systems or integrations support the Live Record feature. For example, some telephone systems do not allow voice mail ports to be conferenced. Refer to the specific telephone system documentation for information regarding the features supported.

## Monitor Transfer Action

The Monitor Transfer action initiates the transfer and monitors the line for busy and reorder call progress tones. If the Call Server encounters a busy or a reorder tone, it aborts the transfer and sends the caller to the associated Subscriber mailbox. When the Call Server initiates the transfer and detects ringing, it releases the call.

Use the Monitor Transfer action instead of the Blind Transfer action on telephone systems that:

- Disconnect the caller on blind transfers to a busy line.
- Do not differentiate an RNA call type from a busy call type and you want to present different announcements on busy or RNA conditions.

A valid argument for Monitor Transfer action is an extension number or a string of template characters.

**NOTE** The Call Screening feature is not available with this action.

## Open Script Action

The Open Script action shifts control from the Call Server to an UCCconnect script. Enter the name of the script to execute in double quotes, such as *orders*. When the script completes, the Call Server passes the caller to the originating Call Processor or the Next Call Processor if defined, unless the UCCconnect script otherwise directs the call.

A valid argument for the Open Script action is the script name in quotes.

**NOTE** Additional software and licensing is required for UCCconnect.

## Play Announcement Action

The Play Announcement action routes the caller to an Announcement mailbox. The caller returns to the same Call Processor or the Next Call Processor if defined, unless the Announcement mailbox is configured to disconnect the call after playing the announcement.

A valid argument for the Play Announcement action is an Announcement mailbox number or a string of template characters.

## Record Action

The Record action lets the caller record a private message for a subscriber. When this action is used, the Call Server immediately beeps to signal that the record function has begun. It does not play the

subscriber's name, personal greeting, or prompt the caller. To help callers, use the recorded announcement of the Call Processor to explain to callers how to leave a message.

A valid argument for the Record action is a Subscriber mailbox number or a string of template characters.

## Subscriber Fax (Fax Sub) Action

The Subscriber Fax action allows outside callers to send fax messages directly to a Subscriber mailbox. When the system receives a valid mailbox number, the Call Server prompts: *This fax will be sent to (subscriber name). If you would like to record an introduction, press one. To send your fax without an introduction, press nine.*

The Call Server waits until it receives a one or a nine before continuing, and then it allows the caller to record a voice introduction if the caller requests one. Once the Call Server is ready to deliver the fax it prompts the caller to press the START button on the fax machine, and then it transfers the call to a fax port.

In addition to supporting a valid number or the Call Processor template characters, the argument field supports the following characters:

Table 4. Supported characters

| Character | Action Description   |
|-----------|--|
| None      | If the argument field is left blank, the Call Server prompts, <i>Please enter the extension number for which you wish to leave a fax.</i> The caller can then enter an extension number.                             |
| Q         | If the argument field contains this character, the Call Server does not play the prompt, <i>At the tone, press the START button on your fax machine.</i> This character can be added anywhere in the argument field. |

## Subscriber Message Action

The Subscriber Message action connects callers directly to a subscriber's personal greeting or ESP greeting. The Subscriber Message action represents an incomplete transfer to an extension number. Use this action to handle manually connected calls. For example, use this action to send an outside caller directly to a Subscriber mailbox without transferring to the subscriber's telephone. Use this action instead of a transfer action when it is known that there is no one to accept a transfer, such as after business hours.

A valid argument for the Subscriber Message action is an extension number or a string of template characters. To prompt callers for an extension number, leave the argument field empty (blank).

**IMPORTANT** Do not use a Subscriber Message action in an ESP Call Processor mailbox for messaging to the related Subscriber mailbox. This creates a loop that returns the caller back to the announcement of the ESP Call Processor mailbox. Instead, use the Record action. The



record action allows callers to send a message from an ESP Call Processor mailbox to the associated Subscriber mailbox.

## Transfer Action

The Transfer action initiates a transfer, and then supervises the call progress until the call is answered before releasing it. The Call Server initiates the transfer to the extension specified in the argument field or input by the caller. It then uses call progress tones to determine when to complete the transfer. If the Call Server encounters a busy tone, reorder tone, or ring-no-answer (RNA), the Call Server aborts the transfer and sends the caller to the Subscriber mailbox. If the called party answers the call, the Call Server recognizes human intervention and releases the call. This transfer type is also known as a *supervised transfer* or a *T-Type transfer*.

A valid argument for the Transfer action is an extension number or a string of template characters.

## Undefined Action

The Undefined action plays the prompt, *Invalid entry*. The Call Server passes the caller to the originating Call Processor or to the Next Call Processor if defined.

This is the default action for all keys in a Call Processor mailbox. A valid argument for the Undefined action is always none (blank).

# Call Processor Arguments

The **Call Processor Arguments** field allows you to complete an action initiated by a key, event, or speech command. DTMF digits, template characters, and filenames are valid entries in the **Arguments** field. Some actions do not require an Argument.

DTMF digits include 0-9, \*, #, A, B, C and D. Template characters are similar to wildcard characters. They can represent any DTMF digit, and allow the numbers for a specific action to be variable. The caller or the Call Server can input numbers into template fields. Valid template characters are X, I, S, R, E, M, P, and W. Each template character in the argument field represents one DTMF digit.

Filenames used with the Execute and Open Script Action types must be enclosed in quotations (" ").

The following numbers and template characters are used in the **Argument** field of Call Processor mailboxes:

- **0-9, \*, #, A-D** - Industry standard DTMF tones including fourth column tones.
- **X, XXXX** (any digit or digits) – Each X represents any caller-entered DTMF digit, including DTMF sent by the telephone system or other automated system. The Call Server waits for a DTMF digit for each X, and then executes the defined action. When used to initiate a transfer, the digits are matched to a device number of the corresponding Subscriber mailbox, and the call is transferred to the primary device of the Subscriber mailbox regardless of the number dialed, unless Availability is active. If Availability is active, the call list is traversed according to the Presence schedule. If the digits do not resolve to a Subscriber mailbox, the exact digits are dialed.
- **V, XXVV** – In this example, each X represents a caller-entered DTMF digit as described above. The V digits, however, behave differently. In this example, XXVV, the first two X digits represent required digits. If a caller enters a third digit, represented by the first V digit, and the Call Server finds a match for a three digit extension, the caller will be transferred to that extension. However, if no match is found, the Call Server will wait two seconds for a fourth digit input. If the caller doesn't enter a fourth digit, the Call Server will try to transfer to the three digit extension.
- **[XXXX]** - Use of the square brackets and X template characters causes the Call Server to bypass the primary number and transfer to the number represented by the template data unless availability is active. Each X represents one DTMF digit. If the number within the brackets resolves to a Subscriber mailbox then the Subscriber's mailbox features are honored, including availability.
- **87[XXXX]** - Other digits can be used in front of or behind the string to complete the transfer.

## For example:

If the argument in a Transfer action specifies the telephone number 4255551[234], the Call Server looks for the Subscriber mailbox associated with a device address of 234. If the transfer proceeds it is placed by dialing 425-555-1234. Without the brackets in the argument field, the Call Server looks for the mailbox 4255551234 and the caller hears, *I'm sorry, extension 4255551234 is unavailable*.

The general rule is if a number is bracketed, then the number within the brackets is used to resolve to a mailbox. However, if the brackets are empty, then the full number is evaluated. That is []XXXX is equivalent to [xxxx].

If it is desirable to dial the number without resolving to a mailbox then use [x]xxx. Note: however that if this call is pulled back it will not resolve to a mailbox and instead will be announced as a failed call to extension X.

The brackets are used for legacy support. If the bracketed number resolves to a mailbox and either the calling or called party are enabled for speech then the dialing rules do not apply.

- **XXX[ ], [ ]XXXX, XX[ ]XX** - Use of empty brackets anywhere in the template string or string of numbers tells the Call Server to transfer to the exact number dialed by the caller. No resolution to a Subscriber mailbox takes place and no Subscriber mailbox features are supported.
- **E (target extension)** - Represents a digit of the target subscriber's extension number. The E character recalls the associated digit from the stored digit buffer, and the defined action is executed. This character is used only in specialized applications and is only valid with a forwarded call. Digits cannot be recalled twice in the same field and cannot be recalled one at a time; use all digits in the same argument.
- **M (target mailbox)** - Represents a digit of the target Subscriber mailbox number. The M character recalls the associated digit from the stored digit buffer and the defined action is executed. This character is used only in specialized applications and is only valid with a forwarded call. Digits cannot be recalled twice in the same field and cannot be recalled one at a time; all digits should be used in the same argument.
- **I (ignore)** - Represents any caller-entered DTMF digit, including DTMF sent by the telephone system or other automated system. The Ignore character tells the Call Server to ignore the DTMF digit sent. The character is used anywhere within the number or template string.
- **S (store)** - Tells the Call Server to store the DTMF digits entered by the caller for later use in a Call Processor mailbox but during the same call. One DTMF digit is stored for each S listed. The initial digits sent can be recalled throughout multiple Call Processor mailboxes to initiate actions. If you use the S template character in an application, then you must use the R template character to recall the digits.

**NOTE** Digits sent to the Call Server through an integration are automatically stored for recall throughout the same call.

- **R (recall)** - Tells the Call Server to recall the DTMF digits previously stored by the S character. Each R represents one S digit. Digits cannot be recalled twice in the same field and must not be recalled one at a time; use all digits in the same argument.

**NOTE** When integrated call processing takes place, the system automatically stores the digits that are recalled without previously having used an S to store them.

- **P (pause)** - Tells the Call Server to pause for one second before dialing the next digit or template character. This character is used to allow the telephone system to setup the call or connect to an outside line before dialing additional digits. For example, if a transfer action is configured to dial nine for an outside trunk, the P is used to make the Call Server pause for one second, allowing the telephone system time to access the outside line before dialing the remaining digits in the argument field. The P character can be used anywhere within the argument. Multiple P's can be used in the same argument.

**NOTE** This argument may not be valid with all integrations.

- **W (wait)** - Tells the Call Server to wait for dial tone before dialing the next digit. This character is used to allow the telephone system to setup the call or connect to an outside line before dialing additional digits. For example, if a transfer action is configured to dial nine for an outside trunk, the W is used to make the Call Server wait until it hears dial tone before dialing more digits, ensuring the telephone system accesses the outside line before dialing the remaining digits in the argument. The Call Server considers continuous noise to be dial tone. Call Progress attributes must be configured properly for this template character to work.

**NOTE** This argument may not be valid with all integrations.

# Directory (Speech Recognition)

Speech directories, Distribution Lists, and Network mailboxes use the First Name, Last Name, and Speech Alias name fields of the mailbox to locate subscribers when the *allow name recognition option is selected*... The subscriber name or mailbox name is the speech command for the directory function. Use the Instructional announcement of the Call Processor to instruct callers to speak the name of the person they are calling. The directory function of ASR listens for the name of the requested subscriber based on the Language Pack setting for the call processor, and then searches for the best matches among all of the names and alias names for the selected languages. When a match is found and the Always confirm names option set the recorded name in the mailbox is played to confirm a correct match, and the call is transferred or a messaging session is initiated.

**NOTE** The names used for recognition in the Subscriber Directories are defined in the Speech Recognition Alias section of the **Main** tab in the Subscriber Mailbox. Please note that if a particular language does not have a name defined, the subscriber will appear not to exist to callers using that particular language.

Automatic Speech Recognition has several default directories:

- **Directory: All** - Searches all subscribers within the organization.
- **Directory: Department - <Group Name>** – Searches all subscribers within the specified Group Name, in the group type Department.

**For example:**

Directory: Department - Sales. Sales is a group defined within the group type, Department. Particular subscribers are assigned to the group, Sales.

- **Directory: Location - <Location Name>** – Searches all subscribers within a given location.

**For example:**

Directory: Location – New York. New York is a group defined within the group type, Location. Subscribers are a subset of the group, New York.

Create departmental, location, and custom directories to suit the requirements of the organization by assigning subscribers to different groups.

**NOTE** The group types, Department and Location are available by default in the standard database. You can delete these group types if desired and create your own group types, such as *Affiliations* or *Job Titles*.

## Important Considerations for the Speech Recognition Directory

- Only one type of directory is permitted per action in a Call Processor mailbox. If the application requires multiple speech directories, such as a department, location, or all employees, the application must use separate actions within the Call Processor mailbox for each directory type.

**IMPORTANT** Only one **Directory: All** action can be configured for a Call Processor mailbox. It is not possible to combine a Directory: All action with any other speech directory in the same Call Processor mailbox.

- A transfer action must be defined as the action type for the directory if callers are to be transferred. Use the transfer type suitable to the application.
- Do not use template characters or DTMF digits in the **Arguments** field. Leave it blank. The directory search looks for a match between the name spoken and one of the subscribers in the list defined by all the Directory actions in the Call Processor. If a match is found and confirmed, the call is transferred to the primary device of the Subscriber mailbox, unless Availability is active. If Availability is active, the settings of the Availability State in effect for the Subscriber determine the actions performed.

# Speech Recognition Commands

You can initiate Call Processor action types using speech commands and create an entire automated attendant application using only speech commands. It is recommended that you create both a speech and DTMF driven automated attendant so callers have the option to use either the VUI or the TUI to navigate within the system. You can add speech commands to the system from either the Call Processor mailbox or the **Speech** tab of MiCollab AM Admin. If multiple ASR languages are installed you will see a tab at the bottom of the form for each language when the view is set to include speech. You may select any of the tabs to immediately see which commands are missing for that particular language

**NOTE** Create a Call Processor for DTMF only commands, and then enter it into the **No ASR Call Processor CP** field of the Call Processor mailbox from which callers are accessing the automated attendant. If a speech resource is not available, callers are sent to this Call Processor mailbox.

**IMPORTANT** You must have a licensed speech resource available to use a speech command in the automated attendant.

## Speech Commands

Speech commands are associated with action types of the Call Processor mailbox—callers speak a command to initiate a particular action. Use the instructional announcement of the Call Processor to offer a list of commands that the caller can use to navigate within the mailbox. For example, the instructional greeting might be, *At any time during this greeting you can simply say the name of the person or the department you want to reach. For a list of options, say Options.*

Consider the following guidelines when creating a Call Processor's recorded announcement for speech commands.

- Use common terminology for commands.
- Avoid listing every command; instead, provide a command to get a menu list of spoken options.
- Avoid the use of homonyms in the same Call Processor. Homonyms are two or more words spelled and pronounced alike but which differ in meaning.
- Avoid words that are difficult to pronounce.

To increase the probability of speech commands being recognized and to improve the usability of the application:

- **Alternate Phrases** - Add alternate phrases to the command to enable callers to use other names or phrases to reach the same person or department. Alternate phrases allow callers to speak commands that are similar to the primary command. For example, the alternate phrase *Tech Support* can be associated with the command, *Technical Support*.

You can combine some Call Processor Action types to use either DTMF or speech commands to invoke the same action. Do not combine action types if:

- Template characters are required to complete an action. Do not use template characters with speech commands. Actions using template characters require DTMF commands to perform the action.
- Directory - Do not combine the TUI Directory and the VUI Directory; they must be configured separately.

Refer to the *Automatic Speech Recognition* guide for more information about speech commands.



# The Recordings Dialog Box

Announcements for Call Processor mailboxes are recorded through the TUI or they are imported into the mailbox from other sources. To create a recording through the TUI you must have the Record Announcement privilege enabled in your Subscriber mailbox or you must be a Sponsors of the Call Processor mailbox in which you want to make a recording.

The Call Processor mailbox has a Recordings dialog box from which you can:

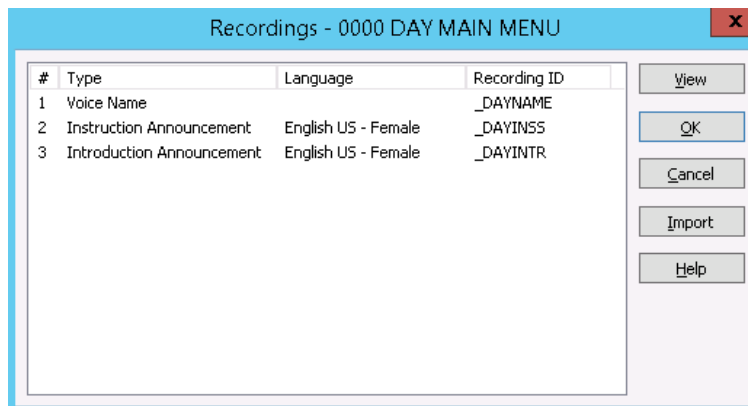
- Verify recorded announcements
- Find the filename of the recorded mailbox name
- Find the filenames of the recorded announcements
- Import recordings from other sources

This dialog box displays a list of all recordings for the associated mailbox by Type and Language. It displays the filename of all current recording for the mailbox.

The **Import** button provides the capability to import speech files from other sources. For example, a company may have a professional recording artist create speech files for the company greetings and announcements. You can import these files from this dialog box. The file extension types that can be imported are **\*.Sph**, **\*.Vox**, or **\*.Wav**.

## To access the Recordings dialog box:

- 1 Open the Call Processor mailbox in which you want to view recordings.
- 2 On the keyboard press Alt-R simultaneously. The Recordings dialog box opens.



## To import a recording:

- 1 Highlight the Type and Language of the file you want to import.
- 2 Click **Import**.
- 3 Browse to the file location, select the file, and then click **Open**. The file is added to the mailbox.

## Recording a Call Processor Two-Part Greeting

Call Processor mailboxes can present either a single announcement or a two-part greeting. The two-part greeting for a Call Processor is usually an introductory, or welcome greeting followed by an instructional greeting that lists the available options to the caller.

### For example:

Part 1, The Introduction greeting: *Thank you for calling Acme Manufacturing, an operator will be with you in a moment.*

Part 2, The Instructional greeting (options menu): *If you know the extension you wish to reach, enter it now. For the company directory, press one. To reach the sales department, press two. For service or parts, press three. To speak with an operator, press zero.*

**IMPORTANT** An administrator must have the system access option *Record Announcements* enabled on the **Recording** tab of the administrator's Subscriber mailbox to record announcements.

**NOTE** The two-part greeting does not work with an ESP Call Processor mailbox. If a two-part greeting is desired for an ESP mailbox, record a personal greeting in the Subscriber mailbox and enable the option, Play Greeting First, on the **Answering** tab of the Subscriber mailbox. Then, the caller hears the personal greeting in the Subscriber mailbox followed by the announcement in the ESP Call Processor mailbox. If the caller returns to the ESP Call Processor after an action completes, the caller hears only the announcement of the ESP Call Processor mailbox.

The Call Processor mailbox must exist, and the two-part greeting check box must be selected on the mailbox before you can continue.

Greetings for call processors can be configured either via the configuration screen or via the TUI. VUI does not support this feature. Speech users should press # followed by **1** to enter TUI mode.

### To record a two-part greeting:

- 1 Call into MiCollab AM, and then log on to your Subscriber mailbox.
- 2 Press **four** to access the system administrator functions.
- 3 Press **five** to record an announcement message.
- 4 Enter the mailbox number for which you want to record an announcement. The system plays the prompt, *To record the intro announcement press one, to record the instructional announcement press two.*

Table 5. Mailbox programming options

| If you want to...                        | Then press... |
|--|---------------|
| Record the introductory greeting         | One           |
| Record the instructional greeting (menu) | Two           |

- 5 Press **two** to start recording. When you have finished recording, press **two** again.

- 6 Press **five** to save the recording.
- 7 Return to step four to record the other greeting if necessary. Be sure to record both greetings for the Call Processor mailbox.

### To import audio files into the Call Processor mailbox:

- 1 Open the Call Processor mailbox for editing.
- 2 Press **ALT+R**.
- 3 In the Recordings dialog box, select the appropriate name or greeting in the language you want to import, and then click **Import**. The **Select Recording File to Import** dialog box appears.
- 4 Navigate to the file you want to import, select the file, and then click **Open**.
- 5 Repeat steps three and four for any remaining files you want to import into this mailbox.
- 6 In the Recordings dialog box, click **OK** to return to the mailbox.
- 7 In the mailbox, click **OK** to save your changes.

# Configuration Guidelines

There are some basic rules and guidelines you must follow when creating an application.

- Consistency in the design of Call Processors is important.
- Make the application seamless and transparent to callers.

Review the guidelines below before you create the mailboxes in your messaging application. Always test the application thoroughly before you make it available for incoming calls.

## General Guidelines

- Configure Call Processor mailboxes for an escape to a live attendant when appropriate. Let callers know of the escape options when they are available.
- Use the two-part greeting. When Call Processor mailboxes are accessed from the Call Routing or Schedule mailbox configuration, they should typically be configured to use two-part greetings. Create the Introduction announcement to let the caller know your company name and provide clear instructions in the instructional announcement.
- Make speech commands clear and add phrases that are interpreted as the same command. If the command name is spelled phonetically different than it sounds, add a phonetically spelled alternate phrase of the command name.
- Use the same voice to record announcements and spoken name files for a more professional sounding application.
- Configure the Access Messages, the Hang-up and the Directory actions consistently throughout the design in all Call Processor mailboxes that require the same actions. Use the keys and speech commands that are most appropriate for the application. Consistency is the important characteristic.
- Configure the zero key in Call Processor mailboxes for transfers to an operator or for messaging to a general, system-wide night mailbox. Some MiCollab AM functions are based upon how the zero key is defined in the initial Call Processor mailbox selected by Call Routing or a Schedule mailbox.
- Use consistent zero key actions and verify the value of the Use Answer Mode Operator check box in all of the Call Processor mailboxes to ensure that callers who do press the zero key are transferred to the correct operator extension (or general Subscriber mailbox, after hours), regardless of where they are in the application.

# Automated Attendant Scheduling (for Business Hours and Non-Business Hours)

The following guidelines are for configuring automated attendant scheduling using a Schedule mailbox in conjunction with Call Processor mailboxes - the Day Main Call Processor for normal business hours, and the Night Main Call Processor for non-business hours.

## In Schedule Mailbox:

- Assign the Day Main Call Processor mailbox to the business hours' time block (e.g. 8:00AM to 5:00PM on Monday through Friday).
- Assign the Night Main Call Processor mailbox to the non-business hours' time blocks (All other times on Monday through Friday and weekends).

## In Day Main Call Processor Mailbox:

- Configure the Timeout action and the zero key action to transfer to an operator. There may be a caller who is:
  - Unable to generate a DTMF tone
  - Unable to understand the announcement
  - Using a rotary telephone, or just refuses to make a selection
- Provide an automated attendant Directory action. Give callers the opportunity to find a subscriber's extension in the Directory. When callers use the Directory it reduces calls to the operator and provides the caller with an opportunity to locate the subscriber immediately.
- Allow callers to dial extensions (transfer) and announce the choices to them. Provide transfer actions in the Call Processor to match the numbering plan of the telephone system. Callers do not know your numbering plan or specific access codes— make the transfer process as transparent as possible. Avoid menu options that conflict with the numbering plan of your telephone system.

## In Night Main Call Processor Mailbox:

- When an operator is not available, allow callers to leave a general message. Set the Timeout action and zero key action to send the caller to a *general night* Subscriber mailbox. This mailbox does not have to be associated with a specific subscriber. However, if it is not, a system administrator or operator should log on to it at least once each day and forward any new messages to the appropriate subscribers.
- Provide an automated attendant Directory action. Use the same key or speech command to access the Directory as the Daytime Call Processor mailboxes.
- Allow callers to dial extensions (transfer) so that they can reach subscribers who are in the office before or after normal business hours. Provide transfer actions in the Call Processor to match the numbering plan of the telephone system.
- Allow callers to leave messages easily. Provide callers with an option to leave a subscriber a message without having to attempt a transfer. For example, during afterhours when the probability of finding a subscriber in the office is nil, an option to leave a message without first attempting a transfer is a very acceptable choice.

## Guidelines for Creating Audio Menus

The recorded announcements and audio menus of Call Processor mailboxes present a list of options that are available to the caller. Before you start creating scripts and recording announcements, take the time to put the design on paper. Consider how you want the application to flow, and then diagram a flow chart of how the application should work by mapping mailbox numbers and their type. Show the functions they perform, their relationships to each other, and to other mailboxes such as Message Center and Announcement mailboxes. This can help identify ways in which the application can be improved and help you to create instructional announcements that are easy to follow. Create your recording scripts when you are satisfied the application design is solid and it flows seamlessly through each step you created.

Follow these guidelines when planning the menus:

- Keep the application simple—avoid creating an application that creates confusion by the sheer number of mailboxes or the options presented.
- Determine all of the application choices and identify the common actions such as Access Messages. Use the same key or speech command for common choices throughout the application. Verify all of the requirements for each Call Processor menu.
- Plan a numbering scheme for the application that is easy to follow. For example, create a range of mailboxes for each type of mailbox required in the application. Start the application with the lowest numbered mailbox and ascend the list numerically as the application steps through each sequence.
- Keep the options simple—describe menu options as briefly as possible. Callers are listening, not reading the menu. What looks good on paper may not work in a voice menu.
- List menu items according to the frequency of their use whenever possible; make the first option the option used most frequently, and so on.
- Go from the general to the specific and keep menu options to a minimum. The first level of a menu should contain general choices such as *At any time during this greeting you can simply say the name of the person or the department you want to reach. For a list of options, say Options.* Use the Options command to take the caller to a different Call Processor mailbox that details a complete list of options and provides the same defined actions as the Call Processor from which they came.
- Use submenus to offer options. It is easier for a caller to use several submenus, each with a few items, than one menu with ten items on it.
- Rehearse your scripts a few times before you start recording. You save time and effort when you know what and how to say it. Speak clearly in a normal voice. Relax, breathe, and be yourself.
- Make your recordings in a noise free environment. Be aware that sounds such as air conditioners, fans, copy machines, and street noise are also recorded in the background with your voice.
- If you plan to have the announcements or speech commands professionally recorded, provide the scripts to the recording agent in advance. Give the artist an opportunity to practice the scripts in advance. Inform the recording studio engineer that you would like the recording files formatted as 8 KHz, 8-bit, mono .WAV files.

# Creating a Call Processor Mailbox

Administer Call Processor mailboxes from MiCollab AM Admin. You can use the Add, Copy, or Range Create function to add mailboxes. In this example, the add function of MiCollab AM Admin is demonstrated. Examples of the Call Processor configuration, Key/Events, Speech Commands, Action types, and Arguments of the Call Processor are provided later in this section.

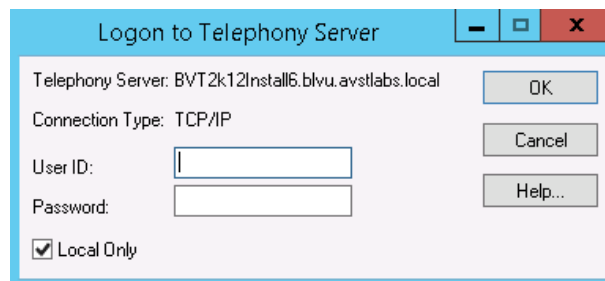
The following examples are based on a three-digit mailbox length. They are only examples. The MiCollab AM mailbox number length is determined during database initialization and can be any length between two and ten digits. You can number mailboxes with any number within the database structure; they are not subject to any other defined numbering scheme.

## Starting MiCollab AM Admin

MiCollab AM Admin is used to configure the system and administer mailboxes. You must be a MiCollab AM Administrator to log onto MiCollab AM. Verify the MiCollab AM Admin account you are using has the necessary access permissions and privileges to create and modify mailboxes, and then follow these steps to create a Call Processor mailbox.

To start MiCollab AM Admin:

- 1 Go to **Start > All Programs > MiCollab AM Desktop > MiCollab AM Admin**.
- 2 At the **Logon to Telephony Server** dialog box enter your administrator's **User ID** and **Password**, and then click **OK**.



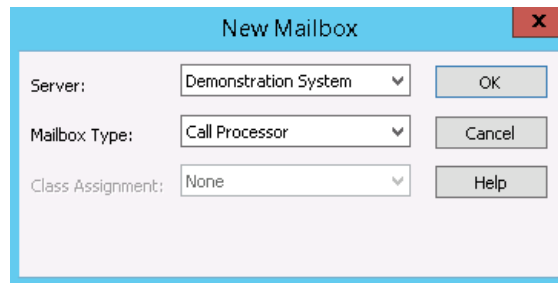
## Adding a Call Processor Mailbox

Add a Call Processor mailbox to use as an example.

To add a Call Processor mailbox:

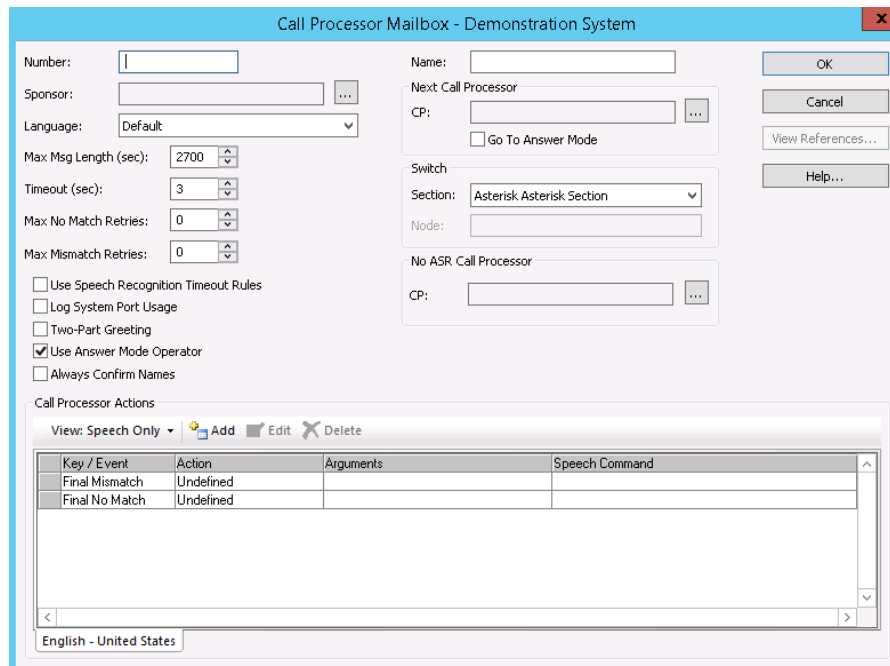
- 1 From the menu bar of **MiCollab AM Admin**, select **Mailbox**, and then select **Add**.

- At the New Mailbox dialog box, click the drop-down box in Mailbox Type, select **Call Processor**, and then click **OK**. A new Call Processor mailbox appears.



The 'New Mailbox' dialog box has a title bar with a close button. It contains three rows of controls: 'Server' with a dropdown menu showing 'Demonstration System', 'Mailbox Type' with a dropdown menu showing 'Call Processor', and 'Class Assignment' with a dropdown menu showing 'None'. To the right of these are three buttons: 'OK', 'Cancel', and 'Help'.

- Type *0000* in the number field, and then in the name field type *Day Main Menu*.



The 'Call Processor Mailbox - Demonstration System' dialog box is divided into several sections. The top section contains fields for 'Number' (with '0000' entered), 'Name' (with 'Day Main Menu' entered), 'Sponsor', 'Language' (set to 'Default'), 'Max Msg Length (sec)' (2700), 'Timeout (sec)' (3), 'Max No Match Retries' (0), and 'Max Mismatch Retries' (0). Below these are several checkboxes: 'Use Speech Recognition Timeout Rules', 'Log System Port Usage', 'Two-Part Greeting', 'Use Answer Mode Operator' (checked), and 'Always Confirm Names'. The 'Next Call Processor' section includes a 'CP' field and a 'Go To Answer Mode' checkbox. The 'Switch' section has a 'Section' dropdown (set to 'Asterisk Asterisk Section') and a 'Node' field. The 'No ASR Call Processor' section has a 'CP' field. At the bottom is the 'Call Processor Actions' section, which includes a 'View' dropdown (set to 'Speech Only'), 'Add', 'Edit', and 'Delete' buttons, and a table with columns 'Key / Event', 'Action', 'Arguments', and 'Speech Command'. The table contains two rows: 'Final Mismatch' and 'Final No Match', both with 'Undefined' in the 'Action' column. A status bar at the bottom shows 'English - United States'.

- Click **OK**. The Call Processor mailbox 0000 is added to the database.

## Assigning an Action to a DTMF Key

Assign actions to DTMF Keys in the Condensed, Combined, or DTMF Only views. In this example, an action is assigned to a DTMF Key from the DTMF View to an already configured mailbox.

### To assign an action to a Key/Event from the DTMF View:

- In the Call Processor Actions area of the Call Processor mailbox, scroll down to Key 6.



Call Processor Actions

View: DTMF Only ▾

| Key | Action          | Arguments |
|-----|-----------------|-----------|
| T0  | Blind Transfer  | 0         |
| 0   | Blind Transfer  | 0         |
| 1   | 1 Key Directory |           |
| 2   | Blind Transfer  | XXXX      |
| 3   | Blind Transfer  | XXXX      |
| 4   | Blind Transfer  | XXXX      |
| 5   | Blind Transfer  | XXXX      |
| 6   | Undefined       |           |
| 7   | Blind Transfer  | XXXX      |

| Key | Action             | Arguments |
|-----|--------------------|-----------|
| 8   | Blind Transfer     | XXXX      |
| 9   | Subscriber Message |           |
| A   | Undefined          |           |
| B   | Undefined          |           |
| C   | Undefined          |           |
| D   | Undefined          |           |
| *   | Hangup             |           |
| #   | Access Messages    |           |
| Fax | Undefined          |           |

- Click the **Action** cell in the same row, click the drop-down box, and then select the Action you want to assign. In this example, the **Subscriber Message** action is selected.

Call Processor Actions

View: DTMF Only ▾

| Key | Action          | Arguments |
|-----|-----------------|-----------|
| T0  | Blind Transfer  | 0         |
| 0   | Blind Transfer  | 0         |
| 1   | 1 Key Directory |           |
| 2   | Blind Transfer  | XXXX      |
| 3   | Blind Transfer  | XXXX      |
| 4   | Blind Transfer  | XXXX      |
| 5   | Blind Transfer  | XXXX      |
| 6   | Undefined ▾     |           |
| 7   | 1 Key Directory | XXXX      |

- 1 Key Directory
- Access Messages
- Blind Transfer
- Confirm Transfer
- Directory
- Execute
- Go To Answer Mode
- Go To Call Processor
- Go To Schedule
- Group Directory
- Hangup
- Interactive
- Language
- Live Record
- Monitor Transfer
- Open Script
- Play Announcement
- Record
- Subscriber Message**
- Transfer
- Undefined

- Click the related **Arguments** cell, and then enter the DTMF or template characters to use for the Action type. In this example, the template characters, 1XXX are entered.

Call Processor Actions

View: DTMF Only ▾

| Key | Action             | Arguments |
|-----|--------------------|-----------|
| T0  | Blind Transfer     | 0         |
| 0   | Blind Transfer     | 0         |
| 1   | 1 Key Directory    |           |
| 2   | Blind Transfer     | XXXX      |
| 3   | Blind Transfer     | XXXX      |
| 4   | Blind Transfer     | XXXX      |
| 5   | Blind Transfer     | XXXX      |
| 6   | Subscriber Message | 1XXX      |
| 7   | Blind Transfer     | XXXX      |

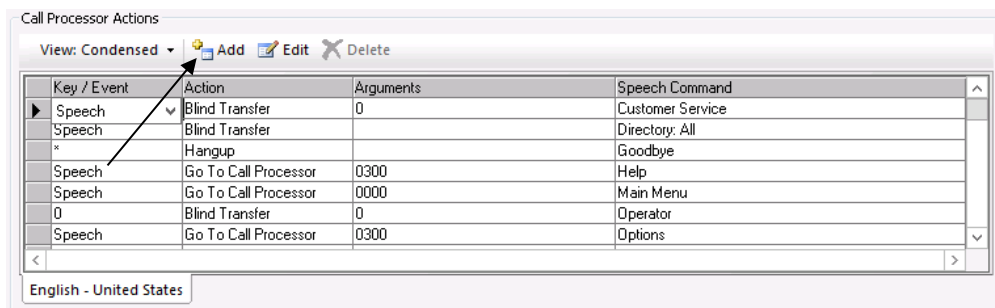
- Click **OK**. The Subscriber Message action is added to Key 6. Callers accessing this mailbox can press six, and then enter any three-digit extension. The first character, Key 6, is ignored by use of the Ignore character. Callers dialing 61XXX go immediately to the subscriber's personal greeting without MiCollab AM first attempting a transfer.

# Adding a Speech Command to the Call Processor Mailbox

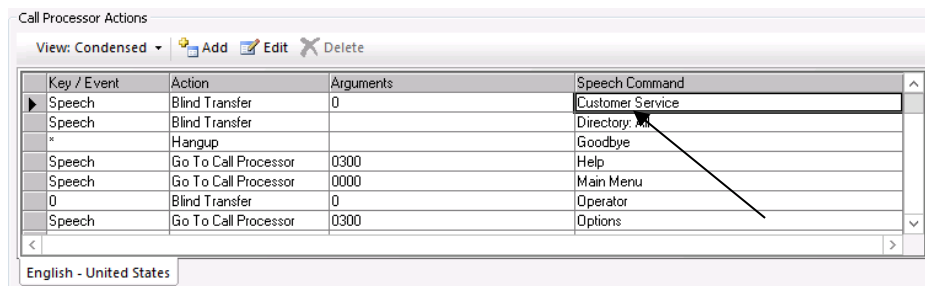
Add speech commands and associate them with Call Processor actions from the Condensed, Speech Only, or Combined views. In this example, a speech command is added to the mailbox from the Condensed view.

## To add a Speech Command to the Call Processor Mailbox:

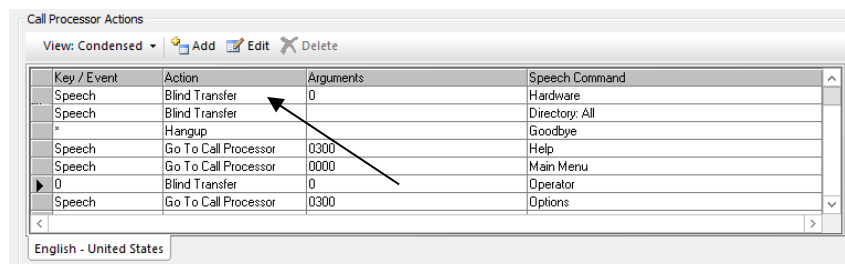
- 1 In the Call Processor Actions area of the Call Processor mailbox, click **Add**. A new row is inserted and highlighted.



Click the highlighted **Speech Command** cell, and then click the drop-down box. The current combined list of default and custom speech commands appears.

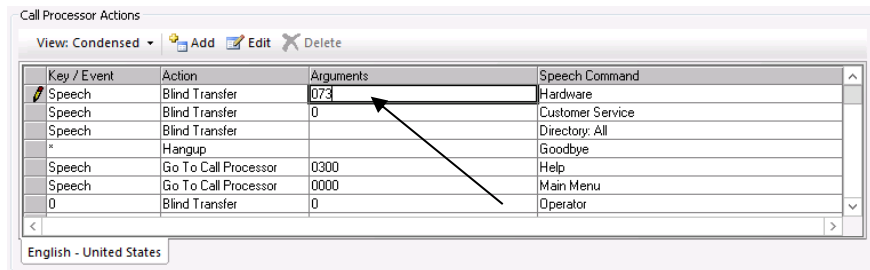


- 2 Select **Add New Speech Command**. The **Add "Call Processor" Speech Command** dialog box appears. Enter a name for the speech command in the **Display Name** field. In this example, the command *Hardware* is added.
- 3 Click **OK**.
- 4 Click the related cell in the **Action** column, and then click the drop-down box to view the list of Action types.



- 5 Select the action type to use with the speech command.

Click the related **Arguments** cell, and then type the Call Processor mailbox number. In this example, Call Processor mailbox 073 is used.



- 6 Click **OK**. Callers accessing this Call Processor can speak the command *Hardware* and immediately go to Call Processor 073. Call Processor 073 may list additional options within the hardware department.

## The Add “Call Processor” Speech Command Dialog Box

The **Add Speech Command** dialog box allows you to add a speech command for an action. The dialog box displays when adding a new command from either the **Speech** tab or the Call Processor mailbox.

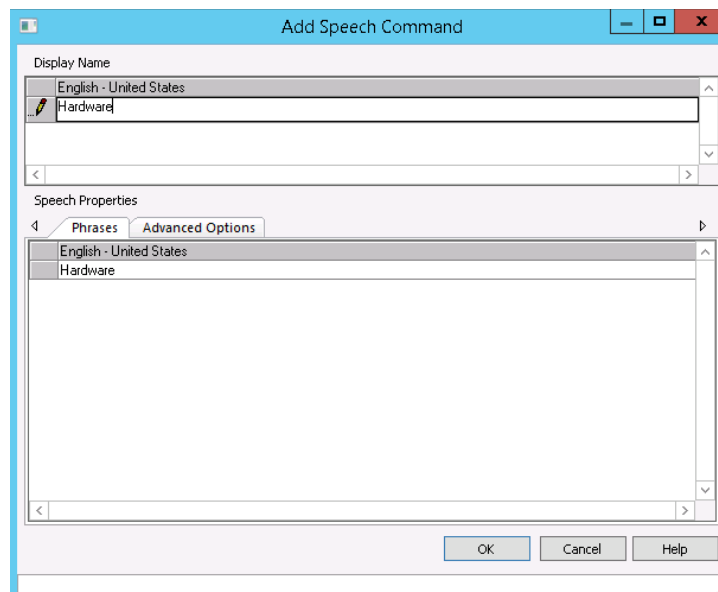


Figure 28. Add Speech Command dialog box

The text fields in this dialog box are:

**Display Name** – The default name or phrase of the command by language. A name or phrase has a maximum length of 45 characters.

**Phrases** – When you enter a name in the **Display Name** field, it displays in the **Phrases** area. The name entered in the **Display Name** field is what will be displayed on the Call Processor form. Alternative names and phrases are added to the system here as well. Alternatives are names or phrases the caller uses to request the same service, department, or person as the primary name. For example, instead of saying

*Technical Support* the caller might say *Tech Support* or *Support*. Providing alternatives increases usability; the speech enabled Call Processor is more user friendly.

**TTS Name (Advanced Tab)** – Not used.

**Spoken Name File (Advanced Tab)** – Not used.

# Extension Specific Processing (ESP)

When a caller is sent to a Subscriber mailbox through a transfer action, a forwarded call, or a Subscriber Message action, the caller has three options: leave a message, press 0 for an operator, or hang-up. If a subscriber or department wants any additional call processing capability beyond these three options then the Administrator must create and assign an Extension Specific Call Processor mailbox.

**NOTE** Subscribers with Personal Assistance and Availability enabled may have additional options available to the caller. Personal Assistance is a licensed MiCollab AM feature.

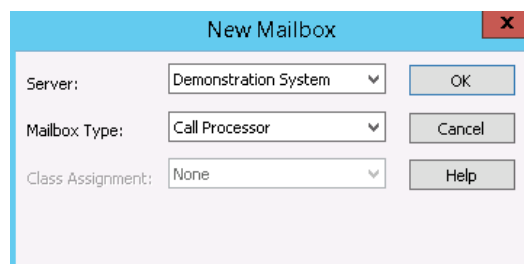
Extension Specific Processing is a Subscriber mailbox feature that provides the ability to process calls at the Subscriber mailbox level with a Call Processor mailbox. This capability creates a wide range of specific answering applications for the subscriber or for a unique department.

Extension Specific Call Processor mailboxes can be unique for each subscriber or you can assign one to a range of Subscriber mailboxes, depending on the application. Typically, a unique Call Processor mailbox is created for each subscriber and the subscriber is made a sponsor of the Call Processor. This allows the subscriber to create announcements in their own voice without having system administrator privileges enabled. When an ESP Call Processor is entered into the Subscriber mailbox field the feature is enabled in the mailbox, however the feature is not active until the subscriber logs on to the mailbox and enables the feature through the TUI, or the administrator activates it in the mailbox from MiCollab AM Admin.

In addition to the ESP Call Processor, a separate Busy Call Processor may be configured for the subscriber. Use the Busy Call Processor to answer calls when the subscriber's extension is busy. When the call forwards back to MiCollab AM on a busy condition or a transfer attempt was aborted on a busy condition the caller is presented with the Busy Call Processor options. This feature provides the ability to offer an entirely different set of options to the caller when the extension is busy.

## To add an ESP Call Processor mailbox to a Subscriber's mailbox:

- 1 From the menu bar of MiCollab AM Admin, select **Mailbox**, and then select **Add**.
- 2 At the New Mailbox dialog box, click the drop-down box in mailbox type, select **Call Processor**, and then click **OK**.



- 3 In the mailbox number field type *0162*, and then in the name field type *ESP for MB 0362*.
- 4 In the **Sponsor** field, click **Browse**, and then select Subscriber mailbox **0362** from the list.
- 5 Configure the Action types for the application. In this example:

- The Final Timeout, Final Mismatch, and Final No Match actions send the caller to the initial Call Processor mailbox that was originally selected at the time of answer by Call Routing or a Schedule mailbox.
- The zero key and speech command Operator, allow transfers to the operator.
- The one key and the speech command Technical Support, allow a transfer to extension 0350, Technical Support.
- The two key and the speech command Message, start a recording session into Subscriber mailbox 0362.
- The three key allows the caller to transfer to another three-digit extension that begins with the digit 3

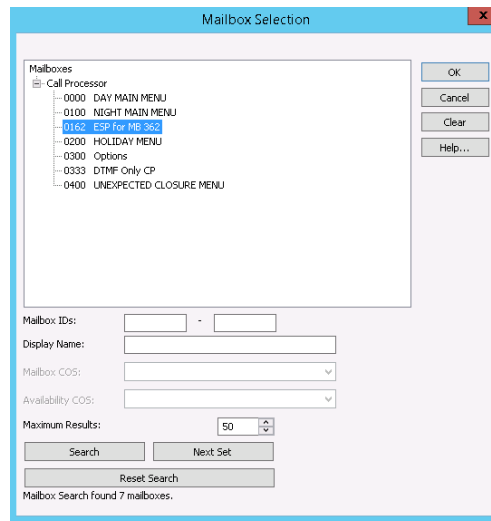
6 Click **OK** to create the mailbox. The Call Processor mailbox 0162 is created.

| Key / Event    | Action            | Arguments | Speech Command    |
|----------------|-------------------|-----------|-------------------|
| 0              | Transfer          | 0         | Operator          |
| 1              | Transfer          | 0350      | Technical Support |
| Final Timeout  | Go To Answer Mode |           |                   |
| Final Mismatch | Go To Answer Mode |           |                   |
| Final No Match | Go To Answer Mode |           |                   |
| 2              | Record            |           | Message           |
| 3              | Transfer          |           |                   |

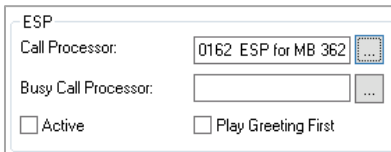
To add the ESP Call Processor to the Subscriber mailbox:

- 1 From the MiCollab AM Admin window, double-click Subscriber mailbox **0362** to open it, and then click the **Answering** tab.

- 2 Point to the **ESP Call Processor** field, click **Browse**, select Call Processor mailbox **0162** from the Mailbox Selection list, and then click **OK**.



- 3 Mailbox 0162 is added to the **ESP Call Processor** field. Notice that once the Call Processor is inserted the Active and the Play Greeting first options become available.



- 4 To enable ESP Call Processing, check the **Active** box.



- 5 Click **OK**.

The Play Greeting First option allows or disallows the personal greeting recorded in the Subscriber mailbox to play prior to playing any announcement recorded in ESP mailbox 0162. Use this option to simulate a two-part greeting for the subscriber.

Select the box to allow the subscriber's personal greeting to be played first, followed by the Instruction announcement of the ESP Call Processor mailbox. When ESP is enabled, the actions of the ESP Call Processor mailbox are active while the subscriber's personal greeting is played.

# Call Types and Call Completion

There are many types of calls that MiCollab AM answers, and many ways in which MiCollab AM can handle each call. In its most simple form, MiCollab AM has one *Default Answer* entry in Call Routing and the caller hears, *Please enter your mailbox number*. Automated attendant call processing capabilities are not available until a Schedule mailbox with the Call Processor mailbox assignment is created.

A Schedule mailbox in conjunction with Call Processor mailboxes provides the automated attendant capabilities of the Call Server. The most basic automated attendant call processing requires a Call Processor mailbox configured with a transfer action type, and then assigned to schedule time blocks inside a Schedule mailbox. The automated attendant capabilities are typically expanded by assigning different Call Processor mailboxes into different time blocks in a Schedule mailbox, so the call are answered differently based on the time of day and day of week (e.g. during business hours and non-business hours). DTMF keys or Speech commands are assigned to various actions of the Call Processor mailbox to provide transfers, log on capabilities for subscribers, IVR applications, and other audio text applications.

Outside calls received without route code information or integrated data are answered by the automated attendant, the Call Processor mailbox that is active at the time of answer in the Schedule mailbox configuration. When integrated call type information is sent to MiCollab AM with an incoming call, the information is used to route the caller to a specific mailbox, and the caller is presented with log on prompting at their mailbox.

Incoming calls are broadly categorized into three groups: direct, forwarded, and transferred. Within these three groups are sub-groups that are described in the following list.

## Direct Calls

- **Direct Call, External – Non-Integrated** - Calls originating from outside the telephone system with no caller information are answered using the *Default Answer* entry in Call Routing.
- **Direct Call, Internal – Non-Integrated** - Calls originating from inside the telephone system with no caller information are answered using the *Default Answer* entry in Call Routing.
- **Direct Call, External – Integrated** - Subscribers who have devices such as mobile phones or a home phone as device type that include the logon or auto logon option are presented with logon prompting at their mailbox. This feature works only if MiCollab AM receives ANI (Automatic Number Identification) or CPID (Calling Party Identification) information from PSTN. After logging off of their mailbox, the subscribers will be directed to the Call Processor that was originally selected at the time of answer by Call Routing or a Schedule Mailbox.
- **Call Routing** – The numbers specified with a service type (Default Answer, Phantom, DNIS, or Trunk) in Call Routing are routed to a specific Schedule mailbox or Call Processor mailbox based on the Call Routing configuration.
- **Direct Call, Internal – Integrated** – Subscribers who call the system from their extension device and have a Subscriber mailbox associated with the extension are greeted with, *Please enter your security code*.



## Forwarded Calls

- **Forwarded Call, External, or Internal – Non-integrated** – A subscriber's telephone is forwarded to MiCollab AM but there is no calling or called party information sent with the call. MiCollab AM answers using the *Default Answer* entry in Call Routing.
- **Forwarded Call, External – Integrated** – An outside caller is forwarded to the Subscriber mailbox on a RNA, Busy, or Do Not Disturb (DND) condition at the subscriber's primary device. If the telephone system sends conditional data such as RNA or busy, the caller is offered options based on the condition. Other integrated data includes the caller's telephone number that is used for Reply purposes. The ability to answer a call at the subscriber level with different options based on a RNA or busy is dependent on the data sent by the telephone system.
- **Forwarded Calls, Internal – Integrated** – An internal caller is forwarded to the Subscriber mailbox on a RNA, Busy, or DND condition at the subscriber's primary extension device. This call type includes forwarded internal calls from the integrated telephone system and calls originating from other switch nodes or networked switches. If the telephone system sends conditional data such as RNA or busy then the caller is offered options based on the condition. Other integrated data includes the caller's extension number that is used for Reply purposes. The ability to answer a call at the subscriber level with different options based on an RNA or busy is dependent on the data sent by the telephone system.

## Transferred Calls

- **Transferred Calls** – Refer to the Transfer Action type descriptions provided earlier in this document for information on how each transfer type is used. In general, use a blind transfer when the telephone system is fully integrated and sending call type forwarding information to the Call Server. Use a monitor transfer action when the telephone system is integrated but does not support a blind transfer to a busy extension or does not distinguish a forwarded busy call from a forwarded RNA call. Use a Transfer (supervised) action if no integration is supported, if transfers are going to off-net extensions but call progress tones are still provided or to attendant consoles that do not support blind transfers. Use a confirmed transfer action if no call progress tones are provided by the telephone system, or if another transfer type cannot perform transfers to the PSTN or a mobile device.

When no matching Subscriber mailbox is found, MiCollab AM returns the caller to either the Call Processor mailbox that initiated the transfer or the Next Call Processor mailbox, if defined.

# Call Processor Mailbox Applications

Call processing applications begin with a Call Processor mailbox offering a list of menu choices to the caller. The caller makes a selection and determines what type of call processing happens next. In general, the initial Call Processor selected by Call Routing or a Schedule mailbox is the mailbox that greets an external caller when calling the main business telephone number. The Introduction announcement welcomes the caller and the Instruction announcement provides the caller with a menu of options to choose from using his touch-tone phone or a speech command.

## Sample Initial Call Processor Mailbox

The following sample application provides an example of a Call Processor mailbox in the automated attendant configuration via a Schedule mailbox that answers calls during regular business hours. The sample application provides both DTMF and Speech Recognition commands to show how either one or both can work to create the same type of application. Speech and DTMF enabled Call Processors are not mutually exclusive; however, audio instructions in a combined Call Processor may be too cumbersome or awkward to be a practical business application. Mitel recommends you use separate DTMF and Speech enabled Call Processors to avoid confusing and cumbersome instructional announcements.

**IMPORTANT** Use the Call Processor mailbox No ASR CP feature to give callers an alternative list of DTMF only options when no speech resource license is available to them. Refer to the Call Processor field description, **No ASR Call Processor CP**, for more information.

The sample application is as follows: The company sells widgets, has a Sales Department, a Technical Support Department, and an automated system for sales order tracking. In addition to these two departments, callers must have the capability to transfer to anyone within the company and subscribers must have the capability of logging on to their mailboxes from any telephone.

When callers call the main company telephone number, they are answered with Call Processor mailbox 0000, the Main Day Call Processor, assigned to be the initial Call Processor in a Schedule mailbox that handles incoming calls during business hours.

The introduction announcement might be, *Thank you for calling ABC Company, the Widget Company of the Pacific. An operator will be with you in a moment.* Immediately following the introduction, the instruction announcement offers a list of choices, *You may dial an extension at any time during this message, or simply speak the name of the person you are calling. For Sales say Sales or press two. For Technical Support say Technical Support or press four. For a complete list of options, say Options or press five.*

There are some unannounced speech commands and DTMF keys also programmed in the Call Processor mailbox to allow subscribers to log on to their mailboxes, give callers an escape to an operator, and provide for a disconnect or hang-up action.

The Main Day Call Processor in this example is configured as follows:

- If the caller does nothing, the Final Timeout action transfers the caller to the operator two seconds after the Instruction announcement ends.
- The Final Mismatch and the Final No Match actions transfer the caller to the operator during business hours.
- The zero key and speech command Operator, provides an immediate blind transfer to the operator.
- The speech command Directory: All, allows the caller to speak the name of the person to which they want to transfer. (Transfers are made to the subscriber's primary device.) The Directory: All function searches the entire subscriber database for the matching name, and then blind transfers the caller to the primary device of the matching Subscriber mailbox.
- The two key and speech command Sales, are configured to go to Call Processor mailbox 051. This is the Call Processor mailbox for the Sales Department. This is discussed later in the example.
- The three key is configured to perform a blind transfer to a three-digit extension that starts with a three; for example, 300-399; the numbering plan for this example.
- The four key and speech command Technical Support, are configured to go to Call Processor mailbox 062. This is the Call Processor mailbox for the Technical Support Department. This is discussed later in the example.
- The five key and speech command Options, sends the caller to Call Processor 001, and plays a complete list of options for the caller including an option for callers to hear complete driving instructions to the Widget Company. Mailbox 001 is programmed similarly to mailbox 000 with an additional key and command configured to play an announcement for directions to the company.
- The star (asterisk) key and speech command Goodbye are configured to hang-up.
- The pound (#) key and speech command User Logon, is configured to Access Messages.

The star (\*) and pound (#) keys with associated speech commands, are not presented in the instructional announcement. Subscribers are instructed to use the pound key to logon to their mailboxes from outside the building and to use the star key to go back a menu level and hang-up.

## Sample Sales Department Call Processor Mailbox

In this example, when the caller selects the two key or speaks *Sales*, in the initial Call Processor 0000, the call is sent to Call Processor 0051. The Call Processor mailbox for Sales provides a new menu of options for the Sales Department. For example, the Sales Department Call Processor 0051 provides a directory of salespeople and an option to launch an IVR (UCConnect) script to search a database for recently shipped orders. The introduction announcement might be, *Welcome to the ABC Sales Department*, followed immediately by the instruction announcement that says, *You may dial an extension at any time during this message or simply speak the name of the Sales Representative you are calling. If you'd like to check your order status using our automated system press one, or say, check order.*

The Call Processor for Sales during business hours in this example is configured as follows:

- If the caller does nothing in this Call Processor, the call is sent back to the initial Call Processor 0000 selected originally at the time of answer by a Schedule mailbox in the Final Timeout action.
- Final Mismatch and the Final No Match actions transfer the caller to the operator during business hours.

- Because the caller is now in the Sales department Call Processor, the operator is defined as the Sales assistant. The zero key or speech command operator, initiates a blind transfer to the assistant's extension, 0333. Note the parameter, Use Answer Mode Operator, has been de-selected.
- The speech directory, Directory: Department - Sales is configured to blind transfer the caller to the requested subscriber in Sales. Callers speak the name of the sales representative and are transferred to the matching primary device of the Subscriber mailbox.

**NOTE** The group Sales is added to the Group Type: Department on the **Group Management** tab of MiCollab AM Admin. Subscribers in the Sales department must be added to the group assignment, Sales. For more information, refer to the *Automatic Speech Recognition guide*, or to MiCollab AM help.

- The one key and the speech command Check Order, starts a script in UConnect to search for order status.
- The three key allows the caller to blind transfer to any four-digit extension number.

Call Processor Mailbox - Demonstration System

Number: 0051  
 Sponsor:   
 Language: Default  
 Max Msg Length (sec): 2700  
 Timeout (sec): 3  
 Max No Match Retries: 0  
 Max Mismatch Retries: 0  
☐ Use Speech Recognition Timeout Rules  
☐ Log System Port Usage  
☐ Two-Part Greeting  
☐ Use Answer Mode Operator  
☐ Always Confirm Names

Call Processor Actions

| Key / Event    | Action            | Arguments     | Speech Command               |
|----------------|-------------------|---------------|------------------------------|
| Speech         | Directory         |               | Directory Department - Sales |
| Final Timeout  | Go To Answer Mode |               |                              |
| Final No Match | Go To Answer Mode |               |                              |
| Final Mismatch | Go To Answer Mode |               |                              |
| 0              | Blind Transfer    | 0             |                              |
| 1              | Open Script       | "CHECK ORDER" | Check Order                  |
| 3              | Blind Transfer    |               | XXXX                         |

English - United States

Figure 29. Call Processor Mailbox

## Sample Technical support Call Processor Mailbox

The Call Processor mailbox for Technical Support provides a new menu of options for the Technical Support Department. In this example, when the caller selects the four key or speaks Technical Support in the initial Call Processor 0000, the call is sent to Call Processor 0062. The introduction announcement might be, *Welcome to the ABC Company Technical Support Department. A Technical Support Representative will be with you in a moment.* Followed immediately by the instruction announcement that says, *You may dial an extension at any time during this message or simply speak the name of the Technical Support Representative you are calling. To leave a general voice message for Technical Support press two or say, Message. To send a Fax to Technical Support press the four key or say, Send a Fax.*

The Call Processor for Technical Support during business hours in this example is configured as follows:

- If the caller does nothing in this Call Processor the Final Timeout action blind transfers the caller out of MiCollab AM to an automatic call distribution group and the call is queued for the next available Technical Support representative.
- The Final Mismatch and the Final No Match actions transfer the caller to the operator during business hours.
- The zero key is defined as a blind transfer to the operator, returning the call to the main operator.
- The speech command, *Message* sends the caller to the Technical Support Subscriber mailbox. Callers are prompted by the personal greeting in the Subscriber mailbox to leave a general message, close a trouble ticket, or ask for a callback.
- A speech directory, *Directory: Technical Support* is configured. Callers speak the name of the Technical Support representative to be transferred to the matching primary device of the Subscriber mailbox.

**NOTE** The group Technical Support was added to the Group Type: Department on the **Group Management** tab of MiCollab AM Admin. Subscribers in the Technical Support department must be added to the group assignment, Technical Support. For more information, refer to the *Automatic Speech Recognition guide* or MiCollab AM help.

- The three key allows the caller to blind transfer to any 4-digit extension number.

Call Processor Mailbox - Demonstration System

Number: 0062

Sponsor: [ ]

Language: Default

Max Msg Length (sec): 2700

Timeout (sec): 3

Max No Match Retries: 0

Max Mismatch Retries: 0

☐ Use Speech Recognition Timeout Rules

☐ Log System Port Usage

☐ Two-Part Greeting

☐ Use Answer Mode Operator

☐ Always Confirm Names

Name: Technical Support CP

Next Call Processor

CP: [ ]

☐ Go To Answer Mode

Switch

Section: Asterisk Asterisk Section

Node: [ ]

No ASR Call Processor

CP: [ ]

OK

Cancel

View References...

Help...

Call Processor Actions

View: Condensed

| Key / Event    | Action         | Arguments | Speech Command             |
|----------------|----------------|-----------|----------------------------|
| Final Timeout  | Blind Transfer | 2100      |                            |
| Final No Match | Blind Transfer | 0         |                            |
| Final Mismatch | Blind Transfer | 0         |                            |
| 0              | Blind Transfer | 0         |                            |
| Speech         | Record         |           | Message                    |
| Speech         | Directory      |           | Directory: Technical Sales |
| 3              | Blind Transfer | ####      |                            |

English - United States

Figure 30. Call Processor Mailbox

# Application Demonstrations

Here are a couple of sample applications to aid in understanding just some of the ways a Call Processor mailbox application can be designed. While the samples may not have any real world significance, they can add some techniques to your application toolbox.

## Digit Sorting

This small application enhancement creates simplicity in the Instruction announcement of the Call Processor mailbox. The caller does not have to wonder if he missed an option when the Instruction announcement skipped from a two key option to a four key option.

First, let us go back to the example we used in the previous section, [Sample Initial Call Processor Mailbox](#). In the example for the initial Main Day Call Processor, we had the script, *Thank you for calling ABC Company, the Widget Company of the Pacific. An operator will be with you in a moment.* Immediately following the introduction, the Instruction announcement offers a list of choices, *You may dial an extension at any time during this message, or simply speak the name of the person you are calling. For Sales, say Sales or press two, for Technical Support say Technical Support or press four. For a complete list of options, say Options or press five.* It seems obvious that the three Key was never mentioned. The announcement said, *You may dial an extension at any time during this message.* What was not stated is that the extension numbers of the telephone system for this company start with the digit three.

If speech commands were used solely, this scenario would never be an issue. The *Directory: All* speech command would provide the transfer action necessary for a caller to transfer to any subscriber in the All Company directory.

For this example, assume both speech commands and DTMF keys are required for this application. Let us change the application to say, *Thank you for calling ABC Company, the Widget Company of the Pacific, an operator will be with you in a moment.* Immediately following the introduction, the instructional announcement offers a list of choices, *You may dial an extension at any time during this message, or simply speak the name of the person you are calling. For Sales, say Sales or press two, for Technical Support say Technical Support or press three. For a complete list of options, say Options or press four.* The three key must take on a dual role now. This application method is referred to as a digit sorter.

### To revise the application to work as a digit sorter:

- 1 Change the current blind transfer action of the three key to the **Go To Call Processor** action and type Call Processor mailbox **0002** in the argument. Call Processor mailbox 0002 is created later in this example.
- 2 Remove the command, Technical Support from the four key, and then add it to the same row as the three key.
- 3 Change the four key argument to **0001**, the *Options* Call Processor.

- 4 Remove the command Options from the current location, and then add it to the same row as the four key.
- 5 Change the key five action to **Undefined**.
- 6 Click **OK**.

Call Processor Mailbox - Demonstration System

Number: 0000

Sponsor: [ ]

Language: Default

Max Msg Length (sec): 2700

Timeout (sec): 2

Max No Match Retries: 4

Max Mismatch Retries: 0

☒ Use Speech Recognition Timeout Rules

☐ Log System Port Usage

☒ Two-Part Greeting

☒ Use Answer Mode Operator

☒ Always Confirm Names

Name: DAY MAIN MENU

Next Call Processor

CP: [ ]

☐ Go To Answer Mode

Switch

Section: Asterisk Asterisk Section

Node: [ ]

No ASR Call Processor

CP: 0333 DTMF Only CP

Call Processor Actions

View: Condensed

| Key / Event    | Action             | Arguments | Speech Command |
|----------------|--------------------|-----------|----------------|
| #              | Access Messages    |           | User Logon     |
| Final Timeout  | Blind Transfer     |           |                |
| Final No Match | Blind Transfer     |           |                |
| Final Mismatch | Go To Answer Mode  |           |                |
| 9              | Subscriber Message |           |                |
| 8              | Blind Transfer     | xxxx      |                |
| 7              | Blind Transfer     | xxxx      |                |

English - United States

The Day Main Call Processor in this example is re-configured as follows:

- When the three key is dialed, the call is sent via the Go to Call Processor action to Call Processor 0002. Call Processor 0002 is configured to sort digits, or send the caller to Technical Support. If the caller dials no more digits, the Call Processor Timeout action sends the caller to the Technical Support department Call Processor 0062. Call Processor 0002 is discussed later in the example.
- The four key is configured to send the caller to Call Processor mailbox 0001, the Options Call Processor mailbox.

Call Processor 0002 does two things; it sorts digits to complete a transfer or sends the caller to Technical Support. An announcement is not necessary for this mailbox. When the first digit three is dialed in Call Processor 0000, the call goes immediately to Call Processor 0002. If the caller continues to enter digits, the actions configured for blind transfer are used to complete the transfer. The three key is *stuffed* back into the **Argument** field of each entry because the first three the caller dialed was used to get the caller to mailbox 0002. The caller enters the remaining two digits of the extension number and the transfer is initiated.

Call Processor Mailbox - Demonstration System

Number: 0002

Sponsor:

Language: Default

Max Msg Length (sec): 2700

Timeout (sec): 3

Max No Match Retries: 0

Max Mismatch Retries: 0

☒ Use Speech Recognition Timeout Rules

☐ Log System Port Usage

☐ Two-Part Greeting

☒ Use Answer Mode Operator

☐ Always Confirm Names

Name: Day Digit Sorter

Next Call Processor CP:

☐ Go To Answer Mode

Switch

Section: Asterisk Asterisk Section

Node:

No ASR Call Processor CP:

View: Condensed

| Key / Event | Action         | Arguments | Speech Command |
|-------------|----------------|-----------|----------------|
| 0           | Blind Transfer | 3xxx      |                |
| 1           | Blind Transfer | 3xxx      |                |
| 2           | Blind Transfer | 3xxx      |                |
| 3           | Blind Transfer | 3xxx      |                |
| 4           | Blind Transfer | 3xxx      |                |
| 5           | Blind Transfer | 3xxx      |                |
| 6           | Blind Transfer | 3xxx      |                |

English - United States

Figure 31. Call Processor Mailbox window

If MiCollab AM receives no other digits, the Final Timeout event sends the caller to the Technical Support Call Processor mailbox 0062. The timeout value is increased in this example to three seconds allowing the caller more time to dial the second digit. It may not be necessary to increase the timeout parameter. The trade-off is that it takes more time before the final timeout action sends the caller to the Technical Support department Call Processor but increasing the timeout increases the chance the caller does not unintentionally go to Technical Support because of slow inter-digit timing.

## Digit Stuffing and the Use of Template Characters I, S, and R

This application provides an example of how MiCollab AM can insert digits for the caller, and the use of the Call Processor mailbox template characters I (Ignore), S (Store), and R (Recall). The application simply tells the caller an invalid digit was dialed and returns the caller to the initial Call Processor that was originally selected at the time of answer. This exercise is only an example of digit stuffing; it is not required. By default, all Undefined Key/Events play the system prompt, *Invalid Entry* when dialed.

The same initial Day Main Call Processor, 0000, starts the application.

### To create the application:

- 1 Configure the Actions all the remaining unused numeric keys (keys 5-9) as **Go to Call Processor**.
- 2 In the **Argument** field of keys 5-9, type **098A000**.



Call Processor Mailbox - Demonstration System

Number: 0000

Sponsor: 1888 SUBSCRIBER EXAMPLE

Language: Default

Max Msg Length (sec): 2700

Timeout (sec): 2

Max No Match Retries: 4

Max Mismatch Retries: 0

☒ Use Speech Recognition Timeout Rules

☐ Log System Port Usage

☒ Two-Part Greeting

☒ Use Answer Mode Operator

☒ Always Confirm Names

Call Processor Actions

View: DTMF Only

| Key | Action          | Arguments |
|-----|-----------------|-----------|
| TO  | Blind Transfer  | 0         |
| 0   | Blind Transfer  | 0         |
| 1   | 1 Key Directory |           |
| 2   | Blind Transfer  | XXXX      |
| 3   | Blind Transfer  | XXXX      |
| 4   | Blind Transfer  | XXXX      |
| 5   | Blind Transfer  | XXXX      |
| 6   | Blind Transfer  | XXXX      |
| 7   | Blind Transfer  | XXXX      |

Name: DAY MAIN MENU

Next Call Processor

CP:

☐ Go To Answer Mode

Switch

Section: Asterisk Asterisk Section

Node:

No ASR Call Processor

CP: 0333 DTMF Only CP

OK

Cancel

View References...

Help...

3 Click **OK**.

4 From the menu bar of MiCollab AM Admin, click **Mailbox**, and then click **Add**.

5 At the New Mailbox dialog box select **Call Processor**, and then click **OK**.

New Mailbox

Server: Demonstration System

Mailbox Type: Call Processor

Class Assignment: None

OK

Cancel

Help

6 Number the new Call Processor mailbox **0098**, and then type the name, *Digit Stuffer App Invalid Entry*.

7 Change the Call Processor Actions View to **DTMF Only**.

8 Change the TO (Timeout) action to **Go to Call Processor**, and then type **RRRR** in the **Arguments** field.

9 Change the **A** key action to **Go to Call Processor**, and then type *0098/SSSS* in the **Arguments** field.

10 Click **OK**.

Call Processor Mailbox - Demonstration System

Number: 0098

Sponsor: ...

Language: Default

Max Msg Length (sec): 2700

Timeout (sec): 0

Max No Match Retries: 0

Max Mismatch Retries: 0

☐ Use Speech Recognition Timeout Rules

☐ Log System Port Usage

☐ Two-Part Greeting

☒ Use Answer Mode Operator

☐ Always Confirm Names

Call Processor Actions

View: DTMF Only

| Key | Action               | Arguments |
|-----|----------------------|-----------|
| T0  | Go To Call Processor | RRRR      |
| 0   | Undefined            |           |
| 1   | Undefined            |           |
| 2   | Undefined            |           |
| 3   | Undefined            |           |
| 4   | Undefined            |           |
| 5   | Undefined            |           |
| 6   | Undefined            |           |
| 7   | Undefined            |           |

| Key | Action               | Arguments |
|-----|----------------------|-----------|
| 8   | Undefined            |           |
| 9   | Undefined            |           |
| A   | Go To Call Processor | 0098 SSSS |
| B   | Undefined            |           |
| C   | Undefined            |           |
| D   | Undefined            |           |
| *   | Undefined            |           |
| #   | Undefined            |           |
| Fax | Undefined            |           |

Name: Digit Stuffer App "Invalid Entry"

Next Call Processor

CP: ...

☐ Go To Answer Mode

Switch

Section: Asterisk Asterisk Section

Node: ...

No ASR Call Processor

CP: ...

OK

Cancel

View References...

Help...

- 11 Log on to the Subscriber mailbox you are using to create announcements in Call Processor mailboxes.
- 12 Record an announcement for Call Processor 0098 such as, *You have dialed an incorrect number.*

### To test the application:

- 1 Verify Call Processor 0000 is configured to answer via a Schedule mailbox.
- 2 Call in to MiCollab AM and dial five. You should hear the recorded announcement in Call Processor 0098, *You have dialed an incorrect number*, then immediately return to the Instruction message of Call Processor 0000.
- 3 Test the remaining six, seven, eight, and nine keys for the same result.

### The application works like this:

- When digits five through nine are dialed in Call Processor 0000, the caller is sent to Call Processor 0098 through a Go to Call Processor action, and the digits A0000 are *stuffed* into a buffer for use in Call Processor 0098.
- In 0098, the A key is configured as Go to Call Processor 0098 (the same Call Processor), the I template character ignores the A digit, and the template characters SSSS are Store the digits 0000 for later use. All of the digits sent by the *digit stuffing* in Call Processor 0000 have been used.
- The announcement, *You have dialed an incorrect number* plays, and then the Timeout action, Go to CP RRRR Recalls the four 0 digits from the Stored buffer and returns the caller to Call Processor 0000 where the Instruction message is repeated.

**NOTE** The Timeout of Call Processor 0098 is set to zero. When Timeout is set to zero, the Timeout action is invoked immediately after the announcement ends.

Use this type of application to:

- Announce to a caller that an Interactive questionnaire is about to begin.
- Prepare the caller by announcing that the call is about to be transferred to another location and to hold the line
- Announce to a caller to get ready with paper and pencil to write down a list of fax documents
- Announce to a caller that a long list of job opportunities is about to begin