ADTRAN®

NetVanta Unified Communications Technical Note

Supporting Merlin Magix Delayed Announcement

Introduction

The Merlin Magix provides the capability to queue calls to a group of telephones. Once a caller is in the queue, Merlin Magix supports the ability to give callers information while they are holding in the form of delayed announcements.

The UC server can serve as the delayed announcement device when the generic analog configuration file and trunk services are modified in coordination with the Merlin Magix programming.

This technical note gives a high level summary of certain programming areas of the Merlin Magix. For detailed information, consult the Merlin Magix documentation, available online at *http://support.avaya.com/japple/css/japple?PAGE=Product&temp.productID=107609*.

Merlin Magix Programming

Delay Announcement Programming

1. Select **Start > Programming > Extensions > Group Calling > DelayAnnce**.

2. Select the group calling number (for example, 771).

3. Select one of the following features:

    *   **Primary Announcements** allows you to add up to 10 individual extension numbers from members of the UC server coverage group.

    *   **Secondary Announcements** allows you to add a single extension from the UC server coverage group.

    *   **Announcement Interval** configures the period of time that callers that are left on hold between subsequent delayed secondary announcements.

    *   **Repeat Announcement** configures the ability to have repeated secondary announcements.

    NOTE: *Because the secondary announcement can only have one extension configured, it is important to make sure that the announcement length and announcement interval are set appropriately to manage expected call volume.*

Messaging Announcements

The advanced configuration of the delayed announcements allows integration with the UC server through mode code in-band dual tone multi-frequency (DTMF) digit strings.

1. Within the group calling delay announcement programming, select **> (More)**.

2. Select one of the following features:

   - Messaging Primary Ann

   - Messaging Secondary Ann

   NOTE: *Selecting either of these options will result in a warning that reads **This is only needed when Mail System is a Delay Announcement Unit. If one is not in use, press Back, otherwise press Continue.***

3. Select **Continue**.

4. Select the **Mail Sys Ann. num** to be played. You can choose a number between 1 and 99. The number you select must also be configured in the UC server.

Once a mail system announcement has been chosen, the PBX sends the UC server #16#<*Sys. Ann.*>### through mode code. By careful programming of the UC server, you can create specific services to create customized delayed announcements.

Prompt-Based Overflow

It is possible to configure the Merlin Magix to accept a DTMF digit number in order to overflow from a hunt group. This functionality can be combined with the UC server to offer additional features and functionality.

A call that is overflowed from a group to the UC server appears as a call that is covered from the hunt group. The PBX sends the UC server #02#<*Calling Extension*>#<*HuntGroup*># for internal calls and #03##<*Hunt Group*># for external calls that are overflowed from a hunt group.

UC Server Programming

Contained within the UC server software version 2.0 is a configuration file that provides the ability to map in-band DTMF signaling strings (mode code) to UC server functionality. By modifying the **Generic Analog** configuration file, you can accommodate specific recordings and services for different primary and secondary greetings, as well as for different calling groups.

For UC server versions 2.x and 3.x, the Merlin Magix configuration file is located in the directory at c:\program files\ADTRAN\NetVanta UC Server Server\Data\System. The file that needs modification is titled **AvayaPbxDefinition.cfg.**

In UC server software version 4.0 and higher, the configuration file syntax changed. The UC server now includes support for multiple PBX configurations simultaneously. The PBX configuration files that can be modified are copied from the **AvayaPBXDefinition.cfg** file to the following directory: C:\Program Files\ADTRAN\NetVanta UC Server\Data\System\Pbxs. The name of the file will depend on how many communications systems that you have configured. Generally, the file to modify will be 00000000.cfg.

CAUTION: *Modifying the configuration files alters the behavior of the UC server. Make frequent backups of this file and ensure that you test the server after each change in the configuration file.*

NOTE: *You must restart the UC server to apply the changed configuration file.*

Generic Analog Configuration File

The generic analog configuration file is made up of two sections: PBX and in-band signaling. Do not modify anything in the PBX section unless you are instructed to do so by ADTRAN.

Within the in-band signaling section is a series of numbers. The number dictates the matching order for the PBX mapping information. The syntax of each line is:

<Number> = <call reason> : *<DTMF signaling string>* [: overrides]; Comments

Delayed Announcements

In the case of delayed announcements, you will want to add some lines that map the behavior that is programmed on the Merlin Magix.

The syntax is:

<Number> = DirectAnswer : #16#*<Sys. Ann>*### : T= *<Trunk Service>*

NOTE: *You must ensure that the line numbers are unique and that the trunk number is configured in the UC server.*

Delayed Announcement Worksheet Example

The following example features a customer environment with an 8-port UC server. The port numbers are in calling group 770 (extensions 301, 302, 303, 304, 305, 306, 307, 308). The goal is to allow the UC server to provide the delayed announcement capability for calling group 771.

Calling Group	Messaging Announcement Type	Sys. Ann. #	Extension	Pseudo Trunk Number
771	Primary Message	1	305,306,307,308	100
771	Secondary Message	99	308	99

; Delayed Announcements. You must ensure that a trunk service is created

80 = DirectAnswer : #16#1### : T = 100 ; Trunk service for primary announcement

81 = DirectAnswer : #16#99###: T=99   ; Trunk service for secondary announcements

Hunt Group Overflow

In the case where the hunt group overflows to the UC server, the mode code information is equivalent to an extension that is covered to the UC server. To manage the overflow behavior easily, the analog configuration file remaps the incoming mode code information to that of a direct trunk service.

The format would be:

<Number> = DirectAnswer : #02#X#*<Hunt Group>*# : T= *<Trunk Service>*

<Number> = DirectAnswer : #03##*<Hunt Group>*# : T= *<Trunk Service>*

Hunt Group Overflow Worksheet Example

The calling group 771 has prompt-based overflow enabled to route to Calling Group 770.

The analog configuration file would be as follows. Ensure that the new override codes appear in a line number lower than the normal behavior.

300 = DirectAnswer : #02#X#771# : T = 771 ; Trunk service for internal overflow

301 = Forwarded   : #02#S#M# ; Normal internal covered call

400 = DirectAnswer : #03##771#: **T=771** ; Trunk service for external overflow

401 = Forwarded   : #03##M# ; Normal external covered call

The end-user experience would be that the UC server answers the calls overflowed from the hunt group as if it was a direct trunk service. The same would occur for both internal and external callers.

Trunk Services

Within the UC server administrator application, you must create trunk services for the pseudo trunk numbers that were created in the configuration text file. The trunk service that is created can be as simple as using a play announcement element to tell callers that they are in queue and what they should expect. Alternatively, it can be used in combination with other elements (for example, menu elements with multiple tree audio announcements and fax on demand self-service capabilities).

Consult the *NetVanta Unified Communications Server Administrator Guide*, available at *http://kb.adtran.com/*, for information about creating and configuring trunk services.

NOTE: *It is not possible to transfer a call out of the UC server if the call arrived as a delayed announcement. The transfer capability is enforced by the PBX. To get around this limitation, you can use prompt-based overflows to a UC server trunk service.*