

# MiCollab Platform Integration Guide

- MiVoice Business
- MiVoice Office 250

RELEASE 8.0

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## **MiCollab Platform Integration Guide**

Release 8.0

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CHAPTER 1:  
INTRODUCTION

Purpose of this Guide . . . . . 3

Communication Platform Support . . . . . 3

Supported MiCollab Applications . . . . . 3

    MiVoice Business Communication Platforms . . . . . 3

    MiVoice Office 250 Platforms . . . . . 4

Client Station Support . . . . . 4

CHAPTER 2:  
MIVOICE BUSINESS INTEGRATION

Introduction . . . . . 6

Identify the Network Elements for MiVB systems . . . . . 6

NuPoint Unified Messaging . . . . . 7

    Mitel MiVoice Business Programming . . . . . 7

        Program Voicemail Ports . . . . . 7

        Program Voicemail Hunt Group and Ports . . . . . 8

        Program Record-a-Call Hunt Group . . . . . 9

        Program Speech Auto Attendant Hunt Group and Ports . . . . . 9

        Program Message Waiting Indication . . . . . 10

    MiCollab Programming for NuPoint Unified Messaging . . . . . 11

        Create Voice Mail Line Group . . . . . 11

        Create Speech Auto Attendant Line Group . . . . . 13

        Configure Speech Auto Attendant User Data Source . . . . . 14

        Firewall Requirements . . . . . 14

MiVoice Border Gateway . . . . . 14

    Teleworker Service . . . . . 14

    SIP Trunking . . . . . 15

    Secure Recording Connector . . . . . 15

MiCollab AWW . . . . . 16

    Install MiCollab AWW Conferencing Client for all Users (as administrator) . . . . . 16

    Configure Communications Platform for AWW . . . . . 16

        Configure MiVoice Business for AWW . . . . . 16

            Configure SIP Device Capabilities . . . . . 17

            Configure SIP Peer Profiles . . . . . 17

            Configure Extended Hunt Groups . . . . . 17

            Configure Class of Service (COS) . . . . . 17

## Table of Contents

---

Create IP Devices . . . . .	18
Create a Hunt Group . . . . .	18
MiCollab Client . . . . .	19
MiCollab Client Integrated or Co-located Mode? . . . . .	19
MiCollab Client Application Configuration . . . . .	19
MiCollab Client User Provisioning . . . . .	20
Firewall Requirements . . . . .	20
Default Class of Service Settings . . . . .	21
COS Settings for MiCollab Users . . . . .	21
COS for Application Ports . . . . .	22

## CHAPTER 3: MIVOICE OFFICE 250 INTEGRATION

Introduction . . . . .	25
Identify the Network Elements . . . . .	25
NuPoint Unified Messaging . . . . .	26
MiVoice Office 250 Integration Overview . . . . .	26
Supported Functionality . . . . .	27
Licensing and Optioning . . . . .	28
Prerequisites for the MiVoice Office 250 Integration . . . . .	28
Modifying the Security Settings for NuPoint Unified Messaging . . . . .	28
Configuration . . . . .	29
Constraints . . . . .	29
External Dependencies . . . . .	30
MiVoice Office 250 Integration Task Summaries . . . . .	30
MiCollab Installation Summary . . . . .	30
NuPoint Unified Messaging Configuration Summary . . . . .	30
MiVoice Office 250 Configuration Summary . . . . .	31
Create and Configure SIP Peer Voice Mail Information . . . . .	31
Add and Configure SIP Voice Mail Application Information . . . . .	31
Add a SIP Mailbox (Create an Associated Mailbox) . . . . .	32
Troubleshooting SIP Feature Interactions . . . . .	32
Clustering . . . . .	32
Call Redirection . . . . .	32
Validation of Incoming Call . . . . .	32
Answering a Call . . . . .	33
Generating a Call . . . . .	33
Lighting MWI . . . . .	33

Media Connection .....	33
MiCollab Licensing .....	33
MiVoice Border Gateway .....	33
Teleworker Service .....	33
MiCollab AWV .....	34
Install MiCollab AWV Conferencing Client for all Users (as administrator) .....	34
Configure MiVoice Office 250 FOR AWV .....	34
Create IP Devices for 86xx Ports .....	35
Configure Phone Settings .....	35
Create a Hunt Group .....	35
Enable OAI Connection .....	36
MiCollab Client .....	36
MiCollab Client Configuration .....	36
MiCollab Client User Provisioning .....	36
Firewall Requirements .....	36
 <b>APPENDIX A:</b> <b>AUDIO, WEB AND VIDEO CONFERENCING VOICE PROMPTS</b>	
Voice Prompts .....	39



# Chapter 1

## INTRODUCTION





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## PURPOSE OF THIS GUIDE

This guide provides instructions on how to configure the MiVoice Business and MiVoice Office 250 communication platforms to support the MiCollab applications.

## COMMUNICATION PLATFORM SUPPORT

All the communication platforms (network elements) must be of the same type on a single MiCollab or a multi-MiCollab site deployment. You cannot connect MiCollab to a mix of different network elements (for example, MiVoice 5000 and MiVoice MX-ONE). Also, it is not possible to change the communications server that is connected to the MiCollab system. The MiCollab system must be reinstalled and reconfigured to support a different type of communication server.

## SUPPORTED MICOLLAB APPLICATIONS

The applications supported by a MiCollab installation are dependent on the following criteria:

- Communications platform
- Deployment configuration, and
- MiCollab platform

### MIVOICE BUSINESS COMMUNICATION PLATFORMS

For the supported MiVoice Business communications platforms, the following MiCollab applications are supported:

- NuPoint Unified Messaging
- Speech Auto Attendant
- MiCollab Client in either integrated or co-located mode; see respective section for a description of these modes.
- MiCollab Audio, Web, and Video (AWV) Conferencing.
- MiVoice Border Gateway: Refer to the *MiVoice Border Gateway Installation and Maintenance Guide* for a table of the supported features.
- MiVoice for Skype for Business
- Vidyo



**Note:** The Speech Navigation option is only supported if NuPoint Unified Messaging is the only installed application. This restriction applies to both the MiCollab server and virtual MiCollab. Although all applications are installed in the vMiCollab OVA, if you only apply NuPoint licenses (à la carte) then it is considered a single application installation.

### MIVOICE OFFICE 250 PLATFORMS

The following MiCollab applications are supported:

- NuPoint Unified Messaging
- MiCollab Audio, Web and Video (AWV) Conferencing
- MiVoice Border Gateway: MiVoice Border Gateway: Refer to the *MiVoice Border Gateway Installation and Maintenance Guide* for a table of the supported features.
- MiVoice for Skype for Business

## CLIENT STATION SUPPORT

MiCollab clients (for example, MiCollab End User portal, MiCollab System Administrator portal, MiCollab AWV clients, and so forth) are supported on various operating systems. Refer to the *Engineering Guidelines* for details.

# Chapter 2

## MIVOICE BUSINESS INTEGRATION

# INTRODUCTION

To manually configure the MiCollab and MiVoice Business application system resources:

1. "Identify the Network Elements for MiVB systems" on page 6.
2. Complete the basic application programming on the communications platform and on the MiCollab platform for the required applications as described in the following sections:
  - "NuPoint Unified Messaging" on page 7
  - "MiVoice Border Gateway" on page 14
  - "MiCollab AWW" on page 16
  - "MiCollab Client" on page 19.
3. Configure MiCollab Client mode. Refer to the MiCollab Installation and Maintenance Guide for instructions.
4. Configure the MiCollab system application settings (for example, NP-UM ICP, NP-UM Line Groups, AWW web conference SIP server, and so forth) manually through the application administration interfaces. Refer to the application online help for instructions.
5. Add any additional users and services including the NuPoint Unified Messaging mailboxes through the Users and Services application. Under **Applications**, click **Users and Services**. Follow the [instructions](#) provided in the online help to add users. After you add a user, the MiCollab system automatically starts the services (for example, NP-UM) that you assigned to that user.
6. After you have programmed the site configuration data, it is recommended that you make a backup of the MiCollab system database.

## IDENTIFY THE NETWORK ELEMENTS FOR MIVB SYSTEMS

This procedure identifies the MiVoice Business network elements for all the installed applications for Flow Through Provisioning.

1. Log into the MiCollab server manager.
2. Under **Applications**, click **Users and Services**.
3. Click the **Network Element** tab.
4. Click **Add**.
5. Complete the MiVoice Business Network Element fields.
  - Refer to the help for field descriptions.
  - Check the **Use NuPoint UM IP Integration Licenses** if the Network Element will support the NuPoint UM application ports.
6. If the system includes the NP-UM application, complete the following:
  - Enter the "Call Reroute First Alternative Number".
  - Enter the "NP-UM voice mail hunt group number" in the "Call Forward Destination Directory Number" field.

- Enter the hunt group number for the HCI Reroute Hunt Group. (This hunt group is used to enable MWI lamp on stations with mailboxes via the MiTAI application interface.)
7. Click **Save**.
  8. If you are adding the first network element to the list, you are prompted to associate the element with the default UCC templates. If you select **Yes**, the network element field for the primary phone in the default templates is automatically set to the name of this network element. If you select **No**, you must create custom templates and associate them with this element.
  9. After you save your changes to the Network Elements tab, if the network element supports the NP-UM application ports, you must activate the changes.
    - At the top of the screen, click the [NuPoint activation](#) link.
    - Click **OK**. Wait for the configuration to activate. This step takes the NP-UM application out of service.
  10. Click **Return to Server Manager** in the left-hand menu.

## NUPOINT UNIFIED MESSAGING

### MITEL MIVOICE BUSINESS PROGRAMMING

This integration uses the Mitel MiVoice Business system along with the MiTAI application. NuPoint Unified Messenger emulates virtual extensions on the MiVoice Business system. The MiVoice Business system and the NuPoint Unified Messaging server should be on the same virtual local area network.

The following sections describe the basic programming required on the MiVoice Business platform to support NP-UM. For detailed information about MiVoice Business programming, refer to the MiVoice Business System Administration Tool Help.



**Note:** If you are licensed for the Record A Call optional feature and it is enabled, your telephones must be registered as 5240 devices, except for the lines that are used for Message Waiting Indication. These lines be registered as 5020 devices. If you are not licensed for Record A Call or it is not enabled, your telephones must be registered as 5020 devices.

### PROGRAM VOICEMAIL PORTS

1. Log into the MiVoice Business System Administration Tool.
2. In the **Class of Service Options** form, program COS 82 for the voicemail ports and the sets.

COS OPTIONS FOR MESSAGE WAITING PORTS	VALUE
HCI/CTI/TAPI Call Control Allowed	Yes
HCI/CTI/TAPI Monitor Allowed	Yes
Public Network Access via DPNSS	Yes
COV/ONS/E&M Voice Mail Port	Yes

3. In the **Class of Service Options** form, program COS 83 for the Record-A-Call ports.

COS OPTIONS FOR MESSAGE WAITING PORTS	VALUE
HCI/CTI/TAPI Call Control Allowed	Yes
HCI/CTI/TAPI Monitor Allowed	Yes
Public Network Access via DPNSS	Yes
COV/ONS/E&M Voice Mail Port	Yes

4. Program COS number 84 with the following options for the MWI port(s).

COS OPTIONS FOR MESSAGE WAITING PORTS	VALUE
HCI/CTI/TAPI Call Control Allowed	Yes
HCI/CTI/TAPI Monitor Allowed	Yes
COV/ONS/E&M Voice Mail Port	Yes
Do Not Disturb Permanent	Yes

5. Program COS number 85 with the following options for the Speech Auto Attendant port(s).

COS OPTIONS FOR PORTS	VALUE
Calling Party Name Substitution	Yes
Display Dialed Digits during Outgoing Calls	Yes
Public Network Access via DPNSS	Yes

6. In the **Shared System Options** form, program the system options.



**Note:** The system option "DPNSS/QSIG Diversion Enabled" must be set to Yes in order for the called extension number to forward to voice mail across an E 1 DPNSS integration.

7. In the System Options form, program the Set Registration Access Code value (for example: \*\*\*) and the Set Replacement Access Code value (for example: ###).

8. In the **Feature Access Codes** form, program the Message Waiting Activate code (for example, \*33) and the Message Waiting Deactivate code (for example, #33).

### PROGRAM VOICEMAIL HUNT GROUP AND PORTS

1. In the **Hunt Group** form, program a voicemail hunt group with the following parameters:

- **Hunt Group:** Enter a unique directory number for the hunt group pilot number (default applied by MiCW = 7000)
- **Hunt Group Mode:** Circular
- **Hunt Group Priority:** Set a hunt group priority (Default 64)
- **Hunt Group Type:** Voicemail

2. In the **Telephone Directory** form, assign the name "NuPoint Voicemail" to the **Hunt Group** directory number.

3. In the **User and Services Configuration** form, create virtual voicemail ports. For each port:
  - **Number:** Enter a unique directory number
  - **Device Type:** Enter 5020 IP for devices with voicemail only; enter 5240 IP for devices with voicemail and record-a-call functionality. (To obtain record-a-call functionality you must purchase the Record-a-Call option for your NP-UM licenses).
  - **Hot Desk User:** No
  - **Voice Mail:** No
  - **Class of Service Day:** COS (Day) (Night 1) (Night 2) = Enter COS 82 for voicemail only; enter COS 83 for voicemail ports with record-a-call functionality
  - **Class of Restriction Day:** COR (Day) (Night 1) (Night 2) = 1.
4. In the **Hunt Group** form, add all the directory numbers of the voicemail ports to the "NuPoint Voicemail" hunt group (default applied by MiCW is four members starting at extension number 6001).

### PROGRAM RECORD-A-CALL HUNT GROUP

(Only required if you have purchased Record-a-Call option for your NP-UM licenses.)

1. In the **Hunt Group** form, program a Record A Call hunt group and enter the following parameters:
  - **Hunt Group:** Enter a unique directory number for the hunt group pilot number (default applied by MiCW = 6500)
  - **Hunt Group Mode:** Circular
  - **Hunt Group Priority:** Set a hunt group priority (Default 64)
  - **Hunt Group Type:** Recorder
2. In the **Telephone Directory** form, assign the name "Record A Call" to the **Hunt Group** directory number.
3. In the **Hunt Group** form, add the directory numbers of the voicemail ports to the "Record A Call" hunt group (that is, add the same members that you added to the "NuPoint Voicemail" hunt group).

### PROGRAM SPEECH AUTO ATTENDANT HUNT GROUP AND PORTS

1. In the **Hunt Group** form, program a Speech Auto Attendant hunt group and enter the following parameters:
  - **Hunt Group:** Enter a unique directory number for the hunt group pilot number (default applied by MiCW = 6800)
  - **Hunt Group Mode:** Circular
  - **Hunt Group Priority:** Set a hunt group priority (Default 64)
  - **Hunt Group Type:** Voice
2. In the **Telephone Directory** form, assign the name "Speech Auto Attendant" to the **Hunt Group** directory number.
3. In the **User and Services Configuration** form, assign virtual ports to support speech auto attendant functionality. For each virtual port:
  - **Number:** Enter a unique directory number

- **Device Type:** 5020 IP
  - **Hot Desk User:** No
  - **Voice Mail:** No
  - **Class of Service Day:** COS (Day) (Night 1) (Night 2) = COS 85
  - **Class of Restriction Day:** COR (Day) (Night 1) (Night 2) = 1.
4. In the **Hunt Group** form, add the directory numbers of the voicemail ports to the "Speech Auto Attendant" hunt group (default applied by MiCW is four members starting at extension number 6001).

### PROGRAM MESSAGE WAITING INDICATION

You can program Message Waiting Indication to flash a lamp on a user's phone when the user has a voice mail message waiting in their mailbox. There are two possible configurations:

- You can configure the system to use DTMF signaling to send the message waiting indication to the voicemail port. This configuration supports multiple MiVoice Business network elements in a cluster, but requires an additional voicemail port.  
OR
- You can configure an HCI Reroute phantom hunt group to route the message waiting signals to the user voice mailboxes. This configuration is only supported for one MiVoice Business system, but it doesn't use a voicemail port.

To program MWI indication using DTMF signaling:

1. In the **User and Services Configuration** form, create a virtual port:
  - **Number:** Enter a unique directory number
  - **Device Type:** 5020 IP
  - **Hot Desk User:** No
  - **Voice Mail:** No
  - **Class of Service Day:** COS (Day) (Night 1) (Night 2) = COS 84
2. In the **Hunt Group Assignment** form, add the directory number to the NuPoint MWI Hunt Group as the last member of the Voicemail hunt group.

To support MWI indication using HCI Reroute:

1. In the **Hunt Group** form, program a HCI Reroute Phantom hunt group and enter the following parameters:
  - **Hunt Group:** Enter a unique directory number for the hunt group pilot number
  - **Hunt Group Mode:** Circular
  - **Hunt Group Priority:** Set a hunt group priority (Default 64)
  - **Hunt Group Type:** HCI Reroute
2. In the **Telephone Directory** form, assign the name "HCI Reroute" to the **Hunt Group** directory number.
3. In the Call Rerouting Assignment forms, program the system to route the message waiting signals to the user voicemail boxes. Refer to the MiVoice Business System Administration Tool for instructions on how to configure call rerouting.



## MICOLLAB PROGRAMMING FOR NUPOINT UNIFIED MESSAGING

1. Log into the MiCollab Administration portal.
2. Under **Applications**, click **NuPoint Web Console**.
3. Click **Edit Offline Configuration**.
4. Click **Duplicate** to copy the current Active Configuration (1) to the Offline Configuration.

### CREATE VOICE MAIL LINE GROUP

5. Click **Line Groups** and then click **Add**.
6. Create a line group for the standard voice mail ports. This line group will correspond to the voicemail hunt group that you programmed on the MiVoice Business system.
  - Click the **Lines** tab
  - Enter a line group number or click **Next Available** to select the next available line group number.
  - Enter "Voice Mail" in the Name field
  - Set the Application field to "NuPoint Voice".

Your OFFLINE configuration has changed. You must commit and activate the configuration to apply the changes to your system. ?

### Add Line Group

Save Cancel

Line Group Number: 1 \* Next Available

Name: Voice Mail \*

Application: NuPoint Voice

User Interface: None

Fax group connection: None

Lines | Dialing Plan | Voicemail | Dial Strings

#### Lines

Add Edit Delete

<input type="checkbox"/>	Line Triplet	Device	Extension or Port

Save Cancel

**Figure 1: Adding Voice Mail Line Group**

7. Click **Dialing Plan**.
  - Select **Standard Mode**
  - Set the dialing plan to v,v,v,v,v,v,v,v,3 as show in the following graphic:

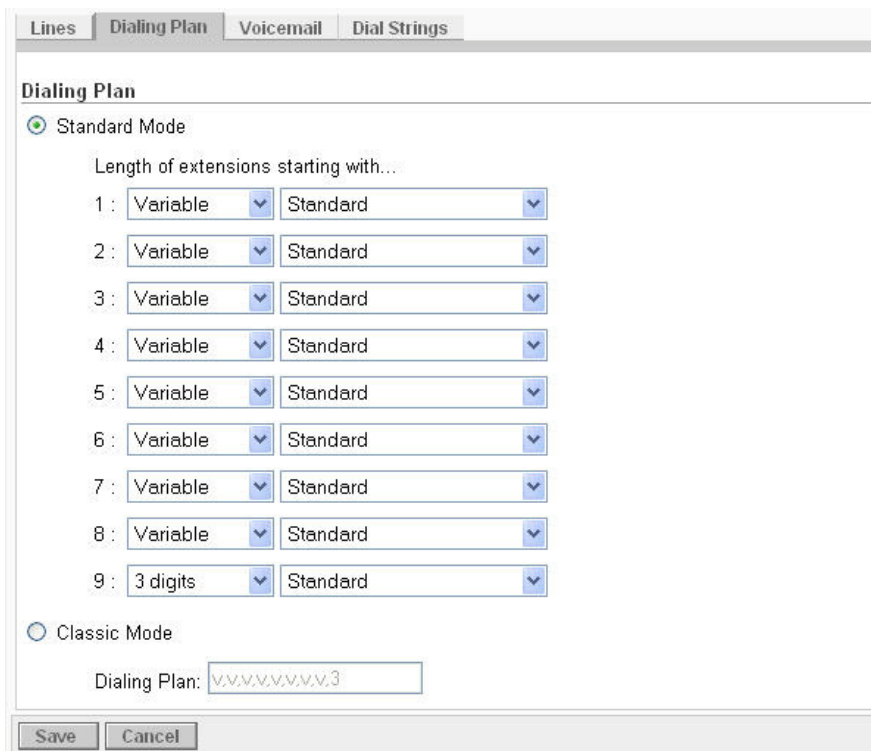


Figure 2: Voice Mail Line Group Dialing Plan

8. Leave the **Voicemail** and **Digit Strings** tabs at the default settings.
9. Add the lines to the group and map them to the MiVoice Business voice mail hunt group extensions:
  - Under **Lines**, click **Add**
  - Enter a line number or click **Next Available** to select the next available line number.
  - Enter the number of lines that you want to add. This number should equal the number of MiVoice Business voice mail hunt group extensions.
  - Select the name of the PBX.
  - In the Mapping field enter the first extension number from the MiVoice Business voice mail hunt group. After you click **Add** the specified number of extensions will be added consecutively. If the hunt group extension numbers are not consecutive, add each extension number individually.
  - Click **Add**.
10. Click **Save**.
11. After you save your changes to the Network Elements tab, if the network element supports the NP-UM application ports, you must activate the changes.
  - At the top of the screen, click the NuPoint activation link.
  - Click **OK**. Wait for the configuration to activate. This step takes the NP-UM application out of service.
12. Click **Return to Server Manager** in the left-hand menu.

The screenshot displays the configuration interface for a voice mail line group. At the top, there are 'Save' and 'Cancel' buttons. Below them, the 'Line Group Number' is set to 1. The 'Name' field contains 'Voice Mail', the 'Application' is set to 'NuPoint Voice', the 'User Interface' is 'None', and the 'Fax group connection' is also 'None'. Below this configuration area are tabs for 'Lines', 'Dialing Plan', 'Voicemail', and 'Dial Strings'. The 'Lines' tab is active, showing a table with columns for 'Line Triplet' and 'Extension or Port'. A modal dialog is open over the 'Lines' section, allowing the user to add new lines. The dialog has 'Add', 'Edit', and 'Delete' buttons at the top. The 'Line Triplet' field is set to '1:0:1' with a 'Next Available' button. The 'Number of lines' field is set to '10'. The 'PBX' dropdown is set to '3300ICP'. The 'Mapping' field is set to '1001'. At the bottom of the dialog are 'Save', 'Add', and 'Cancel' buttons.

**Figure 3: Adding Lines to Voice Mail Line Group**

## CREATE SPEECH AUTO ATTENDANT LINE GROUP

**13.** Click **Line Groups** and then click **Add**.

**14.** Create a line group for the speech auto attendant ports. This line group will correspond to the speech auto attendant hunt group that you programmed on the MiVoice Business system.

- Click the **Lines** tab
- Enter a line group number or click **Next Available** to select the next available line group number.
- Enter "Speech AA" in the Name field
- Set the Application field to "Speech Recognition".

**15.** Add the lines to the group and map them to the MiVoice Business voice mail hunt group extensions:

- Under **Lines**, click **Add**
- Enter a line number or click **Next Available** to select the next available line number.
- Enter the number of lines that you want to add. This number should equal the number of MiVoice Business speech auto attendant group extensions.
- Select the name of the PBX.
- In the Mapping field enter the first extension number from the MiVoice Business speech auto attendant hunt group. After you click **Add** the specified number of extensions will be added consecutively. If the extension numbers are not consecutive, add each extension number individually.
- Click **Add**.

**16.** Leave the **Speech Recognition** tab settings at the defaults.

**17.** Click **Save**.

## CONFIGURE SPEECH AUTO ATTENDANT USER DATA SOURCE

If your system requires the Speech Auto Attendant functionality, set the User Data Source to "MiCollab" through the MiCollab administration portal. SAA must connect and interact with the MiCollab system to obtain the list of system users.

To set the User Data Source:

1. Log into the MiCollab administration portal.
2. Under **Applications**, click **Nupoint Web Console**.
3. In the navigation tree, click **Auto-Attendant**. The Auto-Attendant menu items appear.
4. Click **Data Source**. The User Data Source window appears.
5. Click **Edit**. The User Data Source fields become enabled.
6. Set the data source type field to **MiCollab**.
7. Click **Save**. A confirmation dialog appears.
8. Click **OK** to confirm the changes.

The Speech Auto Attendant user data source is refreshed upon saving the modifications.

## FIREWALL REQUIREMENTS

Refer to the *MiCollab Engineering Guidelines* for NP-UM firewall requirements.

## MIVOICE BORDER GATEWAY

MiVoice Border Gateway (Teleworker Services, SIP Trunking, and Secure Call Recording) is supported with MiVoice Business.

## TELEWORKER SERVICE

There is no additional programming required on the communication platform to support teleworkers.

1. Log into the MiCollab Administration portal.
2. Under **Applications**, click **MiVoice Border Gateway**.
3. On the **Status-Dashboard** and **Configuration - Setting** tabs, ensure that the following parameters are programmed:

WEB PAGE TAB	SETTINGS	PROGRAMMING STEP
Dashboard	MBG Status	Enabled.
	Courtesy down?	Enabled (Checked)
Configuration	G.729 Transcoding	Set to False.
	Local Streaming	Set to True.

4. The **MiVoice Border Gateway** allows the MiCollab server in LAN mode to manage MBG services that are running on a single MiVoice Border Gateway (MBG) server located in the DMZ. To support this configuration, you must create a cluster on the MBG server with the MiCollab server and MBG server as the only members of the cluster.



**Note:** Refer to the *MiCollab Engineering Guidelines* for MBG firewall requirements.

## SIP TRUNKING

1. Log into the MiCollab Administration portal.
2. Under **Applications**, click **MiVoice Border Gateway**.
3. Click the **Configuration** tab.
4. Edit the default SIP settings and enable SIP trunk support and from this tab. Refer to the *MiVoice Border Gateway* online help and the *MBG Installation and Maintenance* guide for instructions.

## SECURE RECORDING CONNECTOR

1. Log into the MiCollab Administration portal.
2. Under **Applications**, click **MiVoice Border Gateway**.
3. Refer to the *MiVoice Border Gateway* online help and the *MBG Installation and Maintenance* guide for instructions on how to configure sets with secure call recording.

# MICOLLAB AWW

MiCollab AWW application is supported on MiCollab for MiVoice Business. You must configure these systems to support the MiCollab Audio, Web and Video Conferencing application that is installed on the MiCollab server.

Refer to the [MiCollab AWW Administrator's Online Help](#) on the Mitel Customer Documentation site for instructions. Refer to the *MiCollab Engineering Guidelines* for MBG firewall requirements.

## INSTALL MICOLLAB AWW CONFERENCING CLIENT FOR ALL USERS (AS ADMINISTRATOR)

If you are running in a networked environment, you can (as the administrator of the computers) install MiCollab Audio, Web and Video Conferencing Client for all users. This is usually done in a Terminal server or Citrix environment.

If you wish to do this, download the executable file from **`http://<MiCollab Audio, Web and Video Conferencing server FQDN>/wd/MiCollab Audio, Web and Video ConferencingClient-admin.exe`** and follow the instructions.



**Note:** You must have Administrator privileges to install MiCollab Audio, Web and Video Conferencing Client for all users. The software must be placed in a location that all users can access. If a user on the system already has the MiCollab Audio, Web and Video Conferencing Client installed on their machine locally, that version takes precedence over the administrator-installed version.

## CONFIGURE COMMUNICATIONS PLATFORM FOR AWW

### CONFIGURE MIVOICE BUSINESS FOR AWW

When the system platform you are using is the MiVoice Business, configure it first before you enter the SIP Server Configuration information in MiCollab Audio, Web and Video Conferencing. This allows the MiVoice Business to communicate and operate with the MiCollab Audio, Web and Video Conferencing product installed on the MiCollab server.

Configure the MiVoice Business as follows:

- “Configure SIP Device Capabilities” on page 17, below
- “Configure SIP Peer Profiles” on page 17
- “Configure Extended Hunt Groups” on page 17
- “Configure Class of Service (COS)” on page 17
- “Create IP Devices” on page 18
- “Create a Hunt Group” on page 18

### *Configure SIP Device Capabilities*

MiCollab Audio, Web and Video Conferencing is configured as a SIP extension on the MiVoice Business and allows the two to communicate. If the SIP Session Timer times-out before the system establishes a session with MiCollab Audio, Web and Video Conferencing, the session is torn down and the call does not complete. Configure the SIP device to prevent a scenario where attendees may be inadvertently dropped when an outgoing call is place during a conference.

Configure **SIP Device Capabilities** and set the following:

- **Replace System based with Device based In-Call Features:** Set to **Yes**.
- **Session Timer:** Set value to **0**.
- **SDP Options/Allow Device To Use Multiple Active M-lines:** Set to **Yes**

To ensure proper Caller ID is displayed, set the following in **SIP Device Capabilities**:

- **Allow Display Update:** Set to **Yes**
- **Use P-Asserted Identity Header:** Set to **Yes**

### *Configure SIP Peer Profiles*

When using SIP trunks, also ensure that **SIP Peer Profile** for both ends of the SIP trunk are set to the following:

- **Allow Display Update:** Set to **Yes**
- **Use P-Asserted Identity Header:** Set to **Yes**

### *Configure Extended Hunt Groups*

It is only necessary to configure Extended Hunt Groups when more than 65 MiCollab Audio, Web and Video Conferencing User Licenses are purchased. Configure the MiVoice Business for Extended Hunt Groups to allow you to program a hunt group with more than 64 members.



**Note:** When selecting Extended Hunt Groups, the Hunt Group capacity of the system changes from 176 hunt groups with a maximum of 64 members each, to 16 hunt groups with a maximum of 240 members each. Although you can program more, only one 240-member hunt group is recommended per system.

Configure License and Option Selection, and then set **Extended Hunt Group** to **Yes**.

### *Configure Class of Service (COS)*

Create a new COS for MiCollab Audio, Web and Video Conferencing SIP ports by modifying the default COS configuration. This COS is assigned to the hunt group you create for MiCollab Audio, Web and Video Conferencing, see “Create a Hunt Group” on page 18.

Configure Class of Service Options/Assignment for COS you will use for MiCollab Audio, Web and Video Conferencing ports, and then set **Suppress Simulated CCM after ISDN Progress** to **Yes**.

### *Create IP Devices*

Create IP devices on the system for conferencing extensions on MiCollab Audio, Web and Video Conferencing.

Add a new device and configure the Multiline IP Set Configuration. Complete the following information for the multiline IP set range:

- **Enter the number of records to add:** The number of IP devices that you are creating. Typically, the value entered equals the number of MiCollab Audio, Web and Video Conferencing User Licenses purchased.
- **Device Type:** Select **Generic SIP Phone** from the list.
- **Number:** Type the starting extension number. If the extension numbers are consecutive (recommended) increment by 1.
- **Interconnect Number:** Type 1.

### *Create a Hunt Group*

Program a hunt group for dialing into a conference using the IP devices you created.

Configure the Hunt Group Assignment. Complete the following information for the hunt group range:

- **Enter the number of records to add:** Type 1 (typical) for the number of hunt groups you are creating.
- **Hunt Group:** Type an extension number for the hunt group.
- **Class of Service Day:** Type the number of the COS you created earlier, see “Configure Class of Service (COS)” on page 17. Default is 1.
- **Class of Service – Night1:** Type the number entered for Class of Service Day. Default is 1.
- **Class of Service – Night2:** Type the number entered for Class of Service Day. Default is 1.
- **Hunt Group Priority:** Leave as the default value, which is 64.
- **Hunt Group Type:** Select **Voice** from the list.

Add a member to the Hunt Group Assignment, and then complete the following information for the hunt group member range:

- **Enter the number of records to add:** This is the number of IP devices that you added previously, see “Create IP Devices” on page 18.
- **Number:** Type the starting extension number. If the extension numbers are consecutive (recommended), increment by 1.



**Note:** AWW SIP extension numbers must consist of digits 0 to 9 only. The \* and # characters are not supported.



## MICOLLAB CLIENT

The MiCollab Client application is supported on MiCollab for MiVoice Business systems. You must configure these systems to support the MiCollab Client clients (MiCollab Client deskphones or MiCollab Client softphone users).

### MICOLLAB CLIENT INTEGRATED OR CO-LOCATED MODE?

If your site includes the MiCollab Client application, either

- integrate the MiCollab Client database with the MiCollab database by running the MiCollab Client Integration wizard, or
- leave the MiCollab Client database co-located with the MiCollab database.

Refer to the MiCollab Installation and Maintenance Guide to determine if you should run the MiCollab Client Integration Wizard and use MiCollab Client integrated mode or remain in co-located mode.

### MICOLLAB CLIENT APPLICATION CONFIGURATION

Refer to the following sections in the *MiCollab Client Administrator Guide* for configuration information:

- Configure the PBX
- Configure Integrated Applications
- Access the MiCollab Client Administration Page
- Provision MiCollab Client
- Install Desktop Client
- Install Mobile Client

Note that you must enable the following Nupoint UM FCOS options to allow the MiCollab Client Desktop client to control voice mail calls:

- FCOS 289 Enable UM-SMTP
- FCOS 290 Enable UM-Web
- FCOS 295 Enable UM Pro

For simplified MiCollab Client Deployment instructions, refer to the MiCollab server manager help.



**Note:** To enable remote client station to log in and to enable MiCollab Mobile Client users to establish connections, you must install an SSL Certificate on the MiCollab and MBG servers. Refer to the online help associated with the Web Server Certificates page for instructions.

## MICOLLAB CLIENT USER PROVISIONING

If your system is in MiCollab Client integrated mode, you provision MiCollab Client services from the USP application. If your system is MiCollab Client co-located mode you must provision MiCollab Client services separately from the UC Server application interface.

## FIREWALL REQUIREMENTS

Refer to the *MiCollab Engineering Guidelines* for MBG firewall requirements.

## DEFAULT CLASS OF SERVICE SETTINGS

The following tables list the COS settings that the Mitel Configuration Wizard applies to the MiVoice Business system and the MiCollab application services (where applicable).

If you manually configure the MiVoice Business system and MiCollab applications, then you must program these Class of Service Option settings into the MiVoice Business system through the System Administration Tool. The corresponding COS option number must also be programmed into the Network Elements page of the Users and Services application. If you choose to manually program these COSs, it is recommended that you use the default COS numbers that are applied by the Mitel Configuration Wizard.

For simplicity, only the deltas from the default Class of Service settings are listed. Therefore, to manually create a required COS, select the COS number and then apply the settings specified below. On an existing MiVoice Business system, if a COS number (for example COS 11) is already in use, you will need to modify your COS programming to free up the required COS. Note that you can use the Copy button in the Class of Service Assignment form to copy existing settings to a different COS number. You can also use the Copy button to copy the default settings from a blank COS to one of the required COS numbers if the COS has been modified.

## COS SETTINGS FOR MICOLLAB USERS

If you use the Mitel Configuration Wizard to configure a MiVoice Business system with the MiCollab applications, the wizard automatically creates COS 11 and 13 with the required settings for Hot Desk users on the MiVoice Business system. However, you must manually configure COS 11 and COS 13 into the MiCollab user templates.

### DEFAULT HOT DESK USER COS'S

OPTION	HOT DESK USER COS'S (DEFAULT)	
	USER (COS 11)	VM USER WITH RAC (COS 13)
ACD Silent Monitor Accept	Yes	Yes
ACD Silent Monitor Allowed	Yes	Yes
ACD Silent Monitor Notification	Yes	Yes
Group Presence Control	No	No
Group Presence Third-Party Control	No	No
Hot Desk External User Answer Confirmation	No	Yes
Hot Desk External User Permanent Login	Yes	Yes
Hot Desk Login Accept	Yes	Yes
Hot Desk Remote Logout Enabled	Yes	Yes
Record a Call - Active	No	Yes
SMDR Internal	Yes	Yes
Work Timer	20 s	20 s



**Note:** If MiCollab Client is integrated into MiCollab, you must manually set the following options for COS 11 and 13:

- "Group Presence Control" to Yes
- "Group Presence Third Party Control" to Yes
- "Voicemail Softkey Allowed" to No



**Note:** If MiCollab Client is integrated into MiCollab, you must manually set the following options for COS 20, 21, and 22:

- "Group Presence Control" to Yes
- "Group Presence Third Party Control" to Yes
- "Voicemail Softkey Allowed" to No

## COS FOR APPLICATION PORTS

The wizard creates COS 82, 84, and 85 for the NuPoint Unified Messaging application and the Speech Auto Attendant application with the required settings for the ports:

### DEFAULT NUPOINT UNIFIED MESSAGING PORTS COS'S

OPTION	NP PORTS COS (DEFAULT)	NP MWI PORTS COS (DEFAULT)	SPEECH AA PORTS COS (DEFAULT)
	(COS 82)	(COS 84)	(COS 85)
Calling Party Name Substitution	No	No	Yes
COV/ONS/E&M Voice Mail Port	Yes	Yes	No
Dialled Night Service	No	No	Yes
Display Dialed Digits during Outgoing Calls	No	No	Yes
Do Not Disturb Permanent	No	Yes	No
HCI/CTI/TAPI Call Control Allowed	Yes	Yes	Yes
HCI/CTI/TAPI Monitor Allowed	Yes	Yes	Yes
Public Network Access via DPNSS	Yes	No	Yes

The wizard creates COS 86 with the required settings for the MiCollab AWV ports:

### DEFAULT AWV PORTS COS

OPTION	AWV PORTS COS (DEFAULT)
	(COS 86)
Suppress Simulated CCM after ISDN Progress	Yes

# Chapter 3

## MIVOICE OFFICE 250 INTEGRATION



## INTRODUCTION

To manually configure the MiCollab and MiVoice Office 250 application system resources:

1. “Identify the Network Elements” on page 25.
2. Complete the basic application programming on the communications platform and on the MiCollab platform for the required applications as described in the following sections:
  - “NuPoint Unified Messaging” on page 26
  - “MiVoice Border Gateway” on page 33
  - “MiCollab AWW” on page 34
  - “MiCollab Client” on page 36.
3. Configure MiCollab Client mode. Refer to the MiCollab Installation and Maintenance Guide for instructions.
4. Configure the MiCollab system application settings (for example, NP-UM ICP, NP-UM Line Groups, AWW web conference SIP server, and so forth) manually through the application administration interfaces. Refer to the application online help for instructions.
5. Add any additional users and services including the NuPoint Unified Messaging mailboxes through the Users and Services application. Under **Applications**, click **Users and Services**. Follow the [instructions](#) provided in the online help to add users. After you add a user, the MiCollab system automatically starts the services (for example, NP-UM) that you assigned to that user.
6. After you have programmed the site configuration data, it is recommended that you make a backup of the MiCollab system database.
7. You must provision new users separately in the MiCollab USP application and on the MiVoice Office 250 communications platform.

## IDENTIFY THE NETWORK ELEMENTS

Do not create a network element when provisioning users on MiVoice Office 250.

# NUPOINT UNIFIED MESSAGING

## MIVOICE OFFICE 250 INTEGRATION OVERVIEW

NuPoint Unified Messaging (NuPoint UM) supports Session Initiation Protocol (SIP) integration with the MiVoice Office 250 via the MiCollab. NuPoint UM communicates with a single MiVoice Office 250 system over a SIP trunk. The MiVoice Office 250 communicates with NuPoint Unified Messaging through the SIP interface and consequently has access to the voice mail features. The maximum number of NuPoint 60 ports is 16. Speech Auto Attendant ports are licensed separately.

**Note:** The MiVoice Office 250 integration is supported only on MiCollab Release 1.2 or later. The configuration for MiVoice Office 250 on NuPoint UM will fail if the NuPoint UM software is installed without the MiCollab license.

One or more SIP trunks can link NuPoint UM to the MiVoice Office 250. NuPoint Unified Messaging receives and sends SIP messages over these trunks. Each SIP trunk consists of one or multiple SIP ports.

Figure 4 illustrates the SIP trunk integration:

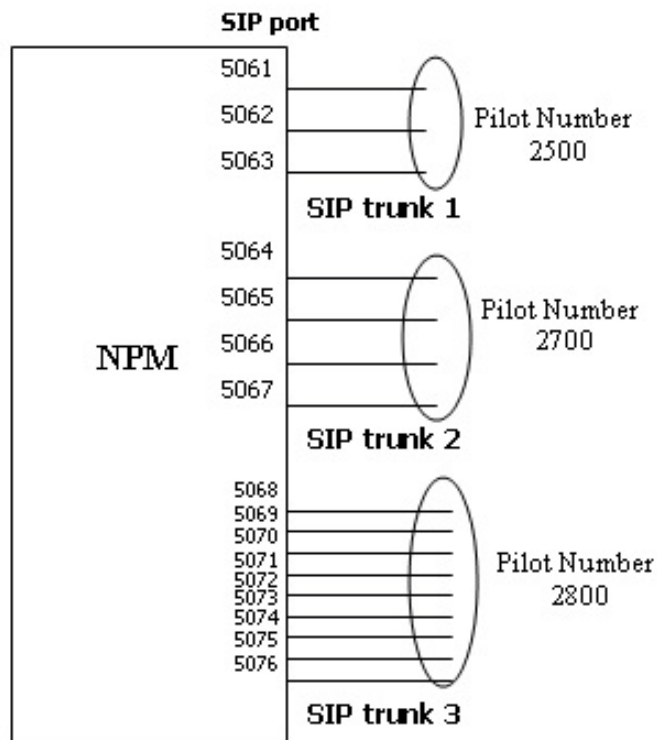


Figure 4:

Every SIP trunk is assigned a Pilot Number. To call into NuPoint UM, the MiVoice Office 250 provides a pilot number for the endpoint users to dial. When NuPoint UM makes a trunk call to the MiVoice Office 250, it identifies itself using a pilot number. Therefore, when NuPoint UM receives an incoming call, the pilot number is used as the Called ID. When NuPoint UM makes



an outgoing call, in the case of MWI, pager or external call transferring, the pilot number is used as the Calling ID.

A SIP session is established through connection to a SIP port in real-time. Each SIP port handles one call connection to NuPoint UM, thus the number of ports grouped in a SIP trunk determines the number of parallel-connections this trunk can handle at the same time. For example, if four callers on the MiVoice Office 250 simultaneously dial the pilot number 2500 (shown in the figure above), only three of these callers can be connected to NuPoint UM. This principle is applied to every voice mail call connection, whether it is inbound and outbound.

The pilot numbers on NuPoint UM are mapped to applications on the MiVoice Office 250. For example, pilot number 2500 for NuPoint UM Voice is mapped to extension 2500 for the Voice Mail application programmed on the MiVoice Office 250. In the configuration where the application is configured as a mailbox, you must associate an extension to an application as well as the pilot number used to access the application. Multiple pilot numbers can exist in the system.

To be consistent with the existing IP, Digital Media Gateway (DMG - formerly PIMG/TIMG) integrations, a SIP trunk is reserved to be either a receiver or a sender, so it cannot perform both roles. The receiver SIP trunk will detect inbound calls and the sender SIP trunk will generate outbound calls.

All calls arriving to NuPoint UM on a SIP trunk are accepted at the fixed and predefined SIP port. This port is not configurable. The call is redirected based on the pilot number (which is the called ID in the case of an incoming trunk).

All SIP trunk calls generated by NuPoint UM include a pre-configured SIP port and a pilot number (which is the calling ID in the case of an outgoing trunk).

## SUPPORTED FUNCTIONALITY

The following NuPoint Unified Messaging functionality is supported with the MiVoice Office 250 SIP integration:

- Configuring a Cluster Node and SIP Channels linked to the MiVoice Office 250
- Backing up and restoring a configuration
- Answering a telephone or Speech Auto Attendant (SAA) call
- Receiving and replying to fax messages
- Playing prompts and recording messages
- DTMF recognition and collection
- Transferring calls
- Making a call to MWI, Pager or Fax connected to the MiVoice Office 250
- Record-A-Call
- Voice Mail Softkeys

### LICENSING AND OPTIONING

SIP is not a purchasable option. No special license is required for it. SIP lines or channels are licensed the same way as the DMG (formerly PIMG/TIMG) integration, and no special option will be provided.

The configuration of the MiVoice Office 250 as a cluster item is allowed if a MiCollab license is granted.

### PREREQUISITES FOR THE MIVOICE OFFICE 250 INTEGRATION

The requirements stated below must be satisfied before NuPoint UM can be integrated with the MiVoice Office 250 via a SIP Gateway connected to IP endpoints.

1. The MiVoice Office 250 integration is supported only on MiCollab Release 1.2 or later. The configuration for the MiVoice Office 250 on NuPoint UM requires a MiCollab license.
2. It is assumed that the SIP Gateway is running and correctly configured with IP Endpoints so that each endpoint has a registered extension.
3. Mitel Standard Linux (MSL) and NuPoint UM software must be installed and running on a computer system connected to the same physical network as the SIP Gateway. Also, full IP connectivity is assumed possible between NuPoint UM and the SIP Gateway, meaning that no security hardware or software is active.
4. MSL has been properly licensed using Mitel's Applications Management Center server (AMC). NuPoint UM features to be used or tested must be enabled in the AMC Application Record. The Application Record ID is requested and the Application Record is "activated" during the MSL installation.
5. The NuPoint UM server is mapped from the SIP gateway by a Pilot Number and configured as a SIP Trunk.
6. The security settings on the NuPoint UM server must be modified so that it is possible to establish full telephony communication between the SIP Gateway and NuPoint Unified Messaging. Follow the procedure below to modify the security settings.

### MODIFYING THE SECURITY SETTINGS FOR NUPOINT UNIFIED MESSAGING

You can grant server access privileges to additional networks:

1. Log into the MiCollab server console.
2. Under **Configuration**, click **Configure Networks**.
3. Click **Add a new trusted network**.
4. In the Network Address field, enter the IPv4 or IPv6 address of the network to designate as "local".
5. In the Subnet mask or network prefix length field, enter the dot-decimal subnet mask or CIDR network prefix to apply to the Network Address. If this field is left blank, the system assigns a network prefix length of /24 for IPv4 networks or /64 for IPv6 networks.

6. In the Router field, enter the IP address of the router you will use to access the newly-added network.
7. Click **Add**.

**Note:** Under some circumstances, modifying the "Local Networks" will not update security settings correctly. Should call connectivity or two-way audio not appear to be initiated correctly, the following command may be issued, as a last resort, to disable the NuPoint UM server firewall through a Linux console session: **service masq stop**.

## CONFIGURATION

The Mitel MiVoice Office 250 and NuPoint Unified Messaging integration requires configuration of three different applications:

- MiCollab
- NuPoint Unified Messaging (NuPoint UM)
- MiVoice Office 250

Before integrating NuPoint UM with the MiVoice Office 250 via a SIP Gateway connected to IP endpoints, ensure that the "Prerequisites for the MiVoice Office 250 Integration" on page 28 are in place.

To integrate NuPoint UM with the MiVoice Office 250, the system administrator must configure a cluster node that represents the peer MiVoice Office 250 and the line group(s) that represent the SIP trunk(s). Line(s) must be added to the line group and mapped to the SIP ports.

The system administrator must configure a SIP Gateway (add a SIP Gateway as a Cluster Node) and then configure SIP trunks as line groups before calls can be made from IP Endpoints to NuPoint UM. The information entered in these steps provides NuPoint UM with SIP Gateway IP/port data and Line mapping details used to accept calls from the SIP Gateway and re-direct them to available NuPoint UM lines. When Lines are linked to a SIP Gateway Cluster Node, incoming SIP calls can be accepted and routed to available NuPoint UM Lines for SIP.

Refer to "Add a Line Group" in the NuPoint administration online help for instructions on how to configure a SIP Gateway and to configure NuPoint Unified Messaging lines for a SIP Gateway.

Once the configuration is complete, IP endpoints will call a Pilot Number that routes to an available NuPoint UM line and will hear a greeting prompt, such as "Welcome to the message center. Please enter a mailbox number or wait."

## CONSTRAINTS

Although the NuPoint UM software system does not prevent the system administrator or installer from configuring and setting up a SIP integration that includes Digital Media Gateway (formerly PIMG, HD-PIMG, or TIMG) and the MiVoice Office 250, this integration mix is not supported.

NuPoint UM will communicate with only one MiVoice Office 250.

Although you can configure more than one MiVoice Office 250 node to communicate with NuPoint UM, it is not a supported configuration and many NuPoint UM features like MWI and Pager Notifications do not work with this type of configuration.

The numbers used by the SIP interface to represent SIP ports (e.g. Port 5058 for NuPoint UM on MiCollab or 5060 for NuPoint UM Standalone) remain as unconfigurable data.

### EXTERNAL DEPENDENCIES

The SIP component on the MiVoice Office 250 is required. Refer to the MiVoice Office 250 documentation for SIP configuration instructions.

The MiVoice Office 250 must be configured to use the correct port for SIP communication from NuPoint UM. For NuPoint UM on MiCollab, use 5058; for NuPoint UM Standalone, use 5060.

The configuration for MiVoice Office 250 on NuPoint UM requires a MiCollab license.

### MIVOICE OFFICE 250 INTEGRATION TASK SUMMARIES

This section provides task summaries for integrating NuPoint Unified Messaging voice mail with the MiVoice Office 250. Each summary provides a high-level list of the tasks that are required for each of the applications involved in the product integration.

Task summaries are provided below for the following applications:

- MiCollab<XREF>
- NuPoint Unified Messaging<XREF>
- MiVoice Office 250<XREF>

### MICOLLAB INSTALLATION SUMMARY

The table below summarizes the installation and configuration tasks necessary on the MiCollab server. Refer to the *MiCollab Installation and Maintenance Guide* for detailed procedures.

### NUPOINT UNIFIED MESSAGING CONFIGURATION SUMMARY

The following configuration tasks are required for NuPoint Unified Messaging voice mail to integrate with the MiVoice Office 250.

Documentation references to the NuPoint administrator online help are provided for each of the configuration tasks.

## MIVOICE OFFICE 250 CONFIGURATION SUMMARY

This section details the configuration necessary on the MiVoice Office 250 so it can communicate with and use NuPoint UM as the voice mail system.

Refer to the *MiVoice Office 250 Features and Programming Guide* for detailed procedures.

### *Create and Configure SIP Peer Voice Mail Information*

To create and configure SIP peer voice mail information:

1. Open an existing or start a new Database (DB) Programming session.
2. Select **System > Devices and Feature Codes > SIP Peers**.
3. Under SIP Peers, click **SIP Voice Mails**.
4. Right-click in the empty pane, and then select **Create SIP Voice Mail**.
5. Click **Yes** to the prompt to create a NuPoint UM SIP voice mail extension.
6. Leave the default settings for the extension unchanged, and then click **OK**.
7. Enter a **Description** and a **Username**.
8. Double-click the Extension and continue to “Add and Configure SIP Voice Mail Application Information”.

### *Add and Configure SIP Voice Mail Application Information*

To add and configure SIP voice mail application information:

1. Double-click Configuration, and set the following parameters:
  - **IP Address:** This is the system IP address programmed in NuPoint UM on the Network Elements form.
  - **Port Number:** Enter port number **5058**.
  - Leave this setting unchanged unless it was updated in NuPoint UM.
  - **Fully Qualified Domain Name:** Enter the fully qualified domain name (FQDN) entered in NuPoint UM.
  - **Maximum Number of Ports:** Set this to the number of ports created in NuPoint UM less the number of ports set aside for other line groups. For example, if your license specified 25 licenses and you created an MWI and Pager line group, you have 23 ports available for use on the MiVoice Office 250.
2. Under **SIP Peers > SIP Voice Mails > <extension>**, double-click **Applications**, and then right-click in the empty area.



**Note:** Applications are pointers to NuPoint UM items. In the following steps, you provide the NuPoint UM Line Group Pilot Number for the MiVoice Office 250 SIP Voice Mail Pilot option.

3. Select **Create Voice Mail**.
4. For the extension, type the **Pilot Number** (voice mail extension) you specified for the voice mail line group.

5. Click **OK**.
6. Click in the **Description** and **Username** columns and type a description and username to identify this application on the system.
7. Double-click the extension you created.
8. Enter the **SIP Voice Mail Pilot** number (voice mail extension) you specified on the Line Group form in NuPoint UM
9. Continue to "Add a SIP Mailbox (Create an Associated Mailbox)".

### *Add a SIP Mailbox (Create an Associated Mailbox)*

This procedure adds a SIP mailbox on the MiVoice Office 250 to correspond with the mailbox created in MAS for NuPoint UM. Anytime you create, edit, or delete mailboxes on MAS, you must also create, edit, or delete the corresponding mailboxes on the MiVoice Office 250.

To add a SIP mailbox:

1. Under **System > Devices and Feature Codes > SIP Peers > SIP Voice Mails > <extension>**, double-click **Mailboxes**, and then right-click in the empty area.
2. Select **Create Associated Mailboxes**.
3. Select the phone type to which you want to associate this mailbox, and then click **Next**.
4. Select the mailbox to associate to the existing extension, and then click **Add Items**.
5. Click **Next**, and then click **Finish**.

## TROUBLESHOOTING SIP FEATURE INTERACTIONS

The following sections provide specific information on SIP feature interactions that may help to troubleshoot some common SIP problems.

### CLUSTERING

The SIP subsystem on NuPoint UM communicates to only one cluster node of the MiVoice Office 250. If there is more than one MiVoice Office 250 system installed in a cluster, the MWI and pager calls may not be directed to the correct MiVoice Office 250 system.

### CALL REDIRECTION

All calls that arrive on NuPoint UM are made to the same location. The SIP subsystem on NuPoint UM will redirect every incoming call to an appropriate line configured as a SIP port.

For example, when NuPoint UM receives a voice mail call at a reserved and fixed SIP port, NuPoint UM will redirect this call to one of the free ports in the SIP trunk group.

### VALIDATION OF INCOMING CALL

In order for the SIP subsystem on NuPoint UM to accept an incoming call, this call must have the correct IP address of the MiVoice Office 250 and a correct Pilot Number. In addition, the

call must arrive on the correct port for SIP communication (5058 for NuPoint UM on MAS or 5060 for NuPoint UM Standalone).

A call is rejected if validation fails.

### ANSWERING A CALL

The SIP subsystem on NuPoint UM uses the called ID (i.e. pilot number of a call) to select a line pre-configured for the line group identified by the given pilot number.

A busy reply is given if all lines in this line group are busy.

### GENERATING A CALL

The SIP subsystem on NuPoint UM uses the pilot number configured for a specific outgoing line group as the calling ID and send the call via a free line in the group to a fixed location on the MiVoice Office 250.

### LIGHTING MWI

NuPoint UM provides the MiVoice Office 250 with the extension number of an endpoint and the indication for light on or off.

### MEDIA CONNECTION

During the set up of a pager call, the MiVoice Office 250 can negotiate with NuPoint UM for a standard DTMF payload type that is sent from NuPoint UM.

There is no specific change required for the current RTP subsystem in order for it to send and receive audio including DTMF to and from the MiVoice Office 250.

### MICOLLAB LICENSING

The MiVoice Office 250 integration is supported only on MiCollab Release 1.2 and higher. The configuration for the MiVoice Office 250 on NuPoint UM will fail if the NuPoint UM software is installed without the MiCollab license.

## MIVOICE BORDER GATEWAY

MiVoice Border Gateway (Teleworker Services only) is supported with MiVoice Office 250.

### TELEWORKER SERVICE

There is no additional programming required on the communication platform to support teleworkers.

1. Log into the MiCollab Administration portal.
2. Under **Applications**, click **MiVoice Border Gateway**.
3. On the **Status-Dashboard** and **Configuration - Setting** tabs, ensure that the following parameters are programmed:

4. The **MiVoice Border Gateway** allows the MiCollab server in LAN mode to manage MBG services that are running on a single MiVoice Border Gateway (MBG) server located in the DMZ. To support this configuration, you must create a cluster on the MBG server with the MiCollab server and MBG server as the only members of the cluster.

## MICOLLAB AWW

MiCollab AWW application is supported on MiVoice Office 250 systems. You must configure these systems to support the MiCollab Audio, Web and Video Conferencing application that is installed on the MiCollab server.

Refer to the [MiCollab AWW Administrator's Online Help](#) on the Mitel Customer Documentation site for instructions. Refer to the *MiCollab Engineering Guidelines* for MBG firewall requirements.

## INSTALL MICOLLAB AWW CONFERENCING CLIENT FOR ALL USERS (AS ADMINISTRATOR)

If you are running in a networked environment, you can (as the administrator of the computers) install MiCollab Audio, Web and Video Conferencing Client for all users. This is usually done in a Terminal server or Citrix environment.

If you wish to do this, download the executable file from **<http://<MiCollab Audio, Web and Video Conferencing server FQDN>/wd/MiCollab Audio, Web and Video ConferencingClient-admin.exe>** and follow the instructions.



**Note:** You must have Administrator privileges to install MiCollab Audio, Web and Video Conferencing Client for all users. The software must be placed in a location that all users can access. If a user on the system already has the MiCollab Audio, Web and Video Conferencing Client installed on their machine locally, that version takes precedence over the administrator-installed version.

## CONFIGURE MIVOICE OFFICE 250 FOR AWW

When the system platform you are using is the MiVoice Office 250 (formerly Mitel 5000 Communications Platform (CP)), configure it first before you enter the Server Configuration information in MiCollab Audio, Web and Video Conferencing. Configure extensions in the MiVoice Office 250 Database Programming as 86xx ports, and then set the communication link to allow the system to communicate and operate with the MiCollab Audio, Web and Video Conferencing product installed on the MiCollab server. For additional Database Programming information, refer to the *MiVoice Office 250 Features and Programming Guide*, part number 580.8006.

Configure the MiVoice Office 250 as follows:

- “Create IP Devices for 86xx Ports” on page 35, below
- “Configure Phone Settings” on page 35, below
- “Create a Hunt Group” on page 35, below
- “Enable OAI Connection” on page 36



### *Create IP Devices for 86xx Ports*

Create IP devices (phones) on the MiVoice Office 250 to allow communication between the system and MiCollab Audio, Web and Video Conferencing. These IP devices are configured as 86xx conference ports.

Create IP devices and configure them as follows:

- Type the starting extension number, and then choose the number of devices to create. The number of devices you create is equal to the number of MiCollab Audio, Web and Video Conferencing ports licensed.
- For each extension, set the MAC address to FF:FF:FF:FX:XX:XX, FF:FF:FF:FF:XX:XX, or FF:FF:FF:FF:FX:XX where X represents the digits of the extension number.

### *Configure Phone Settings*

After the IP devices are created for the conferencing extensions, the settings for each device (phone) must be configured on the MiVoice Office 250. Create a call configuration for the MiCollab Audio, Web and Video Conferencing devices, and then configure the settings.

Create a new call configuration for the conference extensions (see “Create IP Devices for 86xx Ports” on page 35), and then set **DTMF Encoding Setting** to **RFC 2833**. For an installation in the United Kingdom (UK), set **Speech Encoding Setting** to **G 7.11 Mu-Law**.



**Note:** MiCollab Audio, Web and Video Conferencing only accepts RFC 2833 encoding.

Configure the phone settings (Flags) as follows for each of the conference extensions you created:

- **Handsfree On/Off:** set to **No**.
- **Ring Intercom Always On/Off:** Set to **Yes**.
- **Headset On/Off.** Set to **Yes**
- **Transfer to Connect Allowed.** Set to **Yes**.

### *Create a Hunt Group*

After the IP devices are created and configured to communicate with MiCollab Audio, Web and Video Conferencing, you need to create a hunt group and add the IP phone extensions to it. The hunt group extension is the number you enter for the dial-in number in System Options.

Create a hunt group, and then add members. The members of this hunt group are the extensions you created previously for the conference extensions; see “Create IP Devices for 86xx Ports” on page 35. Do the following:

- Create a hunt group extension number. Leave the Number of Extensions as **1** (default).
- Type a description for the extension, for example, MiCollab Audio, Web and Video Conferencing1. Descriptions can contain up to 20 characters and hunt group user names can contain up to 10 characters. Do **not** use slash (/), backslash (\), vertical slash (|), or tilde (~) characters in user names. Do **not** use Control characters in descriptions or user names.

### *Enable OAI Connection*

The MiVoice Office 250 and MiCollab Audio, Web and Video Conferencing communicate using Open Architecture Interface (OAI). You must set the OAI connection in Database Programming to allow the systems to communicate. Under Sockets, set **System OAI Level 2** to **Yes**.

## MICOLLAB CLIENT

The MiCollab Client application is supported for MiVoice Office 250 systems. You must configure the systems to support the MiCollab Client clients (MiCollab Client deskphones or MiCollab Client softphone users).

Only MiCollab UC-Clients (version 6.x) are supported on MiVoice Office 250 systems. MiCollab for Mobile Clients (version 7.x) and the MiCollab Client Deployment service are not supported.

## MICOLLAB CLIENT CONFIGURATION

Refer to the following sections in the *MiCollab Client Administrator Guide* for configuration information:

- Configure the PBX
- Configure Integrated Applications
- Access the MiCollab Client Administration Page
- Provision MiCollab Client
- Install Desktop Client
- Install Mobile Client

Note that you must enable the following NuPoint UM FCOS options to allow the MiCollab Client Desktop client to control voice mail calls:

- FCOS 289 Enable UM-SMTP
- FCOS 290 Enable UM-Web
- FCOS 295 Enable UM Pro

For simplified MiCollab Client Deployment instructions, refer to the *MiCollab Client Deployment* application online help.

## MICOLLAB CLIENT USER PROVISIONING

If your system is in MiCollab Client integrated mode, you provision MiCollab Client services from the USP application. If your system is MiCollab Client co-located mode you must provision MiCollab Client services separately from the UC Server application interface.

## FIREWALL REQUIREMENTS

Refer to the *MiCollab Engineering Guidelines* for MBG firewall requirements.

# Appendix A

**AUDIO, WEB AND VIDEO CONFERENCING**

**VOICE PROMPTS**



## VOICE PROMPTS

The following table lists the English (United States) voice prompts available in the MiCollab Audio, Web and Video Conferencing product. The prompt numbers and names listed are the same for all available languages.

The following table lists the English (United States) voice prompts.

#	PROMPT NAME	SCRIPT
0	TURN_OFF_MUSIC	To turn off the music, press one.
1	WELCOME	Welcome to the conference center.
2	ENTER_PIN	Enter an access code, and then press #. To cancel, press *.
3	CANCELLED_RETRY	Cancelled. Please try again.
4	FIRST_BADPIN	That access code isn't recognized — please try again.
5	NEXT_BAD_PIN	That access code isn't recognized.
6	REENTER_PIN	To enter another code, press *.
7	REENTER_END	To enter another code, press *, or to end this call, press #.
8	REENTER_ASSIST	To enter another code, press *, or for assistance, press zero.
9	SAY_NAME	At the tone, say your name and then press #. <beep>
10	NO_LEADER	The leader hasn't activated this call yet. Please stay on the line.
11	GOODBYE	Thank you for calling the conference center. Goodbye.
12	CONNECTING	One moment while your call is connected.
13	TOO_EARLY	That conference hasn't started yet.
14	TOO_LATE	That conference has already ended.
15	CALL_NOT_AVAIL	That conference isn't available now.
16	NO_OPER	I'm sorry, the operator isn't available now.
17	FIRSTCALLER	You're the first person in this conference. Please stay on the line.
18	CAN'T_COMPLETE	Sorry, we're unable to complete your call.
19	CALLER_UNAVAIL	That person isn't available right now.
20	ZERO	Zero

#	PROMPT NAME	SCRIPT
21	ONE	One
22	TWO	Two
23	THREE	Three
24	FOUR	Four
25	FIVE	Five
26	SIX	Six
27	SEVEN	Seven
28	EIGHT	Eight
29	NINE	Nine
30	ONE_MOMENT	One moment, please.
31	NO_PORTS	All circuits are busy. Please try again in a few minutes.
32	DBL_POUND	At any time, you may press the # key twice for a list of options.
33	RECORDING_END	The recording has ended. To start again, press one. Otherwise, you may hang up.
34	PAUSED	Paused. To resume, press two.
35	RECORDINGS	Recordings
36	DIALOUT_CONFIRM	You've been invited to a conference call. To join, press one. To decline, press two.
37	DECLINED	Invitation declined. Goodbye.
40	LIST_NAMES	For a list of names, press three.
41	PLACE_CALL	To place a call, press two.
42	NO_NAMES	Names are not available.
43	RETURN_CONF	To return to the conference, press *.
44	INVALID_OPTION	Sorry, that's not a recognized option.
45	OPTION_NA	Sorry, that option isn't available.
46	RETURNING	Returning to conference.
47	2ND_LEG_2WAY	Do you want to keep this call? To keep the call and return to the conference, press one. To drop the call and return, press two.

## Audio, Web and Video Conferencing Voice Prompts

#	PROMPT NAME	SCRIPT
48	BUSY	That number is busy.
49	CALL_2WAY	To return to the conference, press *. To try another number, press one.
50	CANT_JOIN	I'm sorry. The call leader hasn't given approval for you to join this conference. Goodbye.
51	HUNG_UP	The person you called is no longer on the line.
52	INCOMPLETE_CALL	Sorry, we couldn't complete your call.
53	JOINING	Now joining...
54	NAME_2WAY	I'm not sure if you recorded a name. To keep this recording, press one. To try again, press two.
55	NEXT_NO_NAME	Sorry, I still didn't hear you say a name. You can't join the conference until you record your name. To try again, press one.
56	NO_ANSWER	There's no answer at that number.
57	MAGIC_KEY	Ready to place a call. To return to the conference at any time, press the * key twice.
58	NO_NAME	Sorry, I didn't hear you say a name.
59	RECORD_CANCELLED	Recording cancelled.
60	ROLLCALL	To cancel the list at any time, press *.
61	ROLLCALL_2WAY	To return to the conference, press *. To repeat the list, press one.
62	CANCELLED	Cancelled.
63	ENTER_NUMBER	Enter a phone number. When you have finished, press #.
64	DIAL_ANOTHER	Cancelled. You may dial another number now, or to return to the conference, press *.
65	INVALID_PHONE	Sorry, we're unable to call that number. You may dial another number now, or to return to the conference, press *.
66	INVALID_PHONE2	Sorry, that phone number isn't valid.
67	COUNT1	There are...
68	COUNT2	...people in this call.
69	TEN	Ten
70	ELEVEN	Eleven
71	TWELVE	Twelve

## MiCollab Platform Integration Guide

#	PROMPT NAME	SCRIPT
72	THIRTEEN	Thirteen
73	FOURTEEN	Fourteen
74	FIFTEEN	Fifteen
75	SIXTEEN	Sixteen
76	SEVENTEEN	Seventeen
77	EIGHTEEN	Eighteen
78	NINETEEN	Nineteen
79	TWENTY	Twenty
80	THIRTY	Thirty
81	FORTY	Forty
82	FIFTY	Fifty
83	SIXTY	Sixty
84	SEVENTY	Seventy
85	EIGHTY	Eighty
86	NINETY	Ninety
87	HUNDRED	Hundred
88	OPTIONS	Options.
89	DROPPED	The call has been dropped.
90	ONE_CALLER	There is one person in this call.
91	MUTE	To mute your line, press one.
92	UNMUTE	To unmute your line, press one.
93	NUMCALLERS	To hear the number of callers, press three.
94	CHECK_RETURN	To return to the conference, press * now. Otherwise select from the following options...
95	NAMES	Names.
96	DIALOUT_NO_PORTS	All circuits are busy. Please try your call again in a few minutes.



## Audio, Web and Video Conferencing Voice Prompts

#	PROMPT NAME	SCRIPT
97	RECORD	This call is being recorded.
98	REC_STOP	The recording has been stopped.
99	TRY_LATER	Please try your call again in a few minutes.
100	JOIN_TONE	<Rising beep tone>
101	LEAVE_TONE	<Descending beep tone>
102	MUTE_TONE	<double beep tone>
103	UNMUTE_TONE	<triple beep tone>
104	DIALTOJOIN	To join the call press one.
105	EOCP_CONFWILLEND	This conference will end in...
106	EOCP_MINUTES	...minutes.
107	EOCP_ENDNOW	Please conclude your conference now to avoid being disconnected when this conference terminates.
108	EOCP_LDREXTEND	The designated leader will now be asked to extend this conference. You may continue this conference while the leader is away.
109	EOCP_LDRMNU1	Extend conference. Press the * key to cancel and return to the conference at any time.
110	EOCP_LDRMNU2	To extend the conference for 15 minutes, press one; for 30 minutes, press two, for 45 minutes, press three; for 60 minutes, press four.
111	EOCP_EXTGOOD	This conference has been extended successfully.
112	EOCP_EXTFAIL	I'm sorry, currently there are not enough ports available to extend this conference for that length of time.
113	EOCP_TOOLONG	Please select a shorter extension period...
114	EOCP_ENDED	This call has ended. Goodbye.
115	EOCP_LDRMNU3	...or press the * key to return to the conference.
116	AUDIO_LOCKED	This conference has been locked by the leader.
117	AUDIO_LK_MNU1	To lock this conference, press 5.
118	AUDIO_LK_MNU2	To unlock this conference, press 5.
119	AUDIO_LK_ST_1	This meeting is now locked.
120	AUDIO_LK_ST_2	This meeting is now unlocked.

#	PROMPT NAME	SCRIPT
121	PID_TOGGLE	To enter a Personal ID, press star.
122	PID_SELECT	Enter your Personal ID, then press pound.
123	ACODE_TOGGLE	To enter an Access Code, press star.
124	PID_SKIP	To skip your Personal ID, press star.
125	PID_RETRY	That Personal ID isn't recognized, please try again.
126	PID_FINAL	That Personal ID isn't recognized.
127	PID_APPROVAL	Access to this conference requires leader approval.
128	PID_LEADER	Contact your Conference Leader to accept your request to attend this conference.
129	PID_MNU_4	To enter your Personal ID, press 4.
130	PID_MNU_RET	To return to the conference, press star.
131	PID_NOT_REG	That Personal ID isn't registered for this conference.
132	PID_CHG_FAIL	There was an error when attempting to change your Personal ID.
133	ACODE_SELECT	Enter an Access Code, then press pound.
134	JOIN_MUTED	Your audio is muted. You can hear the conference but cannot speak unless enabled by the conference leader.
135	DUPLICATE_PID	This conference restricts duplicate Personal IDs. That Personal ID is already in use.
136	AUDIO_ONLY_CONF	You have accessed an audio-only conference. Video is not available.

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## A

- Application support, communication platforms 4
- Applications
  - supported versions 3
- AWV 16, 34, 39
  - COS settings for ports 22

## C

- Class of service settings
  - for application ports 22
  - for MiCollab users 21
  - for services 22
- COS settings
  - for MiCollab users 21
  - for ports 22
  - for services 22

## E

- Element identification 6, 25

## G

- Guide, purpose of 3

## H

- HCI Reroute 10
- Hunt Group
  - creating 18
  - extended 17
  - programming 9
  - record a call 9
  - voicemail programming 8

## I

- Initial configuration with MiCW 6, 25

## L

- Line group, programming 11

## M

- Maintenance 21, 36
- Manual configuration, of MiVoice Business 6, 25
- MBG
  - configuration 14, 33

- Message waiting indication, programming 10

## MiCollab

- programming for NP-UM 11
- MiCollab AWV
  - COS settings for ports 22
  - description 16, 34, 39
- MiCollab Client
  - initial configuration 19, 36
- MiVoice Border Gateway
  - configuration 14, 33
- MiVoice Business
  - programming NP-UM 7, 33
- MWI, programming 10

## N

- Network elements
  - identification 6, 25
- NP-UM
  - configuration 7, 26
  - default COSs 22
- NuPoint Unified Messaging
  - configuration 7, 26
  - default COSs 22

## P

- PBX interoperability 4
- Ports 8
- Purpose, of this guide 3

## R

- Record a Call 9

## S

- Software upgrade 21, 36
- Speech Auto Attendant 9
- System Administration Tool 21

## T

- Teleworker application, configuration 14, 33

## V

- Voicemail
  - hunt group programming 8
  - ports, programming 7



