MiCollab Platform Integration Guide

- MiVoice Business
- MiVoice Office 250
- MiVoice Office 400
- MiVoice 5000
- MiVoice MX-ONE

RELEASE 7.2.2
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MiCollab Platform Integration Guide
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Chapter 1

INTRODUCTION
PURPOSE OF THIS GUIDE

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

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 page 81 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
MIVOXE OFFICE 400 PLATFORMS

The following MiCollab applications are supported:

• MiCollab Client
• 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.

MIVOXE 5000 AND MIVOXE MX-ONE PLATFORMS

The following MiCollab applications are supported:

• NuPoint Unified Messaging
• MiCollab Client
• 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
• Vidyo.

Note: The Speech Auto Attendant application is only supported on the MiVoice Business platform.

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 MiCollab Engineering Guidelines for details.
Chapter 2

MIVOCHE 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 AWV" 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, AWV 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, your telephones must be registered as 5240 devices, except the lines that are used for MWI, which must always be registered as 5020 devices. If you are not licensed for Record A Call, 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.

<table>
<thead>
<tr>
<th>COS OPTIONS FOR MESSAGE WAITING PORTS</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCI/CTI/TAPI Call Control Allowed</td>
<td>Yes</td>
</tr>
<tr>
<td>HCI/CTI/TAPI Monitor Allowed</td>
<td>Yes</td>
</tr>
<tr>
<td>Public Network Access via DPNSS</td>
<td>Yes</td>
</tr>
<tr>
<td>COV/ONS/E&amp;M Voice Mail Port</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3. In the **Class of Service Options** form, program COS 83 for the Record-A-Call ports.
4. Program COS number 84 with the following options for the MWI port(s).

<table>
<thead>
<tr>
<th>COS OPTIONS FOR MESSAGE WAITING PORTS</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCI/CTI/TAPI Call Control Allowed</td>
<td>Yes</td>
</tr>
<tr>
<td>HCI/CTI/TAPI Monitor Allowed</td>
<td>Yes</td>
</tr>
<tr>
<td>Public Network Access via DPNSS</td>
<td>Yes</td>
</tr>
<tr>
<td>COV/ONS/E&amp;M Voice Mail Port</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>COS OPTIONS FOR PORTS</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calling Party Name Substitution</td>
<td>Yes</td>
</tr>
<tr>
<td>Display Dialed Digits during Outgoing Calls</td>
<td>Yes</td>
</tr>
<tr>
<td>Public Network Access via DPNSS</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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 E1 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: HCIReroute

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.
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".

   ![Add Line Group](image)

   **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,3 as show in the following graphic:
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.
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.
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:

<table>
<thead>
<tr>
<th>WEB PAGE TAB</th>
<th>SETTINGS</th>
<th>PROGRAMMING STEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dashboard</td>
<td>MBG Status</td>
<td>Enabled.</td>
</tr>
<tr>
<td></td>
<td>Courtesy down?</td>
<td>Enabled (Checked)</td>
</tr>
<tr>
<td>Configuration</td>
<td>G.729 Transcoding</td>
<td>Set to False.</td>
</tr>
<tr>
<td></td>
<td>Local Streaming</td>
<td>Set to True.</td>
</tr>
</tbody>
</table>
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 AWV

MiCollab AWV 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 AWV Administrator’s Online Help on the Mitel Customer Documentation site for instructions. Refer to the MiCollab Engineering Guidelines for MBG firewall requirements.

INSTALL MICOLLAB AWV 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 AWV

CONFIGURE MIVOICE BUSINESS FOR AWV

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
MiVoice Business Integration

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.
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’s 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

<table>
<thead>
<tr>
<th>OPTION</th>
<th>USER (COS 11)</th>
<th>VM USER WITH RAC (COS 13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACD Silent Monitor Accept</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>ACD Silent Monitor Allowed</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>ACD Silent Monitor Notification</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Group Presence Control</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Group Presence Third-Party Control</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Hot Desk External User Answer Confirmation</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Hot Desk External User Permanent Login</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Hot Desk Login Accept</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Hot Desk Remote Logout Enabled</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Record a Call - Active</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>SMDR Internal</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Work Timer</td>
<td>20 s</td>
<td>20 s</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>OPTION</th>
<th>NP PORTS COS (DEFAULT)</th>
<th>NP MWI PORTS COS (DEFAULT)</th>
<th>SPEECH AA PORTS COS (DEFAULT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calling Party Name Substitution</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>COV/ONS/E&amp;M Voice Mail Port</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Dialed Night Service</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Display Dialed Digits during Outgoing Calls</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Do Not Disturb Permanent</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>HCI/CTI/TAPI Call Control Allowed</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>HCI/CTI/TAPI Monitor Allowed</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Public Network Access via DPNSS</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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

**DEFAULT AWV PORTS COS**

<table>
<thead>
<tr>
<th>OPTION</th>
<th>AWV PORTS COS (DEFAULT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suppress Simulated CCM after ISDN Progress</td>
<td>Yes</td>
</tr>
</tbody>
</table>
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 36
   - “MiCollab AWV” on page 37
   - "MiCollab Client" on page 39.
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, AWV 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

This procedure identifies the MiVoice Office 250 network elements for all the installed applications for Flow Through Provisioning. Flow Through Provisioning is not supported for the MiVoice Office 250, so you do not need to configure them in the Network Element tab.

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 Office 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**

**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:

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
- MiVoice Office 250

**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.

**Table 1: MiCollab Installation Summary**

<table>
<thead>
<tr>
<th>TASK</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install Mitel Standard Linux (MSL) and NuPoint UM software.</td>
<td>Install from boot-up on the MiCollab server connected to the same physical network as the MiVoice Office 250. Also full IP connectivity is assumed possible between NuPoint UM and the SIP Gateway, meaning that no security hardware or software is active.</td>
</tr>
<tr>
<td>Install application blades from CD.</td>
<td></td>
</tr>
<tr>
<td>Install Text-to-Speech blade from the Server Manager Blades panel.</td>
<td></td>
</tr>
<tr>
<td>Reboot the MiCollab server.</td>
<td>Make sure to select the EL version of the kernel.</td>
</tr>
<tr>
<td>Check that MSL has been properly licensed using Mitel's Applications Management Center server (AMC).</td>
<td>NuPoint UM features to be used or tested are enabled in the AMC Application Record. The Application Record ID is requested and the Application Record is activated during the MSL installation.</td>
</tr>
</tbody>
</table>

**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.

**Table 2: NuPoint Unified Messaging Configuration Summary**

<table>
<thead>
<tr>
<th>TASK</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the SIP Gateway is running and correctly configured.</td>
<td>This provides NuPoint UM with SIP Gateway IP/port data and Line mapping details used to accept calls from the SIP Gateway and redirect them to available NuPoint Lines. SIP endpoints will be able to call a Pilot Number that will route to an available NuPoint UM line and hear a greeting prompt, such as &quot;Welcome to the message center. Please enter a mailbox number or wait.&quot;</td>
</tr>
<tr>
<td>Verify that the security settings on the NP-UM server have been modified so that it is possible to establish full telephony communication between the SIP Gateway and NuPoint.</td>
<td>Security modifications are completed within the MSL Server Console. See “Modifying the Security Settings for NuPoint Unified Messaging” on page 29.</td>
</tr>
</tbody>
</table>
Configure/Add a SIP Gateway as a Cluster Node to NuPoint UM.  

This is necessary to set up network mappings for SIP calls. Refer to Add a Network Element for instructions on how to configure a SIP Gateway.

Configure NuPoint UM Line Groups, Ports, and Dialing Plan.  

Each NuPoint UM line is dedicated to handle one call at a time. Therefore, the number of lines defined in NuPoint UM is the maximum number of simultaneous calls possible. NuPoint UM can have up to 120 lines. A Line Group is a collection of one or more NuPoint UM lines, each mapped to a cluster node. 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 NuPoint UM Line Groups for instructions to set up NuPoint Unified Messaging lines for a SIP Gateway.

Configure basic voice mail and mailboxes for NuPoint UM.  

Add users, phones, mailboxes, and the Speech Auto Attendant. After the configuration is completed, an endpoint that calls in to NuPoint UM with an extension that matches the mailbox number in the created mailbox will be prompted to log on. For example, if mailbox 1000 is created, the Endpoint assigned to extension 1000 may call NuPoint UM and hear "Hello mailbox 1000. Please enter your passcode."

Set up and initialize the Administrator mailbox.  

The Administrator mailbox is set up by default (under mailbox number 998) during the NuPoint UM software installation. It can be used to record System Message Prompts and program additional user mailboxes. See Managing Mailboxes

Direct callers to NuPoint UM mailboxes on Call No Answer.  

Call No Answer scenarios must be correctly configured through the SIP Gateway/SIP Endpoint Call Forwarding options. In general, when Call No Answer is detected at the SIP Endpoint, the call should be forwarded to the NuPoint UM Pilot Number (Extension) as "Call Forward Not Available." It is assumed that the Endpoint Extension forwarding the call matches a mailbox number programmed in NuPoint UM. If this is the case, when a forwarded call is received by NuPoint UM, a prompt will indicate that the recipient is not available and ask the caller to leave a message.

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<td>Configure NuPoint UM Line Groups, Ports, and Dialing Plan.</td>
<td>Each NuPoint UM line is dedicated to handle one call at a time. Therefore, the number of lines defined in NuPoint UM is the maximum number of simultaneous calls possible. NuPoint UM can have up to 120 lines. A Line Group is a collection of one or more NuPoint UM lines, each mapped to a cluster node. 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 NuPoint UM Line Groups for instructions to set up NuPoint Unified Messaging lines for a SIP Gateway.</td>
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</table>
Enable message notifications. Check that message notifications are set up at the mailbox level. Each mailbox may be set up for two notification types concurrently. Refer to Configure a Mailbox for Paging.

**Note**: When a Message Delivery Pager Notification Type is enabled, the receiver of the Notification Call must speak within five seconds for NuPoint UM to provide message information and options. Otherwise, NuPoint UM will consider the Notification Call to be a failure.

Configure Distribution Lists. Distribution lists allow a mailbox user to send messages to multiple mailboxes in one step. Distribution lists may be configured in the Web Console or in the Web View interface. Refer to Configure Distribution Lists. Refer to the Web View Help for configuration instructions through the web view interface.

Configure Line Groups voice mail, MWI notifications, and Pager Notifications if this functionality is used in the system. Refer to Add a Line Group.

Configure Line Groups for Speech Auto Attendant, Fax, and NuPoint Receptionist if this functionality is used in the system.

Configure NuPoint Receptionist if this functionality is used in the system. Refer to NP Receptionist.

Create call flows with Call Director. Create customized call flows to handle incoming callers with the NuPoint UM Call Director. Before any Call Director call flow may be created, the Call Director User Interface must be enabled within associated Line Groups. Refer to the Call Director Help for call flow creation.

Configure Classes of Service (COS). Each mailbox created in NuPoint UM is assigned a set of values that define features, limitations and restrictions. These attributes are defined as three Classes of Service, called Feature Class of Service (FCOS), Limits Class of Service (LCOS) and Restriction Class of Service (RCOS). Default classes already exist in NuPoint and are applied to new mailboxes automatically. However, changing privileges for a user requires an administrator to apply different classes to a mailbox. New classes definitions are often required to define a specific set of attributes adequately.

---

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<td></td>
</tr>
<tr>
<td>Configure NuPoint Receptionist if this functionality is used in the system.</td>
<td>Refer to NP Receptionist.</td>
</tr>
<tr>
<td>Create call flows with Call Director.</td>
<td>Create customized call flows to handle incoming callers with the NuPoint UM Call Director. Before any Call Director call flow may be created, the Call Director User Interface must be enabled within associated Line Groups. Refer to the Call Director Help for call flow creation.</td>
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<td>Each mailbox created in NuPoint UM is assigned a set of values that define features, limitations and restrictions. These attributes are defined as three Classes of Service, called Feature Class of Service (FCOS), Limits Class of Service (LCOS) and Restriction Class of Service (RCOS). Default classes already exist in NuPoint and are applied to new mailboxes automatically. However, changing privileges for a user requires an administrator to apply different classes to a mailbox. New classes definitions are often required to define a specific set of attributes adequately.</td>
</tr>
</tbody>
</table>
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.
4. Right-click in the empty pane, and the 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:

<table>
<thead>
<tr>
<th>WEB PAGE TAB</th>
<th>SETTINGS</th>
<th>PROGRAMMING STEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dashboard</td>
<td>MBG Status</td>
<td>Enabled.</td>
</tr>
<tr>
<td></td>
<td>Courtesy down?</td>
<td>Enabled (Checked)</td>
</tr>
<tr>
<td>Configuration</td>
<td>G.729 Transcoding</td>
<td>Set to False.</td>
</tr>
<tr>
<td></td>
<td>Local Streaming</td>
<td>Set to True.</td>
</tr>
</tbody>
</table>

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.

MICOLLAB AWV

MiCollab AWV 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 AWV Administrator's Online Help on the Mitel Customer Documentation site for instructions. Refer to the MiCollab Engineering Guidelines for MBG firewall requirements.

INSTALL MICOLLAB AWV 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 AWV

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 38, below
- “Configure Phone Settings” on page 38, below
- “Create a Hunt Group” on page 39, below
- “Enable OAI Connection” on page 39

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:XX:XX, FF:FF:FF:XX:XX, or FF:FF:FF:FF:XX: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 38), 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 38. 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’s 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 blade 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.
OVERVIEW

You can integrate a single MiCollab system with a single MiVoice Office 400 platform to provide MiCollab applications, such as MiCollab Client, Teleworker, and Audio, Web, and Video to users who are hosted on the MiVoice Office 400 platform.

- For MiCollab integrations with the MiVoice Office 400 system, the administrator performs user provisioning separately on both MiCollab and on the MiVoice Office 400 system.
- Roles and templates with associated UCC licenses are used to define the MiCollab services for MiCollab users in the Users and Services application.
- Licenses and Roles are used to define the services for MiVoice Office 400 users.

The administrator can import a CSV file of users entries from the MiVoice Office 400. The users can be assigned MiCollab roles in the CSV file and imported into MiCollab using the Bulk User Provisioning tool.

A typical integration consists of the components shown in Figure 5:

- **Communications Platform**: A single MiVoice Office 400 communications platform can be integrated with a single MiCollab system.
- **MiCollab Server**: Provides application services (AWV, MBG, and MiCollab Client) to MiVoice Office 400 users and supports MiCollab Client softphones for external users over the Internet.
  - Audio, Web and Video integrates with the MiVoice Office 400 using SIP terminals.
  - MiCollab Client softphones are integrated with the MiVoice Office 400 via SIP terminals. Computer Telephony Integration (CTI) is achieved via a CSTA Proxy in the MiCollab system.
  - MiVoice Border Gateway solution provides a secure communications path for remote MiCollab Client SIP softphones to the MiCollab Client Service. The MBG provides support for MiCollab Client SIP softphones through the implementation of proprietary SIP headers, SIP feature enhancements, line enhancements, and security enhancements, along with administrator interface changes for its management.
  - MiCollab Client CSTA Proxy provides Computer Telephony Integration (CTI) between the MiVoice Office 400 and MiCollab Client to support telephony features such as "Click-to-Call" and presence.
- **Standalone MBG server** is installed in the Demilitarized Zone (DMZ) of a customer's existing firewall. The MiCollab MBG application must be clustered with the standalone MBG.
- **Firewall**: Protects corporate LAN from Internet.
- **Redirection and Configuration Service (RCS) Server**: Provides the configuration data to MiCollab mobile clients. This is a Mitel server located on the Internet. It sends MiCollab mobile client users a configuration e-mail that allows the users to download and install the required configuration files from the redirect server.
- **SIP Terminals**: The Audio, Web and Conferencing application audio channels are configured in the MiVoice Office 400 Web Admin interface as an internal user group with standard SIP terminals.
• Administration Interface: User provisioning is performed from the WebAdmin (Expert Mode), the communication platform management tool.

Figure 5: MiVoice Office 400 Integration

REQUIREMENTS
• Integration with MiCollab 7.2 or higher is supported with MiVoice Office 400 Release 4.1 or higher.
• MiCollab Client must be configured in Integrated Mode.

CONDITIONS AND LIMITATIONS
• MiVoice Office 400 is not supported with MiCollab if MiCollab is deployed on Hyper-V.
• The only supported configuration is a single MiVoice Office 400 system with a single MiCollab server in the same network.
• Administrators must perform user and services provisioning (for example, adds or deletes) separately from both MiCollab Users and Services and the MiVoice Office 400 Web Admin.
• Remote SIP phones and SIP trunks are not supported on MBG for MiVoice Office 400. Teleworker services are only supported on MiCollab clients.
• The MiCollab End User Portal is supported for MiVoice Office 400 users. It provides them with access to their user portal and AWV settings. However, a user’s MiVoice Office 400 phones are not displayed in the portal interface.
• ORIA does not support provisioning of MiVoice Office 400 systems.
• MiCollab does not provide the ability to configure the phone types for each MiVoice Office 400 subscriber. Note that the MiCollab Client and MBG applications function as SIP phone integrations. MBG creates a SIP device account and MiCollab Client allows a soft phone because the user has a SIP account.
• MiCollab Integrated Directory Services does not support a connection to MiVoice Office 400 directory service.
• The integration of MiVoice Office 400 systems to the MiCollab Server Appliance is not supported. The MiCollab Server Appliance is a small-business capacity MiCollab system that is shipped from Mitel Network to the customer pre-installed on an industry standard server.

LICENSES

MIVOICE OFFICE 400 LICENSING

License the MiVoice Office 400 system from the Software License Server (SLS). Only MiVoice Office 400 certified technicians should apply licenses to the MiVoice Office 400.

MICOLLAB LICENSING

You license the MiCollab system through the Application Management Center (AMC). The AMC is not used to assign licenses that are required on the MiVoice Office 400.

1. Log into AMC.
2. Create a customer account.
3. Register (purchase) products and licenses and assign them to the customer account.
4. Create Application Record IDs for the MiCollab server.
5. Assign base software licenses to the system ARIDs.
6. Create a ULM using the MiCollab ARID.
7. If a standalone MBG system is required, add its server ARID.
8. Assign UCC user licenses to the ULM. The UCC user licenses will provide the communication platform users with entitlement to the MiCollab applications.
9. Purchase and activate any additional "a-la-carte" feature, port, or language licenses for the MiCollab system applications.

\[\text{Note: Refer to the AMC help for detailed licensing steps.}\]
INTEGRATION PROCEDURE

OVERVIEW

The following procedures describes the steps required to integrate a new MiCollab system with a new or existing MiVoice Office 400 platform.

- Install the communication platform and server
- Configure MiCollab into MiCollab Client Integrated Mode
- Create network elements
- Configure MiCollab system application settings
- Integrate with MiVoice Office 400:
  - Integrate MiCollab Server
  - Integrate Audio, Web and Video
  - Integrate MiVoice Border Gateway
- Perform user and services provisioning.

If you are integrating an existing MiVoice Office 400 with a new MiCollab system, you can export a CSV file of user entries from the MiVoice Office 400 system. You can then import the user entries into the MiCollab system using the Bulk User Provisioning (BUP) tool in USP.

INSTALL COMMUNICATION PLATFORM AND SERVER

1. Install, license, configure, and provision the MiVoice Office 400. Refer to the MiVoice Office 400 documentation for instructions.

2. Install the MiCollab server.

3. Log into MiCollab server manager. Under ServiceLink, click Install Applications and then click the Install Applications tab. Set the ICP type to MiVoice Office 400.

4. Collect the following information for the integration:
   - MiCollab IP Address
   - MiVoice Office 400 IP Address.

CONFIGURE MICOLLAB CLIENT INTEGRATION MODE

Configure MiCollab in MiCollab Client Integration Mode. Refer to the MiCollab Installation and Maintenance Guide for instructions.

CREATE NETWORK ELEMENT

Create the network element for the communication platform:

1. Log into the MiCollab server manager.

2. Under Applications, click Users and Services.

3. Click the Network Element tab.
4. Click **Add**.

5. In the Type field select the system type: “MiVoice Office 400”.

6. Enter the IP address of the MiVoice Office 400 Service Node Manager.

7. After you save your updates to the Network Element page, you are prompted to associate the element with templates. If you select **Yes**, the network element field for the primary phone in all templates will be automatically set to the name of this network element. If you select **No**, you must create custom templates and associate them with this network element.

   **Note:** During MiCollab installation, the default UCC roles and associated template definitions were downloaded from the AMC. On initial download, the USP forms and templates support MiVoice Business settings. After you assign a MiVoice Office 400 network element in the MiCollab Network Element page, the USP user interface and templates are updated to reflect the settings for the platform.

   If required create custom roles and templates in the MiCollab USP application from the UCC default templates.

8. **Configure** the MiVoice Office 400 as a SIP Server in the MiCollab Audio, Web and Video application.

**CONFIGURE MICOLLAB SYSTEM APPLICATION SETTINGS**

Configure the MiCollab system application settings manually through the application administration interfaces in the MiCollab server manager. Refer to the application help for instructions.

**INTEGRATE MICOLLAB SERVER WITH MIVOICE OFFICE 400**

**DEFINE MICOLLAB SERVER ON MIVOICE OFFICE 400**

1. Log into the MiVoice Office 400 WebAdmin in Expert Mode.

2. Go to **Services > BluStar / MiCollab** (see Figure 6).
3. Complete the following fields:
   - **MiCollab server**: Check the box.
   - **IP address / host name**: Enter the IP Address or FQDN of the MiCollab server.
   - **Description**: Enter a string, if desired, to identify the server.
   - **User name / Password**: Cannot be changed here – see Figure 8.
   - **MiCollab role**: The ID and Role Definition cannot be changed. If desired, modify the Role name to correspond to the name used in the MiCollab server.
CHANGE USER NAME AND / OR PASSWORD FOR CSTA

You must configure the CSTA user name and password on the MiVoice Office 400.

1. Go to System > Access control > User account (see Figure 7).

2. Click BluStar Server Account.

3. Change the User name to “buc1234”. Leave the other fields at the defaults.

4. Click MiCollab Server Account.

5. Change the User name to “buc76000035”.

6. Change the Password to “Mitel123”. Ensure that you activate the account. Leave the other fields at the defaults. See Figure 8.

   Note: After you enter and confirm the new password successfully, the Password and Password confirm fields are blank. Click Services > BluStar / MiCollab to confirm your password change.
7. Click **Apply**. The **System > User account** screen should appear as follows:

![User Accounts](image)

**Figure 9: User Accounts**

8. Turn on the CSTA service under **Configuration > IP network > CSTA service**.

INTEGRATE AUDIO, WEB AND VIDEO (AWV)

To integrate the AWV application with the MiVoice Office 400, you must configure the MiVoice Office 400 system settings first, then configure the SIP server settings in the AWV application.

INSTALL MICOLLAB AWV CONFERENCING CLIENT FOR ALL USERS

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 IP address>/wd/MCAClient-admin.exe](http://<MiCollab IP address>/wd/MCAClient-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.

CONNECT AWV APPLICATION TO MIVOICE OFFICE 400

You connect the AWV application to the MiVoice Office 400 as an internal user group with standard SIP terminals. The work flow for initiating the SIP users / terminals and user group is as follows:

- Create the users and terminals.
- Configure the user group.

*Create Users and Terminals*

1. Log into the MiVoice Office 400 WebAdmin (Expert Mode).
2. Go to Users > User list
3. Click the New tab (see Figure 10).

![Figure 10: Create User Block](image1)

4. Enter the first telephone number for the block of users.

5. Check the Create user block box – The screen shown in Figure 11 appears.

![Figure 11: Create User Block](image2)

6. Enter the following parameters:
   - **Call number end**: Enter the last number for the block of users.
   - **Assign terminal**: Check the box.
- **Terminal interface**: Select **Standard SIP**.
- **Description**: Enter a string, if desired, to identify the terminals.
- All other parameters can be left at their default values.
- Click **Apply**.

7. Change the SIP user name and password for each terminal:
   - Go to **Terminals > Standard terminals**.
   - Select each terminal in turn (see Figure 12).
   - Change **SIP user name** to be the same as the telephone number.
   - Change **SIP password** to a simple password.
   - Click **Apply**.

**Note**: All created Standard-SIP phones require the same SIP password. Copy the password of the first SIP phone and paste it to all the others.
Configure the User Group

1. Go to Routing > List view > User groups (see Figure 13).

2. Select an unused user group. The following screen is displayed.
3. Enter the following parameters:
   - **Call number**: Enter the internal telephone number for AWV.
   - **Name**: Enter a string, if desired (advisable).
   - **Main group**: Add the numbers of the previously created users.
   - **Call distribution**: Change to **Cyclic**.
   - **Large user group**: Check this box if there are more than 16 members of the group.
   - All other parameters can be left at their default values.
   - Click **Apply**.

**CONFIGURE SIP SERVER SETTINGS IN MICOLLAB AWV**

Configure the SIP Server settings in MiCollab Audio, Web and Video Conferencing using the account information from the Mitel MiVoice Office 400 system configuration:

1. Log into the MiCollab server manager interface.
2. Under **Applications**, click **Audio, Web and Video Conferencing**.
3. From the MiCollab Audio, Web and Video Conferencing main page, click **System Options** on the navigation pane.
4. In **System Options > Platform**, select **MiVoice 400** for the system that is connected to MiCollab Audio, Web and Video Conferencing.
5. Click **Save**.
6. Click **Ok** at the prompt to restart the server.
7. Click **Configure SIP Server** on the navigation pane. The SIP Server Configuration page appears.

8. Enter the following information:
   - **Extension First**: Type the extension number of the first IP device in the user group used by the MiCollab Audio, Web and Video Conferencing server to register itself with the PBX.
   - **Extension Last**: Type the extension number of the last IP device in the user group used by the MiCollab Audio, Web and Video Conferencing server to register itself with the PBX.
   - **Extension PIN**: This PIN is used for SIP MD5 authentication. This field is mandatory. It is the SIP password of the standard SIP terminals belonging to the users in the user group.
   - **SIP Domain**: This can be the domain name, fully qualified domain name (FQDN), or the IP address of the PBX system used to register the MiCollab Audio, Web and Video Conferencing SIP ports. If you do not know the domain name or FQDN, type the PBX system IP address.
   - **IP Address**: Type the IP address of the PBX system. Alternatively, type the FQDN. Note that when typing the FQDN, only the first IP Address value returned by the DNS lookup will be used.

9. Click **Save**.

**INTEGRATE MIVOICE BORDER GATEWAY (MBG)**

MiVoice Border Gateway provides a secure communications path for remote MiCollab Client users to the MiCollab Client Service. Only MiCollab clients are supported as Teleworker devices on MiVoice Office 400 systems.

**CONFIGURE MBG**

1. Configure a MBG in the DMZ and cluster with the MiCollab-MBG in the LAN (recommended configuration). When you create the network element in the MiCollab USP network element tab, the network element is automatically added to the embedded MiVoice Border Gateway (MBG) application.

2. Set the MBG SIP Capabilities for the MiVoice Office 400 to UDP, TCP.

   ![Figure 15: Configure MBG SIP Capabilities](image)

3. Configure the SIP settings:
4. Configure the "Network profile" according to the network configuration.

5. Configure the "Application Integration".

6. Configure the Web Proxy (for the Standalone MBG clustered only) to allow the connection between applications on the LAN and clients (for example, AWV, MiCollab Client) on the Internet.
CONFIGURE THE MVOICE OFFICE 400 WITH MBG

1. Log into the MiVoice Office 400 WebAdmin (Expert Mode).
2. Go to Services > Mitel Border Gateway (see Figure 18).

![Figure 18: Configure MBG Controller](image)

3. Click New. The screen shown in Figure 19 appears.
4. Enter the following parameters:
   - **IP address**: Enter the IP Address or FQDN of the MBG.
   - **Name**: Enter a string, if desired, to identify the MBG.
   - **XML listen port**: Select the appropriate port of the MBG.
   - **Configuration server listen port**: Select the appropriate port of the MBG.
   - Click **Apply**.

**INTEGRATE MICOLLAB CLIENT**

**CONFIGURE MICOLLAB CLIENT**

Refer to the MiCollab Client Service application help and the *MiCollab Client Administrator’s Guide* for configuration information.

**DEPLOY MICOLLAB CLIENT (NEXT GEN) MOBILE CLIENTS**

MiVoice Office 400 platforms support MiCollab for Mobile (Next Generation) clients. Only the Next Generation variants of the mobile clients are supported. After you configure a user with a mobile client in the MiCollab Client application, a deployment e-mail is sent to the user with simplified configuration instructions on how to set it up.

*Configure CSTA Link*

The MiCollab Client CSTA Proxy application supports the call control messaging between MiCollab and the MiVoice Office 400 platform to support MiCollab Client features such as "Click-to-Call".
1. Log into the MiCollab server manager.

2. Under Applications, click MiCollab Client Service.

3. Click Configure MiCollab Client Service.

4. Click PBX Nodes.

5. Double-click the system name or IP Address of the MiVoice Office 400.

6. Open CSTA Settings.

7. In the Port field, enter the number of the CSTA port on the MiVoice Office 400.

8. Refer to the help for descriptions of the other fields. Typically, you will not need to change the default settings.

9. Click Save.

---

Configure MiCollab Client Deployment

1. Log into the MiCollab server manager interface.

2. Under Applications click MiCollab Client Deployment.

3. Refer to the MiCollab Client Deployment help for instructions on how to configure and deploy the clients.
USER PROVISIONING

Only initial user provisioning can be performed using an export of user entries from the MiVoice Office 400. Afterwards, all changes, including additions and deletions, must be done manually on both MiCollab and MiVoice Office 400.

For the initial user provisioning you must complete the following steps:

- Create the users on MiVoice Office 400
- Export the CSV file of users
- Import the CSV file into the MiCollab bulk user provisioning.

CONFIGURE THE USERS ON MIVOICE OFFICE 400

1. Go to Users > User list view.
2. Click New (see Figure 21).
3. Enter the Call number of the new user
4. Click Apply.

![Figure 21: New User List](image)
Complete the following:

- **Name**: Enter the name of the user. Note that the first part (before the space) must be the surname and the second part (after the space) must be the first name. This is currently hard-coded in MiVoice Office 400.
- **PIN / Password**: One or the other should be entered and the tick box set accordingly.
- **Windows user name**: Required for some MiCollab roles. It is the Login Id.
- **E-mail address**: Required for some MiCollab roles.
- **License / Role**: Select the MiCollab bundle license and role from the drop down lists. (see Figure 23 and Figure 24).
- All other parameters can be left at their default values or changed if required.
- Click **Apply**.
### Figure 23: Assign License

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call number</td>
<td>420</td>
</tr>
<tr>
<td>Name</td>
<td>George Harrison</td>
</tr>
<tr>
<td>PIN</td>
<td>••••</td>
</tr>
<tr>
<td>Windows user name</td>
<td>gharrison</td>
</tr>
<tr>
<td>Use PIN instead of password</td>
<td>checked</td>
</tr>
<tr>
<td>License / Role</td>
<td>3 - Standard UCC User for MiVoice Office 400</td>
</tr>
<tr>
<td>Permission set</td>
<td>1</td>
</tr>
<tr>
<td>Authorization profile</td>
<td>--</td>
</tr>
</tbody>
</table>

### Figure 24: Assign Role
EXPORT LIST OF USERS

1. Go to Services > BluStar / MiCollab (see Figure 25).

2. Click Export MiCollab Users to export a list of users in a CSV file.

3. Import the users into the MiCollab database using the Bulk User Provisioning tool. Refer to the MiCollab server manager help for instructions.

4. After you have imported the users into MiCollab, you must remember to perform all future user provisioning (for example adds or deletes) in both MiCollab Users and Services and the MiVoice Office 400 Web Admin.
Chapter 5

MIVOICE 5000 INTEGRATION
OVERVIEW

You can integrate a MiCollab system with a MiVoice 5000 platform to provide MiCollab applications, such as NuPoint voice mail, MiCollab Client, Teleworker, and Audio, Video, and Web to users who are hosted on the MiVoice 5000 platform.

- For MiCollab integrations with the MiVoice 5000, the administrator performs user provisioning from the MiVoice 5000 Management Portal (MMP) or the MiVoice 5000 Manager.
- Roles and templates are used to define the MiCollab services for the users.

The administrator creates roles and templates in the User and Services application on the MiCollab system, and then performs a manual synchronization to update the MiVoice 5000 communication platform with the roles that are defined on MiCollab.

The administrator then assigns roles to the primary directory number of the user on the MiVoice 5000. The roles on the communications platform correspond to roles on the MiCollab system. The UCC roles map to MiCollab USP templates that define the required application services for the user type. When an administrator adds, edits or deletes a user from the platform management interface, the user’s services are updated on MiCollab based on the assigned template on the next manual immediate synchronization or during the next scheduled database synchronization.

Non-Corporate contacts that appear in the MiCollab Client corporate directory are obtained via MiCollab IDS from an Active Directory server or from the LDAP database located on the MiVoice 5000.

A typical integration consists of the components shown in Figure 26:

- **Communications Platform**: The MiVoice 5000 can be integrated with a single MiCollab system.

- **MiCollab Server**: Provides application services (NuPoint voice mail, AWV, MBG, and MiCollab Client) to the MiVoice 5000 users and supports MiCollab Client softphones for external users over the Internet.
  - NuPoint Unified Messaging integrates with the MiVoice 5000 via SIP trunking.
  - Audio, Web and Video integrates with the MiVoice 5000 using SIP subscriptions.
  - MiCollab Client softphones are integrated with the MiVoice 5000 via SIP subscriptions. Computer Telephony Integration (CTI) is achieved via a CSTA proxy on the MiCollab server.
  - MiVoice Border Gateway solution provides a secure communications path for remote MiCollab Client SIP softphones to the MiCollab Client Service. The MBG provides support for MiCollab Client SIP softphones through the implementation of proprietary SIP headers, SIP feature enhancements, line enhancements, and security enhancements, along with administrator interface changes for its management.
  - A standalone vMBG server can be installed in the Demilitarized Zone (DMZ) of a customer’s existing firewall. In this case, the MiCollab MBG application must be clustered with the standalone vMBG.

- **MiCollab Client CSTA Proxy**: Provides Computer Telephony Integration (CTI) between the MiVoice 5000 and MiCollab Client to support telephony features such as “Click-to-Call”
and presence. The MiVoice 5000 communicates with the CSTA proxy using CSTA II protocol.

- **Firewall**: Protects corporate LAN from Internet.
- **Redirect Server**: Provides the configuration data to MiCollab mobile clients. This is a Mitel server located on the Internet. It sends MiCollab mobile client users a configuration e-mail that allows the users to download and install the required configuration files from the redirect server.
- **SIP Trunking**: The NuPoint Voicemail application is supported via SIP trunking.
- **SIP Subscriptions/Extensions**: The Audio, Web and Conferencing application is supported via SIP subscriptions on the MiVoice 5000.
- **Administration Interface**: User provisioning is performed from the communication platform management platform.
- **Directory Server**: An optional Active Directory server can be used to support the synchronization of MiCollab Client contacts to the MiCollab Client Corporate Directory and to support Active Directory Authentication of MiCollab users.

MiCollab Client contacts can also be synchronized to the MiCollab Client Corporate Directory from the MiVoice 5000 directory service or the MiVoice 5000 Manager directory service.

![MiVoice 5000 Integration Diagram](image)

Figure 26: MiVoice 5000 Integration
REQUIREMENTS

• Integration with MiCollab 7.1 or higher is supported with MiVoice 5000 version 6.1 SP2 or higher and MiVoice 5000 Manager version 3.1 or higher.

• MiCollab Integrated Directory Services integration is limited to Active Directory 2008, 2008 R2, and 2012; the MiVoice 5000 management station; or the MiVoice 5000 Manager.

• MiCollab Client service must be configured in Integrated Mode.

CONDITIONS AND LIMITATIONS

• A single MiCollab server can provide applications services to the users on one MiVoice 5000 system in the same enterprise.

• The integration of multiple MiCollab systems to MiVoice 5000 platforms is not supported.

• Connection of a MiCollab server to a mix of different network elements (for example, MiVoice 5000) is not supported. All network element types must be of the same type on a single MiCollab. It is not possible to switch 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.

• User and services provisioning is performed from the MiVoice 5000 management interface. The Add, and Quick Add functions are not supported from the Users and Services Application if MiCollab is integrated with a MiVoice 5000.

• The MiVoice 5000 supports a maximum of four terminals/devices per user. Although the MiVoice 5000 supports users with multiple devices, only the users’ primary directory numbers appear in MiCollab. MiCollab services are applied to the primary directory number of the user.

• A MiVoice 5000 can have up to 64 lines associated with a user. MiCollab only supports the user’s primary number.

• NuPoint Unified Messaging Speech Auto Attendant is not a supported application for MiVoice 5000 integrations.

• MiCollab Integrated Directory Services is not supported for managing user entries. Only non-corporate entries (contacts) are synchronized from the directory services database to the MiCollab Client corporate directory.

• Functions and fields in the USP application that are not applicable to MiVoice 5000 are disabled (or hidden). They are disabled after a MiVoice 5000 type network element is assigned in the USP application. The administrator adds application services by assigning a role with the required service level. The administrator removes the role to remove the services. To remove only the NuPoint voice mailbox from a user, the administrator must create a role without a mailbox and assign it to the user.
• The MiCollab system supports a maximum of 5000 users and up to 20000 contacts in the MiCollab Client corporate directory for a multi-MiCollab deployment. The MiVoice 5000 has much higher user capacities.
  - MiVoice 5000 supports up to 20000 users and 20000 contacts
  - MiVoice 5000 Manager supports up to 400000 users and 20000 contacts,
• LDAP authentication is supported for users who have been created from the MV5000 with authentication enabled. An "authentication only" IDS connection is required to allow MiCollab to validate the end-user password against the Active Directory password. Users can then log into their end-user interfaces by entering their Active Directory password.
• The Mitel Integration Configuration Wizard configures MiCollab with MiVoice Business platforms only. It is NOT supported for integrations with MiVoice 5000
• The MiCollab End User Portal is supported for MiVoice 5000 users. It provides them with access to their user portal, voice mail, and AWV settings. However, a user’s MiVoice 5000 phones are not displayed in the portal interface.
• The MiVoice 5000 can operate in a multi-company management mode where the PBX resources are shared between different companies. Currently, MiCollab does not support multi-company management mode.
• ORIA does not support provisioning of MiVoice 5000 platforms.
• The Speech Auto Attendant application is NOT supported for MiVoice 5000.
• MiCollab does not provide the ability to configure the phone types for each MiVoice 5000 subscriber. Note that the MiCollab Client and MBG applications function as SIP phone integrations. MBG creates a SIP device account and UCA allows a soft phone because the user has a SIP account.
• User pictures are not imported into MiCollab Client.
• The integration of MiVoice 5000 systems to the MiCollab Server Appliance is not supported. The MiCollab Server Appliance is a small-business capacity MiCollab system that is shipped from Mitel Network to the customer pre-installed on an industry standard server.

**LICENSING**

**MIVOICE 5000 LICENSING**

License the MiVoice 5000 system from the Aastra Keycode Order Placement (AKOP) licensing server. The AKOP server provides licenses according to a System ID on the MiVoice 5000. Only MiVoice 5000 certified technicians should apply licenses to the MiVoice 5000.

**MICOLLAB LICENSING**

You license the MiCollab system using the Application Management Center (AMC) licensing server. The AMC is not used to assign licenses that are required on the MiVoice 5000.

1. Log into AMC.
2. Create a customer account.
3. Register (purchase) products and licenses and assign them to the customer account.
4. Create Application Record IDs for the MiCollab and optional MiVoice Business Gateway.
5. Assign base software licenses to the system ARIDs.
6. Create a ULM using the MiCollab ARID.
7. If a standalone MBG system is required, add its server ARID.
8. Assign UCC user licenses to the ULM. The UCC user licenses will provide the communication platform users with entitlement to the MiCollab applications.
9. Purchase and activate any additional "a-la-carte" feature, port, or language licenses for the MiCollab system applications.

Note: Refer to the AMC online help for detailed licensing steps.

INTEGRATION PROCEDURE

The following procedure describes the steps required to integrate a new MiCollab system with a new or existing MiVoice 5000.

OVERVIEW

- Install MiCollab platform
- Install MiVoice 5000 platform
- Configure MiCollab into MiCollab Client Integrated Mode
- Create network elements
- Configure a password for the "micollab_api" account
- Configure MiCollab system application settings
- Integrate the applications with the MiVoice 5000:
  - Integrate NuPoint Unified Messaging
  - Integrate Audio, Web and Video
  - Integrate MiVoice Border Gateway
  - Integrate MiCollab Client
- Configure Integrated Directory Services (optional)
- Configure the connection and sync databases
- Perform user adds, edits, and deletes.

INSTALL PLATFORM

1. Install, license, configure, and provision the MiVoice 5000 (refer to the MiVoice 5000 Installation and Maintenance Guide)
2. Install the MiCollab platform. Do not run the Mitel Initial Configuration Wizard. The MiCW is not supported for MiCollab systems that will be integrated with the MiVoice 5000.
3. Log into MiCollab server manager. Under **ServiceLink**, click **Install Applications** and then click the **Install Applications** tab. Set the ICP type to "MiVoice 5000".

4. Collect the following information for the integration:
   - MiCollab IP address
   - MiVoice 5000 IP address.

**CONFIGURE MICOLLAB CLIENT INTEGRATION MODE**

Configure MiCollab in MiCollab Client Integration Mode. Refer to the *MiCollab Installation and Maintenance Guide* for instructions.

**CREATE NETWORK ELEMENTS**

Create the network elements for the communication platform(s):

1. Log into the MiCollab server manager.
2. Under **Applications**, click **Users and Services**.
3. Click the **Network Element** tab.
4. Click **Add**.
5. In the Type field select the system type: "MiVoice 5000".
6. Enter the IP address of the MiVoice 5000. The MiCollab can support multiple MiVoice 5000 network elements.
7. Enter the MiCollab Client Outgoing Dialing Prefix.
8. Enter the NuPoint voice mail number to be used by MiCollab Client into the Call Forward Destination Directory Number field.
9. After you save your updates to the Network Element page, you are prompted to associate the element with the templates. If you select **Yes**, the network element field for the primary phone in all templates will be automatically set to the name of this network element. If you select **No**, you must create custom templates and associate them with this network element.

**Note:** During MiCollab installation, the default UCC roles and associated template definitions were downloaded from the AMC. On initial download, the USP forms and templates support MiVoice Business settings. After you assign a MiVoice 5000 network element in the MiCollab Network Element page, the USP user interface and templates are updated to reflect the settings for the selected platform.

- If required create custom roles and templates in the MiCollab USP application from the UCC default templates.
- Default user templates cannot be modified, however you can modify the AWV system defaults that are applied to the default UCC templates.

10. **Configure** the MiVoice 5000 network element
    - as a SIP GATEWAY within the NuPoint Unified Messenger application, and
    - add the line groups to the SIP GATEWAY (ports).
11. **Configure** the MiVoice 5000 as a SIP Server in the MiCollab Audio, Web and Video application.

**Configure "micollab_api" Password**

You must configure a password for the "micollab_api" account. The MiVoice 5000 uses this account to synchronize data with the MiCollab system. You must configure the same password for the account on the MiVoice 5000. If you change the password on either system, you must also change it on the other.

1. Log into the MiCollab server manager.
2. Under **Administration**, click **System users**.
3. Next to the "micollab_api" account, click **Modify** and add any required account info.
4. Click **Reset password** and enter a password for the account.
5. Enter a new password and verify it.
6. Click **Save**.
7. Log into the MiVoice 5000 management interface.
8. Access the **Telephony Service > Subscribers > Terminals and Applications > MiCollab > Connections** page.
9. For the "micollab_api" account, add any required account info.
10. Enter the same password that you entered on the MiCollab system.

**CONFIGURE MICOLLAB SYSTEM APPLICATION SETTINGS**

Configure the MiCollab system application settings manually through the application administration interfaces in the MiCollab server manager. Refer to the application online help for instructions.

**INTEGRATE NUPOINT**

**OVERVIEW**

NuPoint Unified Messaging (NuPoint UM) supports Session Initiation Protocol (SIP) integration with the MiVoice 5000. The maximum number of NuPoint ports is 120. Speech Auto Attendant is NOT supported.

One or more SIP trunks can link NuPoint UM to the MiVoice 5000. NuPoint Unified Messaging receives and sends SIP messages over these trunks. Each SIP trunk consists of one or multiple SIP ports.
Every SIP trunk is assigned a Pilot Number. To call into NuPoint UM, the MiVoice 5000 provides a pilot number for the endpoint users to dial. When NuPoint UM makes a trunk call to the communications platform, 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, 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 communications platform 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 communications platform. For example, pilot number 2500 for NuPoint UM Voice is mapped to extension 2500 for the Voice Mail application programmed on the communications platform. 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 that is used to access the application. NuPoint can be used in MiVoice 5000 multi-site configurations if more than one SIP trunk is configured.

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).
PREPARATION

Gather the following information in preparation for this voice mail integration:

- customer’s desired voice mail call flows, features, applications, users, and extensions.
- network information including IP addresses, Subnet Mask, Gateway IP address, primary domain name, and Fully Qualified Domain Name (FQDN) information.

CONFIGURE NUPOINT

1. Ensure that the MiVoice 5000 is running and correctly configured.

   The communications platform provides NuPoint UM with the SIP Gateway IP address, port data, and line mapping details that are used to accept calls from the communications platform and redirects them to available NuPoint lines. SIP endpoints are able to call a Pilot Number that route to an available NuPoint UM line and hear a greeting prompt, such as "Welcome to the message center. Please enter a mailbox number or wait."

2. If you haven’t done so already, add the MiVoice 5000 as a SIP GATEWAY network element to the NuPoint UM application. This is necessary to set up network mappings for SIP calls. Refer to Add a Network Element for instructions on how to configure a SIP Gateway.

3. Modify the MiCollab server security settings to allow full telephony communication to be established between the communications platform and the NuPoint application.
   - Log into the MiCollab server console.
   - Under Configuration, click Configure Networks
   - Click Add a new trusted network.
   - In the Network Address field, enter the IP address of the network to designate as "local".
   - 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.
   - In the Router field, enter the IP address of the router you will use to access the newly-added network.
   - Click Add.


   Each NuPoint UM line is dedicated to handle one call at a time. Therefore, the number of lines defined in NuPoint UM is the maximum number of simultaneous calls possible. NuPoint UM can have up to 120 lines. A Line Group is a collection of one or more NuPoint UM lines, each mapped to a cluster node. 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.

5. Configure system mailboxes and greetings.

6. Set up and initialize the Administrator mailbox.

   The Administrator mailbox is set up by default (under mailbox number 998) during the NuPoint UM application installation. It can be used to record System Message Prompts and program additional user mailboxes. See Managing Mailboxes for additional information.

7. Direct callers to NuPoint UM mailboxes on Call No Answer.
**MiCollab Platform Integration Guide**

Call No Answer scenarios must be correctly configured through the SIP Gateway/SIP Endpoint Call Forwarding options. In general, when Call No Answer is detected at the SIP Endpoint, the call should be forwarded to the NuPoint UM Pilot Number (Extension) as "Call Forward Not Available." It is assumed that the Endpoint Extension forwarding the call matches a mailbox number programmed in NuPoint UM. If this is the case, when a forwarded call is received by NuPoint UM, a prompt will indicate that the recipient is not available and ask the caller to leave a message.

8. **Enable paging message notifications.**

Check that message notifications are set up at the mailbox level. Each mailbox may be set up for two notification types concurrently.

9. **Configure Distribution Lists.**

Distribution lists allow a mailbox user to send messages to multiple mailboxes in one step.

10. **Configure the following FCOS:**

- 263 - Store Caller Line Id as a phone or mailbox number
- 264 - Play outside caller user interface (with FCOS bit 280)
- 280 - Enable CLI outside caller interface (with FCOS bit 264).

**PERFORM REQUIRED NUPOINT CONFIGURATION ON MIVOICE 5000**

To allow the MiVoice 5000 to communicate with NuPoint UM and use it as its voice mail system, you must complete the following tasks:

- Add a new trunk group
- Define the trunk group for MiCollab NuPoint Voice Mail
- Provide access to the MiCollab NuPoint Voice Mail
- Configure the calling party in the « From » msg header of outgoing calls towards MiCollab NuPoint.
- Add the NuPoint IP Address in the Whitelitst if the SIP security is enabled

Perform the following configuration from the MiVoice 5000 management interface

1. **From a web browser on the LAN, log into the MiVoice 5000 Management Interface (MMI):**
   
   https://(IP address of MiVoice 5000 server

   Username: admin (default)

   Password: admin (default)

2. Define trunk group for MiCollab NuPoint.
3. Specify Private Direction name.

4. Select and display the route (4.2.2 and 4.2.3). The configuration interface only checks that call routing has been correctly defined.
5. Enter an access code for direction (3.2.4).

6. Define an internal plan.
7. Define trunk group characteristics.

Figure 33: Define Internal Plan

Figure 34: Trunk Group Characteristics
Figure 35: Configure IP BOTHWAY

Figure 36: Configure IP BOTHWAY - Continued
8. Define voice mail

![Figure 37: Voice Mail Definition](image1.png)

9. Set Broadcast priority

![Figure 38: Broadcast Priority](image2.png)
10. Perform the SIP trunk configuration required to insert the calling party in the « From » msg header of outgoing call. The following configuration example uses data from the previous steps for MiCollab NuPoint.

Figure 39: AID Handling - Composition of Plans

Figure 40: AID Handling - Selection of Calling Party
Figure 41: AID Handling - Outgoing for Internal

Figure 42: AID Handling - Display of Outgoing Handling

Figure 43: SIP Trunk Group - Voice Mail Direct Call
11. Add the MiCollab/NuPoint IP address in the Whitelist if the security is enabled.

TEST NUPOINT VOICE MAIL OPERATION

To test basic communication between the MiVoice 5000 and the NuPoint UM:

1. From any extension configured on the communications platform, call the NuPoint UM voice mail extension.

2. Verify you hear the voice mail system greeting: “Welcome to the message center.” This step establishes that you connected successfully to the NuPoint UM voice mail system.

3. Set up the test Mailbox Name and Greeting.

From the phone for which you created a test mailbox on NuPoint UM, dial the NuPoint UM voice mail extension.

1. Dial the mailbox passcode to access the voice mail system options for that mailbox.

2. Follow the voice mail prompts to set up the mailbox and create a greeting.

3. Dial Extension “xxxxx” and Leave a Voice Mail Message
• From any phone on the communications platform, dial the NuPoint UM voice mail extension.
• When prompted for an extension at the system greeting, dial the test mailbox created earlier.
• Leave a voice mail message and then follow the prompts to deliver the message.

4. Verify MWI and Retrieve Voice Message from Extension “xxxxx”.

5. Verify that your voice mail message was recorded by accessing the voice mail system, providing the passcode, and then listening to the message.

INTEGRATE AUDIO, WEB AND VIDEO

To integrate the AWV application with the MiVoice 5000, you must configure the MiVoice 5000 system settings first, then configure the SIP server settings in the AWV application.

INSTALL MICOLLAB AWV CONFERENCING CLIENT FOR ALL USERS

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 IP address>/wd/MCAClient-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 5000 TO COMMUNICATE WITH AWV

1. Define the Hunt Group for AWV with a cyclical hunt group head (1.2.1 and 1.3.1.2).

![Figure 46: Hunt Group Head Definition](image-url)
2. Add subscriptions used by MiCollab to Hunt Group (1.3.1.2, 1.4.3, 1.3.1.2, and 1.2.3)
   - Number of subscriptions to be included according to max participant number inside conference
   - Number max of subscriptions defined in Hunt Group is limited to 100
   - SIP MD5 password defined on MiCollab must be the same for all subscriptions belonging to Hunt Group
"Call waiting" feature to be defined as REFUSED for hunt group

Figure 49: Hunt Group Feature Class
Up to 100 extensions (subscribers) can be defined inside a hunt group. The extensions must be created before if not already existing.

Figure 50: Subscriptions to be included in Hunt Group
Configure the supported codec and payload for the SIP phones. The duration of packets must be 20 ms for all codecs.

Note: for each extension that belong to the hunt group, the MD5 password must match the MD5 password that is defined on the micollab server (if defined)
4. Configure the DTMF Method and the Header Value.
MiVoice 5000 Integration

CONFIGURE SIP SERVER SETTINGS IN MICOLLAB AWV

Configure the SIP Server settings in MiCollab Audio, Web and Video Conferencing using the account information from the MiVoice 5000 configuration:

1. Log into the MiCollab server manager interface.
3. From the MiCollab Audio, Web and Video Conferencing main page, click System Options on the navigation pane.
4. In System Options > Platform, select MiVoice 5000 as the system that is connected to MiCollab Audio, Web and Video Conferencing. Set DTMF Payload Type to 101.
5. Click Save
6. Click Ok at the prompt to restart the server.
7. Click Configure SIP Server on the navigation pane. The SIP Server Configuration page appears.
8. Enter the following information:
   - Extension First: Type the extension number of the first IP device in the hunt group used by the MiCollab Audio, Web and Video Conferencing server to register itself with the PBX.
   - Extension Last: Type the extension number of the last IP device in the hunt group used by the MiCollab Audio, Web and Video Conferencing server to register itself with the PBX.
   - Extension PIN: This PIN is used for SIP MD5 authentication. If authentication is activated on the MiVoice 5000, this field is mandatory and is equal to the SIP password for subscriber "Extension First" to "Extension Last".
   - SIP Domain: This can be the domain name, fully qualified domain name (FQDN), or the IP address of the PBX system used to register the MiCollab Audio, Web and Video Conferencing
   - SIP ports: If you do not know the domain name or FQDN, type the PBX system IP address.
   - IP Address: Type the IP address of the PBX system. Alternatively, type the FQDN. Note that when typing the FQDN, only the first IP Address value returned by the DNS lookup will be used.
9. Click Save.

INTEGRATE MIVOICE BORDER GATEWAY

MiVoice Border Gateway provides a secure communications path for remote MiCollab Client users to the MiCollab Client Service. The MBG provides SIP Teleworker support for MiCollab Client softphones.

CONFIGURE THE ICPS IN THE STANDALONE MBG (OPTIONAL)

When you create the network elements in the MiCollab USP network element tab, the network elements are automatically added to the embedded MiVoice Border Gateway (MBG) application. However, if your deployment includes a standalone MBG system, you must
manually configure the network elements as ICPs in the standalone MBG server manager interface.

**Note:** The standalone MBG must be clustered with the embedded MBG application on the MiCollab server.

To add a communications platform as an ICP:
1. Log into the standalone MBG server manager interface.
2. Under Applications, click **MiVoice Border Gateway**.
3. From Service Configuration, click ICP
4. From ICP Information, click +
5. Complete the ICP information. Refer to the online help for details. Select "MiVoice 5000" as the ICP type.
6. Click **Save**. You can now select the ICP type (MiVoice 5000) from any MBG device management page:

![Configure MiVoice 5000 as ICP on Standalone MBG](image)

**Figure 54: Configure MiVoice 5000 as ICP on Standalone MBG**

**CONFIGURE SIP SETTINGS**

1. Set the MBG SIP Capabilities for the MiVoice 5000 ICP to UDP, TCP.

![Configure MBG SIP Capabilities](image)

**Figure 55: Configure MBG SIP Capabilities**

2. Configure SIP settings.
3. Configure the "Network profile" according to the network configuration.

4. Configure the "Application Integration".

5. Configure the Web Proxy (for the Standalone MBG clustered only) to allow the connection between applications on the LAN and clients (for example, AWV, MiCollab Client) on the Internet.
INTEGRATE MICOLLAB CLIENT

CONFIGURE MICOLLAB CLIENT

Refer to the MiCollab Client Service application online help and the MiCollab Client Administrator’s Guide for configuration information.

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

DEPLOY MICOLLAB CLIENT (NEXT GEN) MOBILE CLIENTS

MiVoice 5000 platforms support MiCollab Next Generation mobile clients. Only the Next Generation variants of the mobile clients are supported. After you configure a user with a mobile client in the MiCollab Client application, a deployment e-mail is sent to the user with simplified configuration instructions on how to set it up.

Configure CSTA Link

The MiCollab Client CSTA Proxy application supports the call control messaging between MiCollab and the MiVoice 5000 platform to support MiCollab Client features such as "Click-to-Call".

1. Log into the MiCollab server manager.
2. Under Applications, click MiCollab Client Service.
3. Click Configure MiCollab Client Service.
4. Click PBX Nodes.
5. Double-click the system name or IP Address of the MiVoice 5000.
6. Open CSTA Settings.
7. In the Port field, enter the number of the CSTA port on the MiVoice 5000 (default is 3211).
8. Refer to the online help for descriptions of the other fields. Typically, you will not need to change the default settings.
9. Click Save.
Configure MiCollab Client Deployment

1. Log into the MiCollab server manager interface.
2. Set up the connection to MBG for the internal MBG:
   - Under Applications click MiCollab Client Deployment.
   - Access the Configuration > Connections to MBGs panel.
   - Create a connection to the local MBG using the LAN (Server Only) or WAN (Server/Gateway) IP address of the MiVoice Business Gateway. See the MiCollab Client Deployment help for details.
   - Click the Save and send AuthRequest button.
Figure 59: Setting up MiCollab Client Deployment Connection to Local MBG

3. Under Administration, click Web Services.

Figure 60: Approve MiCollab Client Deployment Temporary Token in Web Services Page

4. Click Approve.
5. The system generates a verifier code for the MiCollab Client deployment. Copy the "verifier code" that is generated by the system. You will need to enter it in a later step.

Configure MSL Web Services

> Location: MSL web services
This interface permits configuration of MSL’s web services interface, and the clients that are permitted to use it.

Manage web service availability
Start
Stop
Web service status enabled
Access URL: https://hostname or ip address:/mslweb/

Below you will find the registered consumers of this web service. These are vendors of web service clients, not active clients themselves. For registered clients, see further below in the table entitled "Final tokens".

<table>
<thead>
<tr>
<th>Add a new consumer:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consumer Information</strong></td>
</tr>
<tr>
<td><strong>Active</strong></td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>-</td>
</tr>
</tbody>
</table>

The following table shows the list of approved tokens, representing an approved client for this web service.

<table>
<thead>
<tr>
<th>Final tokens</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consumer</strong></td>
</tr>
<tr>
<td>Users and Services</td>
</tr>
<tr>
<td>deploy_usera</td>
</tr>
<tr>
<td>MiCollab Client Deployment</td>
</tr>
</tbody>
</table>

The following table shows the list of temporary tokens. These tokens, if approved, can be used for the client to fetch its final tokens, used for day-to-day authentication. These tokens require administrator intervention to permit access. If you do not wish to permit access to the client responsible for the request, you may either reject the token, or wait for it to expire.

<table>
<thead>
<tr>
<th>Temporary tokens</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consumer</strong></td>
</tr>
<tr>
<td>MiCollab Client Deployment</td>
</tr>
</tbody>
</table>

Figure 61: Verifier Code


7. Access the Configuration > Connections to MBG panel.

8. Modify the connection and enter the verifier code that you copied above.

9. Click Save and send AuthRequest.

Enable Remote Access to the Deployment Unit Interface

10. Log into the MBG server manager.

11. Under Administration click Remote proxy services.

12. Click the LAN server proxy list tab.

13. Click Add new LAN server proxy and add the MiCollab server.

14. Click Modify and configure the proxy settings.

15. Click Save.
Figure 62: Remote Proxy Services

Figure 63: Enable Access to Deploy Unit Interface
Create and Assign Deployment Profiles

16. Log into MiCollab server manager.

17. Under Applications, click MiCollab Client Deployment.

18. Click Deployment profiles. You can use the default deployment profile, create a new profile, or modify the existing ones. Deployment is supported for MiCollab Client users who are assigned with profiles.

19. Configure the General settings and Softphone settings. Refer to the online help for field descriptions.
   - In the General settings configure the connection parameters:
     - **Config download host**: Enter the FQDN of the MiCollab Server
     - **MBG SIP host**: Enter the IP address of the MBG IP if client is connected in Teleworker mode
     - **PBX SIP host**: The IP address of the MiVoice 5000 if Teleworker is deactivated
   - In the Softphone settings, configure if the client will register
     - to the MBG in Teleworker mode, or
     - to the MiVoice 5000, if Teleworker is deactivated

Figure 64: General Settings
20. Click the **Users** tab and assign the deployment profiles (templates/roles) to the MiCollab Client users.

**Purchase and Import SSL Certificates to Servers**

21. Log into the MiCollab server manager.

22. Under **Security**, click **Web Server Certificates**.

23. 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.

**Synchronize from MiVoice 5000**

24. Launch the synchronization from the MiVoice 5000. The MiCollab Client Deployment application automatically deploys the clients for users who are assigned with a role that corresponds to a template with a deployment profile.

The system pushes the user configuration file to the redirect server which sends an email to the user clients. The users click a link in the email to download and install the configuration file on their mobile client.
CONFIGURE INTEGRATED DIRECTORY SERVICES (OPTIONAL)

Optionally, configure Integrated Directory Services to integrate the non-corporate contacts from a directory server or a MiVoice 5000 with the MiCollab Client Corporate Directory database. Note that only non-corporate entries (contacts) are supported via IDS. User entries are not synchronized and are not copied to the MiCollab USP database.

During an IDS synchronization event, the system imports the non-corporate entries. When users start up their MiCollab clients, the system updates the user's Contacts list. Users can then place calls to the non-corporate contacts using "Click-to-Call" functionality from their phone clients.

CONFIGURE THE CONNECTION AND SYNC DATABASES

1. Configure the connection to the MiCollab server. In the MiVoice 5000 Management Portal (MMP) or the MiVoice 5000 Manager, access the Telephony Service > Subscribers > Terminals and Applications > MiCollab > Connections menu, and enter the following parameters:
   - **Label**: Enter the system name of the MiCollab server
   - **Main IP Address**: Enter the IP Address of the MiCollab server
   - **Login**: Enter the MiCollab Server Manager "micollab_api" account username
   - **Password**: Enter the MiCollab Server Manager "micollab_api" account password
   - **Daily Re-alignment**: Set the time (HH:MM) for the daily synchronization to occur with the MiCollab server (default 02:59)
   - Check the MiCollab server synchronization box

2. Perform a manual synchronization with the MiCollab server to obtain the default and custom roles from MiCollab.
   - In the MiVoice 5000 Management Portal (MMP) or the MiVoice 5000 Manager, access the Telephony Service > Subscribers > Terminals and Applications > MiCollab > Connections menu.
   - If Windows login authentication is required for IDS integration, check the Windows Login for Authentication box.
   - Click Immediate realignment to launch an immediate synchronization. The roles are obtained from MiCollab.

3. Check that the roles are present on the communication platform:
   - In the MiVoice 5000 Management Portal (MMP) or MiVoice 5000 Manager, access the Telephony Service > Subscribers > Terminals and Applications > MiCollab >MiCollab Role menu.
   - Ensure that the desired roles are listed under the Label heading.

4. Assign the roles to users
   - Assign Entry, Standard, or Premium default roles or custom roles to users who require MiCollab applications services. Refer to the MiCollab Engineering Guidelines for the maximum number of Entry, Standard, or Premium users that can be configured on your MiCollab platform.
   - Assign the Basic role to users who require the MiCollab Client desktop and web client with Chat only.
- Ensure that subscribers are configured with an e-mail addresses.

5. Perform a manual synchronization from the MiVoice 5000 with MiCollab. The synchronization populates the MiCollab database with the MiVoice 5000 users and applies the application services that are defined in the associated roles and templates.

PERFORM USER AND SERVICES PROVISIONING

User and services provisioning is performed from the communications platform administration interfaces -- not from the MiCollab Users and Services application.

- To add or modify MiCollab services, assign a role to the user from the MiVoice 5000 management interface. For example, to add a NP-UM mailbox to a user, the administrator assigns a Role that contains a mailbox to the user. To delete a mailbox, the administrator assigns the user with a Role that does not include a mailbox.

- Most of the fields and buttons within the MiCollab Users and Services application are disabled since the administrator configures users from the communications platform administration interfaces.

- Assign a role to a new user to apply the associated MiCollab template and configure the user with the application services that are defined in the template. The MiVoice 5000 periodically performs an automatic synchronization to update the MiCollab database. After the synchronization, the application services are enabled for the user.

- If you remove a role from a user on the MiVoice 5000, the user is deleted from MiCollab after the next synchronization event.

- If you change a user’s role, the user’s application services are updated with the new service mix that is defined in the role’s template. For MiVoice 5000 integrations this occurs after the next synchronization.

CONFIGURE MIVOICE 5000 WITH MBG IP ADDRESS

If the SIP security is enabled on the MV5000, you must add the MBG IP address in the Whitelist.

Figure 66: Add MBG IP Address in Whitelist
MIGRATION PROCEDURE FOR AWV

MiCollab Release 6.0 supported the integration of the Audio, Web, and Video application with MiVoice 5000 platforms. The following paragraphs describe how to migrate an existing MiCollab Release 6.0 AWV site to MiCollab Release 7.1 support.

You can migrate systems where the AWV accounts were only created within the AWV application to MiCollab 7.1. These accounts do not lose their existing conferences during the migration.

1. Backup the database, install MiCollab 7.1, and then restore their database.
2. Integrate the MiCollab system with the MiVoice 5000 call manager. See “Integration Procedure” on page 71 for instructions.
3. After you integrate the MiCollab with the MiVoice 5000 call manager, use the call manager to assign roles to the users.
4. After the users are created on MiCollab, providing that the e-mail address is provided and it matches the existing AWV account e-mail address, the account is linked to the newly created user.

Systems where the AWV user accounts were created via USP or IDS and already have a MiCollab user assigned are not automatically paired. You must delete these users and recreate them after you install MiCollab Release 7.1 and integrate it with the MiVoice 5000. In this case, the users lose their existing conferences.
Chapter 6

MX-ONE INTEGRATION
OVERVIEW

You can integrate a MiCollab system with MiVoice MX-ONE platform to provide MiCollab applications, such as NuPoint voice mail, MiCollab Client, Teleworker, and Audio, Web, and Video to users who are hosted on the MiVoice MX-ONE platform.

- For MiCollab integrations with the MX-ONE system, the administrator performs user provisioning from the MX-ONE Provisioning Manager interface.
- Roles and templates are used to define the MiCollab services for the users.

The administrator creates roles and templates in the User and Services application on the MiCollab system. The MX-ONE reads the roles from the MiCollab system whenever it needs to display them.

The administrator then assigns roles to the primary directory number of the user on the MiVoice MX-ONE. The roles on the communications platform correspond to roles on the MiCollab system. The UCC roles map to MiCollab USP templates that define the required application services for the user type. When an administrator adds, edits or deletes a user from the platform management interface, the user's services are updated on MiCollab based on the assigned template on the next manual immediate synchronization or during the next scheduled database synchronization.

Non-Corporate contacts that appear in the MiCollab Client corporate directory can be obtained via MiCollab IDS from an Active Directory server.

A typical integration consists of the components shown in Figure 67:

- **Communications Platform**: The MiVoice MX-ONE can be integrated with a single MiCollab system.
- **MiCollab Server**: Provides application services (NuPoint voice mail, AWV, MBG, and MiCollab Client) to MiVoice MX-ONE users and supports MiCollab Client softphones for external users over the Internet.
  - NuPoint Unified Messaging integrates with the MiVoice MX-ONE via SIP trunking.
  - Audio, Web and Video integrates with the MiVoice MX-ONE using SIP extensions.
  - MiCollab Client softphones are integrated with the MiVoice MX-ONE via SIP extensions. Computer Telephony Integration (CTI) is achieved via a CSTA Proxy in the MiCollab system.
  - MiVoice Border Gateway solution provides a secure communications path for remote MiCollab Client SIP softphones to the MiCollab Client Service. The MBG provides support for MiCollab Client SIP softphones through the implementation of proprietary SIP headers, SIP feature enhancements, line enhancements, and security enhancements, along with administrator interface changes for its management.
  - A standalone vMBG server can be installed in the Demilitarized Zone (DMZ) of a customer's existing firewall. In this case, the MiCollab MBG application must be clustered with the standalone vMBG.
- **MiCollab Client CSTA Proxy**: Provides Computer Telephony Integration (CTI) between the MiVoice MX-ONE and MiCollab Client to support telephony features such as "Click-to-Call" and presence. The MiVoice MX-ONE communicates with the CSTA proxy using CSTA III protocol.
• **Firewall**: Protects corporate LAN from Internet.

• **Redirect Server**: Provides the configuration data to MiCollab mobile clients. This is a Mitel server located on the Internet. It sends MiCollab mobile client users a configuration e-mail that allows the users to download and install the required configuration files from the redirect server.

• **SIP Trunking**: The NuPoint Voicemail application is supported via SIP trunking.

• **SIP Extensions**: The Audio, Web and Conferencing application is supported via SIP extensions on the MiVoice MX-ONE.

• **Administration Interface**: User provisioning is performed from the Provisioning Manager (PM), the communication platform management tool.

• **Directory Server**: An optional Active Directory server can be used to support the synchronization of MiCollab Client contacts to the MiCollab Client Corporate Directory and to support Active Directory Authentication of MiCollab users.

---

**Figure 67: MiVoice MX-ONE Integration**

**REQUIREMENTS**

- Integration with MiCollab 7.1 or higher is supported with MiVoice MX-ONE 6.1 SP1 or higher.
- MiCollab Client must be configured in Integrated Mode.
CONDITIONS AND LIMITATIONS

- A single MiCollab server can provide applications services to the users on one MiVoice MX-ONE system in the same network.

- The integration of multiple MiCollab systems to MiVoice MX-ONE platforms is supported.

- Connection of a MiCollab server to a mix of different network elements (for example, MiVoice 5000 and MiVoice MX-ONE) is not supported. All network element types must be of the same type on a single MiCollab. It is not possible to switch 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.

- User and services provisioning is performed from the MiVoice MX-ONE management interfaces. The Add, and Quick Add functions are not supported from the Users and Services Application if MiCollab is integrated with the MiVoice MX-ONE.

- The MiVoice MX-ONE supports a maximum of four terminals/devices per user. Although MX-ONE supports users with multiple devices, only the users’ primary directory numbers appear in MiCollab. MiCollab services are applied to the primary directory number of the user.

  **Note:** MiVoice MX-ONE parallel ringing is not supported. Parallel ringing allows several terminals (deskphones, softphones or mobile phones) that are registered with different extension numbers to receive incoming calls at all the terminals at the same time. The “extension” can take the call on any of the terminals and once accepted all the phones stop ringing.

- NuPoint Unified Messaging Speech Auto Attendant is not a supported application for MX-ONE integrations.

- MiCollab Integrated Directory Services is not supported for managing user entries. Only non-corporate entries (contacts) are synchronized from the directory services database to the MiCollab Client corporate directory.

- Functions and fields in the USP application that are not applicable to MiVoice MX-ONE are disabled (or hidden). They are disabled after a MiVoice MX-ONE type network element is assigned in the USP application. The administrator adds application services by assigning a role with the required service level. The administrator removes the role to remove the services. To remove only the NuPoint voice mailbox from a user, the administrator must create a role without a mailbox and assign it to the user.

- Each MiCollab system supports a maximum of 5000 users. In a multi-MiCollab deployment, up to eight peered MiCollab systems can be deployed to support 40,000 users. The combined MiCollab Client corporate directory can contain up to 40,000 contacts. The MiVoice MX-ONE supports up to 500,000 users.

- If you are integrating an existing MiVoice MX-ONE with a new MiCollab system, you can export a CSV file of user entries from the MX-ONE Provisioning Manager interface. You can then import the user entries into the MiCollab system using the Bulk User Provisioning (BUP) tool in USP. Manually refresh the MiCollab server from the PM Subsystem task on the MX-ONE to complete the synchronization of users.
- LDAP authentication is supported for users who have been created from the MiVoice MX-ONE system with authentication enabled. An "authentication only" IDS connection is required to allow MiCollab to validate the end-user password against the Active Directory password. Users can then log into their end-user interfaces by entering their Active Directory password.

- The Mitel Integration Configuration Wizard configures MiCollab with MiVoice Business platforms only. It is not supported for integrations with MiVoice MX-ONE.

- The MiCollab End User Portal is supported for MiVoice MX-ONE users. It provides them with access to their user portal, voice mail, and AWV settings. However, a user’s MiVoice MX-ONE phones are not displayed in the portal interface.

- The MiVoice MX-ONE can operate in a multi-company management mode where the PBX resources are shared between different companies. Currently, MiCollab does not support multi-company management mode.

- ORIA does not support provisioning of MiVoice MX-ONE systems.

- MiCollab does not provide the ability to configure the phone types for each MiVoice MX-ONE subscriber. Note that the MiCollab Client and MBG applications function as SIP phone integrations. MBG creates a SIP device account and UCA allows a soft phone because the user has a SIP account.

- User pictures are not imported into MiCollab Client.

- The integration of MiVoice MX-ONE systems to the MiCollab Server Appliance is not supported. The MiCollab Server Appliance is a small-business capacity MiCollab system that is shipped from Mitel Network to the customer pre-installed on an industry standard server.

- The Provisioning Manager supports configuration of only one MiCollab Release 7.0 or Release 7.1 server, but supports the configuration of multiple MiCollab Release 7.2 or later servers. Note that the MiCollab servers must be running the same software release.

- A MiCollab Export task exports data in to a MiCollab_Users.zip file that is comprised of multiple MiCollab CSV files. The user data in each file varies depending on the source user data:

<table>
<thead>
<tr>
<th>USER DATA</th>
<th>FILENAME STARTS WITH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email IDs, Phone Numbers and SIP Passwords</td>
<td>MiCollabUsers0_x.csv</td>
</tr>
<tr>
<td>Phone Numbers</td>
<td>MiCollabUsers1_x.csv</td>
</tr>
<tr>
<td>Email IDs</td>
<td>MiCollabUsers2_x.csv</td>
</tr>
<tr>
<td>without Email IDs, Phone Numbers and SIP Passwords</td>
<td>MiCollabUsers3_x.csv</td>
</tr>
<tr>
<td>with MiCollab roles assigned</td>
<td>MiCollabUsers4_x.csv</td>
</tr>
</tbody>
</table>

- Each CSV file is generated with a maximum of 500 user records. New files are generated if user count exceeds 500 in any of the above categories.
- The External Number and DID Number fields are updated on a user record if the UDF fields are defined as External Number and DID Number in the UDF Mapping task. The field names External Number and DID Number are case sensitive.
LICENSING

MIVOICE MX-ONE LICENSING

License the MiVoice MX-ONE system from the Software License Server (SLS). Only MiVoice MX-ONE certified technicians should apply licenses to the MiVoice MX-ONE.

MICOLLAB LICENSING

You license the MiCollab system through the Application Management Center (AMC). The AMC is not used to assign licenses that are required on the MiVoice MX-ONE.

1. Log into AMC.
2. Create a customer account.
3. Register (purchase) products and licenses and assign them to the customer account.
4. Create Application Record IDs for the MiCollab and optional MiVoice Business Gateway.
5. Assign base software licenses to the system ARIDs.
6. Create a ULM using the MiCollab ARID.
7. If a standalone MBG system is required, add its server ARID.
8. Assign UCC user licenses to the ULM. The UCC user licenses will provide the communication platform users with entitlement to the MiCollab applications.
9. Purchase and activate any additional “a-la-carte” feature, port, or language licenses for the MiCollab system applications.

Note: Refer to the AMC online help for detailed licensing steps.

INTEGRATION PROCEDURE

OVERVIEW

The following procedures describes the steps required to integrate a new MiCollab system with a new or existing MiVoice MX-ONE platform.

- Install platforms
- Configure MiCollab into MiCollab Client Integrated Mode
- Create network elements
- Configure a password for the "micollab_api" account
- Configure MiCollab system application settings
- Integrate the applications with the MiVoice MX-ONE:
  - Integrate NuPoint Unified Messaging
  - Integrate Audio, Web and Video
- Integrate MiVoice Border Gateway
- Integrate MiCollab Client
  • Configure Integrated Directory Services (optional)
  • Configure the connection and sync databases
  • Perform user adds, edits, and deletes.

INSTALL PLATFORM

1. Install, license, configure, and provision the MiVoice MX-ONE.
   - Refer to the MiVoice MX-ONE Installation and Maintenance Guide.

2. Install the MiCollab platform. Do not run the Mitel Initial Configuration Wizard. The MiCW is not supported for MiCollab systems that will be integrated with the MiVoice MX-ONE.

3. Log into MiCollab server manager. Under ServiceLink, click Install Applications and then click the Install Applications tab. Set the ICP type to "MiVoice MX-ONE".

4. Collect the following information for the integration:
   - MiCollab IP Address
   - MiVoice MX-ONE IP Address.

CONFIGURE MICOLLAB CLIENT INTEGRATION MODE

Configure MiCollab in MiCollab Client Integration Mode. Refer to the MiCollab Installation and Maintenance Guide for instructions.

CREATE NETWORK ELEMENTS

Create the network elements for the communication platform(s):

1. Log into the MiCollab server manager.

2. Under Applications, click Users and Services.

3. Click the Network Element tab.

4. Click Add.

5. In the Type field select the system type: "MiVoice MX-ONE".

6. Enter the IP address of the MiVoice MX-ONE Service Node Manager. The MiCollab can support multiple MiVoice MX-ONE Service Node Managers.

7. Enter the NuPoint voice mail number to be used by MiCollab Client into the Call Forward Destination Directory Number field.

8. After you save your updates to the Network Element page, you are prompted to associate the element with the templates. If you select Yes, the network element field for the primary phone in all templates will be automatically set to the name of this network element. If you select No, you must create custom templates and associate them with this network element.
• If required create custom roles and templates in the MiCollab USP application from the UCC default templates.

9. **Configure** the MiVoice MX-ONE network element
   - as a SIP GATEWAY within the NuPoint Unified Messenger application, and
   - add the line groups to the SIP GATEWAY (ports).

10. **Configure** the MiVoice MX-ONE as a SIP Server in the MiCollab Audio, Web and Video application.

**Configure "micollab_api" Password**

You must configure a password for the "micollab_api" account. The MiVoice MX-ONE uses this account to synchronize data with the MiCollab system. You must configure the same password for the account on the MiVoice MX-ONE. If you change the password on either system, you must also change it on the other.

1. Log into the MiCollab server manager.
2. Under Administration, click System users.
3. Next to the "micollab_api" account, click Modify and add any required account info.
4. Click Reset password and enter a password for the account.
5. Enter a new password and verify it.
6. Click Save.
7. Log into the MiVoice MX-ONE Provisioning Manager management interface.
8. Go to System tab > Subsystem tab > Add and enter the following parameters:
   - **Subsystem type**: Select MiCollab Server in the drop down list
   - **Subsystem Name**: Enter the system name of the MiCollab Server
   - **Version**: Select the MiCollab version
   - **IP Address**: Enter the IP Address of the MiCollab Server
   - **User ID in Subsystem**: Enter the MiCollab Server "micollab_api" account user name
   - **Password in Subsystem**: Enter the MiCollab Server "micollab_api" account password
   - **Confirm Password in Subsystem**: Confirm the MiCollab Server "micollab_api" account password
   - **Location**: Select the location
   - **MiCollab pool**: Select the MiCollab pool
   - **Enable MiCollab AD Authentication**: Enable if required.
9. Click Apply.

CONFIGURE MICOLLAB SYSTEM APPLICATION SETTINGS

Configure the MiCollab system application settings manually through the application administration interfaces in the MiCollab server manager. Refer to the application online help for instructions.

INTEGRATE NUPOINT

OVERVIEW

NuPoint Unified Messaging (NuPoint UM) supports Session Initiation Protocol (SIP) integration with the MiVoice MX-ONE. The maximum number of NuPoint ports is 120. Speech Auto Attendant is not supported.

One or more SIP trunks can link NuPoint UM to the MiVoice MX-ONE. NuPoint Unified Messaging receives and sends SIP messages over these trunks. Each SIP trunk consists of one or multiple SIP ports.
Figure 69 illustrates the SIP trunk integration:

Every SIP trunk is assigned a Pilot Number. To call into NuPoint UM, the MiVoice MX-ONE provides a pilot number for the endpoint users to dial. When NuPoint UM makes a trunk call to the communications platform, 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, 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 communications platform 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 communications platform. For example, pilot number 2500 for NuPoint UM Voice is mapped to extension 2500 for the Voice Mail application programmed on the communications platform. 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 that is used to access the application.

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).
PREPARATION

Gather the following information in preparation for this voice mail integration:

- customer’s desired voice mail call flows, features, applications, users, and extensions.
- network information including IP addresses, Subnet Mask, Gateway IP address, primary domain name, and Fully Qualified Domain Name (FQDN) information.

CONFIGURE NUPOINT

1. Ensure that the MiVoice MX-ONE is running and correctly configured.

   The communications platform provides NuPoint UM with the SIP Gateway IP address, port data, and line mapping details that are used to accept calls from the communications platform and redirects them to available NuPoint lines. SIP endpoints are able to call a Pilot Number that route to an available NuPoint UM line and hear a greeting prompt, such as "Welcome to the message center. Please enter a mailbox number or wait."

2. If you haven’t done so already, add the MiVoice MX-ONE as a SIP GATEWAY network element to the NuPoint UM application. This is necessary to set up network mappings for SIP calls. Refer to Add a Network Element for instructions on how to configure a SIP Gateway.

3. Modify the MiCollab server security settings to allow full telephony communication to be established between the communications platform and the NuPoint application.
   - Log into the MiCollab server console.
   - Under Configuration, click Configure Networks.
   - Click Add a new trusted network.
   - In the Network Address field, enter the IP address of the network to designate as "local".
   - 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.
   - In the Router field, enter the IP address of the router you will use to access the newly-added network.
   - Click Add.

4. Configure NuPoint UM Line Groups for the SIP Gateway.

   Each NuPoint UM line is dedicated to handle one call at a time. Therefore, the number of lines defined in NuPoint UM is the maximum number of simultaneous calls possible. NuPoint UM can have up to 120 lines. A Line Group is a collection of one or more NuPoint UM lines, each mapped to a cluster node. 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.

5. Configure system mailboxes and greetings.

6. Set up and initialize the Administrator mailbox.

   The Administrator mailbox is set up by default (under mailbox number 998) during the NuPoint UM application installation. It can be used to record System Message Prompts and program additional user mailboxes. See Managing Mailboxes for additional information.
7. Direct callers to NuPoint UM mailboxes on Call No Answer.

Call No Answer scenarios must be correctly configured through the SIP Gateway/SIP Endpoint Call Forwarding options. In general, when Call No Answer is detected at the SIP Endpoint, the call should be forwarded to the NuPoint UM Pilot Number (Extension) as “Call Forward Not Available.” It is assumed that the Endpoint Extension forwarding the call matches a mailbox number programmed in NuPoint UM. If this is the case, when a forwarded call is received by NuPoint UM, a prompt will indicate that the recipient is not available and ask the caller to leave a message.

8. Enable paging message notifications.

Check that message notifications are set up at the mailbox level. Each mailbox may be set up for two notification types concurrently.


Distribution lists allow a mailbox user to send messages to multiple mailboxes in one step.

10. Configure the following FCOS:

   - 263 - Store Caller Line Id as a phone or mailbox number
   - 264 - Play outside caller user interface (with FCOS bit 280)
   - 280 - Enable CLI outside caller interface (with FCOS bit 264).

CONFIGURE MVOICE MX-ONE TO SUPPORT NUPOINT

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

1. Log into the Service Node Manager (MX-ONE management system).

2. Initiate the Voice Mail numbers.

3. Go to Number Analysis and then Number Plan, Number Series, and then click Add.

4. Select the Number Series Type, and enable the External numbers option.
5. Enter the Voice Mail numbers in the External Destination field.
6. Click **Apply**. The Service Node Manager shows the result of the operation.

![Figure 73: Number Series - Add - Result](image)

7. Set the number length to the external number.

8. Click **Number Analysis**, **Number Plan**, and then select **External Number Length**.

9. Click **Add**.

![Figure 74: External Number Length](image)

10. Enter the **External Number**, **Minimum Length** and **Maximum Length**.
11. Click **Apply**. The Service Node Manager shows the operation result:

![Figure 75: External Number Length - Add](image1)

12. Configure a SIP trunk:
   - Click **Telephony**, click **External Lines**, and then select **Route**.
   - Click **Add**.

![Figure 76: External Number Length - Add - Result](image2)
121

Figure 77: Route

- Set the Type of Signaling to “IP Public, SIP”
- Select “NuPoint” in the Profile Name List.

Figure 78: Add Route - Step 1

13. Enter the following NuPoint information:
   - **Route Name**: Enter a meaningful name for the route
   - **Route Number**: Select the next route number in the drop down list
   - **Number of Trunks**: Enter the number of trunks dimensioned to the customer system
• **Remote Proxy IP**: Enter the MiCollab server FQDN or IP address
• **Remote Proxy Port**: 5058
• **Server Numbers**: Service Node number where the SIP trunk is configured.
• **Voice Number**: Enter the number that was used in Step 2.

![Figure 79: Add Route - Step 2](image)

14. Click **Apply**. The Service Node Manager shows the operation result.
Figure 80: Add Route - Result

<table>
<thead>
<tr>
<th>General</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile Name</td>
<td>NuPoint</td>
</tr>
<tr>
<td>Route Name</td>
<td>Voice_Mail</td>
</tr>
<tr>
<td>Route Number</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SIP Route Specific Data</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outgoing Traffic</strong></td>
<td></td>
</tr>
<tr>
<td>Remote Port</td>
<td>5060</td>
</tr>
<tr>
<td>Unknown Public Number</td>
<td>sip:+@192.168.222.153</td>
</tr>
<tr>
<td><strong>Incoming Traffic</strong></td>
<td></td>
</tr>
<tr>
<td>Type of Accepted Calls</td>
<td>Remote IP</td>
</tr>
<tr>
<td>Addresses or Numbers to Match Incoming Call</td>
<td>192.168.222.153</td>
</tr>
<tr>
<td>Priority for Incoming Calls</td>
<td>255</td>
</tr>
<tr>
<td>MWI Number</td>
<td>6001</td>
</tr>
<tr>
<td>Handle as Extension</td>
<td>No</td>
</tr>
<tr>
<td><strong>Emergency Call Data</strong></td>
<td></td>
</tr>
<tr>
<td>Type of Accepted Calls</td>
<td>EMERGENCY</td>
</tr>
<tr>
<td>Addresses or Numbers to Match Incoming Call</td>
<td>192.168.222.153</td>
</tr>
<tr>
<td>Priority for Incoming Calls</td>
<td>255</td>
</tr>
</tbody>
</table>

| **Third Party Registration**     |              |
| Supervise Time                   | 30           |

| Route Category                  |              |
| Transmission Category           | 4            |
| Disturbance Level               | 0            |

| Route Selection Category        |              |
| **Incoming Traffic**            |              |
| Line Selection During Outgoing Traffic | Sequential |
| Route Characteristics Outgoing Traffic | Normal route |
| Allow Alternative Route Selection | Permitted   |
| Customer Affiliation             | 0            |
| Allow Virtual Calls              | Yes          |
| Allow Malicious Call Tracing     | No           |
| Facilities Restriction Level     | 0            |
| Receive Traveling Class Mark Information | No |
| **Route to Telident Machine for Emergency Calls** | Normal |
| **Traffic Category**             |              |
| Abbreviated Dialing Traffic Class | 3          |
| **Call Discrimination Group Night for Incoming External Lines** | 15 |
| **Call Discrimination Group Day for Incoming External Lines** | 15 |
| **Traffic Connection Class**     | 15           |

| Service Category                |              |
| Allow Initiation of Call Waiting Tone Transmission | Yes       |
| Allow Reception of Call Waiting Tone and Intrusion   | Yes       |
| Automatic Call Back Characteristics     | Permitted   |
| Type of Route                       | Tie line    |
| Allow Paging Over Speech Channel     | No          |
| Mobile Extension without R1 Number   | No          |
| Allow Bearer Capability Substitution | No         |
| Allow High Level Compatibility Substitution | No  |
| Allow Number Conversion              | Yes         |

| **Route Selection Category**     |              |
| **Signaling Data**               |              |
| Dial Tone Characteristics after External Line Seizure | No monitoring path established |
| User of Digit Transmission for Transit Exchange | No |
| Use Net Service Facilities       | No           |
| Ringing Tone Transmission for Outgoing Traffic | A-party receives ringing tone |
| Ringing Tone Transmission for Outgoing Traffic | After minimum number of digits |

| Equipment                      |              |
| Trunk Line Number              | 1-15         |
15. Associate the route with the destination access code.

16. Click Telephony and then External Lines, select Destination, and click Add.

![Figure 81: External Lines - Destination](image)

17. Click Destination, set the Type of Destination to Destination and then click Next.

![Figure 82: Destination - Add - Step 1](image)

18. Select the Destination Number and the Route Name and then click Next.
Figure 83: Destination - Add - Step 2
19. Click **Advanced** and select:
   - Show Original A-Number
   - Enable Enhanced Sent A-Number Conversion.
   - Set Type of Called Number to "Private Unknown".

![Figure 84: External Lines - Destination - Change](image)

20. Click **Apply**. The Service Node Manager shows the operation result.
21. Log into the Provisioning Manager (MiVoice MX-ONE management system) and set up a Personal Number List to an extension.

22. Complete the user configuration to forward to Mitel Voice Mail. Any third-party terminal registered in MiVoice MX-ONE can subscribe on Message Waiting Indicator (MWI) according to RFC 3842.

23. Click **Services**, and then click the **Extension** tab.
24. Select the extension to set up the Personal Number List.

25. Click edit in the Personal Number List.
Figure 87: Extension - Change - 8002
26. Click in the first pen to edit List Number 1.

Figure 88: Extension - Personal Number List

27. Make the changes in the Personal Number List and click **Continue**. The setup below enables a user to forward calls to Mitel Voice Mail. The example shows how calls will be forwarded to Mitel Voice Mail number 6001 if a call is made to extension 8002 on no answer:
Figure 89: Personal Number List - Change - 1
28. Click **Continue**.

![Figure 90: Personal Number List - Extension - Change IP](image)

29. Click **Continue**.
30. When the extension change task is presented, click **Apply** to complete the configuration.

**TEST NUPOINT VOICE MAIL OPERATION**

To test basic communication between the MiVoice MX-ONE and the NuPoint UM:

1. From any extension configured on the communications platform, call the NuPoint UM voice mail extension.
2. Verify you hear the voice mail system greeting: “Welcome to the message center.” This step establishes that you connected successfully to the NuPoint UM voice mail system.
3. Set up the test Mailbox Name and Greeting.

From the phone for which you created a test mailbox on NuPoint UM, dial the NuPoint UM voice mail extension.

1. Dial the mailbox passcode to access the voice mail system options for that mailbox.
2. Follow the voice mail prompts to set up the mailbox and create a greeting.
3. Dial Extension “xxxxx” and Leave a Voice Mail Message
   - From any phone on the communications platform, dial the NuPoint UM voice mail extension.
   - When prompted for an extension at the system greeting, dial the test mailbox created earlier.
   - Leave a voice mail message and then follow the prompts to deliver the message.

4. Check MWI and Retrieve Voice Message from Extension “xxxxx”.
5. Verify MWI on the phone that was left a voice mail message.
6. Access the voice mail system, provide the passcode, and then listen to the message.

INTEGRATE AUDIO, WEB AND VIDEO

To integrate the AWV application with the MiVoice MX-ONE, you must configure the MiVoice MX-ONE system settings first, then configure the SIP server settings in the AWV application.

INSTALL MICOLLAB AWV CONFERENCING CLIENT FOR ALL USERS

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 IP address>/wd/MCAClient-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 MX-ONE TO COMMUNICATE WITH AWV

You connect the AWV application to MiVoice MX-ONE as an internal hunt group with SIP extensions. The workflow for initiating the SIP extensions and hunt group is as follows:

- Initiate an extension profile suitable for the MiCollab AWV extensions.
- Initiate generic extension numbers, in consecutive series.
- Initiate SIP extensions for the same numbers.
- Initiate a Hunt Group with appropriate service profile.
• Initiate the SIP extensions as hunt group members.
• Optionally initiate the Voice Mail function for the hunt group number and the member extensions (to get DTMF support).
• Configure MiCollab via its web GUI.

*Initiate the Hunt Group*

1. Log into the Service Node Manager (MX-ONE management system).
2. Go to **Telephony** and then **Groups**, select **Hunt Group**.

![Figure 92: Hunt Group](image)

3. Click **Add**.
4. In the Available Directory Number Intervals field, set the range of Directory Numbers that will be used a pilot.
5. Click **Next**.

6. Select the Directory Number that will be used a pilot and configure the group parameters and click **Apply**. The recommended settings are shown below.
7. Click **Next**.

8. Enter a name for the group.
9. Click **Apply**. The Service Node Manager shows the operation result.

![Figure 96: Hunt - Group - Add - Result](image)

10. Click **Done**.

*Initiate the Common Service Profile (CSP)*

11. Click **Telephony**, click **Extensions**, then select **Common Service Profiles**. The Common Service Profile task is divided into six steps. The following is an example and the Traffic category and may vary depending the customer setup.
12. Click Add.

13. Enter a name for the common service profile and select the CSP number:

14. Click Next.
15. Define the Number Presentation Category.

![Figure 99: Common Service Profiles - Add - Step 2](image)

16. Click **Next**.

17. Define the Traffic Category.

![Figure 100: Common Service Profiles - Add - Step 3](image)

18. Click **Next**.

19. Define the Service Category.
20. Click Next.

Figure 102: Common Service Profiles - Add - Step 5

22. Click Next.
23. Define the Routing Category.

![Figure 103: Common Service Profiles - Add - Step 6](image)

24. Click **Apply**. The Service Node Manager shows the operation result.

![Figure 104: Common Service Profiles - Add - Result](image)
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Connection Class</td>
<td>15</td>
</tr>
<tr>
<td>Service Category</td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>Value</td>
</tr>
<tr>
<td>Automatic Call Back Characteristics</td>
<td>Permitted</td>
</tr>
<tr>
<td>Allow Call Waiting Tone Initiation</td>
<td>No</td>
</tr>
<tr>
<td>Call Waiting Tone Reception (B-party)</td>
<td>Deactivated</td>
</tr>
<tr>
<td>Call Waiting Tone Reception (C-party)</td>
<td>No</td>
</tr>
<tr>
<td>Intrusion Capability Level</td>
<td>0</td>
</tr>
<tr>
<td>Intrusion Protection Level</td>
<td>3</td>
</tr>
<tr>
<td>Allow Malicious Call Tracing Category</td>
<td>No call tracing</td>
</tr>
<tr>
<td>Manual Message Waiting</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Call Metering Category</td>
<td>Per route</td>
</tr>
<tr>
<td>Allow A-Number Request from MFC</td>
<td>No</td>
</tr>
<tr>
<td>Allow A-Subscriber Charged</td>
<td>Normal</td>
</tr>
<tr>
<td>Allow Individual Do Not Disturb</td>
<td>No</td>
</tr>
<tr>
<td>Hospitality Class of Extension</td>
<td>Normal extension</td>
</tr>
<tr>
<td>Accept Incoming Collect Calls</td>
<td>No</td>
</tr>
<tr>
<td>Force Calls from or to IP Terminal to be Gateway Calls</td>
<td>Yes</td>
</tr>
<tr>
<td>Allow External Controlled Call Distribution</td>
<td>No</td>
</tr>
<tr>
<td>Offered Timer [s]</td>
<td>0</td>
</tr>
<tr>
<td>Enable Common Authorization Code</td>
<td>Enabled</td>
</tr>
<tr>
<td>Allow Free on Busy</td>
<td>Disabled</td>
</tr>
<tr>
<td>Extended services in intrusion state</td>
<td>Extended services not permitted</td>
</tr>
<tr>
<td>Call List Deactivation Forbidden</td>
<td>Yes</td>
</tr>
<tr>
<td>Allow Activation/Deactivation of Group Do Not Disturb</td>
<td>No</td>
</tr>
<tr>
<td>Allow Automatic Answer</td>
<td>No</td>
</tr>
<tr>
<td>Service License</td>
<td></td>
</tr>
<tr>
<td>Short message service</td>
<td>No</td>
</tr>
<tr>
<td>Free seating</td>
<td>No</td>
</tr>
<tr>
<td>Request Transfer Permission of Public Trunk</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Transfer Reception</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Permitted to transfer calls to intruded party</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Forced Disconnect Timer [s]</td>
<td>0</td>
</tr>
<tr>
<td>Answer Handled By External Application</td>
<td>No</td>
</tr>
<tr>
<td>Log Off Restriction</td>
<td>LogOff allowed</td>
</tr>
<tr>
<td>Call Diversion Category</td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>Value</td>
</tr>
<tr>
<td>Use External Follow Me</td>
<td>No</td>
</tr>
<tr>
<td>Allow Follow Me</td>
<td>No</td>
</tr>
<tr>
<td>Allow Diversion Bypass</td>
<td>No</td>
</tr>
<tr>
<td>Origin is an Internal Extension</td>
<td>Feature not allowed</td>
</tr>
<tr>
<td>Origin is a Private External Line</td>
<td>Feature not allowed</td>
</tr>
<tr>
<td>Origin is a Public External Line</td>
<td>Feature not allowed</td>
</tr>
<tr>
<td>Allow Auto Bypass of Follow Me for SMS</td>
<td>No</td>
</tr>
<tr>
<td>Allow Auto Bypass of External Follow Me for SMS</td>
<td>No</td>
</tr>
<tr>
<td>Allow Direct Diversion to</td>
<td>Only an individual divertee position</td>
</tr>
<tr>
<td>Allow Diversion on Busy</td>
<td>No</td>
</tr>
<tr>
<td>Allow Diversion on No Answer</td>
<td>No</td>
</tr>
<tr>
<td>Allow Multi Directory Diversion</td>
<td>No</td>
</tr>
<tr>
<td>Allow Remote Programming on Follow Me</td>
<td>No</td>
</tr>
<tr>
<td>Allow Remote Programming on ECF</td>
<td>No</td>
</tr>
<tr>
<td>Allow Remote Programming on No Reply</td>
<td>No</td>
</tr>
<tr>
<td>Allow Remote Programming on Busy</td>
<td>No</td>
</tr>
<tr>
<td>Allow Remote Programming on Direct Diversion</td>
<td>No</td>
</tr>
<tr>
<td>Routing Category</td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>Value</td>
</tr>
<tr>
<td>Facility Restriction Level</td>
<td>0</td>
</tr>
<tr>
<td>Account Code Category</td>
<td>Least cost routing tables 1 or 2</td>
</tr>
<tr>
<td>Off-hook Queuing Level</td>
<td>0</td>
</tr>
<tr>
<td>Authorization Type for Route Selection</td>
<td>Normal extension</td>
</tr>
</tbody>
</table>

Figure 105: Common Service Profiles - Add - Result (Continued)
Initiate the SIP extension to be used as group members

25. Log into the Provisioning Manager (MX-ONE management system).

26. Click Services and then click Extension.

Figure 106: Extension - Add

27. Click Add.

28. In Step 1, set the Extension Type to IP.

Figure 107: Extension - Add - Step 1

29. Click Next.
30. In the step 2, at minimum select Server Number, Common Service Profile, Protocol SIP and under Hunt Group Number add the group number that you created (see Figure 94).

![Figure 108: Extension - Add - Step2](image)

31. Click Apply. The Provisioning Manager shows the operation result.
Figure 109: Extension - Add - Result
32. Click **Add From This** to initiate more SIP extensions with the same set of parameters.

33. In the **Shortcut** field, select Hunt Group.

![Figure 110: Extension - Change](image)

34. Click **Go**. The Provisioning Manager opens the Service Node Manager – Hunt Group tab.

![Figure 111: Hunt Group](image)

35. Select **Hunt Group Member**.

![Figure 112: Hunt Group Member](image)

36. Review the Hunt Group Members.
You can also manage the Hunt Group Members using the Change This... function.

Figure 113: Hunt Group Member - View

Figure 114: Manage Hunt Group Members - Managing
CONFIGURE SIP SERVER SETTINGS IN MICOLLAB AWV

Configure the SIP Server settings in MiCollab Audio, Web and Video Conferencing using the account information from the MiVoice MX-ONE configuration:

1. Log into the MiCollab server manager interface.
3. From the MiCollab Audio, Web and Video Conferencing main page, click System Options on the navigation pane.
4. In System Options – Platform, select MiVoice MX-ONE as the system that is connected to MiCollab Audio, Web and Video Conferencing.
5. Click Save
6. Click Ok at the prompt to restart the server.
7. Click Configure SIP Server on the navigation pane. The SIP Server Configuration page appears.
8. Enter the following information:
   - Extension First: Type the extension number of the first IP device in the hunt group used by the MiCollab Audio, Web and Video Conferencing server to register itself with the PBX.
   - Extension Last: Type the extension number of the last IP device in the hunt group used by the MiCollab Audio, Web and Video Conferencing server to register itself with the PBX.
   - Extension PIN: This PIN is used for SIP MD5 authentication.
   - SIP Domain: This can be the domain name, fully qualified domain name (FQDN), or the IP address of the PBX system used to register the MiCollab Audio, Web and Video Conferencing
   - SIP ports: If you do not know the domain name or FQDN, type the PBX system IP address.
   - IP Address: Type the IP address of the PBX system. Alternatively, type the FQDN. Note that when typing the FQDN, only the first IP Address value returned by the DNS lookup will be used.
9. Click Save.

INTEGRATE MIVOICE BORDER GATEWAY

MiVoice Border Gateway provides a secure communications path for remote MiCollab Client users to the MiCollab Client Service.

The MBG provides
- SIP Teleworker for MiCollab Client softphones and 6800 sets
- SIP Trunking, and
- Secure Call Recording
CONFIGURE ICP IN MBG (STANDALONE MBG ONLY)

When you create the network elements in the MiCollab USP network element tab, the network elements are automatically added to the embedded MiVoice Border Gateway (MBG) application. However, if your deployment includes a standalone MBG system, you must manually configure the network elements as ICPs in the standalone MBG server manager interface.

To add a communications platform as an ICP:
1. Log into the standalone MBG server manager interface.
2. Under Applications, click MiVoice Border Gateway.
3. From Service Configuration, click ICP
4. From ICP Information, click +
5. Complete the ICP information. Refer to the online help for details. Select "MiVoice MX-ONE" as the ICP type.
6. Click Save. You can now select the ICP type (MiVoice MX-ONE) from any MBG device management page:

![Figure 115: Configure MiVoice MX-ONE as ICP on Standalone MBG](image)

CONFIGURE SIP TRUNKS

1. Configure the MiVoice MX-ONE with SIP trunks.
2. Configure the SIP Trunks on MBG.

INTEGRATE MICOLLAB CLIENT

MICOLLAB CLIENT CONFIGURATION

Refer to the MiCollab Client Service application online help and the MiCollab Client Administrator’s Guide for configuration information.

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

DEPLOY MICCOLLAB CLIENT (NEXT GEN) MOBILE CLIENTS

MiVoice MX-ONE platforms support MiCollab Next Generation mobile clients. Only the Next Generation variants of the mobile clients are supported. After you configure a user with a mobile client in the MiCollab Client application, a deployment e-mail is sent to the user with simplified configuration instructions on how to set it up.

Configure CSTA Link

The MiCollab Client CSTA Proxy application supports the call control messaging between MiCollab and the MiVoice MX-ONE platform to support MiCollab Client features such as "Click-to-Call".

1. Log into the MiCollab server manager.
2. Under Applications, click MiCollab Client Service.
3. Click Configure MiCollab Client Service.
4. Click PBX Nodes.
5. Double-click the system name or IP Address of the MiVoice MX-ONE.
6. Open CSTA Settings.
7. In the Port field, enter the number of the CSTA port on the MiVoice MX-ONE (default is 8882).
8. Refer to the online help for descriptions of the other fields. Typically, you will not need to change the default settings.
9. Click Save.

![Diagram of MiCollab Client Integration](image_url)

Figure 116: MiCollab Client Integration
Configure MiCollab Client Deployment

1. Log into the MiCollab server manager interface.

2. Under Applications, click MiCollab Client Deployment. Refer to the application on-line help for instructions to configure client deployment.

Purchase and Import SSL Certificates to Servers

1. Log into the MiCollab server manager.


3. 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.

Configure Integrated Directory Services (Optional)

Optionally, configure Integrated Directory Services to integrate the non-corporate contacts from a directory server or a MiVoice MX-ONE with the MiCollab Client Corporate Directory database. Note that only non-corporate entries (contacts) are supported via IDS. User entries are not synchronized and are not copied to the MiCollab USP database.

During an IDS synchronization event, the system imports the non-corporate entries. When users start up their MiCollab clients, the system updates the user's Contacts list. Users can then place calls to the non-corporate contacts using "Click-to-Call" functionality from their phone clients.

Perform User and Services Provisioning

You perform all user add, change, and delete operations from the MiVoice MX-ONE administration interface.

• To add or modify MiCollab services, assign a role to a new user to apply the associated MiCollab template and configure the user with the application services that are defined in the template. MiVoice MX-ONE automatically applies the update to the MiCollab database (a periodic synchronization is not required)

• If you remove a role from a user on the MiVoice MX-ONE, a synchronization is not required. The deletion is applied automatically. The licenses associated with those services become available on MiCollab.

• If you change a user’s role, the user’s application services are updated with the new service mix that is defined in the role’s template. For MiVoice MX-ONE integrations, you must re-apply the role to the user manually because there is no automatic sync.

About the Provisioning Manager (PM)

The MiVoice MX-ONE provisioning tool is called the Provisioning Manager (PM). It is used to perform user adds, moves, and changes in MiCollab.

There are two basic tasks for adding users via the Provisioning Manager in MiCollab:
• Add task to add a single user
• Export task to add multiple users.

PROVISIONING USERS

After the Subsystem setup is done and the roles are defined in the MiCollab Server, users can be deployed into the system using the

• Provisioning Manager User task or
• Provisioning Manager Export tool.

Provisioning Manager User Task

Users can be added one-by-one or imported from files exported from other user management systems.

When MiCollab is integrated with MX-ONE and Provisioning Manager, the User task is used to add users into the system one-by-one in the same manner as any user is added in the MiVoice MX-ONE. The only difference is that in the second step a MiCollab selection is required if the user is to have MiCollab functionality.

To add a user with MiCollab functionality, follow the steps below:
1. Log in into Provisioning Manager via the appropriate credentials.
2. MiCollab users can be deployed via User Task by
   - Adding a new user (Go to Users tab > User tab > Add)
   - Changing an existing user (Go to Users tab > User tab > Enter User name/User names or * (all)).

Add a New user:
1. Go to Users tab > User tab > Add and enter the following parameters in the step 1 of 3.
   • First Name: Enter end user first name
   • Last Name: Enter end user last name
   • User Id: Enter end user unique id
   • Email Address: Enter the end user email address
   • Password: Enter a password
   • Confirm Password: Enter a password
   • Department(s): Enter the department that the end user belongs
   • Provisioning Manager Language: Select the Provisioning Manager Language to that end user
2. Click Next and enter the following parameters in the step 2 of 3.

Associate the extension to the end user via:

- **Assign Existing Extension**
  - Type the extension number (MX-ONE Authorization Code is mandatory to roles that have Teleworker)

- **Add New Extension.**
  - Create a new extension filling out the required parameters in the extension task.

After you select the extension, check the **MiCollab Extension** check box. Note that this step is required because an end user can have several extensions on multiple MX-ONE systems.
3. Under MiCollab Server, enter the following parameters:
   - **MX-ONE Service Node**: Select the MX-ONE Service Node from the drop down list. Note that this setting is used to get the MiCollab Roles for that specific system.
   - **MiCollab Servers**: Select the MiCollab Server.
   - **MiCollab Roles**: Select the MiCollab Role to the end user.
   - **Prompt Language**: Select the Voice Mail Prompt Language.

4. Click **Apply** or go to the optional step 3.
5. Go to MiCollab Users and Service > Users and verify that the user is initiated there.
6. Check the user details.

**Figure 121: Edit User**

Change an existing user:

1. Go to Users tab > User tab > Enter User name/User names or * (all).
2. Select change for end user that requires MiCollab service.

**Figure 122: Change End User Service**
3. The change user step 1 page opens. Change the fields in the User page as required.

4. Select Service Summary and associate the extension to the end user via:
   - Assign Existing Extension
     - Type the extension number (MX-ONE Authorization Code is mandatory to roles that have Teleworker)
   - Add New Extension.
     - Create a new extension filling out the required parameters in the extension task.
Figure 124: User - Change

Figure 125: Check MiCollab Box
5. Under **MiCollab Server**, enter the following parameters:
   - **MX-ONE Service Node**: Select the MX-ONE Service Node from the drop down list. Note that this is used to fetch the MiCollab Roles for that specific system.
   - **MiCollab Servers**: Select the MiCollab Server.
   - **MiCollab Roles**: Select the MiCollab Role to the end user.
   - **Prompt Language**: Select the Voice Mail Prompt Language.

6. Click **Apply** or go to the optional Scheduling page.

7. Go to MiCollab Users and Service > Users and verify that the user is initiated there.

8. Check the user details.

![Figure 126: Verify User Creation](image)
Figure 127: Check User Details

**Provisioning Manager Export Tool**

Use this tool to export the current MiVoice MX-ONE users that are in the Provisioning Manager database via a CSV file. You can then import the CSV file into MiCollab using the Bulk User Provisioning tool. The Provisioning Manager Export Tool generates the CSV file according to MiCollab requirements.

To export MX-ONE users to MiCollab:

1. Go to System > Data Management > Export > Export and select MiCollab user data.
2. Export the file and open with Microsoft Office Excel.
3. Log into the MiCollab Server Manager
5. Click the Bulk User Provisioning tab
7. Browse to the CSV file and import it into MiCollab.
8. Use the Auto Fill function in the Bulk User Provisioning tool to assign the entries with a Role. Roles are associated with templates that apply the services to the entries.
9. After assign roles, select all the entries and click **Add**. The entries are imported.

10. Click the **Users** tab. Verify that the user entries have been imported and are assigned with the required services.

![Figure 133: MiCollab Users with Services](image)

11. Log into the Provisioning Manager. If you check the users task, you will see that the MiCollab Server and Role are not updated.

![Figure 134: Users in PM are without MiCollab Server and Role](image)

12. Go to Subsystem task under the System tab and perform a manual refresh action to complete the synchronization.
Figure 135: Perform a Refresh/Synchronize

Figure 136: Users Synchronized after Refresh/Synchronize action with MiCollab Server
Figure 137: Verify the license information of MiCollab Server in Subsystem task.
Chapter 7

FEATURE SUPPORT
INTRODUCTION

This chapter describes MiCollab application feature support.

TYPES OF USERS

USERS WITH MICOLLAB SERVICES

These are users who are assigned MiCollab services.

MiVoice Business: Flow Through Provisioning is the recommended method of provisioning users and services for MiVoice Business platforms. You can also provision users using the Bulk User Provisioning tool or Integrated Directory Services.

MiVoice Office 250 and MiVoice Office 400: Administrators must provision users separately on both systems. Single point of provisioning is not supported.

MiVoice 5000 and MiVoice MX-ONE: User provisioning is performed from the MiVoice 5000 or MiVoice MX-ONE management interfaces. They have presence monitoring and the functionality provided by MiCollab Client. Typically, a UCC Entry, Standard, or Premium role would be applied during user creation. For this user class, external numbers are not sent to MiCollab Client. End users can provision them in their MiCollab Mobile or Desktop Client. Flow Through Provisioning is not supported for these communications platforms.

CORPORATE CONTACTS WITH MONITORING

Some users may require presence monitoring but not availability or any additional MiCollab services. Typically corporate contacts are created using the UCC Basic or Teamwork Mode role. For this user class, external numbers are not sent to MiCollab Client. End users can provision them in their MiCollab Mobile or Desktop Client.

CORPORATE CONTACTS WITHOUT MONITORING

Some Mitel communications platforms have a greater user capacity than a single MiCollab server. To support the MiCollab Client "Click-to-Call" feature to the other non-MiCollab users, the IDS connector from the MiCollab obtains the user accounts from the communications platform directory and adds them to the MiCollab Client directory as corporate contacts without monitoring.

These accounts are created as contacts from the MiVoice 5000 or MiVoice MX-ONE management interfaces. External numbers are sent to MiCollab Client for this user class.

NON-CORPORATE CONTACTS

External contacts are provisioned in MiCollab via a directory services synchronization initiated from MiCollab IDS to either the MiVoice 5000 Manager or Active Directory. For MiVoice MX-ONE the synchronization is done between MiCollab IDS and Active Directory. This synchronization polls the directory and creates, updates, or deletes contacts as needed in MiCollab Client Service. The external numbers for non-corporate contacts are sent from the directory server to the MiCollab Client Corporate Directory.
NUPOINT UNIFIED MESSAGING

SUPPORTED FEATURES

Refer to the *NuPoint Unified Messaging General Information Guide* for a description of the features provided by the NuPoint Unified Messaging application.

- For MiCollab with MiVoice Business, MiVoice Office 250 applications, the NuPoint Unified Messaging application is supported. See the *NuPoint Unified Messaging General Information Guide* for details.
- For MiCollab with MiVoice 5000 or MiVoice MX-ONE integrations, NuPoint Unified Messaging application is supported with some limitations. Refer to the following sections for a summary of the features that are not supported for the MiVoice 5000 or MiVoice MX-ONE.
- For MiCollab with MiVoice Office 400 integrations, NuPoint Unified Messaging in not supported.

MIVOICE 5000 NP-UM UNSUPPORTED FEATURES

- **Voice Mail Soft keys:** The Voice Mail Soft keys feature allows users to control voice mail functions through context-sensitive keys on the telephone.

- **Record-A-Call:** an optional feature that allows mailbox subscribers to record both ends of a two-party external call in progress at their phone. Recorded conversations are delivered to the user’s voice mailbox. Unlike regular voice mail messages, Record-A-Call messages are stored immediately as saved messages, so they do not trigger Message Waiting Indicators on the user's telephone.

- **Speech Auto Attendant:** a speech recognition application that allows users to place calls to people quickly and efficiently by speaking names, department names or telephone numbers.

- **Email Playback:** Users cannot play their emails through the NuPoint Unified Messaging telephone user interface. This functionality is supported on MiVoice Business platforms only.

- **Resilient Voicemail Services:** Only supported on MiVoice Business platforms.

MIVOICE MX-ONE NP-UM UNSUPPORTED FEATURES

- **Voice Mail Soft keys:** The Voice Mail Soft keys feature allows users to control voice mail functions through context-sensitive keys on the telephone.

- **Record-A-Call:** an optional feature that allows mailbox subscribers to record both ends of a two-party external call in progress at their phone. Recorded conversations are delivered to the user’s voice mailbox. Unlike regular voice mail messages, Record-A-Call messages are stored immediately as saved messages, so they do not trigger Message Waiting Indicators on the user's telephone.

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- **Email Playback**: Users cannot play their emails through the NuPoint Unified Messaging telephone user interface. This functionality is supported on MiVoice Business platforms only.

- **Resilient Voicemail Services**: Only supported on MiVoice Business platforms.
MIVOICE BORDER GATEWAY

SUPPORTED FEATURES

The MiVoice Border Gateway (MBG) is a multi-service software solution that provides the following functionality. See page 174 for a summary of the features that are not supported for the MiVoice 5000 or MiVoice MX-ONE.

- **Web proxy blade:** provides a secure method for MiCollab end user web clients to connect with their LAN-based applications

- **Teleworker service:** connects remote office phones and SIP softphones to the corporate voice network providing full access to voice mail, collaboration tools, and all the other features of the office phone. When configured for teleworker use, the remote IP Phone:
  - has a secure, encrypted, voice path between the IP Phone and the system across the Internet
  - has adaptive jitter buffering and other software enhancements to improve voice quality over the Internet
  - uses G.729 compression to reduce bandwidth requirements
  - operates in the same manner as any other phone connected to the network
  - operates over any broadband LAN connection that provides connectivity back to the corporate office where the MiCollab is visible from the Internet
  - directly accesses the corporate office phone system (for example, voice mail and collaboration tools)
  - supports SIP protocol for the MiCollab desktop and Mobile SIP soft phones

- **Web Proxy Service:** An MBG server with web proxy installed in the Demilitarized Zone (DMZ) protects the MiCollab server in the LAN from Internet exposure. In a DMZ configuration, the firewall is the gateway for all IP network traffic with the Internet. The Web Proxy blade provides:
  - provides a secure method for remote web browser users, such as web conferencing users, to connect with a MiCollab server located on the corporate LAN.
  - provides Internet-based clients (for example, clients) with access to a MiCollab system located on the LAN. Remote web browser users and clients connect to MiCollab in the LAN through the Web Proxy blade that is installed on a separate MBG server in the DMZ.
  - acts as a reverse proxy, providing a secure method for Mitel end user web clients to connect with their LAN-based applications on the MiCollab system. In the current release, the Web Proxy supports desktop and conferencing clients.
  - restricts access only to those Purls that belong to the end user web interfaces for the applications.
  - provides secure Internet access from an Internet-accessible server to an Internet-protected server on the LAN. The Web Proxy software should not be installed in the following cases:

- **SIP trunk proxy service:** You can use SIP trunks provided by an Internet Telephony Service Provider to connect your communications platform to the traditional PSTN network. Three components are required to successfully deploy SIP trunks:
- a Mitel communications platform with SIP-enabled trunk side
- an Internet telephony or SIP Trunking service provider
- MiCollab with MBG SIP Trunk proxy service to connect the service provider to the ICP on the LAN. The MBG SIP Trunk Proxy service on MiCollab also serves as a SIP-aware firewall and eliminates the need for 3rd party firewalls, simplifying configuration and deployment. (Not Supported on MiVoice MX-ONE and MiVoice 5000 platforms).

- In MiCollab Release 7.0, the MBG supports, MiCollab Client softphones and Next Generation mobile clients for integrations with MiVoice 5000 or MiVoice MX-ONE. Teleworker service is supported.
- Remote Proxy services (web proxy to MiCollab) is supported.
- Mitel 673X, 675X, 686Xi phones are supported as remote devices. A Mitel Redirect Server supports initial deployment. After a user clicks a configuration link in the Welcome email, this server redirects the user’s phone to the MBG to obtain the required configuration files.

UNSUPPORTED FEATURES: MIVOICE 5000 AND MIVOICE MX-ONE

- **Secure remote SIP access** for IP phones on the communications platform and an outbound proxy for SIP trunking from the internal communication platform to external third-party SIP providers (Not supported on MiVoice MX-ONE and MiVoice 5000).
- **Secure Call Recording** and **SIP Trunking** are not supported for the MiVoice 5000.

MICOLLAB AUDIO, WEB AND VIDEO

MiCollab Audio, Web and Video Conferencing allows users to schedule and create audio or web conferences. A web-based interface is used to schedule conferences, and to view conference calls. Conferencing configuration is performed from the MiCollab administrator portal. All interfaces are directly accessed through the secure HTTPS protocol. Authorization and authentication allows only valid users to access the services. Secure Sockets Layer (SSL) encryption for secured messages and server-side digital certificates are used to meet the highest security requirements.

MiCollab Audio, Web and Video Conferencing is integrated into the MiCollab End User portal and provides the following features:

- **Instant, flexible calling**: Initiate an instantaneous call or to create a conference call from a two-party call. A conference call can also be pre-scheduled.
- **Complete call control and management**: Add and drop other call participants as well as mute, hold, or transfer the call directly from the desktop. A call detail record (CDR) provides a log of all calls. The CDR includes the dates and times of all calls call duration of all calls for billing purposes. Conference accessibility via personal identification is also available for an even more secure experience.
- **Cost-effective conferencing**: Delivers the most cost-effective group calling, with ultimate flexibility to customize solutions to best meet individual needs.
- **Web-based collaboration tools**: Facilitate online meetings, training, and presentations with features designed for sharing your desktop or individual applications. Enhance conferences
to increase participation and understanding by using interactive markup tools, user polling, and video-conferencing. Use the file transfer utility to immediately share the outcome of online collaborative sessions by transmitting updated files and presentations to conference participants.

- Conference archiving: Create recordings of conference calls and collaborative sessions for playback later.

**MICOLLAB CLIENT**

**SUPPORTED FEATURES**

- **SIP-based Softphones**: Supports the use of Session Initiation Protocol (SIP) Next Generation softphones from remote PCs or laptops. Desktop clients utilizing SIP-based softphone can also take advantage of video calling functionality.

- **Web Portal**: Supports a web-based interface to a key subset of client features for remote users.

- **Simplified Call Management and Logging**: Provides users with the advanced call management features of the PBX from the desktop client. The server logs incoming calls for the MiCollab clients, even when the MiCollab client software is not running. When a MiCollab client is re-started, the server updates the client with all the cached call log information since the last session. It also stores frequently dialled phone numbers and allows users to call these numbers from a drop-down menu.

- **Dynamic Presence and Availability**: Informs you of a person’s availability whether they are on the phone, away from their desk, or available for secure instant chat or collaboration. With Desktop client you can also tag selected users so that you get a visual indication when they log into MiCollab Client.

- **Contact Grouping**: Combines Corporate, Personal, and Favorite contact groups into a single view. A Corporate directory group is visible with the flexibility to create additional groups. Personal contacts from Google® or Microsoft® Exchange® can also be integrated and imported into the MiCollab Client application.

- **Teamwork Mode**: Allows MiCollab clients to work without being associated with a PBX device. A subset of features such as contact grouping, presence, dynamic status and chat are supported in Teamwork Mode.

- **Corporate Secure Instant Messaging**: Facilitates secure instant messaging and file sharing. Initiate a single or multi-party chat at the click of a mouse and, at the same time, share documents by dragging and dropping files into the chat session.

- **Dynamic Status**: Allows users to forward their phones or put them in Do Not Disturb. Auto Answer is not supported. Note that the MiVoice 5000 and the MiVoice MX-ONE does not support the selective ringing of devices in the users’ ring groups.

- **Dynamic Location**: Allows Mobile Client users to define the GPS locations to associate with each Dynamic Status and automatically changes Dynamic Status based on GPS location, network / Bluetooth connection or by manual selection.

- **Plus Dialing Settings**: Allows the admin to configure dialing prefixes for
- Country code:
- International access code:
- Long distance access code

When a user dials a telephone number from the client, MiCollab Client applies the pre-defined digit(s). The MiVoice 5000 and MX-ONE support Default E.164 dialling.

• **Integration with MiCollab Audio, Web and Video Conferencing:** AWV allows users to place a video call with the click of a button, and create or schedule collaboration sessions.

• **Voicemail Integration and Visual Voicemail:** Provides the user with an intuitive interface to view and listen to Mitel NuPoint Unified Messaging™ (UM) voice mail messages. Notifications are sent via CSTA so the MWI information is accessible also with integrated Voicemail systems besides NuPoint (no Visual Voicemail support). DTMF functions can be used from softphones to control any Voicemail system.

• **Client Only Software Delivery:** delivers Windows Desktop Client and mobile clients software without having to upgrade the MiCollab server version. Supported clients: Desktop, Android, BlackBerry, iPhone, Windows Mobile and Web clients.

• **Dialed Digits Processing Flexibility:** allows the admin to modify the dialed digit processing logic to suit their site specific needs. When a user dials a telephone number from the client, MiCollab Client can apply pre-defined digit modification rules (such as pre-pending the PBX outgoing prefix) before the number is dialed out.

• **MiTeam:** MiTeam is a cloud-based mobile first collaboration tool that allows teams to work together in real time no matter where they are. It is integrated into the iOS and Android native mobile clients and launched from the MiCollab Client for Mobile left tab.

MiTeam includes the following user features:
- Create collaboration channels (streams)
- Hold chat sessions with associated annotation features, pages, to-do lists
- Participate in real-time meetings hosted through AWV technology
- Invite participants to streams as guests.

**SUPPORTED INTEGRATIONS**

• **Integration with Business Applications:** Integrates with popular communications and productivity tools such as Outlook and Microsoft Office. Users can dial from their Outlook contact list, integrate their Dynamic Status with their Outlook calendar, and click-to-dial using smart tags. MiCollab Client also integrates with IBM Lotus Notes, allowing users to dial from their contact list, launch web / video collaboration sessions, and integrate their Dynamic Status with their calendar.

• **Integration with Mitel Teleworker Solution:** Teleworker allows users to access their corporate voice network through the MiCollab Client softphone, from home or on the road, without the need for a virtual private network (VPN) connection.

• **Integration with Mitel Dynamic Extension and Dynamic Extension Express:** A MiCollab client user who also has Dynamic Extension or Dynamic Extension Express can answer an incoming call directed to their desk phone or on a device of their choice – for example, on a cell phone, SIP softphone or home phone. When the call is answered, the MiCollab Client application changes the user’s telephony presence to “off hook.” This enables Mi-
Collab Client to display the correct telephony status for a user, regardless of whether the call was answered on a user’s desk phone, softphone, or mobile device.

- **Integration with MiCollab Audio, Web and Video Conferencing**: integration with this application allows users to place a video call with the click of a button, and start or schedule collaboration sessions.

- **Integration with Business Applications**: integrates with popular communications and productivity tools such as Outlook and Microsoft Office. Users can dial from their Outlook contact list, integrate their Dynamic Status with their Outlook calendar, and click-to-dial using smart tags. MiCollab Client also integrates with IBM Lotus Notes, allowing users to dial from their contact list, launch web / video collaboration sessions, and integrate their Dynamic Status with their calendar.

- **Integration with MiVoice for Lync®**: supports seamless integration with Microsoft Lync clients through the Mitel Lync Plugin. Mitel Lync plug-in is an application that integrates with Microsoft Lync Client and allows Microsoft Lync users to use Mitel telephony functionality through its feature rich MiCollab Client infrastructure.

- **Integration with User and Services Provisioning**: MiCollab Client is supported in integrated mode only on the MiVoice 5000 or MiVoice MX-ONE. In this mode, the MiCollab system keeps the User and Services database and client database synchronized so they function like a single database on the MiCollab server. On the MiVoice 5000 and MiVoice MX-ONE user provisioning is performed from the call manager platform.

### DESKTOP SOFTPHONE, WEB PORTAL, AND MOBILE CLIENT SUPPORT

- **Softphone**: provides mobile users with access to MiVoice Business, MiVoice MX-ONE and MiVoice 5000 features from a remote PC or laptop. When remotely connected to a MiVoice Business, MiVoice MX-ONE, or MiVoice 5000 platform via a secure network connection, users can make and receive calls as though they were on the corporate network.

- **Softphone (SIP-based)**: supports the use of Session Initiation Protocol (SIP) softphones from remote PCs or laptops as well as Mobile devices. Desktop clients utilizing SIP-based softphone can also take advantage of video calling functionality.

- **Web Portal**: provides a web-based interface to a key subset of client features, perfect for users who are remote from the office.

- **Mobile Clients**: Supported for BlackBerry®, Android™, Windows Mobile, and iPhone™.

### MIVOICE MX-ONE MESSAGE DIVERSION PROFILES AND FEATURE CODES

MiCollab Client uses the following default Message Diversion Profiles and associated feature codes (*23*<digit 0-9>#:)

<table>
<thead>
<tr>
<th>Digit</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Lunch break</td>
</tr>
<tr>
<td>1</td>
<td>Gone for the day</td>
</tr>
<tr>
<td>2</td>
<td>Away from desk</td>
</tr>
<tr>
<td>3</td>
<td>In a meeting</td>
</tr>
</tbody>
</table>
You can reorder the Message Diversion activities list:

1. Create a script.txt file with the profiles and feature codes:

   Example:
   
   Diversion Profiles;LunchBreak;0
   Diversion Profiles;GoneForTheDay;8
   Diversion Profiles;AwayFromDesk;2
   Diversion Profiles;InAMeeting;3
   Diversion Profiles;BusinessTrip;4
   Diversion Profiles;VisitingACustomer;5
   Diversion Profiles;Vacation;6
   Diversion Profiles;NotAvailable;7
   Diversion Profiles;BackSoon;1
   Diversion Profiles;SickLeave;9

2. Copy the file to directory "/opt/CstaProxy/config"

3. Open a terminal and switch to this directory

4. Run the following two commands:

   sqlite3 csta_config.sqlite "delete from ini where section = 'diversion profiles';"

   echo -e '.separator ";"
   .import script.txt ini' | sqlite3 csta_config.sqlite

UNSUPPORTED FEATURES: MIVOICE 5000 AND MIVOICE MX-ONE

- **Routing of Preferential Contacts**: The MiCollab Client Call Forwarding feature allows users to:
  - forward to any non-PRG destinations.
  - add special routing for preferential contacts.
  - send calls to dynamic extensions.

There is no option to set the preferential routing information via CSTA on the MiVoice 5000 or MiVoice MX-ONE.

- **Call Handoff**: Users on Mobile device can use the Call Handoff feature (ability to push a call to other devices within the Personal Ring Group). This feature is limited to users on MiVoice Business communication platforms only.

- **Conference**: Allows you to create a conference between you, the caller on a current call, and the contacts that you select. After you establish a conference, you can then exit the conference.
• **Split Conference Split**: Allows you to split a three-party conference into two separate calls. When a three-party conference is split, the last party added to the conference is placed on hold, while you remain connected to the first party. After you split a conference, you cannot reconnect all parties into one call.

• **Auto Answer**: Incoming calls are answered at the first ring by the selected device (Desk Phone or Softphone). Users enable and disable this feature from the Dynamic Status dialog box on the Desktop Client.

• **Attendant/Receptionist Console Features and Presence**: Provides attendants and receptionists with console features and presence information allowing them to process calls efficiently.

• **Call Information (Call with info)**: The <info> part of “Call with info” is handled within MiCollab Client application, not inside the PBX. This feature is not supported because of the MiCollab Client in SIP softphone mode doesn’t support “Call with info”.

• **Hot Desking**: Hot Desking allows anyone with a Hot Desk DN and User PIN to log in to an available hot desk-enabled telephone. Once logged in, the user can
  - Receive incoming calls at the set
  - Place outgoing calls
  - Retrieve voice messages
  - Program and use feature keys.

• **External Hot Desking User**: External Hot Desking extends hot desking capabilities to an external device, which makes it appear as an extension on the system. When the external hot desk user (EHUD) is logged in to the communications platform, a caller only needs to dial the extension number assigned to the user and the system automatically rings the user's cell phone, home phone or other device of choice—including an extension on another private network or PBX.

• **Mobile Clients**: iPad™ is not currently supported.

• **Dynamic Status - Selective Ringing**: Although the MiVoice 5000 and the MiVoice MX-ONE support dynamic status, they do not support the selective ringing of devices in the users' ring groups.

• **Console**: provides attendants and receptionists with console features and presence information allowing them to process calls efficiently.

• **MiCollab Co-located Mode**: In this mode, the Users and Services data and client data are contained in separate, independent databases on the MiCollab server. This mode is only supported for sites with either MiVoice Business or MiVoice Office platforms. With this mode, you must provision MiCollab Client services separately from the MiCollab Client Service Administration interface. Single point provisioning of MiCollab Client services is not supported.
UNSUPPORTED FEATURES: MIVOICE OFFICE 400

MiCollab PC Desktop Client Softphone
- Users cannot initiate a conference call
- Users cannot reject incoming calls (for example, users are unable to redirect an incoming call to their voicemail)

MiCollab PC Desktop Client in CTI mode
- Users cannot perform unsupervised (blind) transfers

MiCollab Mobile Client Softphone
- Users cannot switch between an active call and a call on hold (Broker’s Call)

MiCollab WEB-RTC Client on PC
- Hold, Inquiry, and Conference features are not supported
- Unsupervised (Blind) Transfer is not supported
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.

<table>
<thead>
<tr>
<th>#</th>
<th>PROMPT NAME</th>
<th>SCRIPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>TURN_OFF_MUSIC</td>
<td>To turn off the music, press one.</td>
</tr>
<tr>
<td>1</td>
<td>WELCOME</td>
<td>Welcome to the conference center.</td>
</tr>
<tr>
<td>2</td>
<td>ENTER_PIN</td>
<td>Enter an access code, and then press #. To cancel, press *.</td>
</tr>
<tr>
<td>3</td>
<td>CANCELLED_RETRY</td>
<td>Cancelled. Please try again.</td>
</tr>
<tr>
<td>4</td>
<td>FIRST_BADPIN</td>
<td>That access code isn’t recognized — please try again.</td>
</tr>
<tr>
<td>5</td>
<td>NEXT_BAD_PIN</td>
<td>That access code isn’t recognized.</td>
</tr>
<tr>
<td>6</td>
<td>REENTER_PIN</td>
<td>To enter another code, press *.</td>
</tr>
<tr>
<td>7</td>
<td>REENTER_END</td>
<td>To enter another code, press *, or to end this call, press #.</td>
</tr>
<tr>
<td>8</td>
<td>REENTER_ASSIST</td>
<td>To enter another code, press *, or for assistance, press zero.</td>
</tr>
<tr>
<td>9</td>
<td>SAY_NAME</td>
<td>At the tone, say your name and then press #. &lt;beep&gt;</td>
</tr>
<tr>
<td>10</td>
<td>NO_LEADER</td>
<td>The leader hasn’t activated this call yet. Please stay on the line.</td>
</tr>
<tr>
<td>11</td>
<td>GOODBYE</td>
<td>Thank you for calling the conference center. Goodbye.</td>
</tr>
<tr>
<td>12</td>
<td>CONNECTING</td>
<td>One moment while your call is connected.</td>
</tr>
<tr>
<td>13</td>
<td>TOO_EARLY</td>
<td>That conference hasn’t started yet.</td>
</tr>
<tr>
<td>14</td>
<td>TOO_LATE</td>
<td>That conference has already ended.</td>
</tr>
<tr>
<td>15</td>
<td>CALL_NOT_AVAIL</td>
<td>That conference isn’t available now.</td>
</tr>
<tr>
<td>16</td>
<td>NO_OPER</td>
<td>I’m sorry, the operator isn’t available now.</td>
</tr>
<tr>
<td>17</td>
<td>FIRSTCALLER</td>
<td>You’re the first person in this conference. Please stay on the line.</td>
</tr>
<tr>
<td>18</td>
<td>CAN'T_COMPLETE</td>
<td>Sorry, we’re unable to complete your call.</td>
</tr>
<tr>
<td>19</td>
<td>CALLER_UNAVAIL</td>
<td>That person isn’t available right now.</td>
</tr>
<tr>
<td>20</td>
<td>ZERO</td>
<td>Zero</td>
</tr>
<tr>
<td>#</td>
<td>PROMPT NAME</td>
<td>SCRIPT</td>
</tr>
<tr>
<td>----</td>
<td>------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>21</td>
<td>ONE</td>
<td>One</td>
</tr>
<tr>
<td>22</td>
<td>TWO</td>
<td>Two</td>
</tr>
<tr>
<td>23</td>
<td>THREE</td>
<td>Three</td>
</tr>
<tr>
<td>24</td>
<td>FOUR</td>
<td>Four</td>
</tr>
<tr>
<td>25</td>
<td>FIVE</td>
<td>Five</td>
</tr>
<tr>
<td>26</td>
<td>SIX</td>
<td>Six</td>
</tr>
<tr>
<td>27</td>
<td>SEVEN</td>
<td>Seven</td>
</tr>
<tr>
<td>28</td>
<td>EIGHT</td>
<td>Eight</td>
</tr>
<tr>
<td>29</td>
<td>NINE</td>
<td>Nine</td>
</tr>
<tr>
<td>30</td>
<td>ONE_MOMENT</td>
<td>One moment, please.</td>
</tr>
<tr>
<td>31</td>
<td>NO_PORTS</td>
<td>All circuits are busy. Please try again in a few minutes.</td>
</tr>
<tr>
<td>32</td>
<td>DBL_POUND</td>
<td>At any time, you may press the # key twice for a list of options.</td>
</tr>
<tr>
<td>33</td>
<td>RECORDING_END</td>
<td>The recording has ended. To start again, press one. Otherwise, you may hang up.</td>
</tr>
<tr>
<td>34</td>
<td>PAUSED</td>
<td>Paused. To resume, press two.</td>
</tr>
<tr>
<td>35</td>
<td>RECORDINGS</td>
<td>Recordings</td>
</tr>
<tr>
<td>36</td>
<td>DIALOUT_CONFIRM</td>
<td>You’ve been invited to a conference call. To join, press one. To decline, press two.</td>
</tr>
<tr>
<td>37</td>
<td>DECLINED</td>
<td>Invitation declined. Goodbye.</td>
</tr>
<tr>
<td>40</td>
<td>LIST_NAMES</td>
<td>For a list of names, press three.</td>
</tr>
<tr>
<td>41</td>
<td>PLACE_CALL</td>
<td>To place a call, press two.</td>
</tr>
<tr>
<td>42</td>
<td>NO_NAMES</td>
<td>Names are not available.</td>
</tr>
<tr>
<td>43</td>
<td>RETURN_CONF</td>
<td>To return to the conference, press *.</td>
</tr>
<tr>
<td>44</td>
<td>INVALID_OPTION</td>
<td>Sorry, that’s not a recognized option.</td>
</tr>
<tr>
<td>45</td>
<td>OPTION_NA</td>
<td>Sorry, that option isn’t available.</td>
</tr>
<tr>
<td>46</td>
<td>RETURNING</td>
<td>Returning to conference.</td>
</tr>
<tr>
<td>47</td>
<td>2ND_LEG_2WAY</td>
<td>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.</td>
</tr>
<tr>
<td>#</td>
<td>PROMPT NAME</td>
<td>SCRIPT</td>
</tr>
<tr>
<td>----</td>
<td>---------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>48</td>
<td>BUSY</td>
<td>That number is busy.</td>
</tr>
<tr>
<td>49</td>
<td>CALL_2WAY</td>
<td>To return to the conference, press *. To try another number, press one.</td>
</tr>
<tr>
<td>50</td>
<td>CANT_JOIN</td>
<td>I’m sorry. The call leader hasn’t given approval for you to join this conference. Goodbye.</td>
</tr>
<tr>
<td>51</td>
<td>HUNG_UP</td>
<td>The person you called is no longer on the line.</td>
</tr>
<tr>
<td>52</td>
<td>INCOMPLETE_CALL</td>
<td>Sorry, we couldn’t complete your call.</td>
</tr>
<tr>
<td>53</td>
<td>JOINING</td>
<td>Now joining...</td>
</tr>
<tr>
<td>54</td>
<td>NAME_2WAY</td>
<td>I’m not sure if you recorded a name. To keep this recording, press one. To try again, press two.</td>
</tr>
<tr>
<td>55</td>
<td>NEXT_NO_NAME</td>
<td>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.</td>
</tr>
<tr>
<td>56</td>
<td>NO_ANSWER</td>
<td>There’s no answer at that number.</td>
</tr>
<tr>
<td>57</td>
<td>MAGIC_KEY</td>
<td>Ready to place a call. To return to the conference at any time, press the * key twice.</td>
</tr>
<tr>
<td>58</td>
<td>NO_NAME</td>
<td>Sorry, I didn’t hear you say a name.</td>
</tr>
<tr>
<td>59</td>
<td>RECORD_CANCELLED</td>
<td>Recording cancelled.</td>
</tr>
<tr>
<td>60</td>
<td>ROLLCALL</td>
<td>To cancel the list at any time, press *.</td>
</tr>
<tr>
<td>61</td>
<td>ROLLCALL_2WAY</td>
<td>To return to the conference, press *. To repeat the list, press one.</td>
</tr>
<tr>
<td>62</td>
<td>CANCELLED</td>
<td>Cancelled.</td>
</tr>
<tr>
<td>63</td>
<td>ENTER_NUMBER</td>
<td>Enter a phone number. When you have finished, press #.</td>
</tr>
<tr>
<td>64</td>
<td>DIAL_ANOTHER</td>
<td>Cancelled. You may dial another number now, or to return to the conference, press *.</td>
</tr>
<tr>
<td>65</td>
<td>INVALID_PHONE</td>
<td>Sorry, we’re unable to call that number. You may dial another number now, or to return to the conference, press *.</td>
</tr>
<tr>
<td>66</td>
<td>INVALID_PHONE2</td>
<td>Sorry, that phone number isn’t valid.</td>
</tr>
<tr>
<td>67</td>
<td>COUNT1</td>
<td>There are...</td>
</tr>
<tr>
<td>68</td>
<td>COUNT2</td>
<td>...people in this call.</td>
</tr>
<tr>
<td>69</td>
<td>TEN</td>
<td>Ten</td>
</tr>
<tr>
<td>70</td>
<td>ELEVEN</td>
<td>Eleven</td>
</tr>
<tr>
<td>71</td>
<td>TWELVE</td>
<td>Twelve</td>
</tr>
<tr>
<td>#</td>
<td>PROMPT NAME</td>
<td>SCRIPT</td>
</tr>
<tr>
<td>----</td>
<td>----------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>72</td>
<td>THIRTEEN</td>
<td>Thirteen</td>
</tr>
<tr>
<td>73</td>
<td>FOURTEEN</td>
<td>Fourteen</td>
</tr>
<tr>
<td>74</td>
<td>FIFTEEN</td>
<td>Fifteen</td>
</tr>
<tr>
<td>75</td>
<td>SIXTEEN</td>
<td>Sixteen</td>
</tr>
<tr>
<td>76</td>
<td>SEVENTEEN</td>
<td>Seventeen</td>
</tr>
<tr>
<td>77</td>
<td>EIGHTEEN</td>
<td>Eighteen</td>
</tr>
<tr>
<td>78</td>
<td>NINETEEN</td>
<td>Nineteen</td>
</tr>
<tr>
<td>79</td>
<td>TWENTY</td>
<td>Twenty</td>
</tr>
<tr>
<td>80</td>
<td>THIRTY</td>
<td>Thirty</td>
</tr>
<tr>
<td>81</td>
<td>FORTY</td>
<td>Forty</td>
</tr>
<tr>
<td>82</td>
<td>FIFTY</td>
<td>Fifty</td>
</tr>
<tr>
<td>83</td>
<td>SIXTY</td>
<td>Sixty</td>
</tr>
<tr>
<td>84</td>
<td>SEVENTY</td>
<td>Seventy</td>
</tr>
<tr>
<td>85</td>
<td>EIGHTY</td>
<td>Eighty</td>
</tr>
<tr>
<td>86</td>
<td>NINETY</td>
<td>Ninety</td>
</tr>
<tr>
<td>87</td>
<td>HUNDRED</td>
<td>Hundred</td>
</tr>
<tr>
<td>88</td>
<td>OPTIONS</td>
<td>Options.</td>
</tr>
<tr>
<td>89</td>
<td>DROPPED</td>
<td>The call has been dropped.</td>
</tr>
<tr>
<td>90</td>
<td>ONE_CALLER</td>
<td>There is one person in this call.</td>
</tr>
<tr>
<td>91</td>
<td>MUTE</td>
<td>To mute your line, press one.</td>
</tr>
<tr>
<td>92</td>
<td>UNMUTE</td>
<td>To unmute your line, press one.</td>
</tr>
<tr>
<td>93</td>
<td>NUMCALLERS</td>
<td>To hear the number of callers, press three.</td>
</tr>
<tr>
<td>94</td>
<td>CHECK_RETURN</td>
<td>To return to the conference, press * now. Otherwise select from the following options...</td>
</tr>
<tr>
<td>95</td>
<td>NAMES</td>
<td>Names.</td>
</tr>
<tr>
<td>96</td>
<td>DIALOUT_NO_PORTS</td>
<td>All circuits are busy. Please try your call again in a few minutes.</td>
</tr>
<tr>
<td>#</td>
<td>PROMPT NAME</td>
<td>SCRIPT</td>
</tr>
<tr>
<td>----</td>
<td>----------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>97</td>
<td>RECORD</td>
<td>This call is being recorded.</td>
</tr>
<tr>
<td>98</td>
<td>REC_STOP</td>
<td>The recording has been stopped.</td>
</tr>
<tr>
<td>99</td>
<td>TRY LATER</td>
<td>Please try your call again in a few minutes.</td>
</tr>
<tr>
<td>100</td>
<td>JOIN_TONE</td>
<td>&lt;Rising beep tone&gt;</td>
</tr>
<tr>
<td>101</td>
<td>LEAVE_TONE</td>
<td>&lt;Descending beep tone&gt;</td>
</tr>
<tr>
<td>102</td>
<td>MUTE_TONE</td>
<td>&lt;double beep tone&gt;</td>
</tr>
<tr>
<td>103</td>
<td>UNMUTE_TONE</td>
<td>&lt;triple beep tone&gt;</td>
</tr>
<tr>
<td>104</td>
<td>DIALTOJOIN</td>
<td>To join the call press one.</td>
</tr>
<tr>
<td>105</td>
<td>EOCP_CONFWILLEND</td>
<td>This conference will end in...</td>
</tr>
<tr>
<td>106</td>
<td>EOCP_MINUTES</td>
<td>...minutes.</td>
</tr>
<tr>
<td>107</td>
<td>EOCP_ENDNOW</td>
<td>Please conclude your conference now to avoid being disconnected when this conference terminates.</td>
</tr>
<tr>
<td>108</td>
<td>EOCP_LDREXEND</td>
<td>The designated leader will now be asked to extend this conference. You may continue this conference while the leader is away.</td>
</tr>
<tr>
<td>109</td>
<td>EOCP_LDRMNU1</td>
<td>Extend conference. Press the * key to cancel and return to the conference at any time.</td>
</tr>
<tr>
<td>110</td>
<td>EOCP_LDRMNU2</td>
<td>To extend the conference for 15 minutes, press one; for 30 minutes, press two; for 45 minutes, press three; for 60 minutes, press four.</td>
</tr>
<tr>
<td>111</td>
<td>EOCP_EXTGOOD</td>
<td>This conference has been extended successfully.</td>
</tr>
<tr>
<td>112</td>
<td>EOCP_EXTFAIL</td>
<td>I'm sorry, currently there are not enough ports available to extend this conference for that length of time.</td>
</tr>
<tr>
<td>113</td>
<td>EOCP_TOOLONG</td>
<td>Please select a shorter extension period...</td>
</tr>
<tr>
<td>114</td>
<td>EOCP_ENDED</td>
<td>This call has ended. Goodbye.</td>
</tr>
<tr>
<td>115</td>
<td>EOCP_LDRMNU3</td>
<td>...or press the * key to return to the conference.</td>
</tr>
<tr>
<td>116</td>
<td>AUDIO_LOCKED</td>
<td>This conference has been locked by the leader.</td>
</tr>
<tr>
<td>117</td>
<td>AUDIO_LK_MNU1</td>
<td>To lock this conference, press 5.</td>
</tr>
<tr>
<td>118</td>
<td>AUDIO_LK_MNU2</td>
<td>To unlock this conference, press 5.</td>
</tr>
<tr>
<td>119</td>
<td>AUDIO_LK_ST_1</td>
<td>This meeting is now locked.</td>
</tr>
<tr>
<td>120</td>
<td>AUDIO_LK_ST_2</td>
<td>This meeting is now unlocked.</td>
</tr>
<tr>
<td>#</td>
<td>PROMPT NAME</td>
<td>SCRIPT</td>
</tr>
<tr>
<td>----</td>
<td>------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>121</td>
<td>PID_TOGGLE</td>
<td>To enter a Personal ID, press star.</td>
</tr>
<tr>
<td>122</td>
<td>PID_SELECT</td>
<td>Enter your Personal ID, then press pound.</td>
</tr>
<tr>
<td>123</td>
<td>ACODE_TOGGLE</td>
<td>To enter an Access Code, press star.</td>
</tr>
<tr>
<td>124</td>
<td>PID_SKIP</td>
<td>To skip your Personal ID, press star.</td>
</tr>
<tr>
<td>125</td>
<td>PID_RETRY</td>
<td>That Personal ID isn't recognized, please try again.</td>
</tr>
<tr>
<td>126</td>
<td>PID_FINAL</td>
<td>That Personal ID isn't recognized.</td>
</tr>
<tr>
<td>127</td>
<td>PID_APPROVAL</td>
<td>Access to this conference requires leader approval.</td>
</tr>
<tr>
<td>128</td>
<td>PID_LEADER</td>
<td>Contact your Conference Leader to accept your request to attend this conference.</td>
</tr>
<tr>
<td>129</td>
<td>PID_MNU_4</td>
<td>To enter your Personal ID, press 4.</td>
</tr>
<tr>
<td>130</td>
<td>PID_MNU_RET</td>
<td>To return to the conference, press star.</td>
</tr>
<tr>
<td>131</td>
<td>PID_NOT_REG</td>
<td>That Personal ID isn't registered for this conference.</td>
</tr>
<tr>
<td>132</td>
<td>PID_CHG_FAIL</td>
<td>There was an error when attempting to change your Personal ID.</td>
</tr>
<tr>
<td>133</td>
<td>ACODE_SELECT</td>
<td>Enter an Access Code, then press pound.</td>
</tr>
<tr>
<td>134</td>
<td>JOIN_MUTED</td>
<td>Your audio is muted. You can hear the conference but cannot speak unless enabled by the conference leader.</td>
</tr>
<tr>
<td>135</td>
<td>DUPLICATE_PID</td>
<td>This conference restricts duplicate Personal IDs. That Personal ID is already in use.</td>
</tr>
<tr>
<td>136</td>
<td>AUDIO_ONLY_CONF</td>
<td>You have accessed an audio-only conference. Video is not available.</td>
</tr>
</tbody>
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