

# MiCollab Platform Integration Guide

- MiVoice Office 400
- MiVoice 5000
- MiVoice MX-ONE

RELEASE 8.0

AUGUST 2017

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## **MiCollab Platform Integration Guide**

Release 8.0

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# Chapter 1

## INTRODUCTION





## PURPOSE OF THIS GUIDE

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

## COMMUNICATION PLATFORM SUPPORT

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

## SUPPORTED MICOLLAB APPLICATIONS

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

- Communications platform
- Deployment configuration, and
- MiCollab platform
- 

### MIVOICE 5000 AND MIVOICE MX-ONE PLATFORMS

The following MiCollab applications are supported:

- MiCollab NuPoint Unified Messaging (not standalone NuPoint Unified Messaging) or MiCollab Advanced 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.

## CLIENT STATION SUPPORT

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



# Chapter 2

## **MIVOICE OFFICE 400 INTEGRATION**



## 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 1:

- **Communications Platform:** A single MiVoice Office 400 communications platform or Advanced Intelligent Network 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 Softphones to the MiCollab Client Service. The MBG provides support for MiCollab Client 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 line state.
- **Standalone MBG:** A 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.
- **Voice mail:** The voice messaging application embedded in the MiVoice Office 400 provides users with voice mail services.

- **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 Interfaces:** User provisioning must be performed separately on both the MiVoice Office 400 and on MiCollab. The administrator provisions users on the
  - MiVoice Office 400 from the WebAdmin (Expert Mode), and on
  - MiCollab from the Users and Services application.

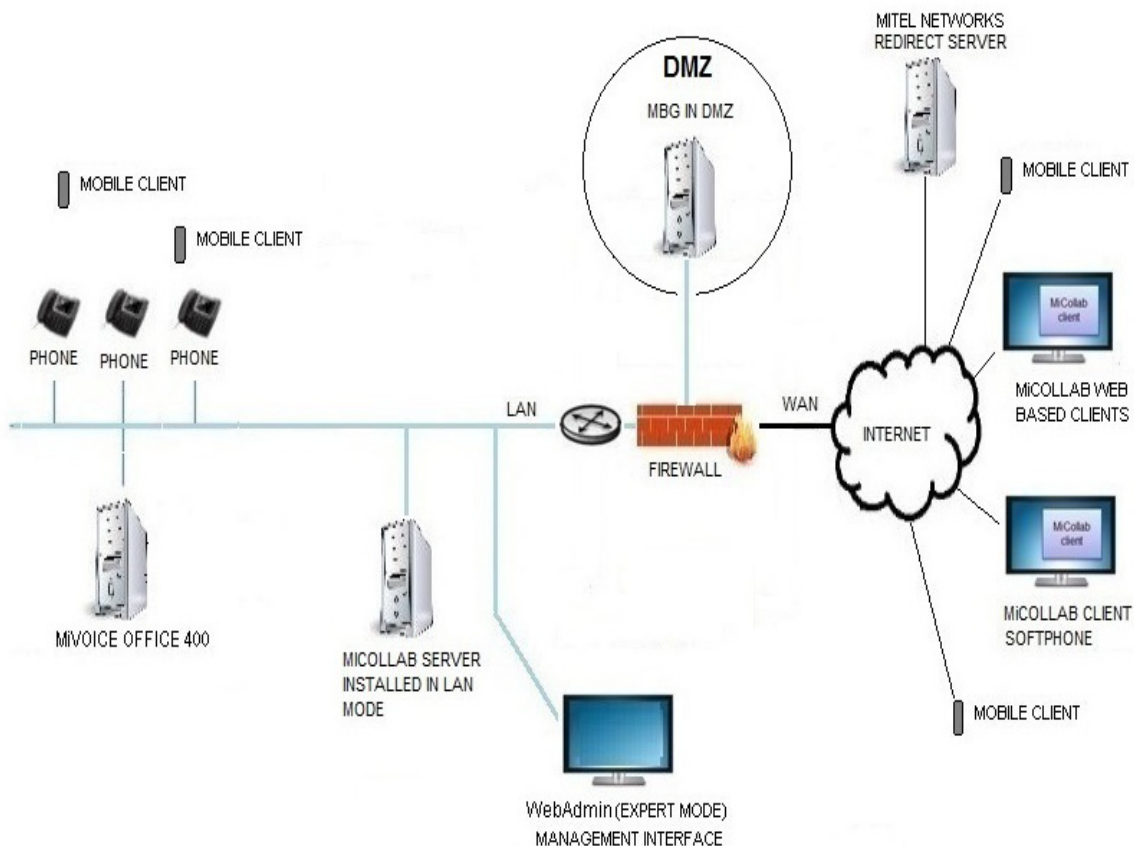


Figure 1: MiVoice Office 400 Integration

## 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

- The only supported configuration is a single MiVoice Office 400 or Advanced Integrated Network (AIN) 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.

- The MiCollab End User Portal is supported for MiVoice Office 400 users. It provides them with access to their user portal and AWW settings. However, a user's MiVoice Office 400 phones are not displayed in the portal interface.
- Voice messaging services are provided by the embedded voice mail application in the MiVoice Office 400. The NuPoint Unified Messaging application is not supported for MiVoice Office 400 integrations.
- MiCollab does not provide administrators with the ability to manage MiVoice Office 400 desk phones.
- MiCollab Integrated Directory Services does not support a connection to MiVoice Office 400 directory service.

## LICENSING

To license the solution, you must apply licenses to both the MiCollab and the MiVoice Office 400. Separate licensing servers are used.

### 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.



**Note:** Refer to the AMC on-line 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 Conferencing
  - Integrate MiVoice Border Gateway
  - Integrate MiCollab Client Service
- 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 are downloaded from the AMC. The settings in the downloaded roles and templates do not apply to the MiVoice Office 400. However, after you assign a MiVoice Office 400 network element in the MiCollab Network Element page, the roles and templates are updated to reflect the settings for the MiVoice Office 400.

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 2).

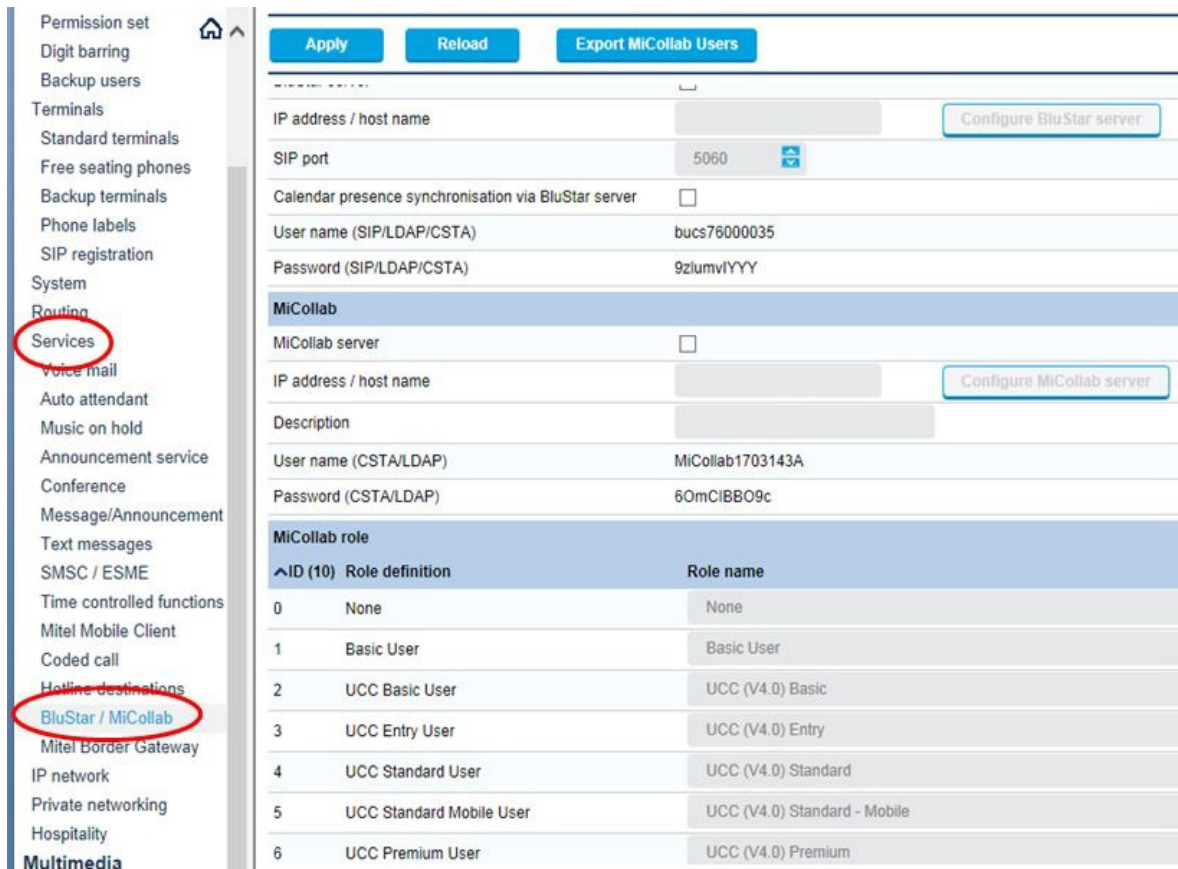


Figure 2: Configure BluStar/MiCollab Services

- 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 4.
  - 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 3).

User name	Full name	Description	Active	Authorization profile
admin	Default User Account		✓	Administrator
amcc	AMCC Account		✓	LDAP
blustar	Aastra 8000i Account		✓	blustar
bucs76000035	BluStar Server Account		✗	BluStar Server
MiCollab1703143A	MiCollab Server Account		✗	3rd party CTI user via LAN
omm	OMM LDAP Account		✓	LDAP
SystemUserInterface	System Display		✓	SystemUserInterface

Figure 3: System > Access Control

2. Click **BluStar Server Account**.
3. Change the User name to "bucs1234". Leave the other fields at the defaults.
4. Click **MiCollab Server Account**.
5. Change the User name to "bucs76000035".
6. Change the Password to "Mitel123". Ensure that you activate the account. Leave the other fields at the defaults. See Figure 4.



**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.

Apply Reload Back

**User account**

User name: bucs76000035

Password: \*\*\*\*\* Password confirm: Mitel123

Full name: MiCollab Server Account

Description:

User account available:

Authorization profile: 3rd party CTI user via LAN

FTP root directory: /home/mivo400/pub/micollab

File access: Read & write

**Access logs**

▼ Date and time Access type CLIP / IP address Login name Port Access duration CLIP required

Empty list

Figure 4: Changing MiCollab Server Account User Name and Password

7. Click **Apply**. The **System > User account** screen should appear as follows:

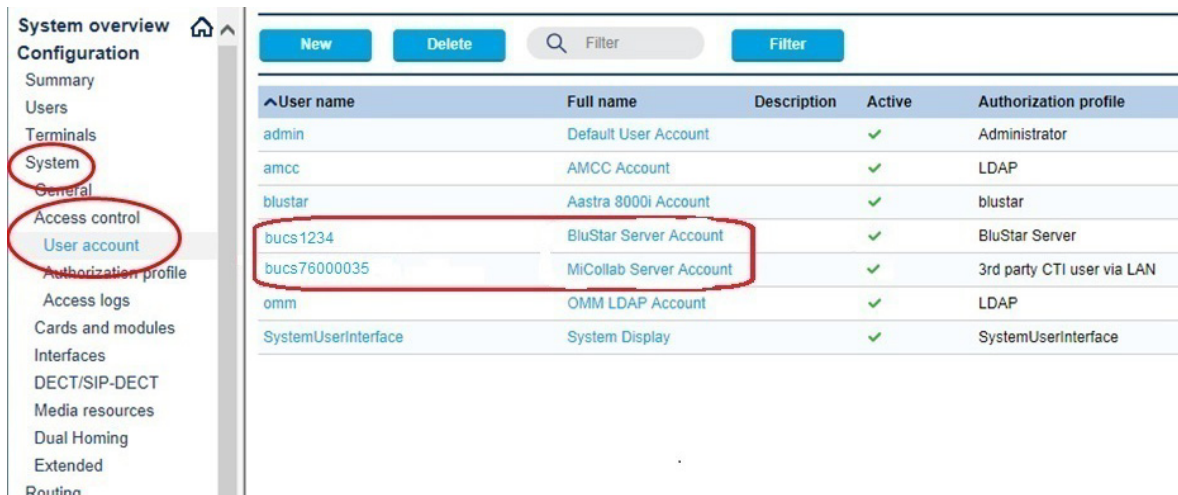


Figure 5: User Accounts

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

## INITIAL MIVOICE OFFICE 400 CONFIGURATION

Configure MiVoice Office 400 to make inbound and outbound calls.

1. Go to **MiVoice Office 400 Web Admin > Configuration > IP Network > VoIP**.
2. Change **Session refresh timer for active line supervision (s)** from 3600 to 1800.

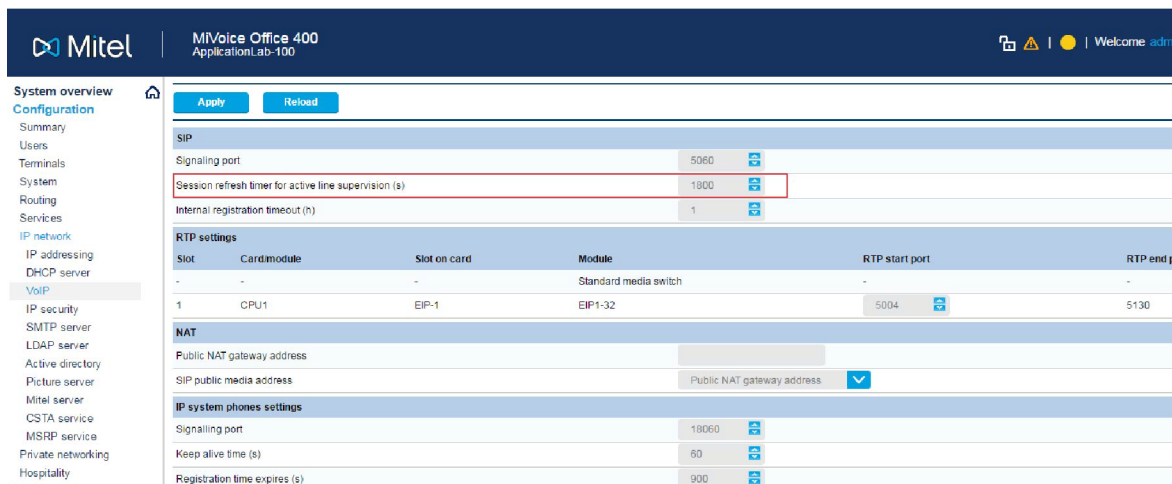


Figure 6: Initial Configuration

## 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 AWW 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.

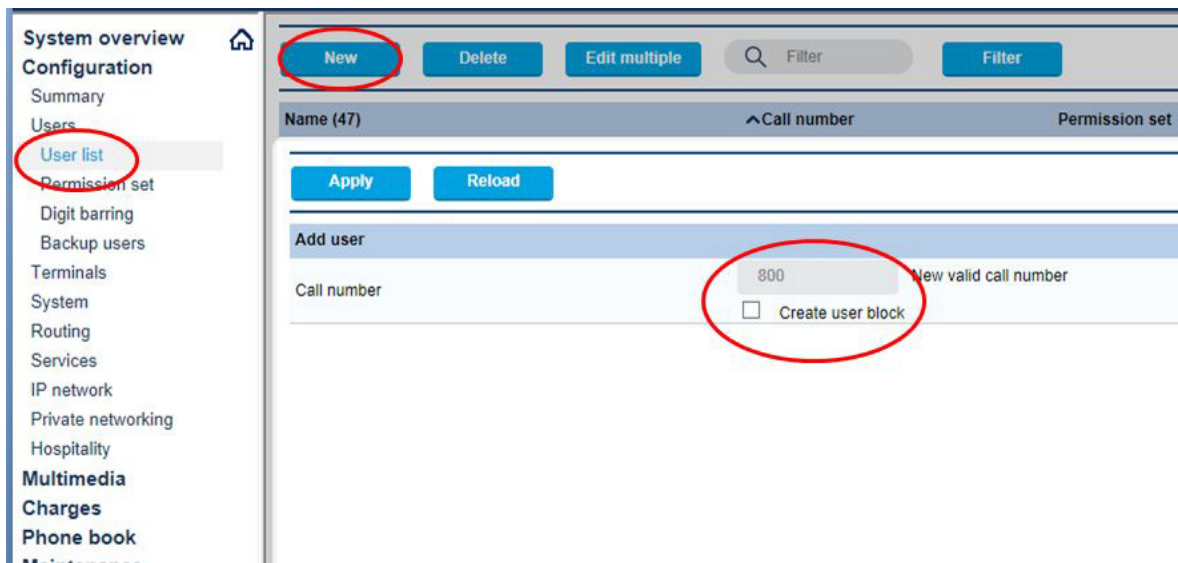
## CONNECT AWW APPLICATION TO MIVOICE OFFICE 400

You connect the AWW application to 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 7).



**Figure 7: Create User Block**

4. Enter the first telephone number for the block of users.
5. Check the **Create user block** box – The screen shown in Figure 8 appears.

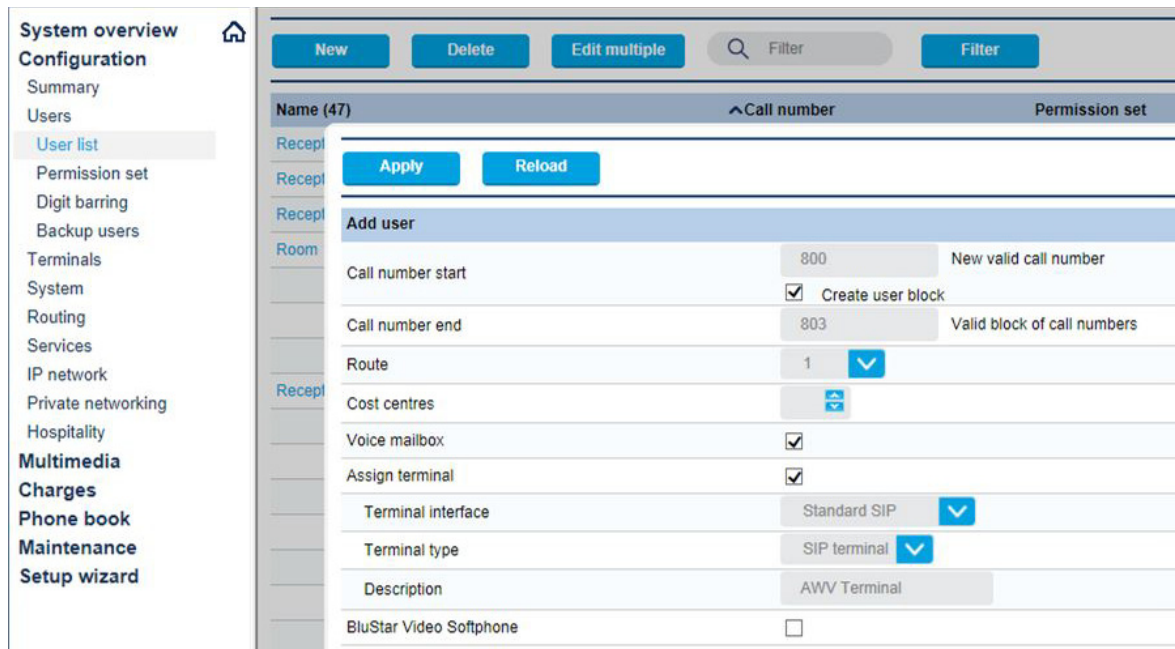


Figure 8: Create User Block

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 9).
  - Change **SIP user name** to be the same as the telephone number.
  - Use the **SIP password** that is provided by the administration interface (for example: h1xgTHhR).
  - 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.

**System overview**

**Configuration**

- Summary
- Users
  - User list
  - Permission set
  - Digit barring
  - Backup users
- Terminals
  - Standard terminals**
  - Free seating phones
  - Backup terminals
  - Phone labels
  - SIP registration
- System
- Routing
- Services
- IP network
- Private networking
- Hospitality
- Multimedia**
- Charges**
- Phone book**
- Maintenance**
- Setup wizard**

Apply
Reload
Back

Select

<< SIP terminal, 801

Emergency destinations	None <span style="font-size: 0.8em;">▼</span>
Force call waiting	<input type="checkbox"/>
Special ringing tone	<input type="checkbox"/>
PSTN overflow	No <span style="font-size: 0.8em;">▼</span>
Region	None <span style="font-size: 0.8em;">▼</span>
<b>Connection settings</b>	
State	Not registered
IP address	-
SIP port	5060
MBG controller	None <span style="font-size: 0.8em;">▼</span>
SIP user name	801-gc
SIP password	h1xgTHhR
MBG SIP user name	<input type="text"/>
MBG SIP password	<input type="text"/>
Used transport protocol	UDP or TCP <span style="font-size: 0.8em;">▼</span>
Enable keep alive	<input type="checkbox"/>
Send redirecting information	Yes, using 'Diversion header (non-recursing)' <span style="font-size: 0.8em;">▼</span>

Figure 9: SIP User Names and Password

Configure the User Group

1. Go to **Routing > List view > User groups** (see Figure 10).

Configured				Filter
30	Global	X	X	X
31	Global	X	X	X
32	Global	X	X	X
33	Global	X	X	X
34	Global	X	X	X
35	Global	X	X	X
36	Global	X	X	X
37	Global	X	X	X
38	Global	X	X	X
39	Global	X	X	X
40	Global	X	X	X
41	Global	X	X	X
42	Global	X	X	X
43	Global	X	X	X
44	Global	X	X	X
45	Global	X	X	X
46	Global	X	X	X
47	Global	X	X	X
48	Global	X	X	X

Figure 10: Configure User Groups

2. Select an unused user group. The following screen is displayed.



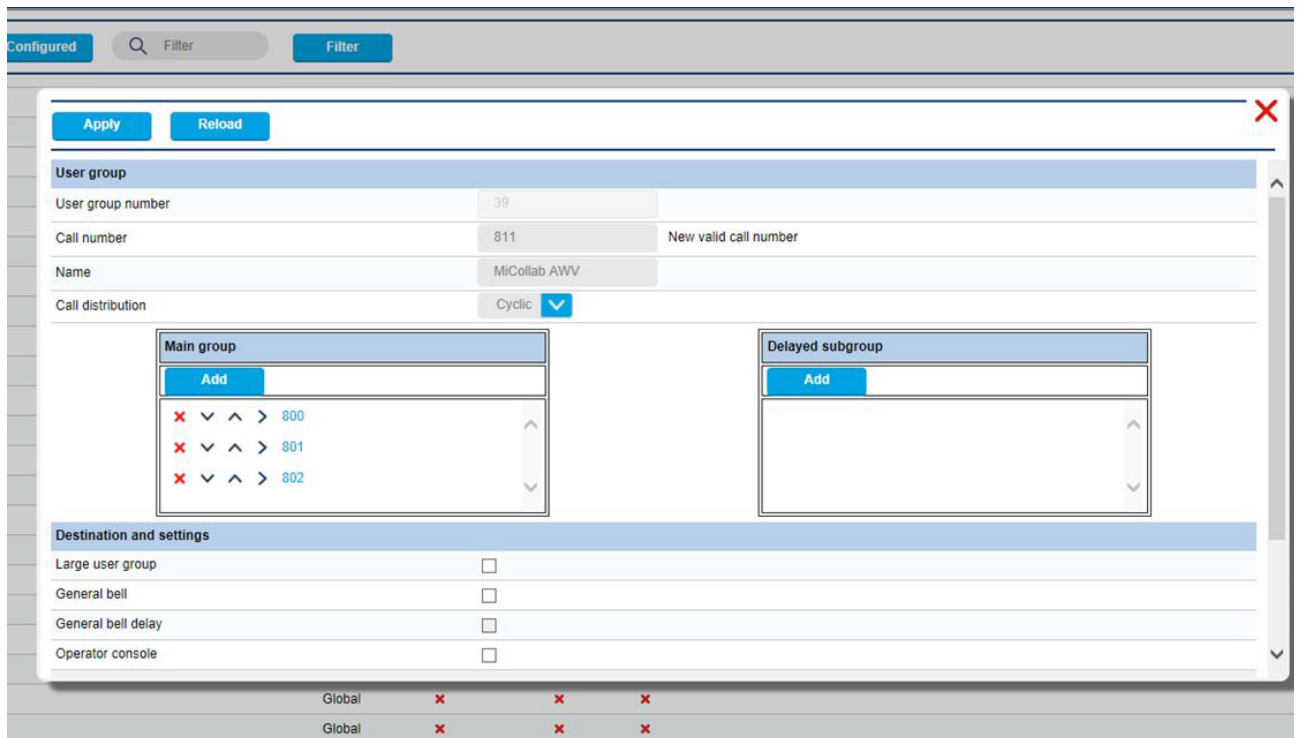


Figure 11: Adding New Group

3. Enter the following parameters:
  - **Call number:** Enter the internal telephone number for AWW.
  - **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 AWW

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.

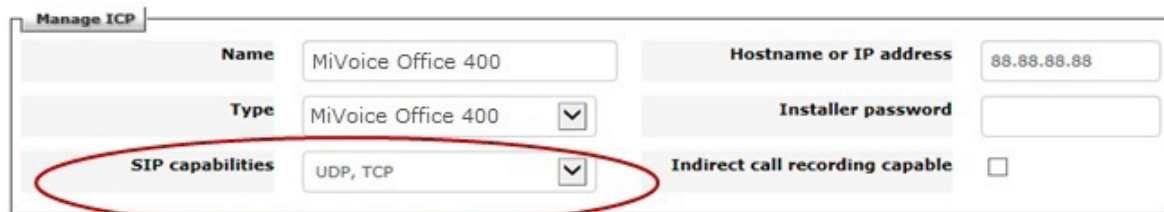


Figure 12: Configure MBG SIP Capabilities

3. Configure the SIP settings:

**SIP options**

**SIP support**  UDP  TCP  TCP/TLS

**Local streaming**

**Codec support** Restricted to G.729, G

**RTP framesize** Dynamic

**Set-side RTP security** Allow

**Icp-side RTP security** Disable

**Permit weak passwords**

**Registration Mode** Gap

**Set-side registration expiry time** 240

**ICP-side registration expiry time** 900

**Allowed URI names** Add another

Blank any field you no longer want.

**PRACK support**

**Send options keepalives** Only behind NAT

**Options interval** 20

**Challenge methods** Invite, Subscribe, Refer, Prack

Figure 13: Configure MBG SIP Settings

4. Configure the "Network profile" according to the network configuration.
5. Configure the "Application Integration".

**MiVoice Business Console support**

**Call recording** Enabled

**MiCollab Client**

**MiCollab Client connector enabled**

**NuPoint voicemail hostname or IP address**

**MiCollab Client hostname or server IP address** 192.168.100.55

**Collaboration server hostname or IP address** 192.168.100.55

Figure 14: Configure 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.

# INTEGRATE MICOLLAB CLIENT SERVICE

## CONFIGURE MICOLLAB CLIENT

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

## DEPLOY MICOLLAB CLIENT MOBILE CLIENTS

MiVoice Office 400 platforms support MiCollab for Mobile clients. 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 on-line 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 on-line help for instructions on how to configure and deploy the clients.

# USER PROVISIONING

User provisioning must be performed using an export of user entries from the MiVoice Office 400. All additions must be done manually on both the 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 15).
3. Enter the **Call number** of the new user

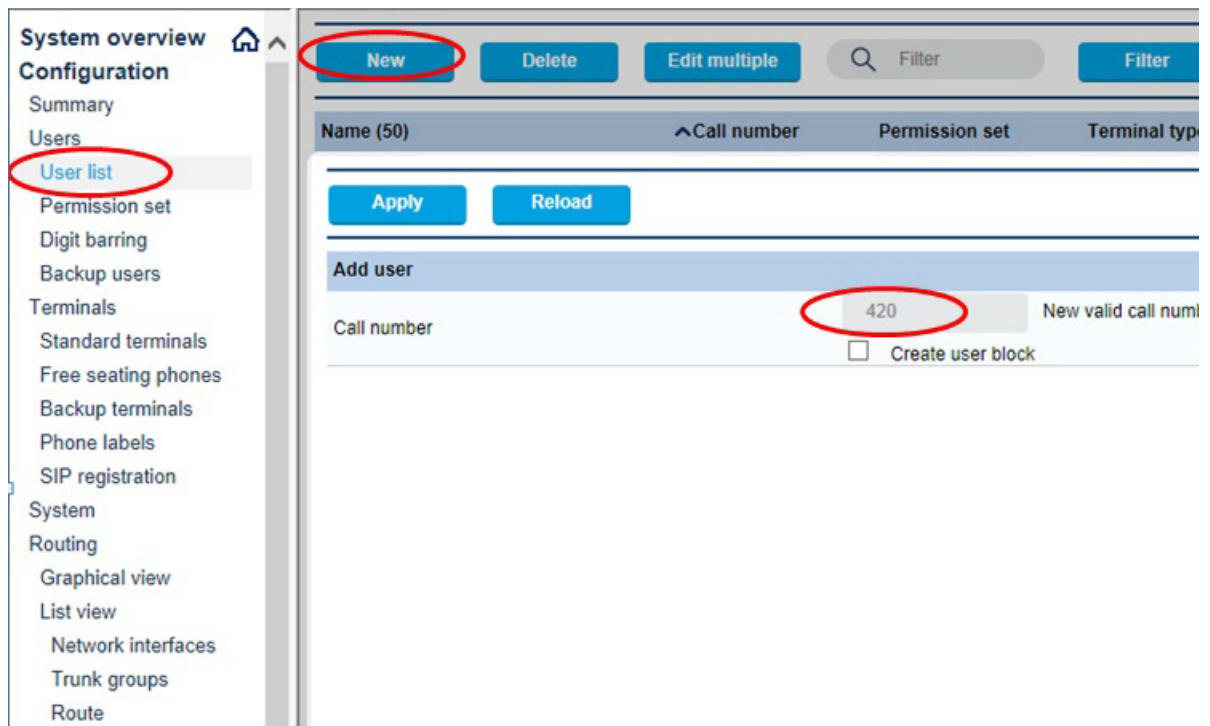


Figure 15: New User List

4. Click **Apply**.

The screenshot shows the 'User Configuration' page in the MiCollab interface. On the left is a sidebar with a tree view containing categories like 'System overview', 'Configuration', 'Users', 'Terminals', 'System', 'Routing', 'Exchange', and 'Data services'. The 'Users' section is expanded to show 'User list'. The main content area has a top bar with 'Apply', 'Reload', 'Back', and 'Expand all sections' buttons. Below this is a 'Select' section with a pagination control showing '420' users. The 'User' section contains the following fields:

- Call number: 420
- Name: George Harrison
- PIN: [masked] Confirm PIN: [masked]
- Windows user name: gharrison
- Use PIN instead of password:
- Password: [masked] Password confirmation: [masked]
- E-mail address: gharrison@mitel.com
- User language: English

The 'Settings' section contains the following fields:

- Licence / Role: 0 - None
- Permission set: 1 (with 'Go to permission set' link)
- Authorization profile: --
- Route: 1 (with 'Go to route' link)
- Number of private contacts: 50 (with 'Go to phone book' link)
- Cost centre: None
- Connection: Normal
- Use for CTI: Not defined

Figure 16: User Configuration

5. 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 17 and Figure 18).
- All other parameters can be left at their default values or changed if required.
- Click **Apply**.

**System overview** [Home](#)

**Configuration**

- Summary
- Users
  - User list**
  - Permission set
  - Digit barring
  - Backup users
- Terminals
  - Standard terminals
  - Free seating phones
  - Backup terminals
  - Phone labels
  - SIP registration
- System
- Routing
  - Graphical view
  - List view
  - Network interfaces
  - Trunk groups
  - Route
  - DDI plan
  - Call distribution
  - User groups
- Exchange
  - Ext./Int. mapping
- Emergency destinations
- Data services
- LCR
- Blacklist

Apply
Reload
Back
Expand all sections

Select

<<
420
>>

**User**

Call number: 420

Name: George Harrison

PIN: •••• Confirm PIN: ••••

Windows user name: gharrison

Use PIN instead of password:

Password:  Password confirmation:

E-mail address: gharrison@mitel.com

User language: English ▼

**Settings**

Licence / Role: 
 0 - None  
 1 - Basic User for MiVoice Office 400  
 2 - Entry UCC User for MiVoice Office 400  
 3 - Standard UCC User for MiVoice Office 400  
 4 - Premium UCC User for MiVoice Office 400
  0 - None ▼

Permission set: Go to permission set

Authorization profile: ▼

Route: 1 Go to route

Number of private contacts: 50 Go to phone book

Cost centre: None ▼

Connection: Normal ▼

Use for CTI: Not defined ▼

Figure 17: Assign License

**User**

Call number: 420

Name: George Harrison

PIN: •••• Confirm PIN

Windows user name: gharrison

Use PIN instead of password:

Password:  Password confirmation:

E-mail address: gharrison@mitel.com

User language: English ▼

**Settings**

Licence / Role: 3 - Standard UCC User for MiVoice Office 400 ▼

Permission set: 1 Go to permission set

Authorization profile: --- ▼

0 - None

1 - Basic User

2 - UCC (V4.0) Ba

3 - UCC (V4.0) Er

4 - UCC (V4.0) St

5 - UCC (V4.0) St

6 - UCC (V4.0) Pr

7 - MiCollab Clie

8 - Contact

9 - Custom

Figure 18: Assign Role

## EXPORT LIST OF USERS

1. Go to **Services > BluStar / MiCollab** (see Figure 19).

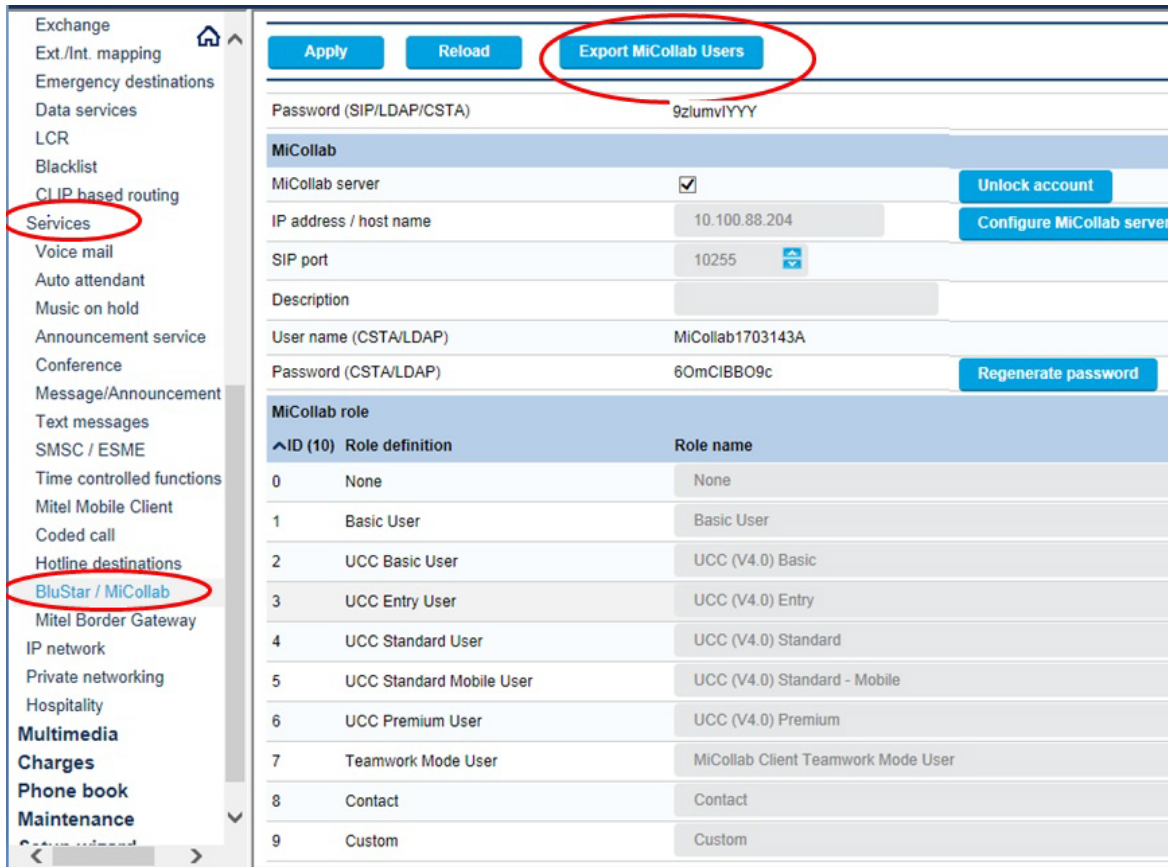


Figure 19: BluStar / MiCollab

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 3

## **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 20:

- **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 Softphones to the MiCollab Client Service. The MBG provides support for MiCollab Client 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 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.

- **Standalone MBG:** A standalone vMBG server can be installed in the Demilitarized Zone (DMZ) of a customer's existing firewall to support SIP Teleworker devices. The MiCollab MBG application must be clustered with the standalone MBG.
- **MiCollab Advanced Messaging (AVST) server:** An optional standalone server that can be used to provide voice messaging services.
- **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.

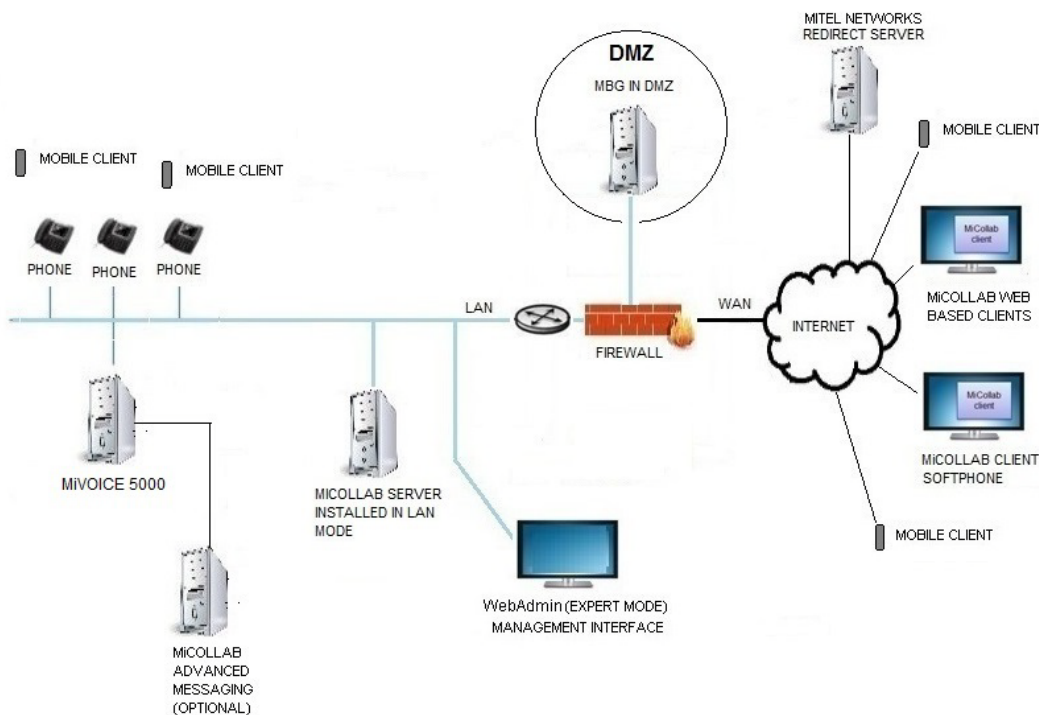


Figure 20: MiVoice 5000 Integration

## 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 Client service must be configured in Integrated Mode.

## CONDITIONS AND LIMITATIONS

- One or more MiCollab servers (up to four) can provide applications services to the users on the MiVoice 5000 system in the same network.
- The integration of multiple MiCollab systems to the MiVoice 5000 platform is supported.
- 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.
- 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.
- Each MiCollab system supports a maximum of 5000 users. In a multi-MiCollab deployment, up to four peered MiCollab systems can be deployed to support a total of up to 20,000 users and 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 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.
- 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 cannot be imported into the MiCollab Client server via the MX-ONE Provisioning Manager, but they can be imported directly from Active Directory using MiCollab Integrated Directory Services.
- 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.



**Note:** MiCollab Advanced Messaging (AVST) is not licensed through the AMC.

## 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 (or optionally install MiCollab Advanced Messaging server)
  - 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 AWW system defaults that are applied to the default UCC templates.
10. [Configure](#) the MiVoice 5000 network element within the NuPoint Unified Messaging application
    - as a SIP GATEWAY, 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.

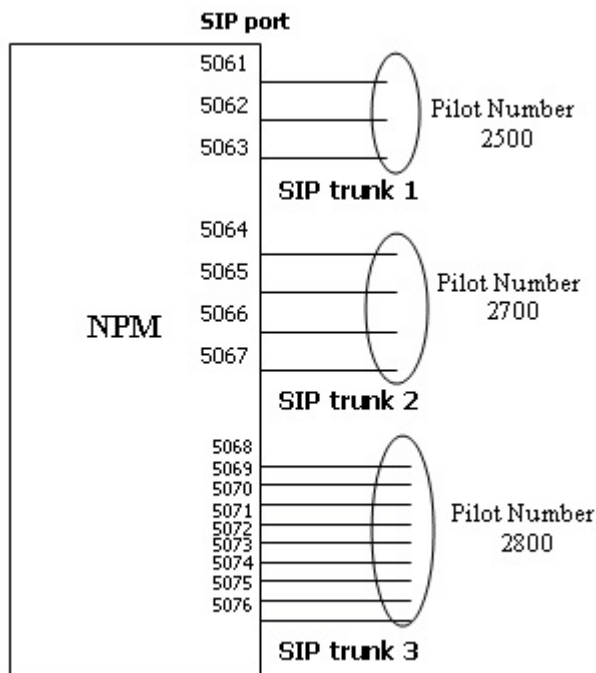
## INTEGRATE NUPOINT

### 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.

Figure 21 illustrates the SIP trunk integration:



**Figure 21: NuPoint SIP Trunk Integration**

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**.
4. Configure [NuPoint UM Line Groups](#) and [Dialing Plan](#) 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.

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).

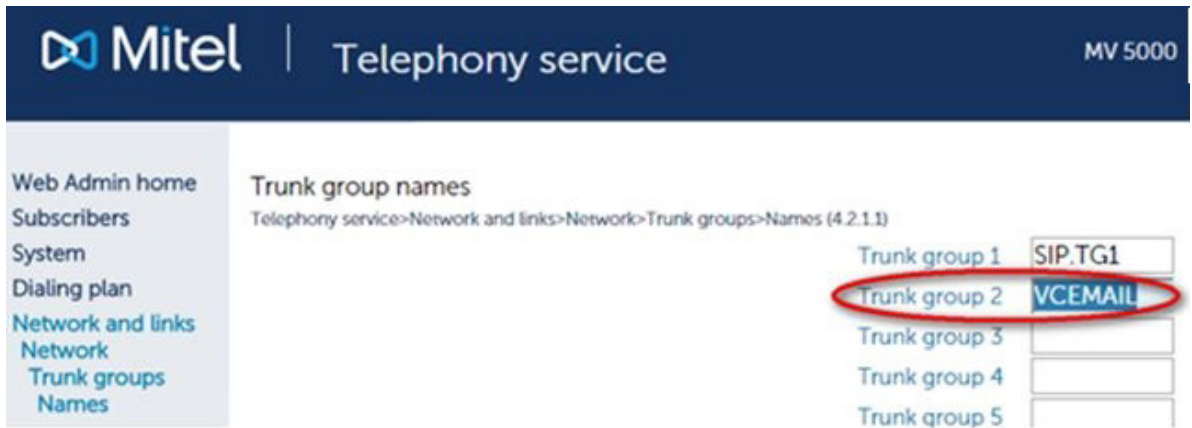
### PERFORM REQUIRED NUPOINT CONFIGURATION ON MIVOICE 5000

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 Whitelist 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.



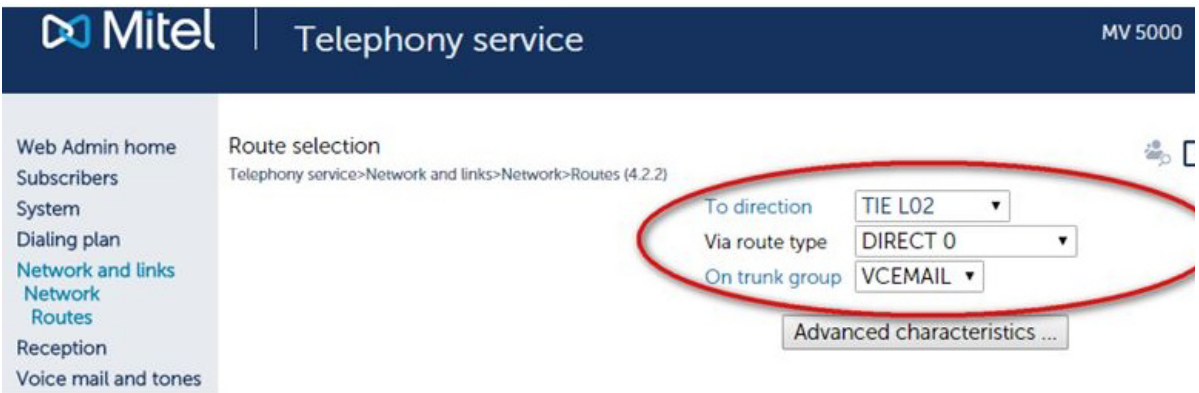
**Figure 22: Trunk Group for MiCollab NuPoint**

3. Specify Private Direction name.



**Figure 23: 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



**Figure 24: Call Routing Definition**

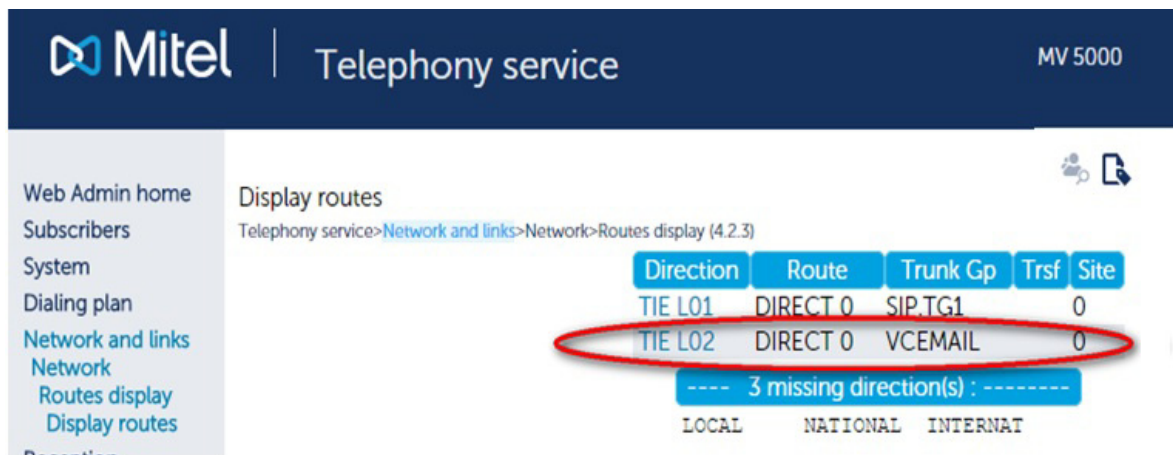


Figure 25: Display Routes

5. Enter an access code for direction (3.2.4).

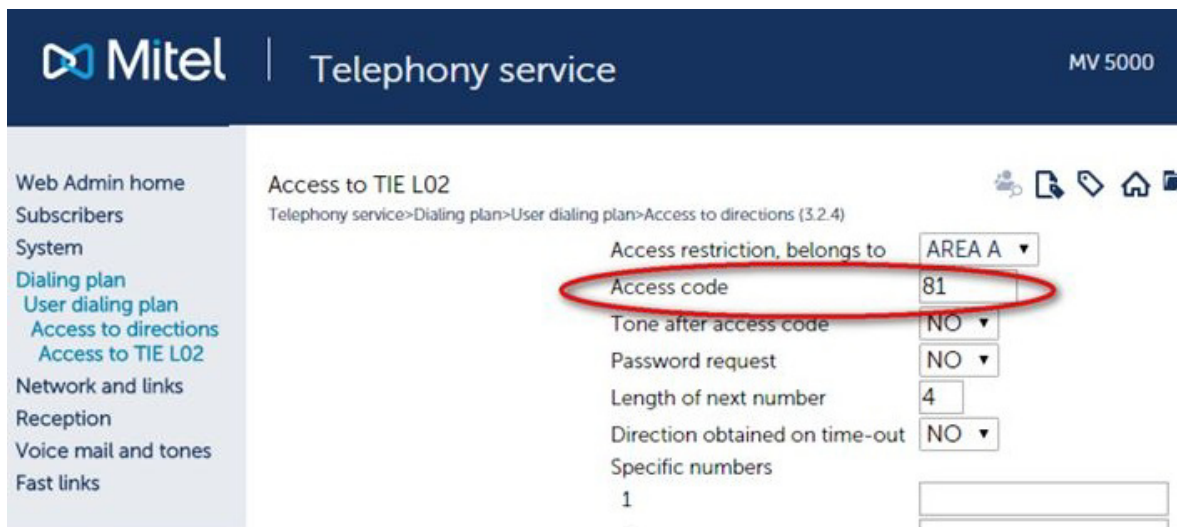


Figure 26: Access to Direction

6. Define an internal plan.



Figure 27: Define Internal Plan

7. Define trunk group characteristics.

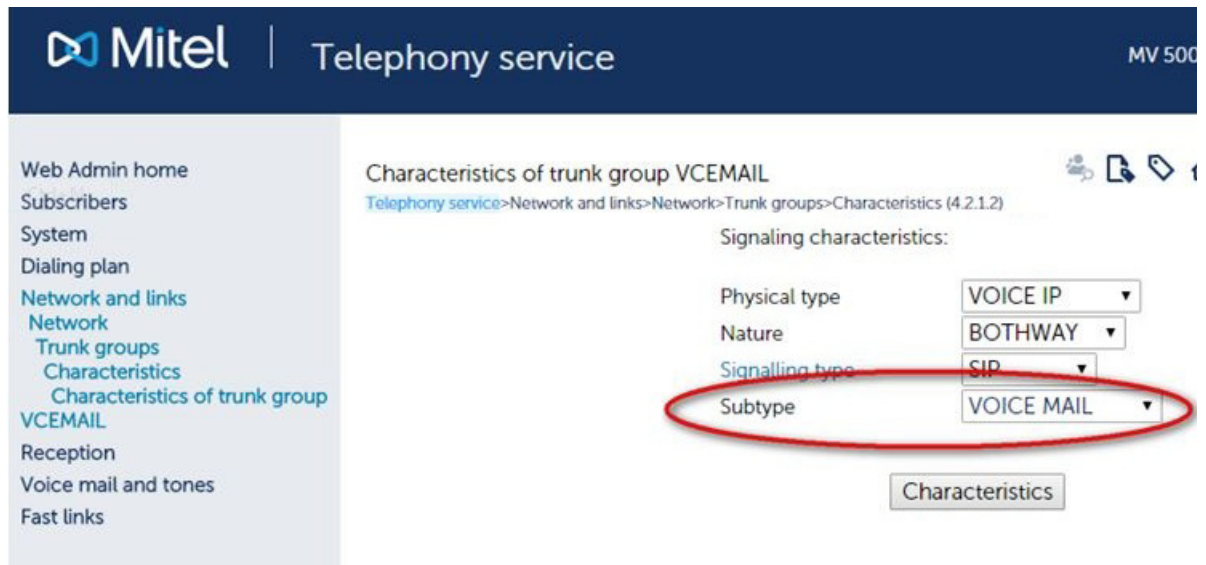


Figure 28: Trunk Group Characteristics

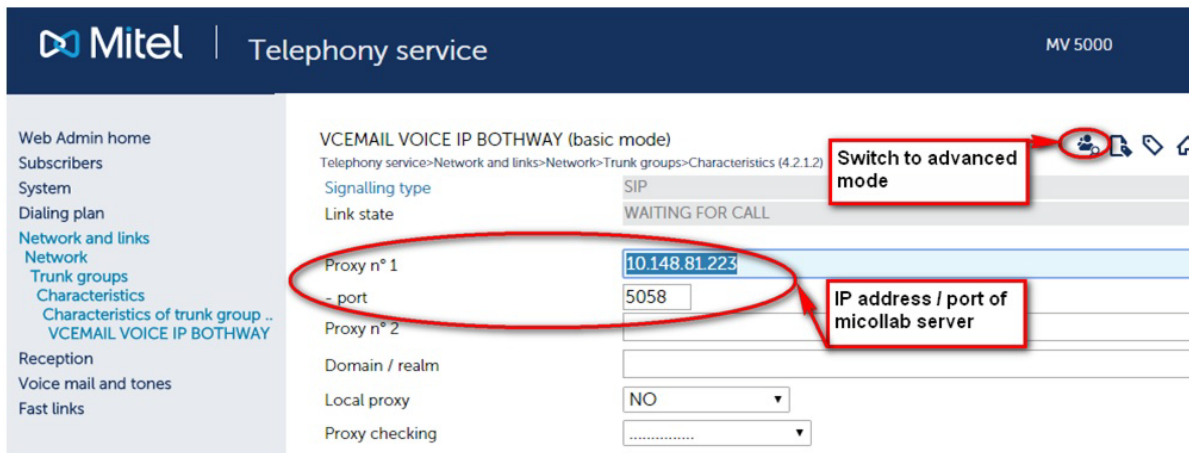


Figure 29: Configure IP BOTHWAY

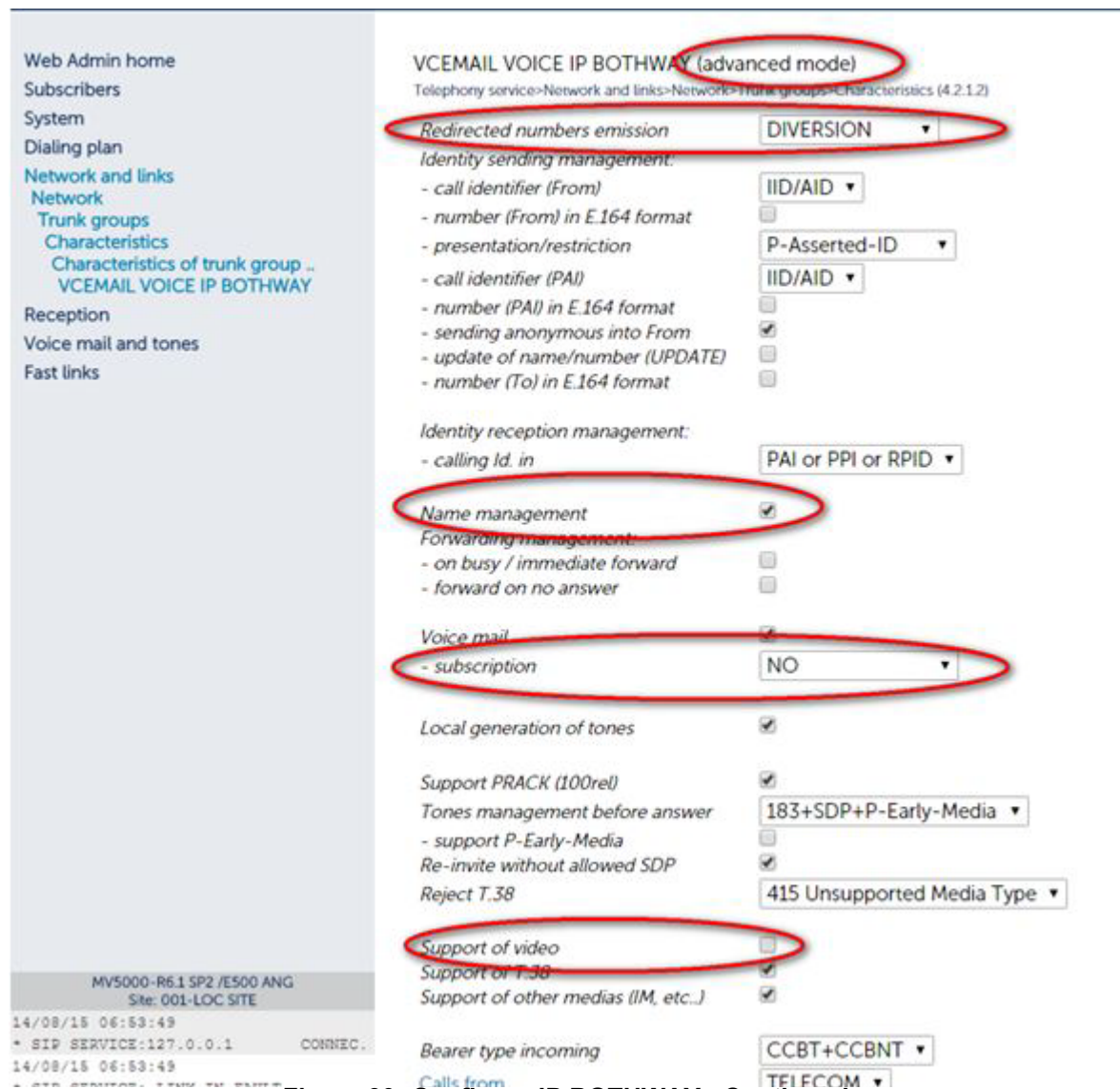


Figure 30: Configure IP BOTHWAY - Continued



8. Define voice mail

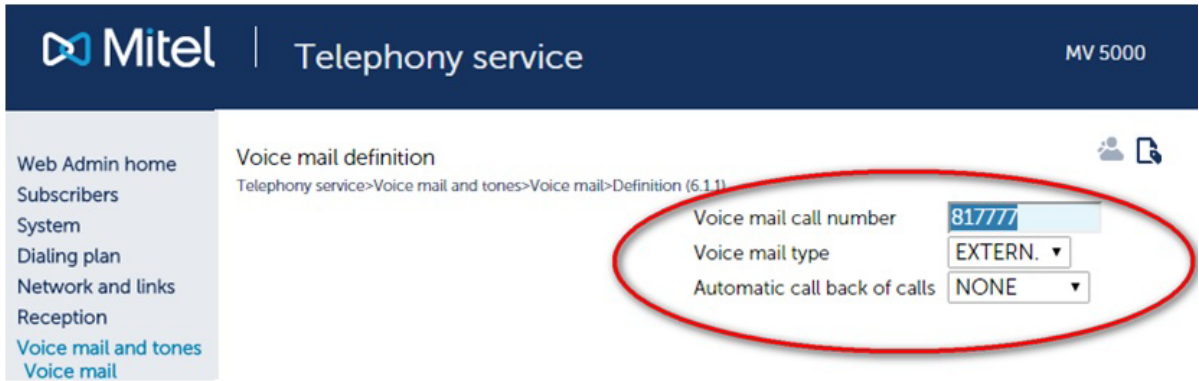


Figure 31: Voice Mail Definition

9. Set Broadcast priority

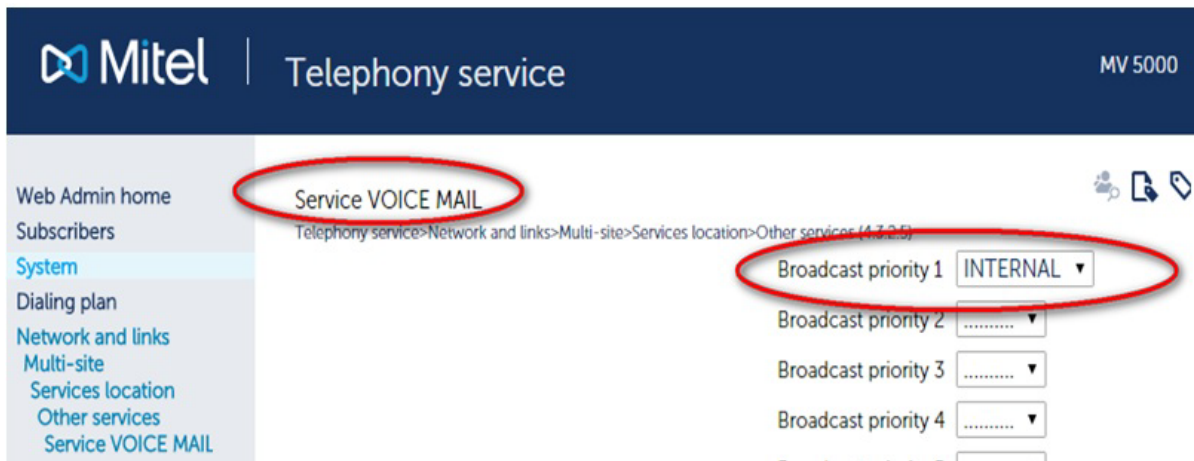


Figure 32: Broadcast Priority

- 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.

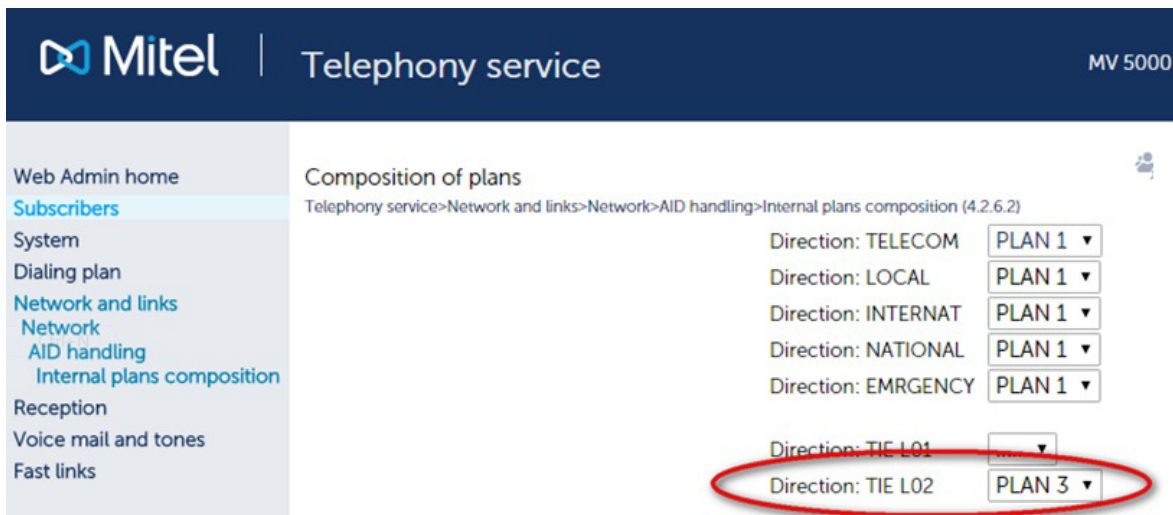


Figure 33: AID Handling - Composition of Plans

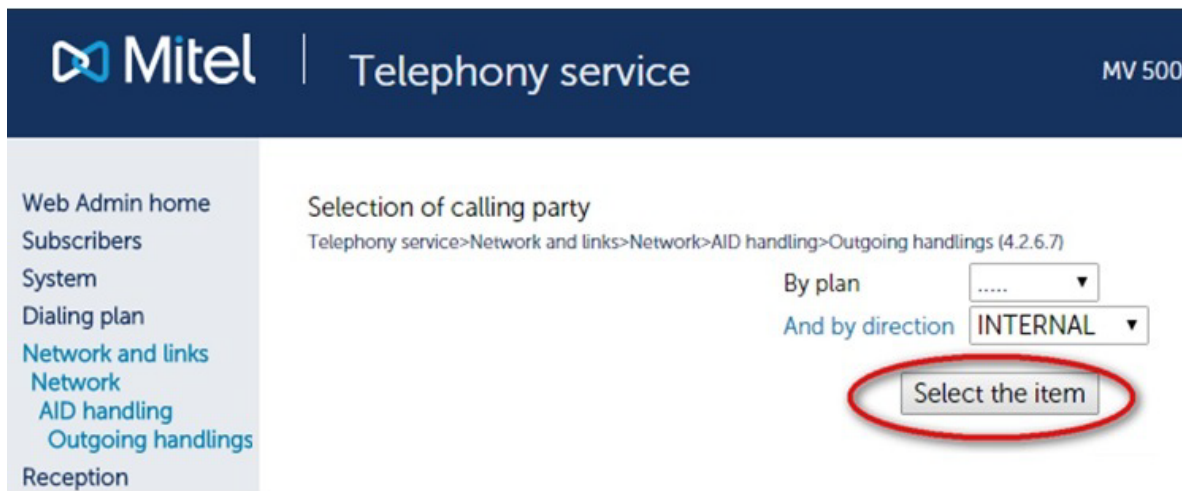


Figure 34: AID Handling - Selection of Calling Party

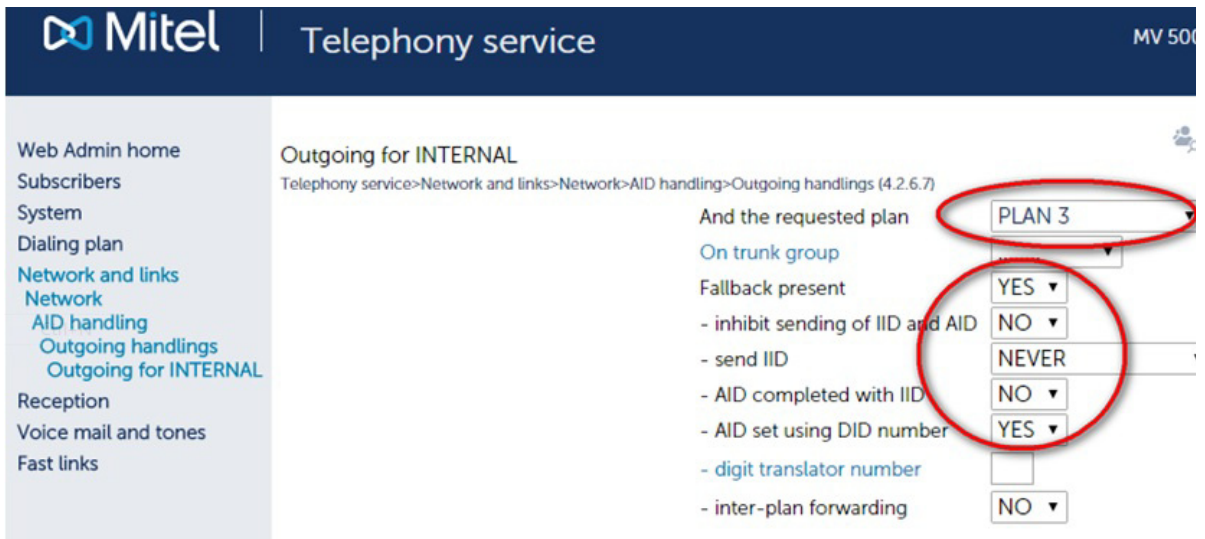


Figure 35: AID Handling - Outgoing for Internal

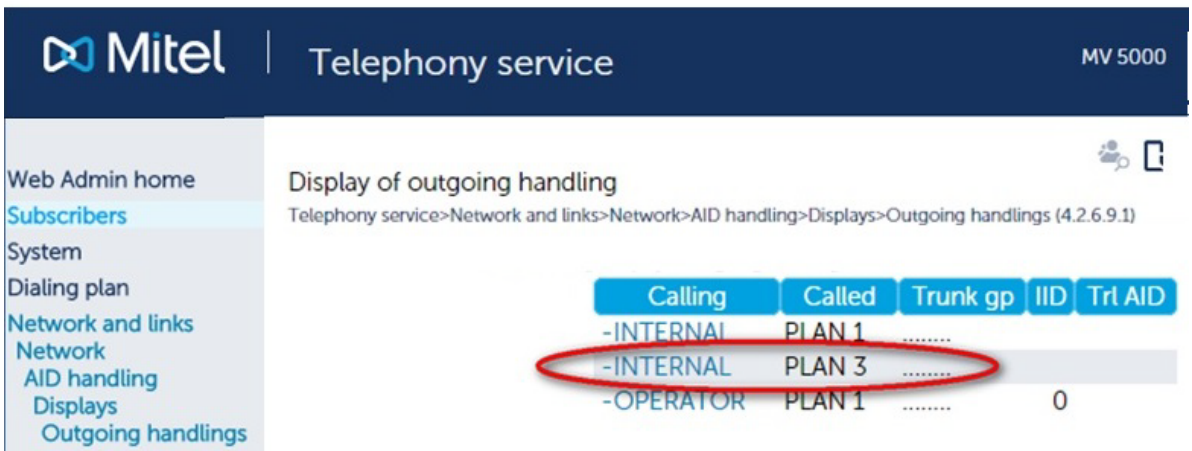


Figure 36: AID Handling - Display of Outgoing Handling

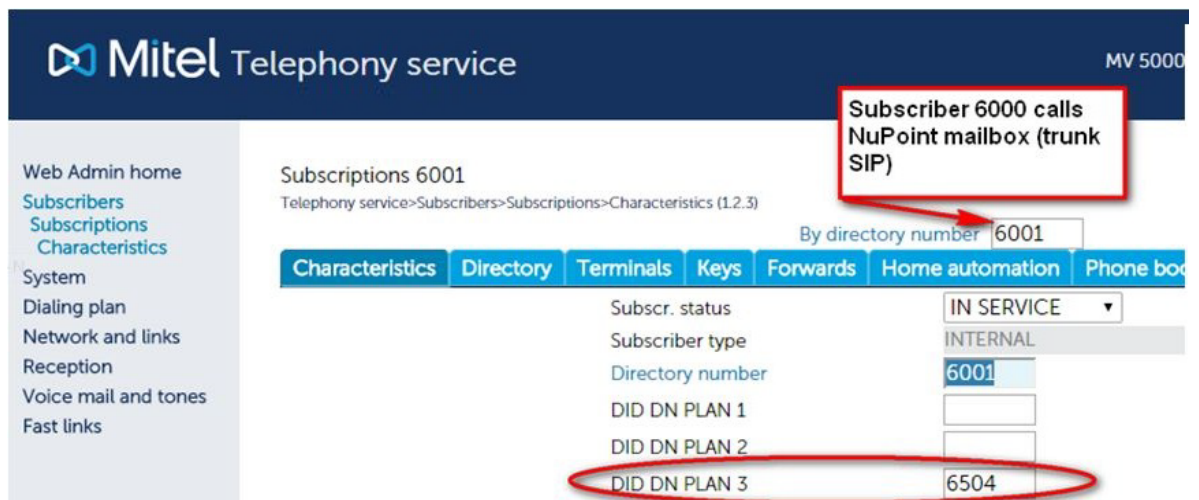
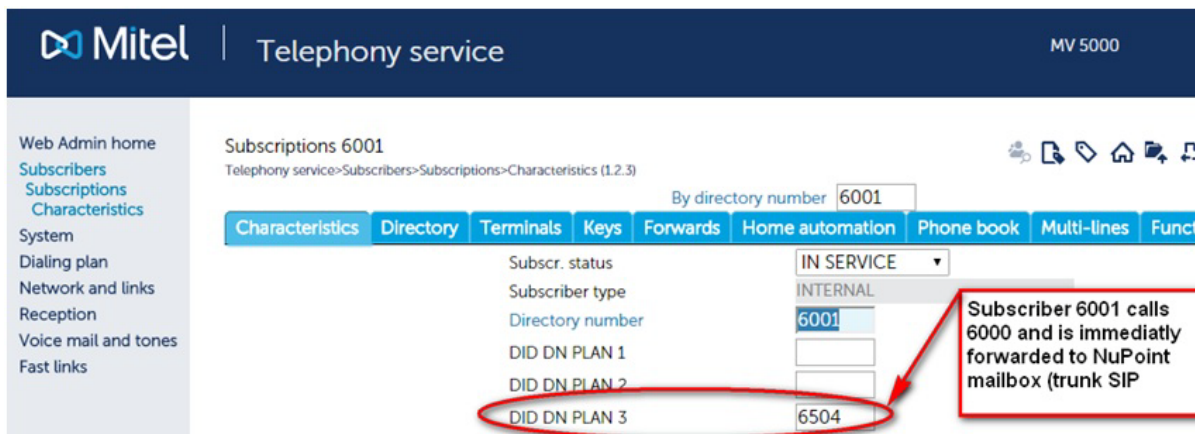
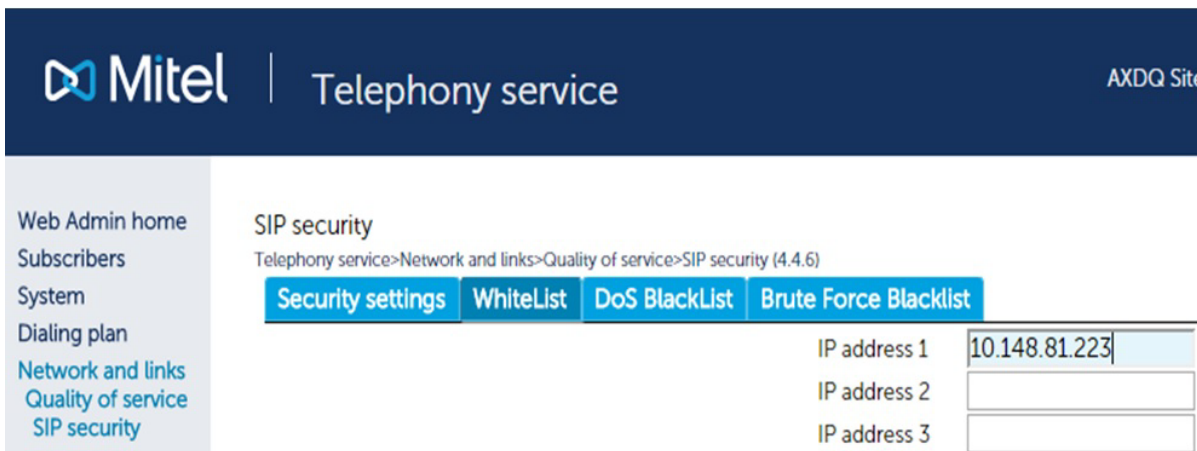


Figure 37: SIP Trunk Group - Voice Mail Direct Call



**Figure 38: SIP Trunk Group - Voice Mail Forwarded Call**

11. Add the MiCollab/NuPoint IP address in the Whitelist if the security is enabled.



**Figure 39: Add WhiteList for NuPoint**

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/MCClient-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).

The screenshot shows the Mitel Telephony service web admin interface. The page title is 'Telephony service'. On the left is a navigation menu with options like 'Web Admin home', 'Subscribers', 'Subscriptions', 'Create', 'System', 'Dialing plan', 'Network and links', 'Reception', 'Voice mail and tones', and 'Fast links'. The main content area is titled 'Subscriptions creation' and shows a breadcrumb trail: 'Telephony service>Subscribers>Subscriptions>Create (1/1)'. The form contains the following fields:
 

- 'Subscriber type' dropdown menu with 'HUNT GROUP' selected.
- 'First directory number' text input field containing '5000'.
- 'Requested number' text input field containing '1'.
- 'Check number uniqueness in multisite' checkbox, which is checked.
- 'Automatic creation of DID number' checkbox, which is unchecked.
- 'Confirmation' button at the bottom right.

 A red oval highlights the 'Subscriber type', 'First directory number', and 'Requested number' fields.

Figure 40: Hunt Group Head Definition

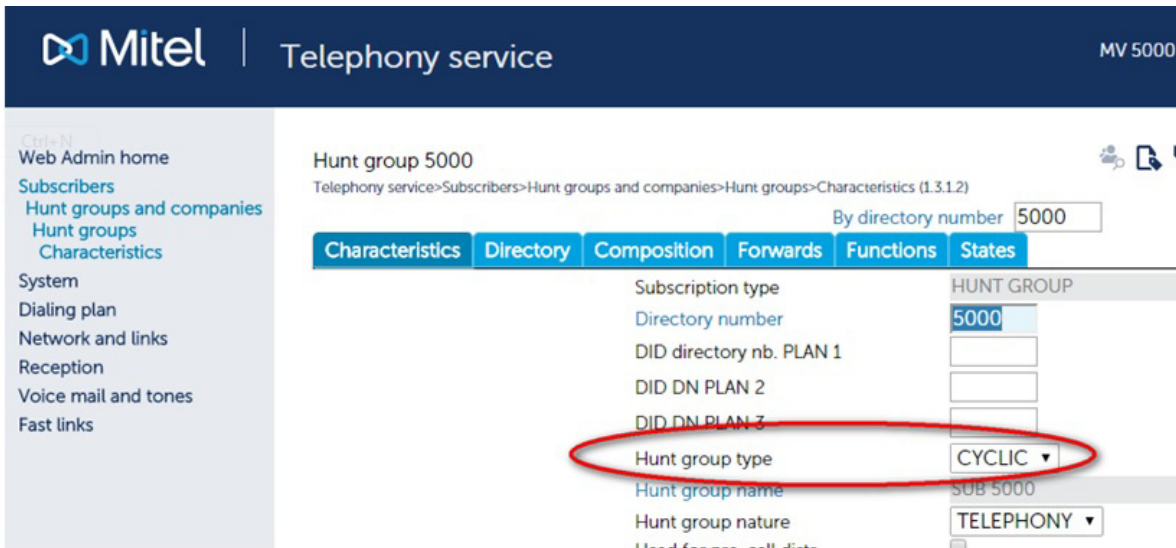


Figure 41: Hunt Group Cyclic Head Type

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

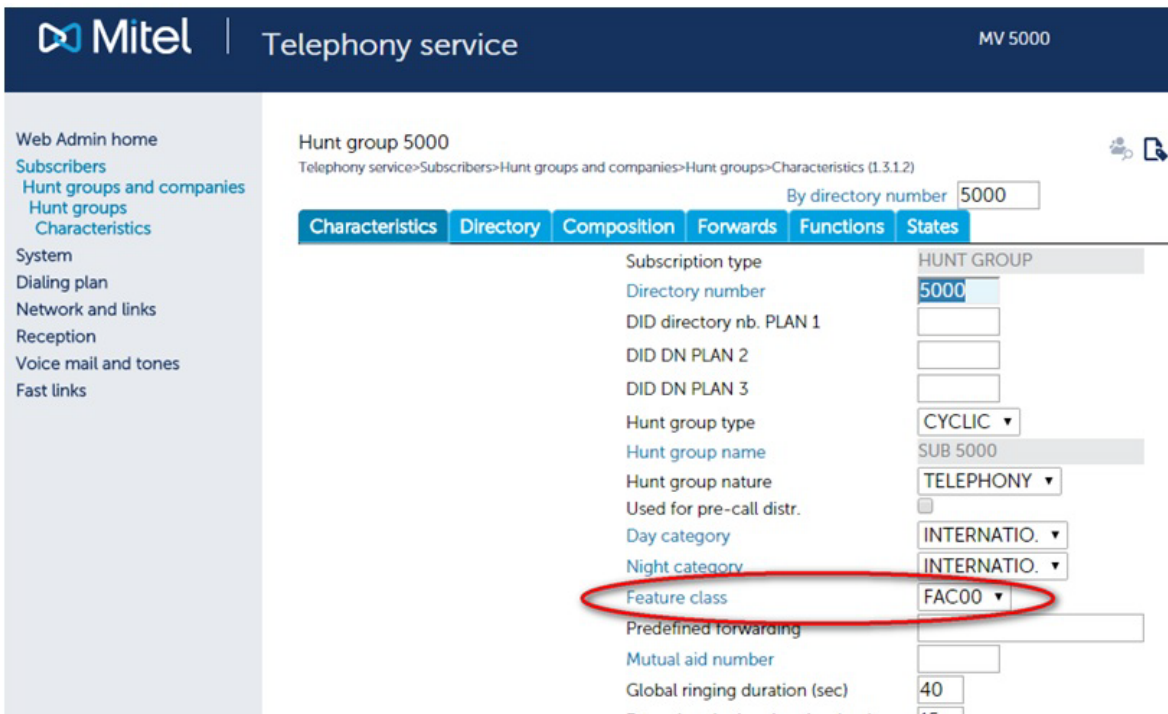


Figure 42: Hunt Group Feature Class

Mitel | Telephony service | MV 5000

Web Admin home  
Subscribers  
Rights  
Feature class  
System  
Dialing plan  
Network and links  
Reception  
Voice mail and tones  
Fast links

Feature class FAC00  
Telephony service>Subscribers>Rights>Feature class (1.4.3)

By its name **FAC00** ▼  
Directory beginning with

Names	Characteristics	Users
	Paging access	<input type="checkbox"/>
	Privileged set	<input type="checkbox"/>
	Pick up protection override	<input type="checkbox"/>
	Locking allowed	<input checked="" type="checkbox"/>
	Unlocking allowed	<input checked="" type="checkbox"/>
	Mobile recording allowed	<input checked="" type="checkbox"/>
	Pick up protection	<input type="checkbox"/>
	Night category override	<input checked="" type="checkbox"/>
	Call forwarding protection	<input type="checkbox"/>
	Data protection	<input type="checkbox"/>
	Do not disturb allowed	<input type="checkbox"/>
	Intrusion allowed	<input type="checkbox"/>
	Intrusion accepted	<input checked="" type="checkbox"/>
	Right to ciphering	<input checked="" type="checkbox"/>
	Master of conference	<input type="checkbox"/>
	Pre-emptive rerouting to voice mail	<input type="checkbox"/>
	Use of DISA function	<input type="checkbox"/>
	Call waiting	<b>REFUSED</b> ▼
	Return to console on spec. time-out	<input type="checkbox"/>
	External forwarding allowed	<input type="checkbox"/>
	Assistant forwarding allowed	<input type="checkbox"/>
	Announcement list call	<input type="checkbox"/>
	Network shift allowed	<input type="checkbox"/>
	Network rerouting allowed	<input type="checkbox"/>
	Id sent to public network	..... ▼
	Id sent to private network	..... ▼
	Id sent can be modif. for each call	<input type="checkbox"/>
	Priority terminal	<input type="checkbox"/>
	Right to immediate forwarding	<input checked="" type="checkbox"/>
	Forwarding on busy allowed	<input checked="" type="checkbox"/>
	Forwarding on no answer allowed	<input checked="" type="checkbox"/>
	Ring duration before forward	STANDARD ▼
	Recorded calls allowed	<input checked="" type="checkbox"/>

MV5000-R6.1 SP2 /E500 ANG  
Site: 001-LOC SITE  
12/08/15 16:13:11  
\* DIRECTORY: NS IN SERVICE

**"Call waiting" feature to be defined as REFUSED for hunt group**

Figure 43: Hunt Group Feature Class

Web Admin home  
Subscribers  
Hunt groups and companies  
Hunt groups  
Characteristics  
System  
Dialing plan  
Network and links  
Reception  
Voice mail and tones  
Fast links

Hunt group 5000  
Telephony service>Subscribers>Hunt groups and companies>Hunt groups>Characteristics (1.3.1.2)

By directory number 5000

Characteristics	Directory	Composition	Forwards	Functions	States
Extension 1					6100
Extension 2					6101
Extension 3					6102
Extension 4					6103
Extension 5					6104
Extension 6					6105
Extension 7					6106
Extension 8					6107
Extension 9					6108
Extension 10					6109
Extension 11					6110
Extension 12					6111
Extension 13					6112
Extension 14					6113
Extension 15					6114
Extension 16					6115
Extension 17					6192
Extension 18					6193
Extension 19					6194

Up to 100 extensions (subscribers) can be defined inside a hunt group. The extensions must be created before if not already existing.

Figure 44: Subscriptions to be included in Hunt Group



The screenshot shows the Mitel Telephony service web interface. The page title is 'Subscriptions 6100' with a breadcrumb trail: 'Telephony service > Subscribers > Subscriptions > Characteristics (1.2.3)'. A search filter 'By directory number 6100' is applied. The 'Characteristics' tab is selected, showing a list of configuration fields for a subscriber. The fields include 'Subscr. status' (IN SERVICE), 'Subscriber type' (INTERNAL), 'Directory number' (6100), and three 'DID DN PLAN' fields. The 'Extension name' is 'SUB 6100'. The 'Terminal authentication' checkbox is checked, and the '- value' field contains the MD5 password 'swM3kOF9GH7XIRE2'. A red oval highlights the 'Terminal authentication' and '- value' fields.

**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)

**Figure 45: MD5 Password Must Match**

3. Configure the supported codec and payload for the SIP phones. The duration of packets must be 20 ms for all codecs.

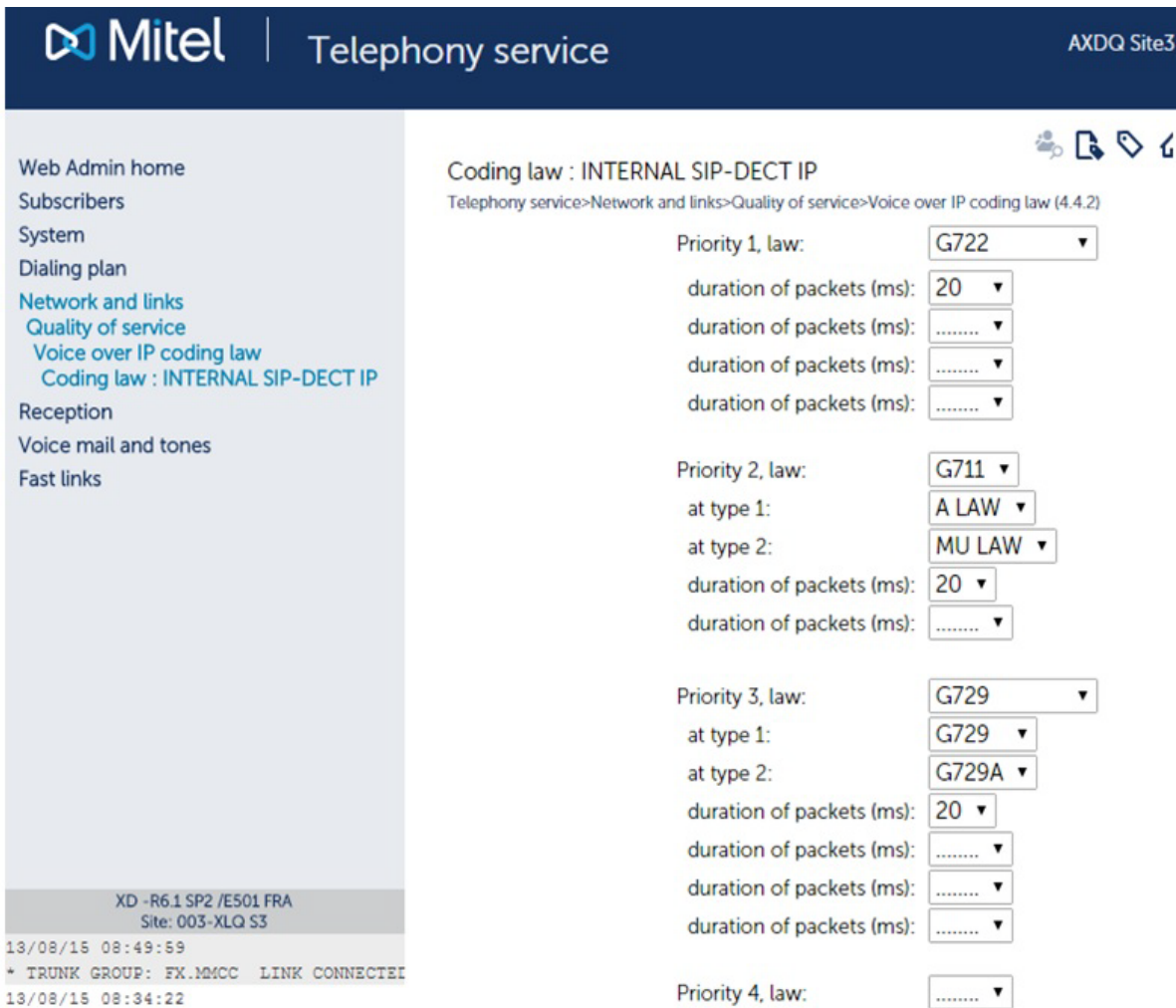


Figure 46: Configure Codec

4. Set the DTMF Method to RTP PACKET and the Header Value to 101. Note that SIP-INFO is not managed for the MiCollab Clients

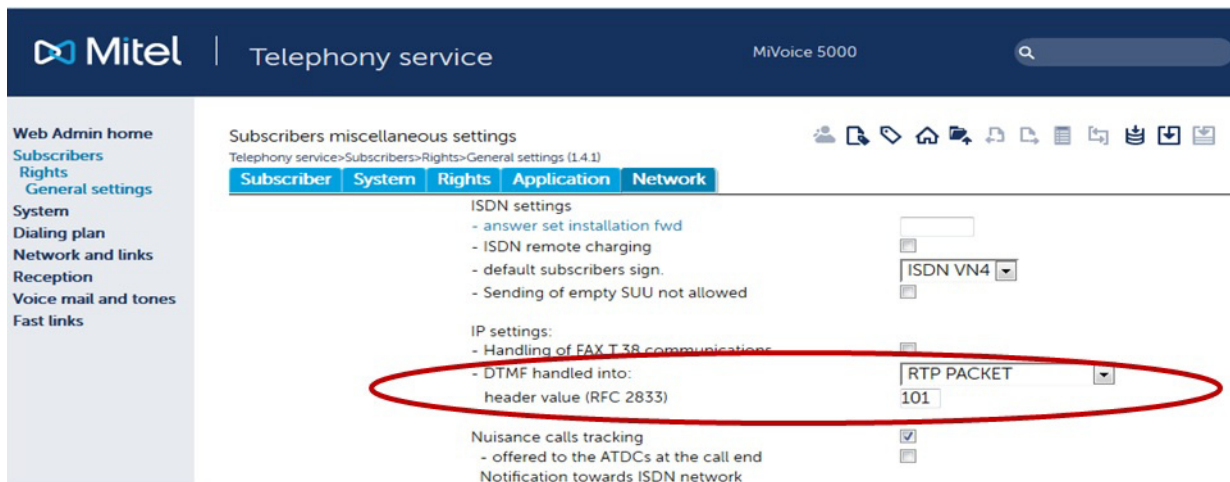


Figure 47: Configure the DTMF Method and the Header Value

## CONFIGURE SIP SERVER SETTINGS IN MICOLLAB AWW

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.
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 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:

The screenshot shows the 'Manage ICP' form with the following fields: Name: Aastra A5000; Hostname or IP address: 88.88.88.88; Type: MiVoice Business (dropdown menu open with MiVoice 5000 selected); SIP TLS capable: (checkbox); Installer password: (text field); Indirect call recording capable: (checkbox). A Save button is located below the form.

Figure 48: 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.

The screenshot shows the 'Manage ICP' form with the following fields: Name: mv5000-ico2; Hostname or IP address: 88.88.88.88; Type: MiVoice 5000; SIP capabilities: UDP, TCP (circled in red); Installer password: (text field); Indirect call recording capable: (checkbox).

Figure 49: Configure MBG SIP Capabilities

2. Configure the SIP settings. In the Allowed URI Names field, you can enter the name of the FQDN of the MBG SIP host. This is useful for identifying 68xxi remote workers and MiCollab mobile client teleworkers.

**SIP options**

**SIP support**  UDP  TCP  TCP/TLS

**Local streaming**

**Codec support** Restricted to G.729, G

**RTP framesize** Dynamic

**Set-side RTP security** Allow

**Icp-side RTP security** Disable

**Permit weak passwords**

**Registration Mode** Gap

**Set-side registration expiry time** 240

**ICP-side registration expiry time** 900

**Allowed URI names** Add another

Blank any field you no longer want.

**PRACK support**

**Send options keepalives** Only behind NAT

**Options interval** 20

**Challenge methods** Invite, Subscribe, Refer, Prack

Figure 50: Configure MBG SIP Settings

3. Configure the "Network profile" according to the network configuration
4. Configure the "Application Integration".

**MiVoice Business Console**

**Call recording** Enabled

**MiCollab Client**

**MiCollab Client connector enabled**

**NuPoint voicemail hostname or IP address**

**MiCollab Client hostname or server IP address** 192.168.100.55

**Collaboration server hostname or IP address** 192.168.100.55

Figure 51: Configure 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 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 MOBILE CLIENTS

MiVoice 5000 platforms support MiCollab mobile clients. 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.

**Manage MiCollab Client Deployment**

**Required information is missing!**  
The External Hostname is a mandatory setting for the deployment of configurations!

**Deployment email address is missing!**  
Please note that the Deployment email address is used as a fallback if no email address is available for a user. If no Deployment email address is added, deployments to users without a valid email address will fail.

Users | **Deployment Profiles** | Configuration

Deployment Email • **Connection to MBGs** • Branding Settings

**Operation status report**  
Successfully contacted MBG.  
Please approve the specified Token ID on the MBG's Server-Manager WebGUI under "Administration" -> "Web Services" and enter the Verification Code.

> Location: [Configuration](#) / [Connection to MBGs](#) / Edit

**Name:** Local

**Host:** 10.45.104.43

**Port:**

**Use https:**

**Token key:** dvmkws2siisqrhja556g==

**Verifier:**

**Save and send AuthRequest**

**Figure 52: Setting up MiCollab Client Deployment Connection to Local MBG**

3. Under **Administration**, click **Web Services**.

**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**

**Web service status** Enabled

**Access URL** https://<hostname or ip address>/mslrest/

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".

[Add a new consumer](#)

Active	Name	Consumer ID	Shared secret	RSA certificate (if any)
<input checked="" type="checkbox"/>	Oria	oria	497257d82065cde1687fa6446da165d30ea4c94a	<a href="#">Modify</a>
<input checked="" type="checkbox"/>	MiCollab Client Deployment	MiCollabClientDeployment	ad3def11bfeac00ea7c806e6b61687ca090ed130f	<a href="#">Modify</a>
<input checked="" type="checkbox"/>	vApp	vapp	22c01bd55bdd688810ef04e0f9ae50f71d293854	<a href="#">Modify</a> <a href="#">Delete</a>
<input checked="" type="checkbox"/>	deployu_for_uca	deployu_uca	wypct4qin1ylnzzyoktpprvcglsrr4hqeicwsw	<a href="#">Modify</a> <a href="#">Delete</a>
<input checked="" type="checkbox"/>	Users and Services	sas_usp	cmuc1i9uzng6fcvnb16jx2pi4k2xjwyot6q8120	<a href="#">Modify</a>

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

Final tokens	Consumer	Token ID	Secret	Expiry	Description
	Users and Services	mi9zz2gyqnc5jcmfpmxehg==	k1inaznjsuyiz0a3esra3w==	May 4, 2016, 12:14 p.m.	<a href="#">Modify</a> <a href="#">Renew</a> <a href="#">Revoke</a>
	deployu_for_uca	cl7rbtiisocxpu6f0rmiqw==	zka0j1wasnmwfy5leaushq==	May 4, 2016, 12:15 p.m.	<a href="#">Modify</a> <a href="#">Renew</a> <a href="#">Revoke</a>
	MiCollab Client Deployment	4vvhrjrctoajvd8kae26qg==	ifkka6mjsiovm3ae9lhrwg==	May 4, 2016, 8:39 p.m.	<a href="#">Modify</a> <a href="#">Renew</a> <a href="#">Revoke</a>

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.

Temporary tokens	Approved	Consumer	Token ID	Expiry	Verifier
	<input checked="" type="checkbox"/>	MiCollab Client Deployment	dvmkws2siisqrhja556g==	Tue, May 5, 2015 @ 21:05:00 UTC	<a href="#">Approve</a> <a href="#">Reject</a>

**Figure 53: Approve MiCollab Client Deployment Temporary Token in Web Services Page**

4. Click **Approve**.

- 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>/mslrest/

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".

[Add a new consumer](#)

Active	Name	Consumer ID	Shared secret	RSA certificate (if any)	
✓	Oria	oria	497257d82065cde1687fa6446da165d30ea4c94a		<a href="#">Modify</a>
✓	MiCollab Client Deployment	MiCollabClientDeployment	ad3def11bfeac00ea7c806e6b61687ca090ed130f		<a href="#">Modify</a>
✓	vApp	vapp	22c01bd55bdd688810ef04e0f9ae50f71d293854		<a href="#">Modify</a> <a href="#">Delete</a>
✓	deployu_for_uca	deployu_uca	wypct4qin1ylnzyoktpprvcgblbsrr4hqeicwsw		<a href="#">Modify</a> <a href="#">Delete</a>
✓	Users and Services	sas_usp	cmuc1i9uzng6sfvnb16jx2pi4k2xjwyot6q8120		<a href="#">Modify</a>

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

Final tokens					
Consumer	Token ID	Secret	Expiry	Description	
Users and Services	mi9zz2gyqnc5jcmfpmxehg==	k1inaznjsuyiz0a3esra3w==	May 4, 2016, 12:14 p.m.		<a href="#">Modify</a> <a href="#">Renew</a> <a href="#">Revoke</a>
deployu_for_uca	cl7rbtiisocxpuf6f0rmiqw==	zka0j1wasnmwfy5leaushq==	May 4, 2016, 12:15 p.m.		<a href="#">Modify</a> <a href="#">Renew</a> <a href="#">Revoke</a>
MiCollab Client Deployment	4vhhrjrctoajvd8kxae26gg==	ifkka6mjsiovm3ae9lhrwg==	May 4, 2016, 8:39 p.m.		<a href="#">Modify</a> <a href="#">Renew</a> <a href="#">Revoke</a>

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.

Temporary tokens				
Approved	Consumer	Token ID	Expiry	Verifier
✓	MiCollab Client Deployment	dvmkws2siisqrhja556g==	Tue, May 5, 2015 @ 21:05:00 UTC	298490 <a href="#">Reject</a>

**Figure 54: Verifier Code**

- Under **Applications**, click **MiCollab Client Deployment**.
- Access the **Configuration > Connections to MBG** panel.
- Modify the connection and enter the verifier code that you copied above.
- Click **Save and send AuthRequest**.

#### *Enable Remote Access to the Deployment Unit Interface*

- Log into the MBG server manager.
- Under **Administration** click **Remote proxy services**.
- Click the **LAN server proxy list** tab.
- Click **Add new LAN server proxy** and add the MiCollab server.
- Click **Modify** and configure the proxy settings.
- Click **Save**.



**Applications**  
 MiVoice Border Gateway  
 Remote proxy services

**ServiceLink**  
 Blades  
 Status

**Administration**  
 Web services  
 Backup  
 View log files  
 Event viewer  
 System information  
 System monitoring  
 System users  
 Shutdown or reconfigure  
 Virtualization

**Security**  
 Remote access  
 Port forwarding  
 Web Server Certificate  
 Certificate Management

**Configuration**  
 Networks  
 E-mail settings

### Configure Web Proxy & Remote Management Service

**LAN server proxy list** | Users | Supported applications | MiVoice Business support

» Location: LAN server proxy list

Welcome to the Remote proxy services administrative interface. From here you can manage all aspects of the Web Proxy's behaviour. If at any time you require more information, click the Help icon in the upper-right corner of the page.

This page outlines existing LAN servers currently supported by this MBG server. Remote proxy services relies on the fully-qualified domain name in the Host header of the request to the appropriate LAN server. Access via IP address is not supported.

Note that unencrypted HTTP traffic is not supported for security reasons.

**Add new LAN server proxy**

Enabled	WAN-side FQDN	Allowed netblocks	Server type		
<input checked="" type="checkbox"/>	micollab1.int.com	All	MiCollab server with the following user level access enabled: MiCollab Client MiCollab MiCollab Audio, Web and Video Conferencing Google Calendar Integration to AWV Deployment Unit Admin level access is <i>enabled</i>		<a href="#">Modify</a> <a href="#">Del</a>

**Licensing information** | **Web proxy Remote management**  
 True | True

Figure 55: Remote Proxy Services

### Configure Web Proxy & Remote Management Service

**LAN server proxy list** | Users | Supported applications | MiVoice Business support

» Location: [LAN server proxy list](#) / [Modify](#)

Welcome to the Remote proxy services administrative interface. From here you can manage all aspects of the Web Proxy's behaviour. If at any time you require more information, click the Help icon in the upper-right corner of the page.

The following form permits configuration of a proxy to a single LAN server. None of the other fields will apply to change the server's behaviour unless the "Enabled" checkbox is also checked.

**Enabled**

**WAN-side FQDN**

**What kind of LAN server are you configuring?**

- MiCollab
- MiVoice Business
- MiCollab Client
- MiCollab Unified Messaging
- generic MSL admin only
- Open Integration Gateway
- Oria

**Which user interfaces would you like to enable access to?**

- MiCollab
- MiCollab Client
- MiCollab Unified Messaging
- Deployment Unit**
- MiCollab Audio, Web and Video Conferencing
- Google Calendar Integration to AWV

Listen port for MiCollab AWV

**Do you wish to permit remote administrative access?**  Yes

**What netblocks should be able to access it?**

**Save**

Figure 56: 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 or the FQDN of the MBG SIP host 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

General Settings

<b>Name *</b>	default	<b>Log Level</b>	INFO
<b>Use Teleworker</b>	<input checked="" type="checkbox"/>	<b>Call Mode</b>	Video
<b>Use Softphone</b>	<input checked="" type="checkbox"/>	<b>Office Number</b>	
		<b>Office Number Pause</b>	0
<b>MBG</b>	Local	<b>Config download host *</b>	Custom cbelab-micollab.surrot.com
		<b>MBG SIP host *</b>	Custom 193.248.147.29
		<b>PBX SIP host</b>	Default
<b>Override user email</b>	<input type="checkbox"/>	<b>Conference Access Code</b>	
<b>Deployment email address</b>	cbenoit@mitel.com	<b>Emergency Numbers</b>	000,110,112,118,119,911,999

Figure 57: General Setting (Settings shown are examples only)

Softphone Settings

<b>PBX type</b>	MV 5000	<b>Teleworker type</b>	MBG
<b>SIP transport protocol</b>	TCP	<b>SIP transport protocol</b>	TLS
<b>SIP port</b>	5060	<b>SRTP mode</b>	Mandatory
<b>SIP DTMF method</b>	RFC 2833 / RFC 4733	<b>SIP port</b>	5061
<b>Default audio codec</b>	g722	<b>SIP DTMF method</b>	RFC 2833 / RFC 4733
<b>Max video TX rate (kbit/s) *</b>	768	<b>Default audio codec</b>	g722
<b>Max video RX rate (kbit/s) *</b>	768	<b>Max video TX rate (kbit/s) *</b>	192
<b>DSCP SIP</b>	Assured forwarding 11	<b>Max video RX rate (kbit/s) *</b>	192
<b>DSCP RTP audio</b>	Assured forwarding 12	<b>DSCP SIP</b>	Assured forwarding 11
<b>DSCP RTP video</b>	Assured forwarding 13	<b>DSCP RTP audio</b>	Assured forwarding 12
<b>Use Wi-Fi only</b>	<input type="checkbox"/>	<b>DSCP RTP video</b>	Assured forwarding 13
		<b>Use Wi-Fi only</b>	<input type="checkbox"/>

Figure 58: Softphone 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.

Refer to the *Integrated Directory Services* help in the MiCollab server manager online help for configuration instructions.

### 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.

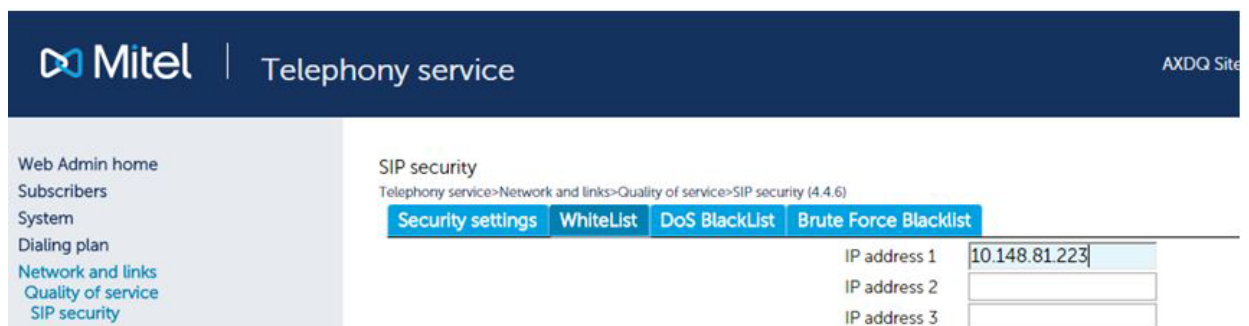


Figure 59: Add MBG IP Address in Whitelist

## MIGRATION PROCEDURE FOR AWW

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 AWW site to MiCollab Release 7.1 or later support.

You can migrate systems where the AWW accounts were only created within the AWW application to MiCollab 7.1 or later. 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 33 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 AWW account e-mail address, the account is linked to the newly created user.

Systems where the AWW 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 4

## **MX-ONE INTEGRATION**





## OVERVIEW

You can integrate up to eight MiCollab servers with a 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 MiVoice 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.

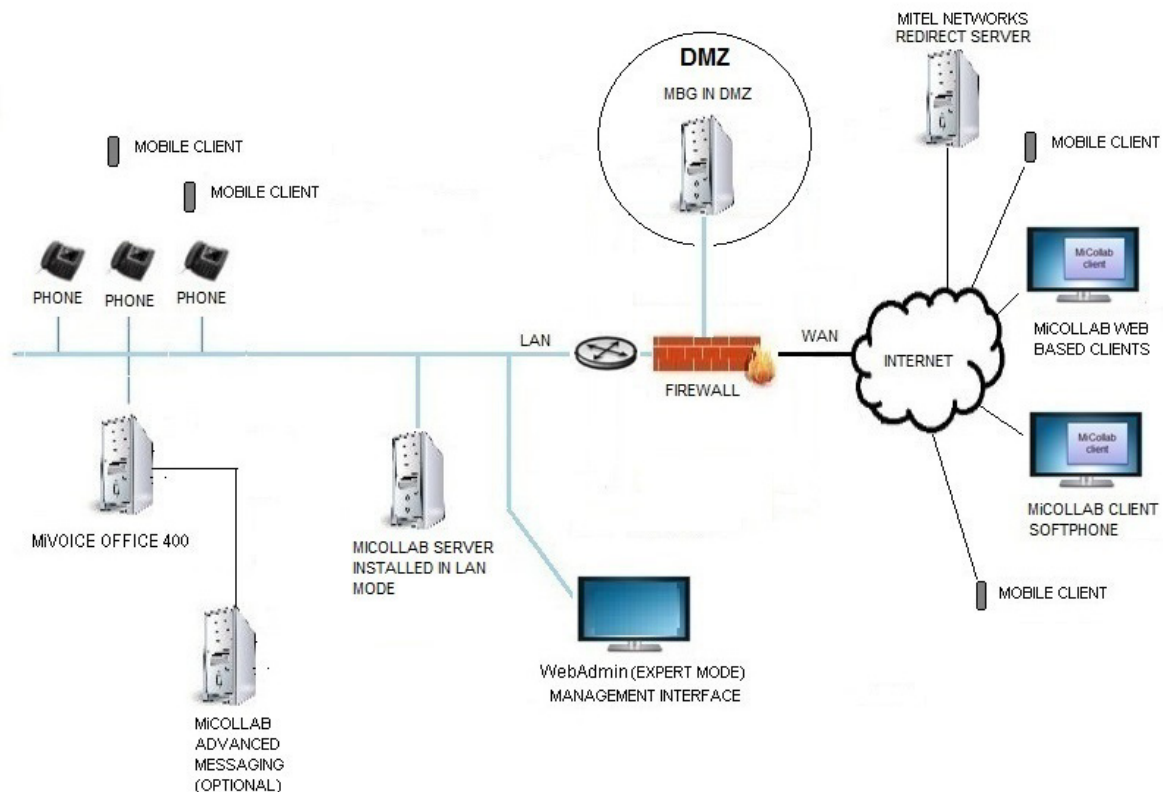
The administrator then assigns roles to the primary directory number of the user on the MiVoice MX-ONE. The roles on the communications platform correspond to roles on the MiCollab system. The UCC roles map to MiCollab USP templates that define the required application services for the user type. When 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 60:

- **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.
- **Standalone MBG:** A standalone vMBG server can be installed in the Demilitarized Zone (DMZ) of a customer's existing firewall to support SIP Teleworker devices. The MiCollab MBG application must be clustered with the standalone MBG.
- **MiCollab Advanced Messaging (AVST) server:** An optional standalone server that can be used to provide voice messaging services.

- **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 Voice mail 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 60: MiVoice MX-ONE Integration**

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## 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

- One or more MiCollab servers (up to eight) can provide applications services to the users on the MiVoice MX-ONE system in the same network.
- The integration of multiple MiCollab systems to the MiVoice MX-ONE platform 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 Provisioning Manager. 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.
- Voice messaging services can be provided by the MiCollab NuPoint Unified Messaging application or from an optional MiCollab Advanced Messaging server.
- 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 a total of up to 40,000 users and contacts.
- 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 MiCollab End User Portal is supported for MiVoice MX-ONE users. It provides them with access to their user portal, voice mail, and AWW 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.
- The MX-ONE Parallel Ringing feature allows an incoming call to ring several phones (desk-phones, softphones or mobile phones) that are registered with different extension numbers simultaneously. The call can then be answered on any of the phones. This feature requires all the phones involved to be defined in a Parallel Ringing list. One phone in the list is configured as the main extension and only calls to this extension are distributed among the other phones in the list. MiCollab can only support application services to the main extension in the Parallel Ringing list.
- 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 cannot be imported into the MiCollab Client server via the MX-ONE Provisioning Manager, but they can be imported directly from Active Directory using MiCollab Integrated Directory Services.
- 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:

USER DATA	FILENAME STARTS WITH
Email IDs, Phone Numbers and SIP Passwords	MiCollabUsers0_x.csv
Phone Numbers	MiCollabUsers1_x.csv
Email IDs	MiCollabUsers2_x.csv
without Email IDs, Phone Numbers and SIP Passwords	MiCollabUsers3_x.csv
with MiCollab roles assigned	MiCollabUsers4_x.csv

- Each CSV file is generated with a maximum of 2500 user records. New files are generated if user count exceeds 2500 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.



**Note:** MiCollab Advanced Messaging (AVST) is not licensed through the AMC.

# 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 (or optionally install MiCollab Advanced Messaging server)
  - Integrate Audio, Web and Video Conferencing
  - Integrate MiVoice Border Gateway
  - Integrate MiCollab Client Service
- 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.
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.



**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 MX-ONE 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.
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.

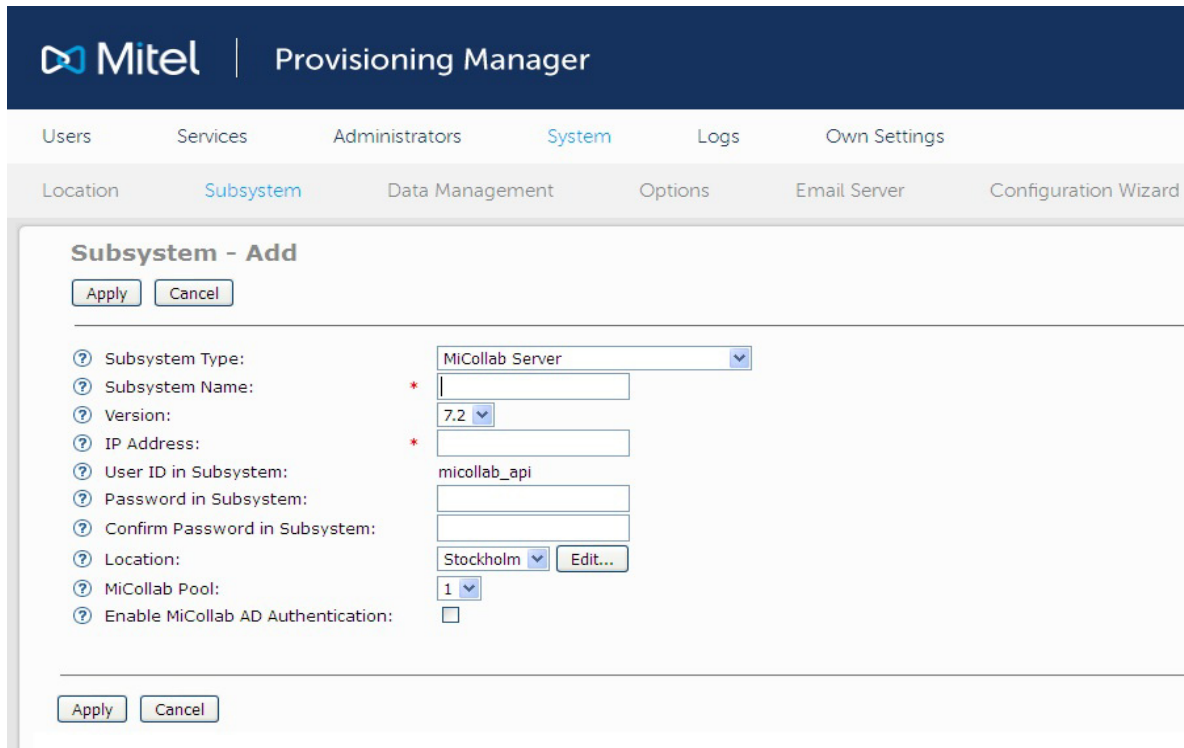
## Configure "micollab\_api" Password

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:** If the check box is enabled, then the user in MiCollab will be created with Active Directory authentication.

**Note:** Enable **AD Authentication** for MiCollab User works if Enable MiCollab AD Authentication field of MiCollab Server is enabled.



The screenshot displays the 'Subsystem - Add' configuration page in the MiCollab Platform Provisioning Manager. The interface includes a top navigation bar with the Mitel logo and 'Provisioning Manager' text. Below this is a secondary navigation bar with tabs for 'Users', 'Services', 'Administrators', 'System' (selected), 'Logs', and 'Own Settings'. A third navigation bar contains 'Location', 'Subsystem' (selected), 'Data Management', 'Options', 'Email Server', and 'Configuration Wizard'. The main content area is titled 'Subsystem - Add' and contains the following fields:

- Subsystem Type:** A dropdown menu set to 'MiCollab Server'.
- Subsystem Name:** A text input field with a red asterisk indicating it is required.
- Version:** A dropdown menu set to '7.2'.
- IP Address:** A text input field with a red asterisk indicating it is required.
- User ID in Subsystem:** A text input field containing 'micollab\_api'.
- Password in Subsystem:** A text input field.
- Confirm Password in Subsystem:** A text input field.
- Location:** A dropdown menu set to 'Stockholm' with an 'Edit...' button next to it.
- MiCollab Pool:** A dropdown menu set to '1'.
- Enable MiCollab AD Authentication:** An unchecked checkbox.

At the top and bottom of the form area are 'Apply' and 'Cancel' buttons.

**Figure 61: Subsystem - Add**

9. Click **Apply**.



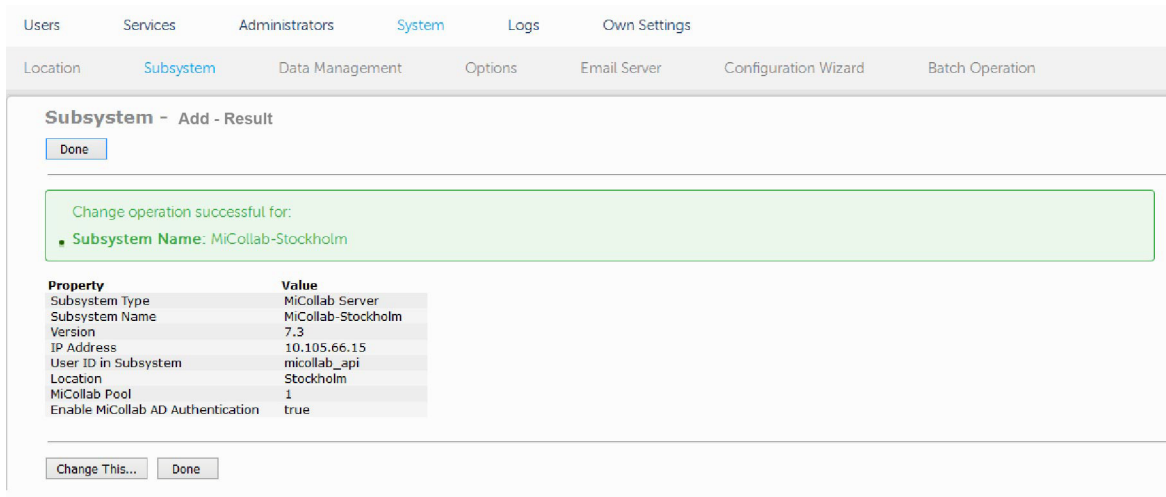


Figure 62: Subsystem - Add - Result

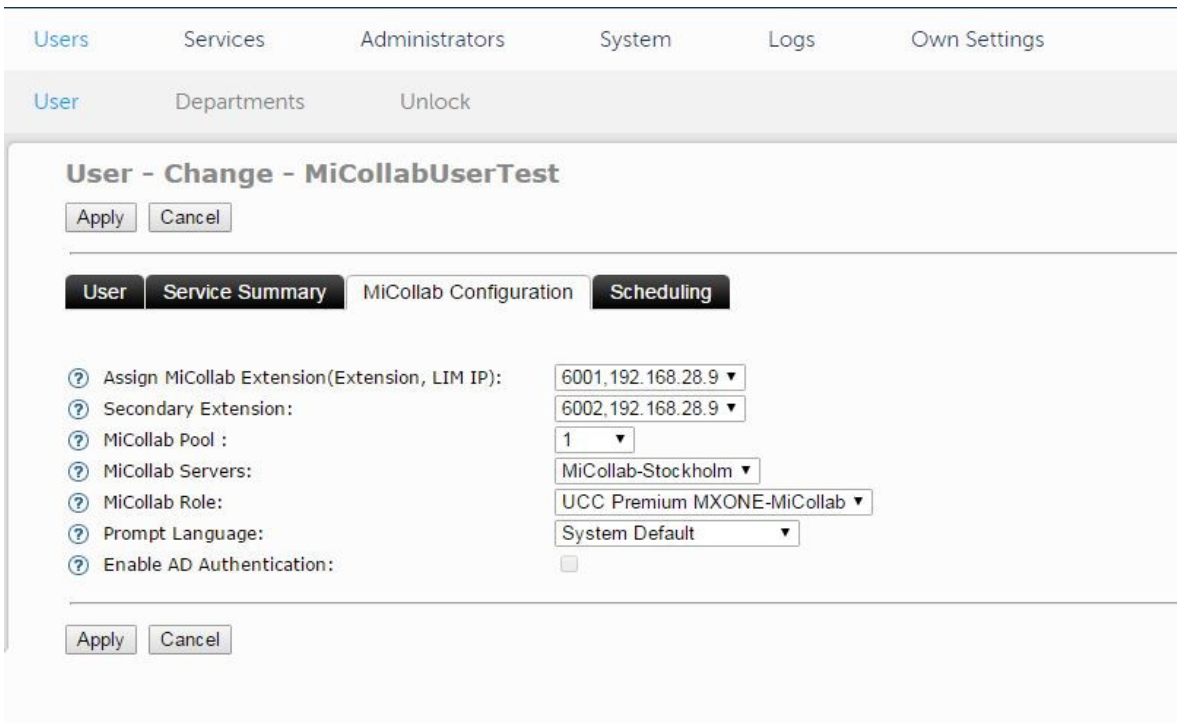


Figure 63: User - Change

## 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 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 64 illustrates the SIP trunk integration:

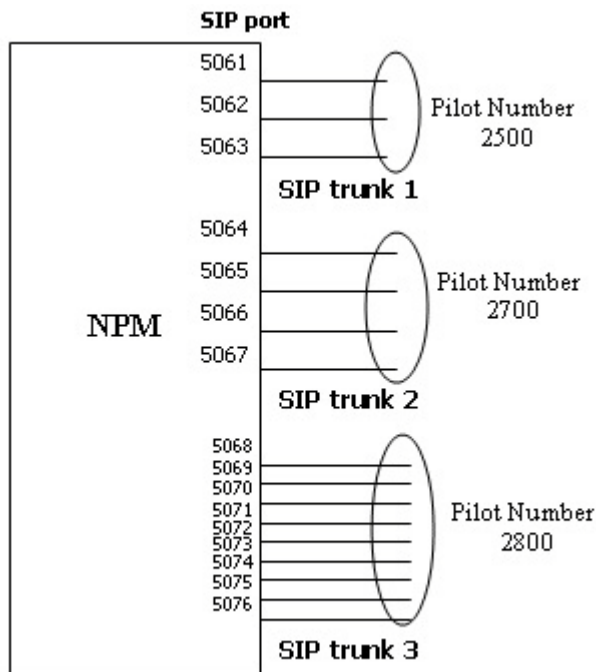


Figure 64: NuPoint SIP Trunk Integration

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.

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).

## CONFIGURE MIVOICE 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**.

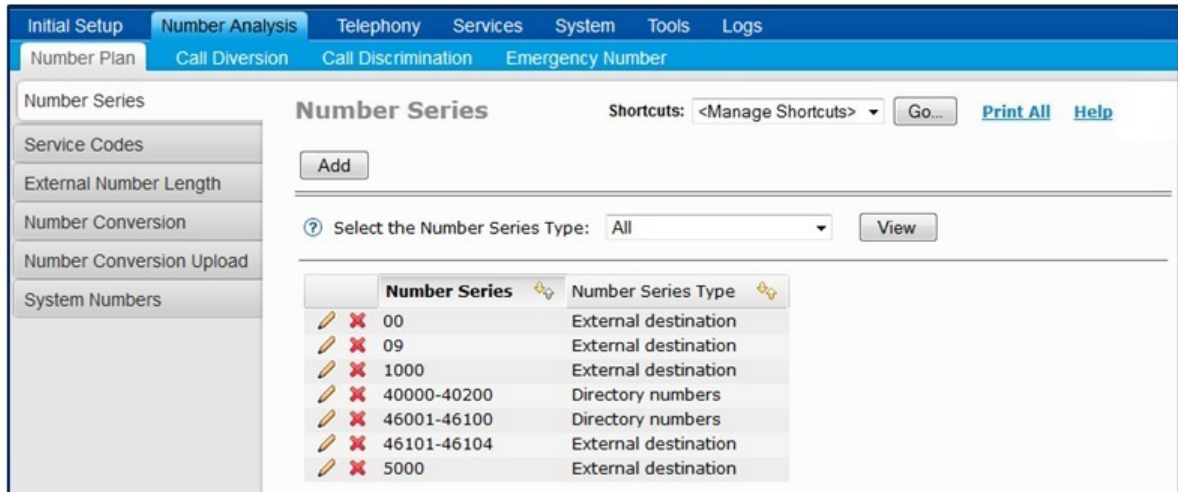


Figure 65: Number Series

4. Select the **Number Series Type**, and enable the **External numbers** option.

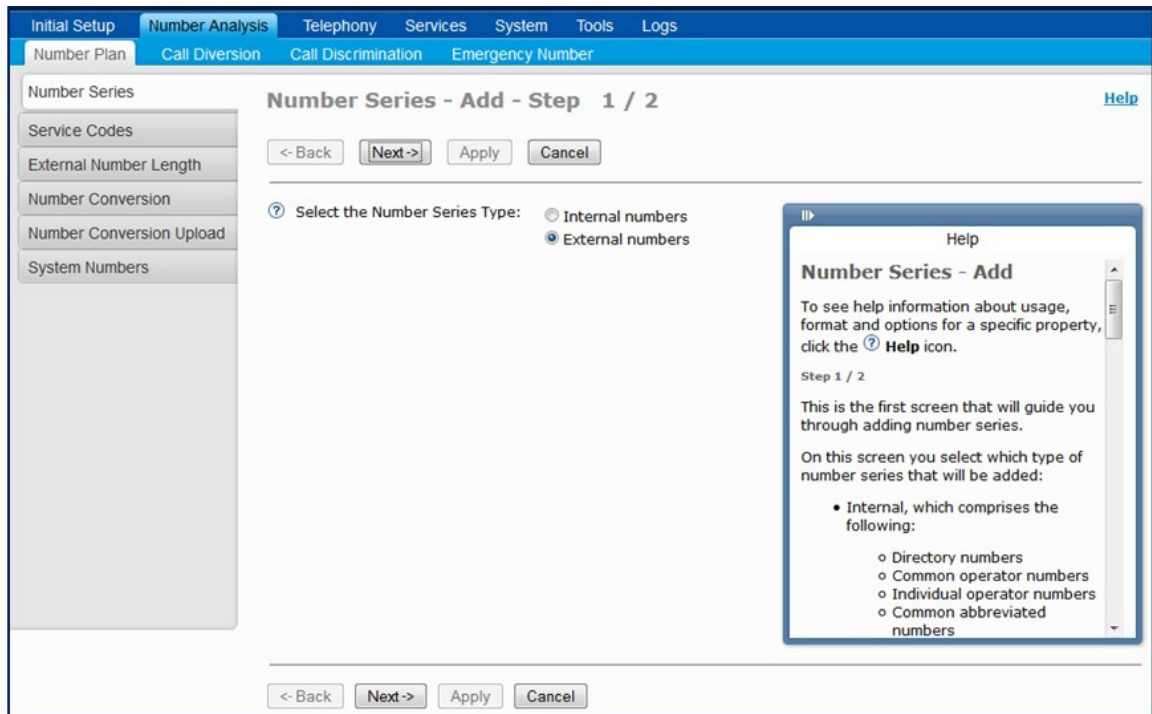


Figure 66: Number Series - Add - Step 1

5. Enter the Voice Mail numbers in the External Destination field.

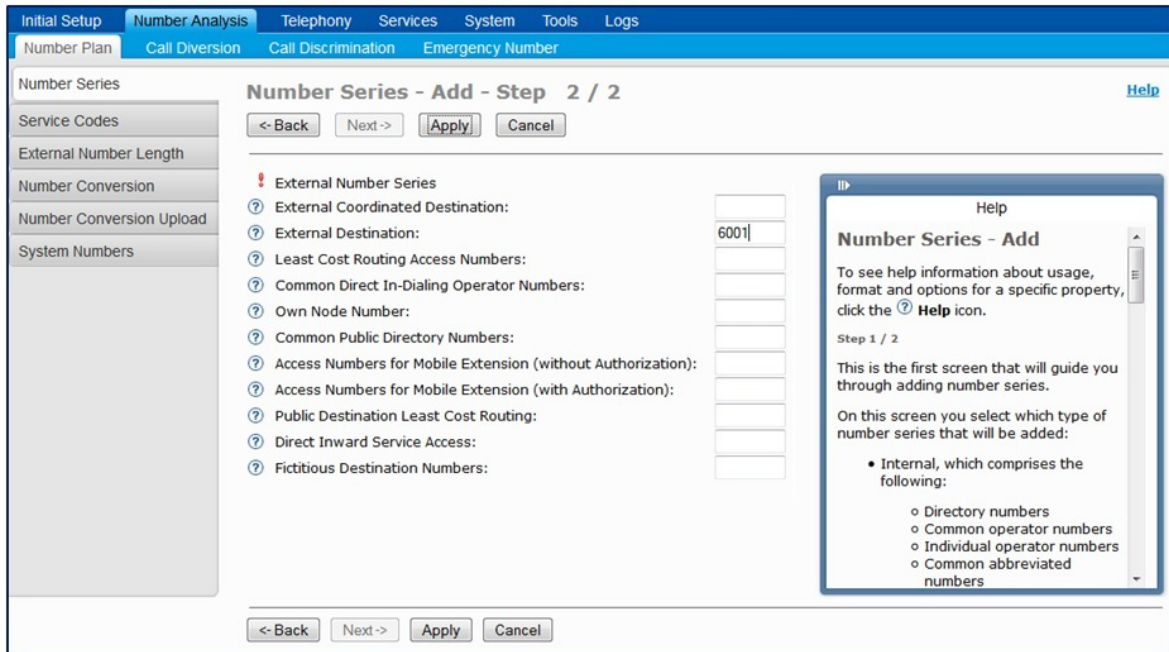


Figure 67: Number Series - Add

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

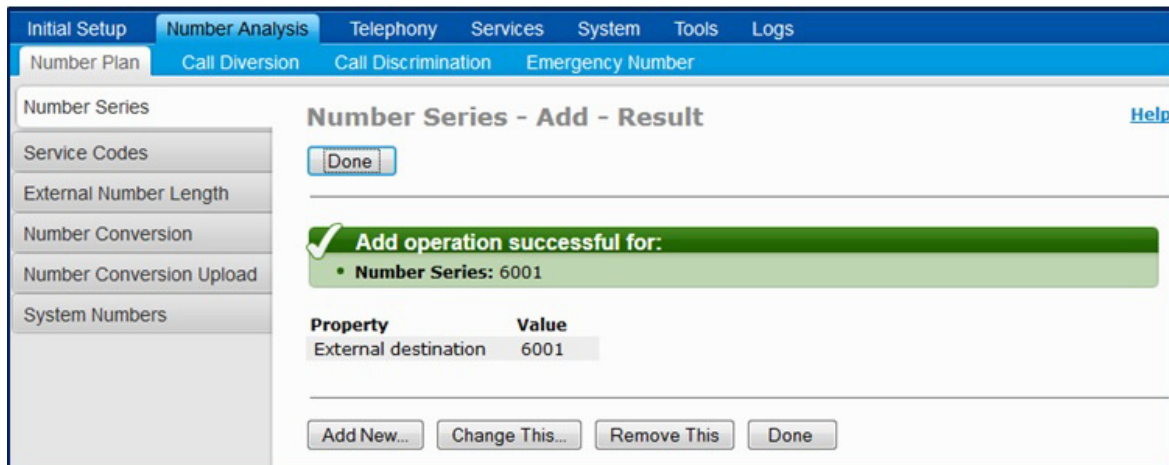


Figure 68: Number Series - Add - Result

7. Set the number length to the external number.
8. Click **Number Analysis**, **Number Plan**, and then select **External Number Length**.
9. Click **Add**.

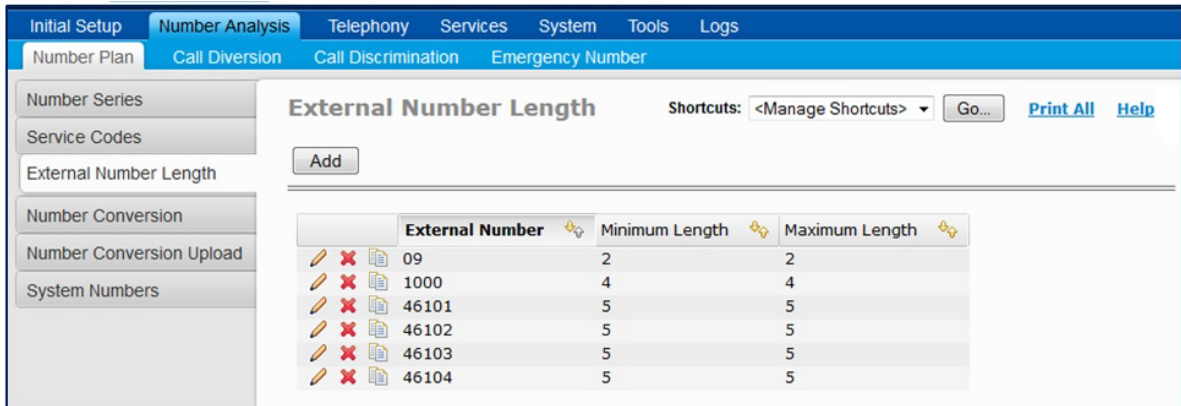


Figure 69: External Number Length

10. Enter the **External Number**, **Minimum Length** and **Maximum Length**.

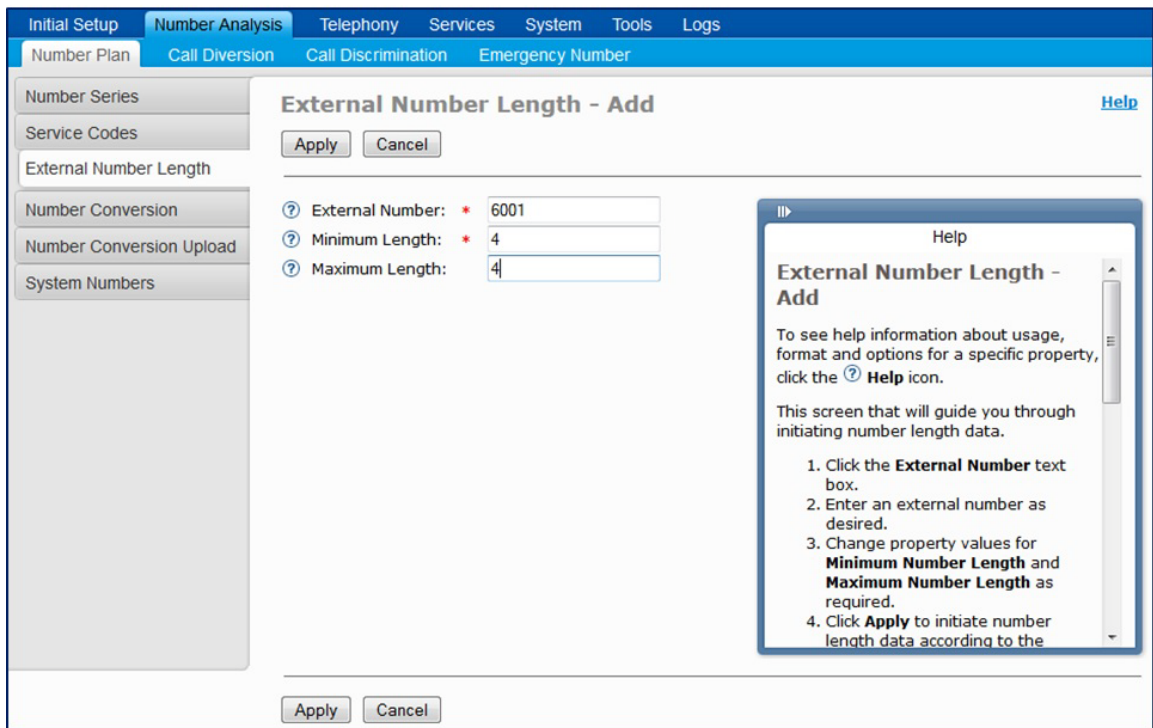


Figure 70: External Number Length - Add

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

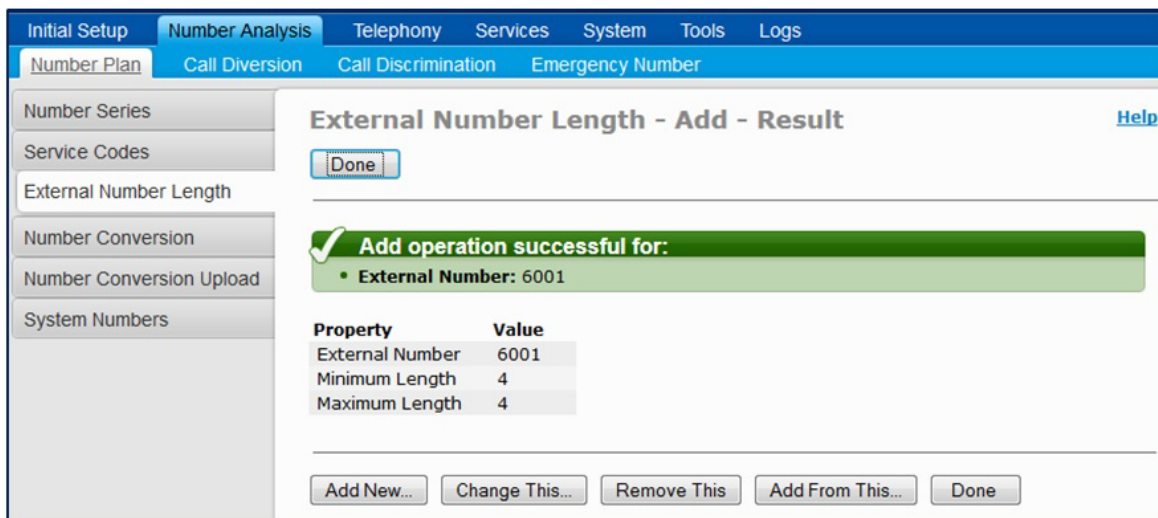


Figure 71: External Number Length - Add - Result

12. Configure a SIP trunk:

- Click **Telephony**, click **External Lines**, and then select **Route**.
- Click **Add**.

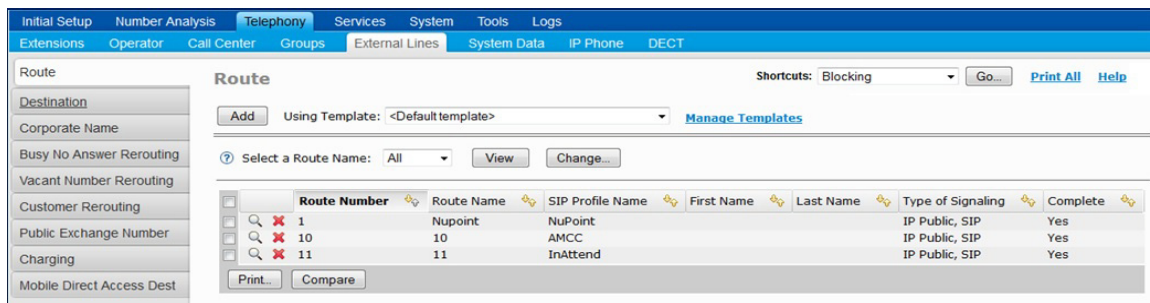
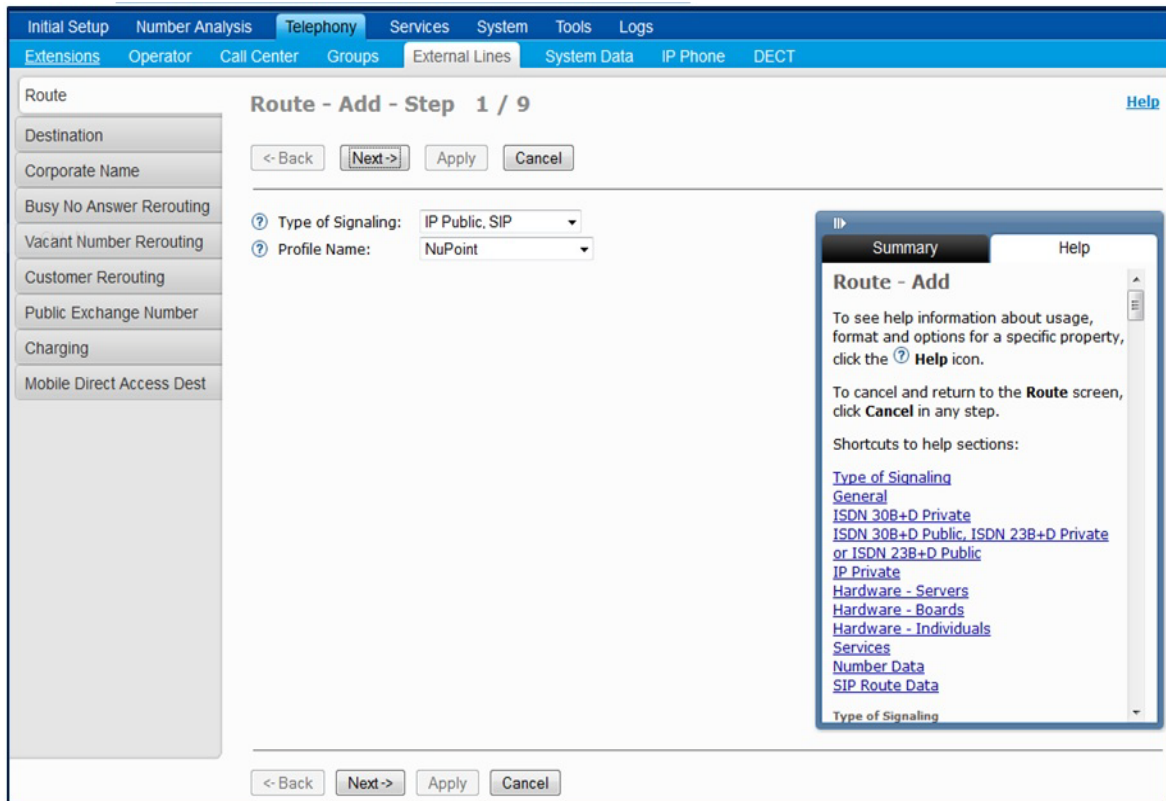


Figure 72: Route

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





**Figure 73: 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.

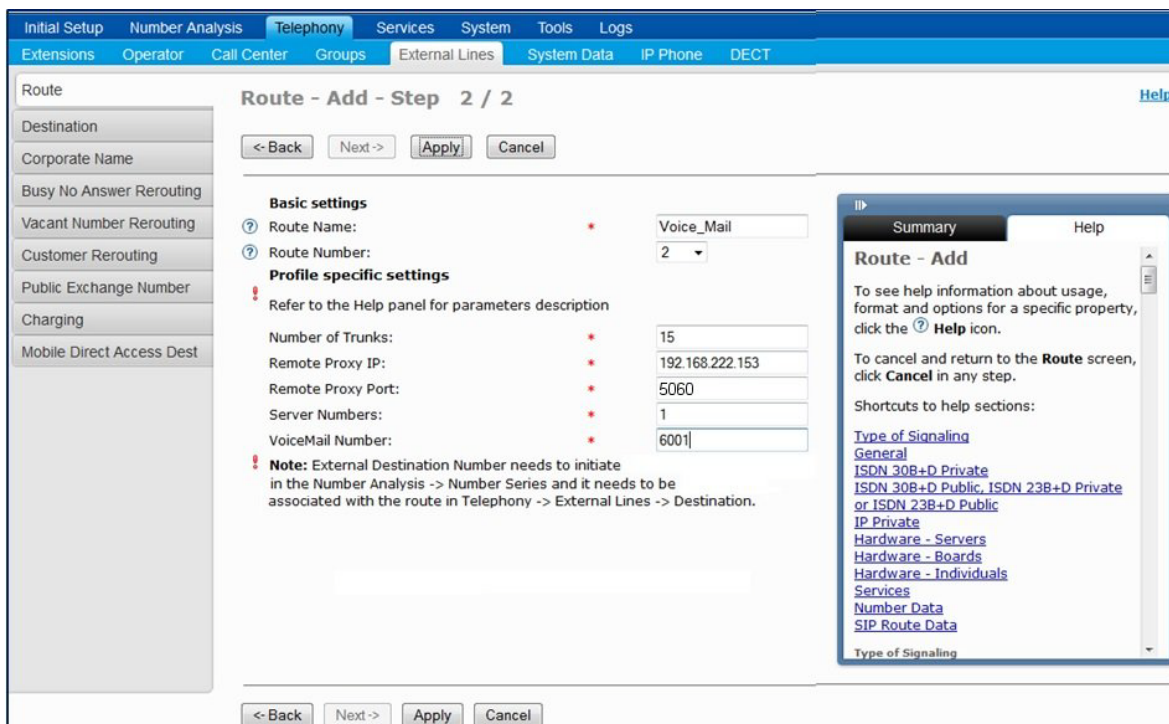


Figure 74: Add Route - Step 2

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

Add operation successful for:	
<ul style="list-style-type: none"> <li>Route Name: Voice_Mail</li> </ul>	
<b>General</b>	
Profile Name	NuPoint
Route Name	Voice_Mail
Route Number	2
<b>SIP Route Specific Data</b>	
<b>Outgoing Traffic</b>	
Remote Port	5060
Unknown Public Number	sip:?@192.168.222.153
<b>Incoming Traffic</b>	
Type of Accepted Calls	Remote IP
Addresses or Numbers to Match Incoming Call	192.168.222.153
Priority for Incoming Calls	255
MWI Number	6001
Handle as Extension	No
Incoming Invite Challenge	No
<b>Emergency Call Data</b>	
Type of Accepted Calls	EMERGENCY
Addresses or Numbers to Match Incoming Call	192.168.222.153
Priority for Incoming Calls	255
<b>Third Party Registration</b>	
Supervise Time	30
<b>Route Category</b>	
Transmission Category	4
Disturbance Level	0
<b>Route Selection Category</b>	
Incoming Traffic	Open for 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
<b>Traffic Category</b>	
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
<b>Service Category</b>	
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 Compability Substitution	No
Allow Number Conversion	Yes
<b>Route Selection Category</b>	
<b>Signaling Data</b>	
Dial Tone Characteristics after External Line Seizure	No monitoring path established
User of Digit Transmission for Transit Exchange	No
Use Net Service Facilities	No
Ringling Tone Transmission for Outgoing Traffic	A-party receives ringing tone
Ringling Tone Transmission for Outgoing Traffic	After minimum number of digits
<b>Route Equipment</b>	
Trunk Line Number	1-15

Figure 75: Add Route - Result

- 15. Associate the route with the destination access code.
- 16. Click **Telephony** and then **External Lines**, select **Destination**, and click **Add**.

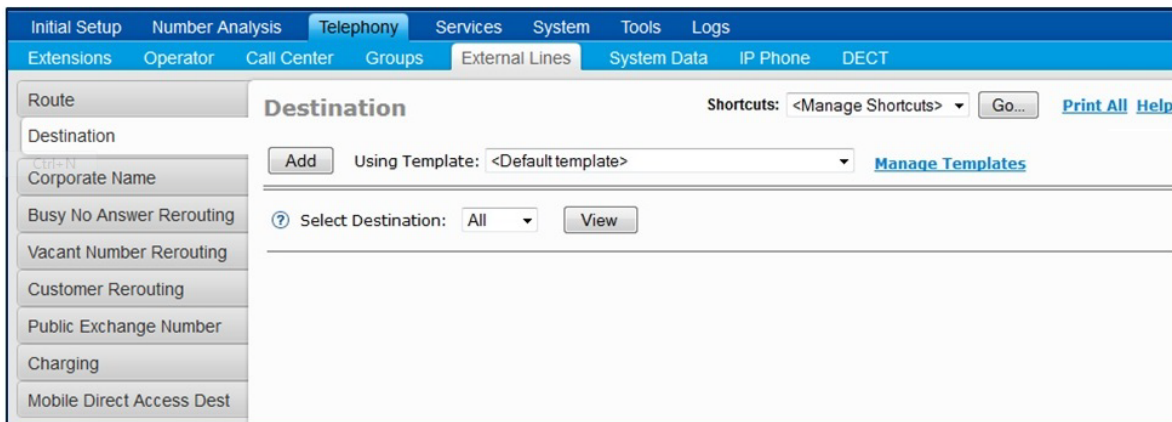


Figure 76: External Lines - Destination

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

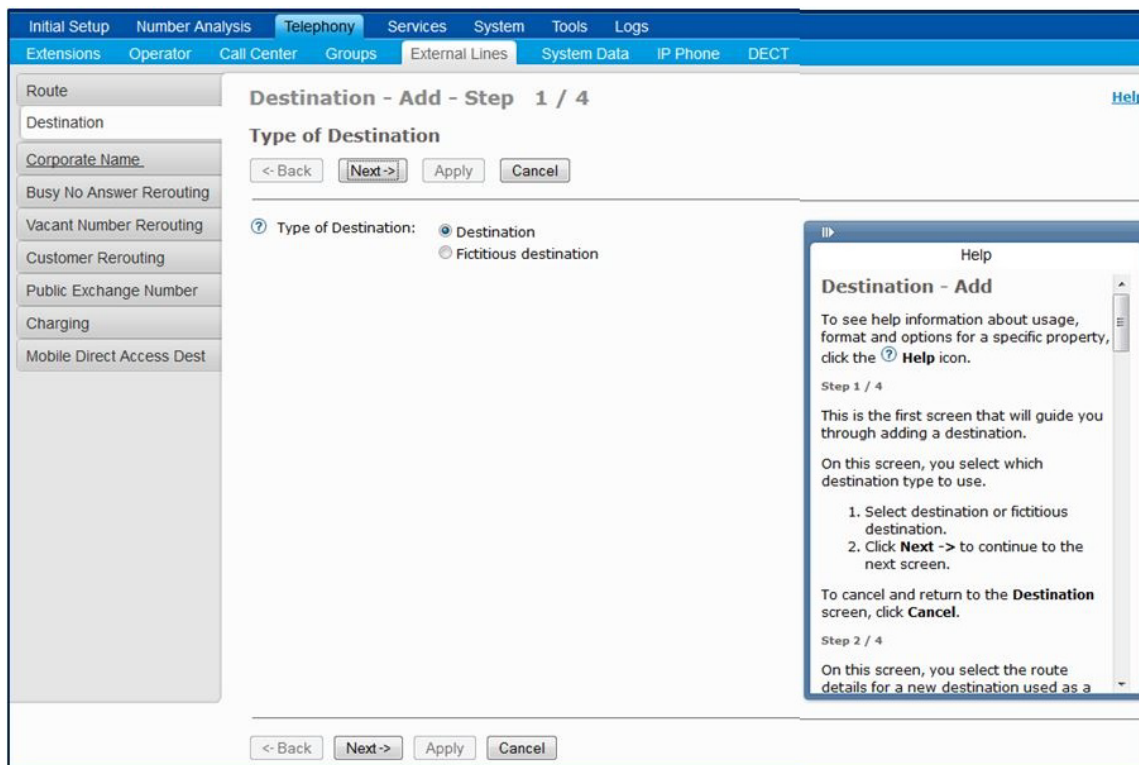


Figure 77: Destination - Add - Step 1

- 18. Select the **Destination Number** and the **Route Name** and then click **Next**.

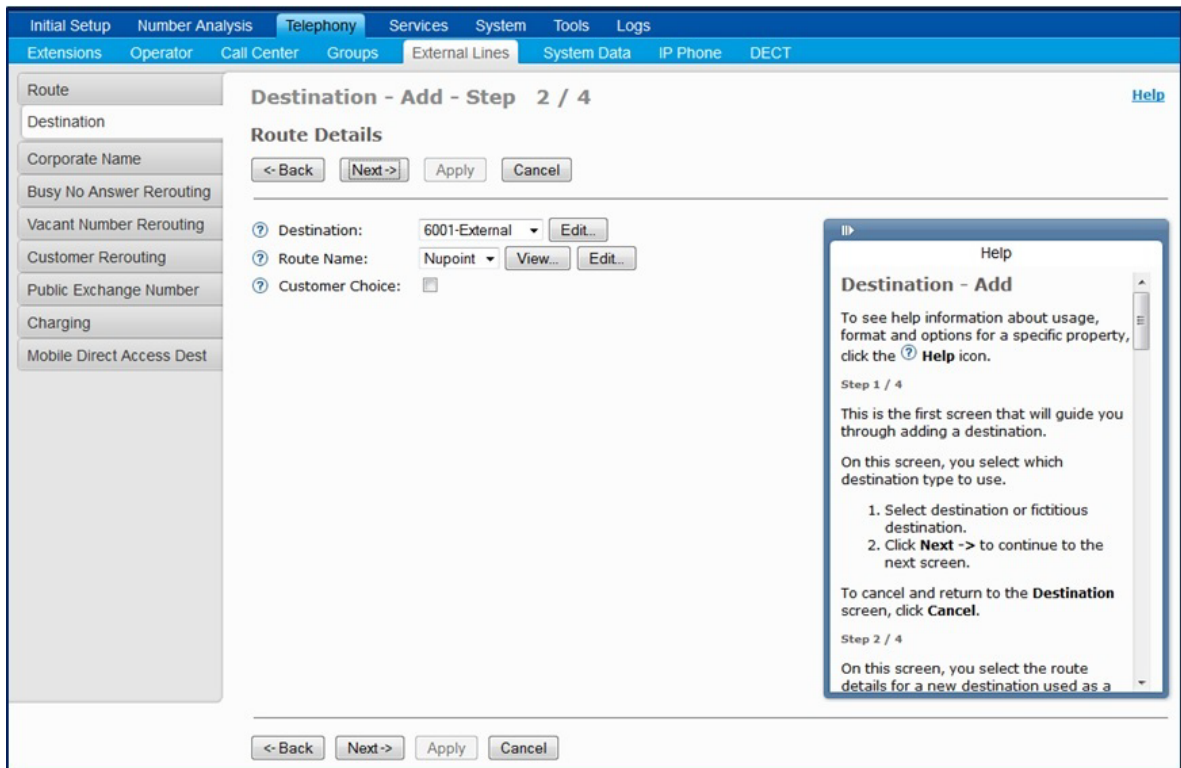


Figure 78: Destination - Add - Step 2

19. Click **Advanced** and select:

- Show Original A-Number
- Enable Enhanced Sent A-Number Conversion.
- Set Type of Called Number to "Private Unknown".

The screenshot displays the 'Destination - Change - 6001' configuration page. The interface includes a navigation menu on the left with options like 'Route', 'Destination', 'Corporate Name', etc. The main area contains a list of configuration parameters:

- Destination: 6001
- Route Name: Nupoint
- Primary Choice is the sequence number for the route choice in alternative routing
- Start Position for Digit Transmission: 1
- Type of Seizure of External Line: Immediate seizure
- Forward Switching:
- Type of Called Number: Unknown public
- Type of Calling Public Number: Unknown public
- Type of Calling Private Number: Private Unknown
- Use as Emergency Destination:
- Pre-digits in order to form a new External Number: [text input]
- Truncated Digits in Dialed Number: 0
- Type of Signal Seizure:  Terminating seizure,  Transit seizure
- B-Answer Signal Available:
- Allow to send Traveling Class Mark:
- Route Type: Private
- Maximum Number of Transit Exchanges: 25
- PNR Number Translation Information: No Translation
- Supplementary Services Using User to User Interface: Not Allowed
- Use Least Cost Routing for All Calls:
- Allow Sending of Expensive Route Warning Tone:
- Type of Protocol to use for Supplementary Service Call Offer:  User to User Interface(UUI),  Generic Function Protocol(GFP)
- Type of Protocol for Call Back/Call Completion:  User to User Interface(UUI),  Generic Function Protocol(GFP)
- Show Original A-Number:
- Use Original A-Number's Type of Number:
- Enable Enhanced Sent A-Number Conversion:
- Use ETSI Diversion Supplementary Service:

Buttons for 'Apply' and 'Cancel' are located at the top and bottom of the configuration area.

Figure 79: External Lines - Destination - Change

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

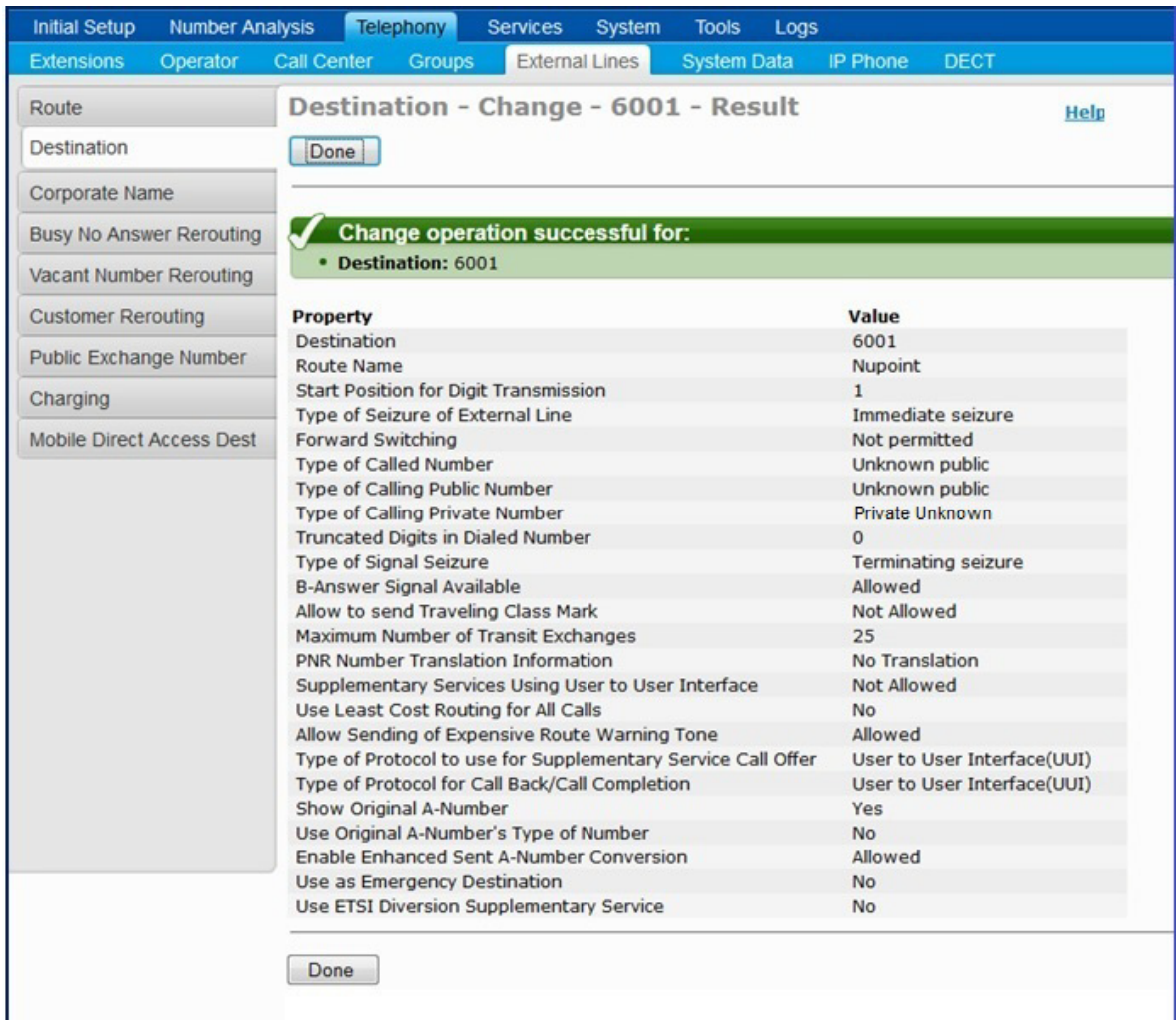


Figure 80: Destination - Change - Result

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.

Users Services Administrators System Logs Own Settings

Extension Available Extensions Individual Diversion Mailbox

### Extension [Help](#)

**Add** Using Template: <Default template> [Manage Templates](#)

Telephony System: MXONE-MICOLLAB, version 6.0

Extension Type: IP

Enter Extension Number(s): \*  
Example: \* or 1000 or 1000-1050 or 1000.1500-1700.2000 or 100\*


Enter Equipment Position:  
Example: 1-0-40-00, 1A-0-40-00

View Change... Maximum rows per page 200

Extension	Server / Equipment Position	Extension Type	Telephony System
8000	1	IP	MXONE-MICOLLAB, version 6.0
8001	1	IP	MXONE-MICOLLAB, version 6.0
8002	1	IP	MXONE-MICOLLAB, version 6.0

Change... Remove Print... Compare View Swap

**Figure 81: Extension**

24. Select the extension to set up the Personal Number List.
25. Click edit  in the Personal Number List.



Users Services Administrators System Logs Own Settings

Extension Available Extensions Individual Diversion Mailbox

**Extension - Change - 8002** Shortcuts : Common Category  [Help](#)

---

**General**

? Telephony System: MXONE-MICOLLAB

? Extension Number: 8002

? Description:

? Server Number: 1 New strip Ctrl+N

? Extension Type: IP

? Customer: None

? Common Service Profile: 2 - (None) ▾

? Language: Default ▾

? Backup Answering Position Number:

? Allow Security Exception:

? Allow EDN: NO

? Boss/Secretary: None ▾

? Home Area Code:

? Protocol:  SIP  IP

**Name Identity**

? First Name:

? Last Name:

**Authorization Code**

? Authorization Codes:

**Ring Signal**

? Ring Signals:

**Personal Number**

? Personal Number List:

Figure 82: Extension - Change - 8002

26. Click in the first pen to edit List Number 1.

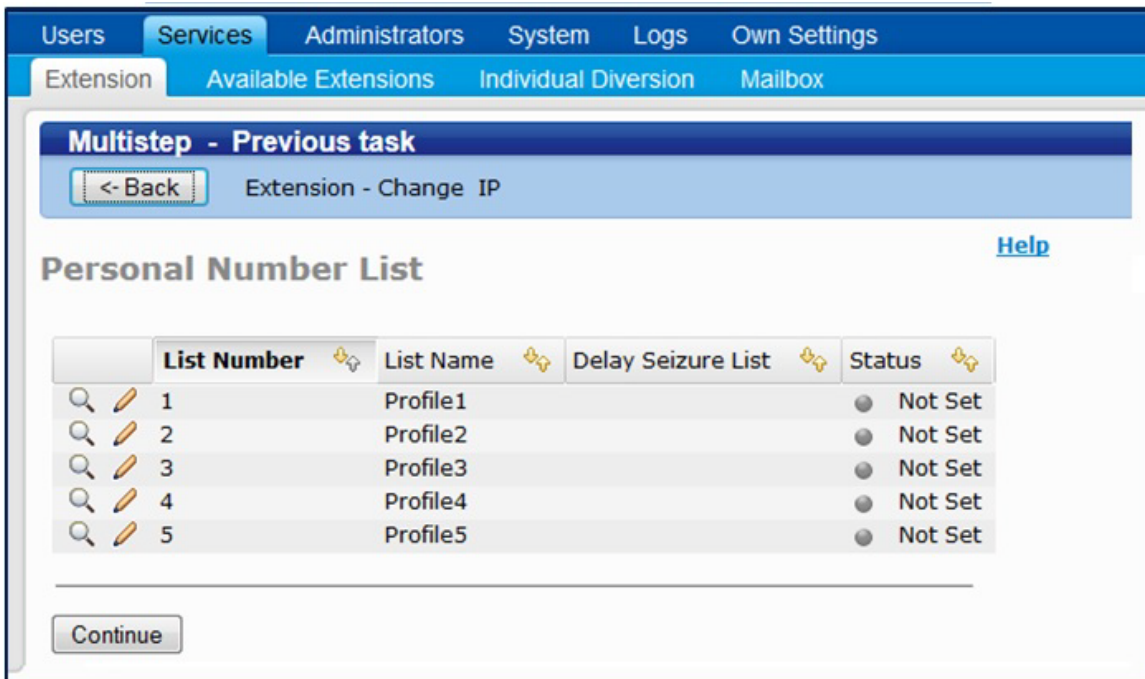


Figure 83: Extension - Personal Number List

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:

Users Services Administrators System Logs Own Settings

Extension Available Extensions Individual Diversion Mailbox

**Multistep - Previous task**

[<- Back](#) Extension - Change IP

**Personal Number List - Change - 1** [Help](#)

[Continue](#) [Cancel](#)

---

**General Data**

? Extension Number: 8002

? List Number: 1

? List Name:

? Status: Active

**Call Sequence 1**

? Number:

? Ring Duration [s]:

? If Number Busy Go To:

? If DND Active Go To:

? Use Once:

? Accept Calls From:  Internal  
 Operator  
 External

? Individual Repeated Distribution Bypass:

? Support SMS Messages:

? Support Instant Messaging:

**Call Sequence 2**

? Number:

? Ring Duration [s]:

? If Number Busy Go To:

? If DND Active Go To:

? Use Once:

? Accept Calls From:  Internal  
 Operator  
 External

? Individual Repeated Distribution Bypass:

? Support SMS Messages:

? Support Instant Messaging:

Figure 84: Personal Number List - Change - 1

28. Click **Continue**.

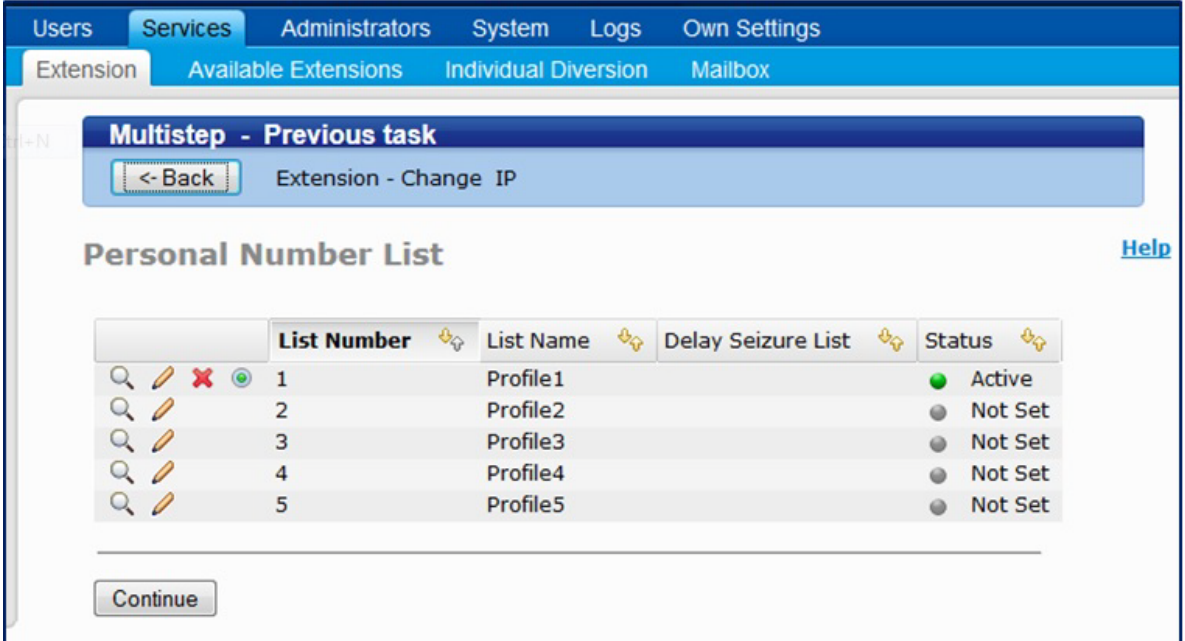


Figure 85: Personal Number List - Extension - Change IP

29. Click **Continue**.

**Extension - Change - 8002** Shortcuts : Common Category  [Help](#)

**General**

? Telephony System: MXONE-MICOLLAB

? Extension Number: 8002

? Description:

? Server Number: 1

? Extension Type: IP

? Customer: None

? Common Service Profile: 2 - (None) ▾

? Language: Default ▾

? Backup Answering Position Number:

? Allow Security Exception:

? Allow EDN: NO

? Boss/Secretary: None ▾

? Home Area Code:

? Protocol:  SIP  IP

**Name Identity**

? First Name:

? Last Name:

**Authorization Code**

? Authorization Codes:

**Ring Signal**

? Ring Signals:

**Personal Number**

? Personal Number List:

1: Profile1:Active

**Logged On Status**

? Registered Phone Type: NOT REGISTERED

**Figure 86: Extension - Change - 8003**

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

### INSTALL MICOLLAB AWW 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 AWW

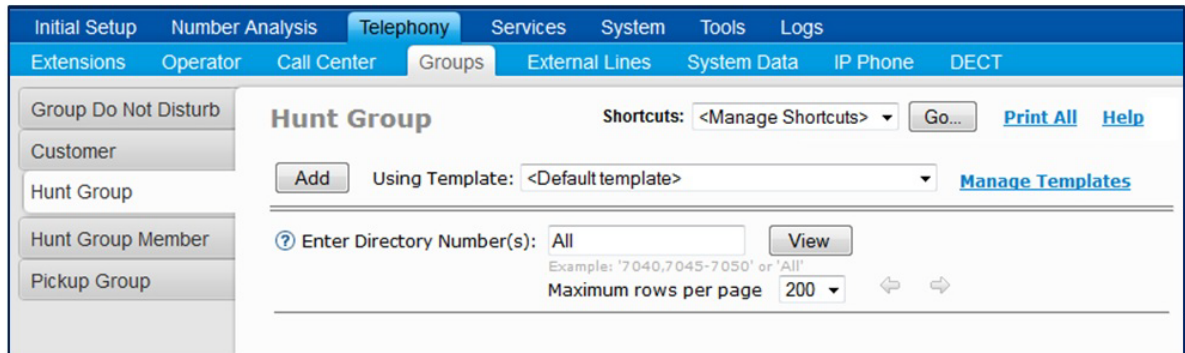
You connect the AWW application to MiVoice MX-ONE as an internal hunt group with SIP extensions. The workflow for initiating the SIP extensions and hunt group is as follows:

- Initiate an extension profile suitable for the MiCollab AWW 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**.



The screenshot displays the MX-ONE web interface for configuring a Hunt Group. The top navigation bar includes 'Initial Setup', 'Number Analysis', 'Telephony', 'Services', 'System', 'Tools', and 'Logs'. The 'Telephony' section is active, with sub-tabs for 'Extensions', 'Operator', 'Call Center', 'Groups', 'External Lines', 'System Data', 'IP Phone', and 'DECT'. The 'Groups' sub-tab is selected, showing a sidebar with options: 'Group Do Not Disturb', 'Customer', 'Hunt Group', 'Hunt Group Member', and 'Pickup Group'. The main content area is titled 'Hunt Group' and features a 'Shortcuts:' dropdown set to '<Manage Shortcuts>' with a 'Go...' button, and links for 'Print All' and 'Help'. Below this is an 'Add' button and a 'Using Template:' dropdown set to '<Default template>' with a 'Manage Templates' link. A search field is labeled 'Enter Directory Number(s):' with a 'View' button and a 'Maximum rows per page' dropdown set to '200'. An example text below the search field reads 'Example: '7040,7045-7050' or 'All''.

**Figure 87: Hunt Group**

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

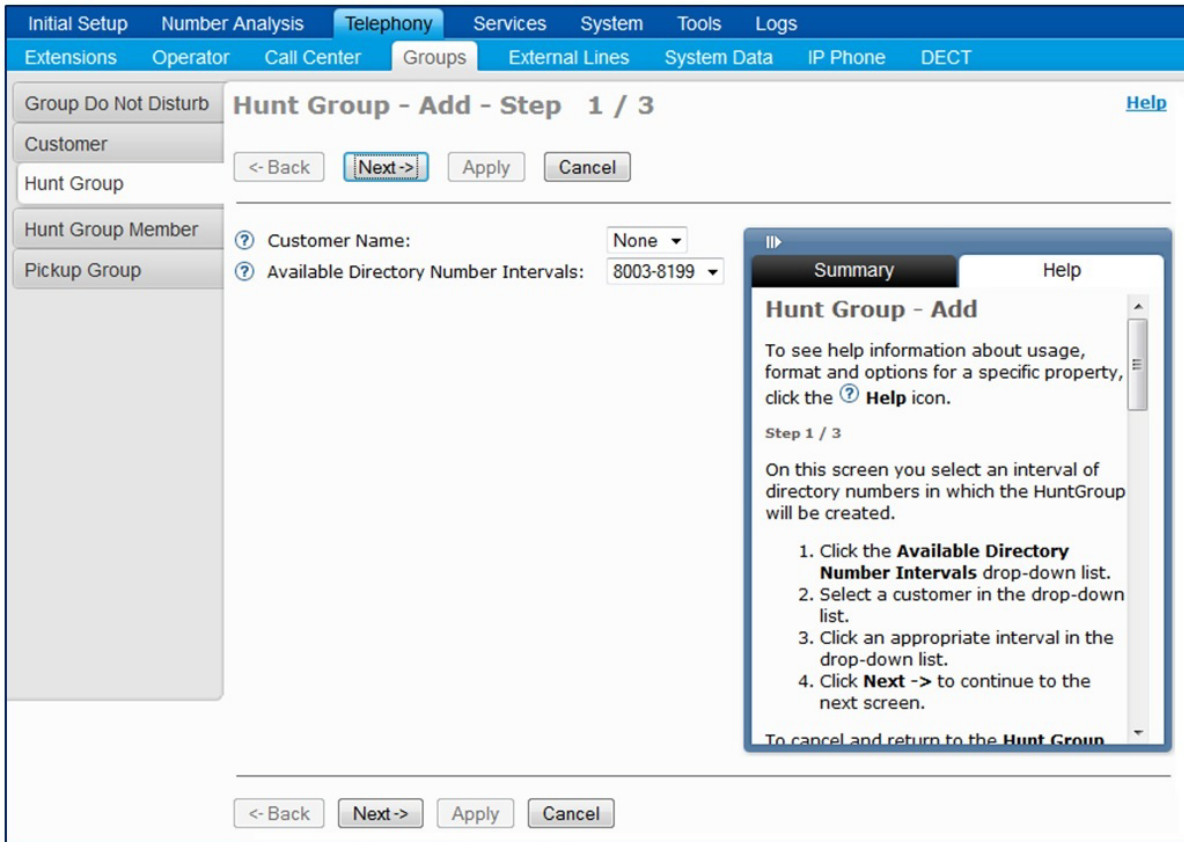


Figure 88: Hunt Group - Add - Step 1

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.



Figure 89: Hunt Group - Add Step 2

7. Click **Next**.
8. Enter a name for the group.

Figure 90: Hunt Group - Add Step 3

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

The screenshot shows the 'Hunt Group - Add - Result' page in the MiCollab interface. The page has a blue header with navigation tabs: Initial Setup, Number Analysis, Telephony (selected), Services, System, Tools, and Logs. Below the header, there are sub-tabs: Extensions, Operator, Call Center, Groups (selected), External Lines, System Data, IP Phone, and DECT. On the left, there is a sidebar with options: Group Do Not Disturb, Customer (with a 'Done' button), Hunt Group, Hunt Group Member, and Pickup Group. The main content area shows a green success message: 'Add operation successful for: Directory Number: 8003'. Below the message, there is a legend: 'Legends: [icon] = Advanced field'. There are two tables: 'Hunt Group Category Characteristics' and 'Hunt Group Name'. At the bottom, there are five buttons: 'Add New...', 'Change This...', 'Remove This', 'Add From This...', and 'Done'.

Hunt Group Category Characteristics	
Property	Value
Directory Number	8003
Customer Name	None
Server Number	1
Direct In-dialing	Open
Recall Category	Not provided
Display of Called Number	Selected member information
Music on Wait	Not provided
Allow Collect Call	Not allowed
Permit Automatic Extending	Not permitted
Traffic Connection Class	15
Member Selection Order	Sequential
Queue Internal Calls	Not allowed
Diversion	Not permitted
Maximum Calls to External Destination	00
External Follow Me/Diversion on the Group Number	Activation/Deactivation is not permitted
Maximum Number of Queuing Calls to the Group	0
Unanswered Call Temporarily Marks Member Unavailable	Unavailable for a period of time
Ringing Time	30

Hunt Group Name	
Property	Value
First Name	MiCollab AWV
<input checked="" type="checkbox"/> Include in Dial by Name Database	No
<input checked="" type="checkbox"/> Name Presentation Order	First part of name is presented
<input checked="" type="checkbox"/> Restrict Presentation	Not restricted

Figure 91: Hunt - Group - Add - Result

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.

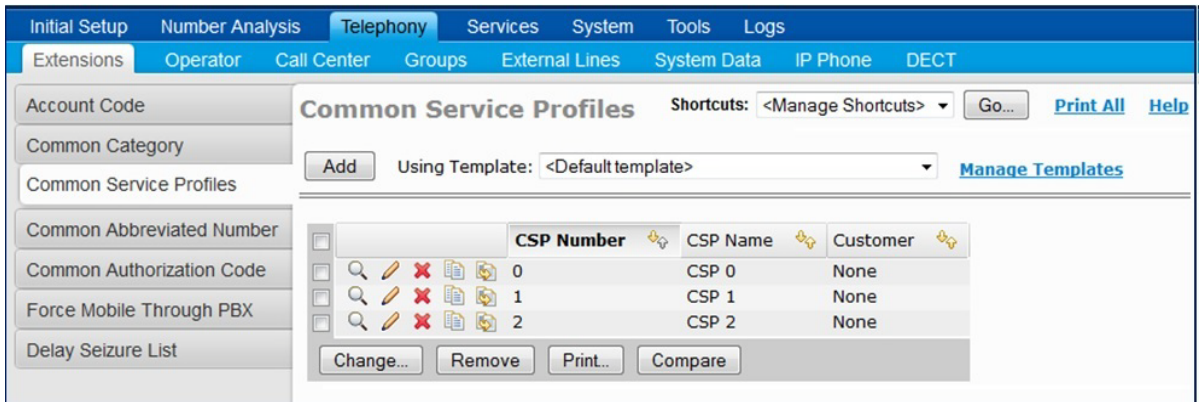


Figure 92: Common Service Profiles

12. Click **Add**.

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

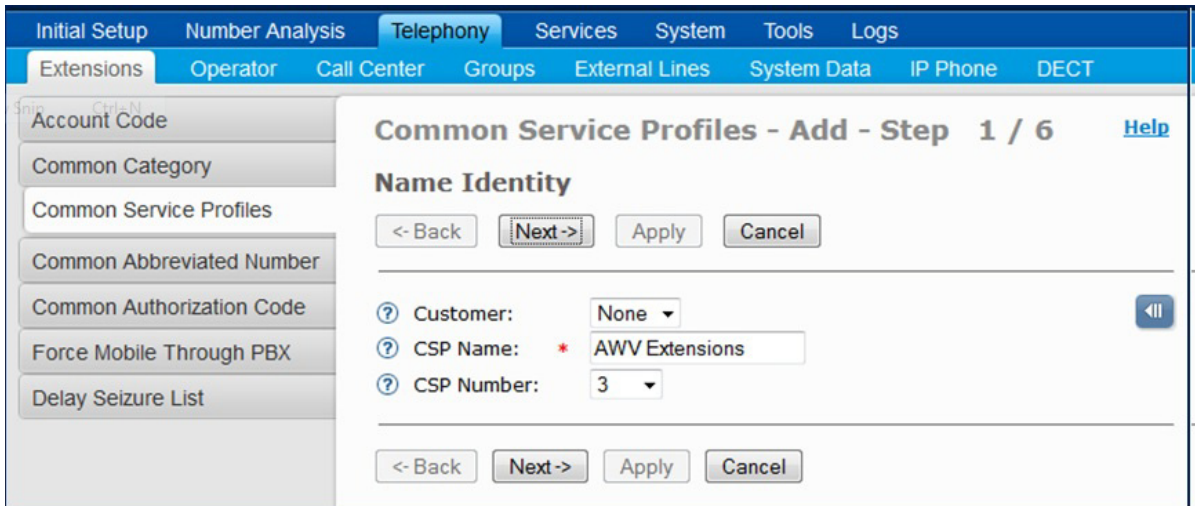


Figure 93: Common Service Profiles - Add - Step 1

14. Click **Next**.

15. Define the Number Presentation Category.

The screenshot shows the 'Common Service Profiles - Add - Step 2 / 6' configuration page. The left sidebar contains a list of menu items: Account Code, Common Category, Common Service Profiles, Common Abbreviated Number, Common Authorization Code, Force Mobile Through PBX, and Delay Seizure List. The main content area is titled 'Number Presentation Category' and includes the following settings:

- Request A-number from the PSTN:
- Use Number Presentation Restriction:
- Number Presentation Restriction is Permitted per Call:
- Allow Network Affiliation:
- Calling Line Identification Presentation Restriction Override: Not Permitted (dropdown)
- Never Display Number from PSTN:
- Calling Party Display:  PBX member,  PBX group number and name

Navigation buttons at the bottom include '<- Back', 'Next->', 'Apply', and 'Cancel'.

Figure 94: Common Service Profiles - Add - Step 2

16. Click **Next**.

17. Define the Traffic Category.

The screenshot shows the 'Common Service Profiles - Add - Step 3 / 6' configuration page. The left sidebar is identical to the previous step. The main content area is titled 'Traffic Category' and includes the following settings:

- Block Emergency Switching Characteristics:
- Direct Indialling Characteristics: Open (dropdown)
- Use Rerouting Limitations:
- Common Abbreviated Number Traffic Class: 03 (dropdown)
- TCD-Category Night: Fully Open (dropdown)
- TCD-Category Day: Fully Open (dropdown)
- Traffic Connection Class: 15 (dropdown)

Navigation buttons at the bottom include '<- Back', 'Next->', 'Apply', and 'Cancel'.

Figure 95: Common Service Profiles - Add - Step 3

18. Click **Next**.

19. Define the Service Category.

The screenshot displays the 'Common Service Profiles - Add - Step 4 / 6' configuration interface. The left sidebar contains a list of configuration categories: Account Code, Common Category, Common Service Profiles, Common Abbreviated Number, Common Authorization Code, Force Mobile Through PBX, and Delay Seizure List. The main area is titled 'Service Category' and contains a list of settings, each with a help icon (question mark) and a control element (checkbox, dropdown, or text input). The settings include:

- Automatic Call Back Characteristics: Permitted (dropdown)
- Allow Call Waiting Tone Initiation:
- Call Waiting Tone Reception(B-party): Deactivated (dropdown)
- Call Waiting Tone Reception(C-party):
- Intrusion Capability Level: 0 (dropdown)
- Intrusion Protection Level: 3 (dropdown)
- Allow Malicious Call Tracing Category:
- Manual Message Waiting:
- Call Metering Category:  Per route,  Per extension
- Allow A-Number Request from MFC:
- Allow A-Subscriber Charged:
- Allow Individual Do Not Disturb:
- Hospitality Class of Extension: Normal extension (dropdown)
- Accept Incoming Collect Calls:
- Force Calls from or to IP Terminal to be Gateway Calls:
- Service License:  Short message service,  Free seating
- Allow External Controlled Call Distribution:
- Offered Timer [s]: 0 (text input)
- Enable Common Authorization Code:
- Allow Free on Busy:
- Extended services in Intrusion state:
- Call List Deactivation Forbidden:
- Allow Activation/Deactivation of Group Do Not Disturb:
- Allow Automatic Answer:
- Request Transfer Permission of Public Trunk:
- Transfer Reception:
- Permitted to transfer calls to intruded party:
- Forced Disconnect Timer [s]: 0 (text input)
- Answer Handled By External Application:
- Log Off Restriction: LogOff allowed (dropdown)

Navigation buttons '<- Back', 'Next ->', 'Apply', and 'Cancel' are located at the top and bottom of the main configuration area.

Figure 96: Common Service Profiles - Add - Step 4

20. Click **Next**.

21. Define the Diversion Category.

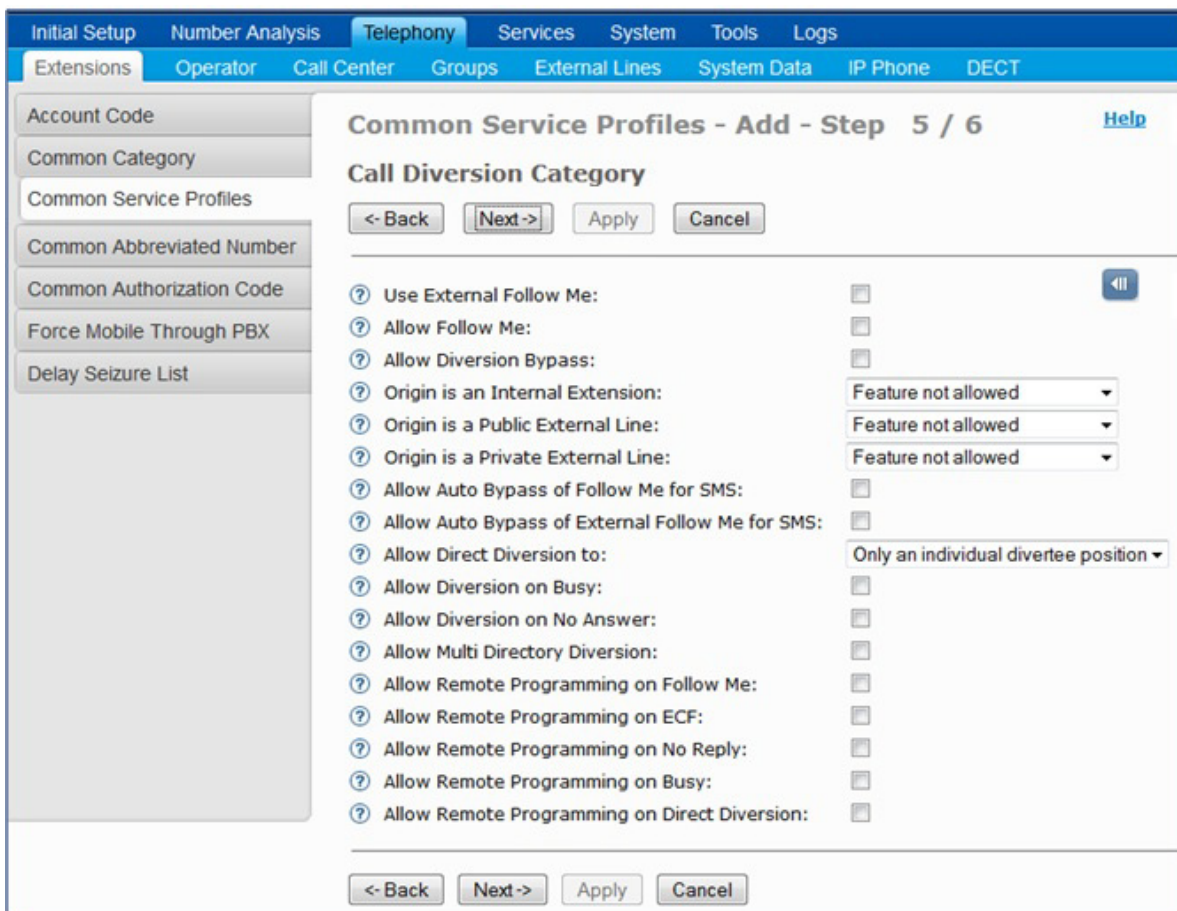


Figure 97: Common Service Profiles - Add - Step 5

22. Click **Next**.

23. Define the Routing Category.



Figure 98: Common Service Profiles - Add - Step 6


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

Initial Setup Number Analysis **Telephony** Services System Tools Logs

Extensions Operator Call Center Groups External Lines System Data IP Phone DECT

Account Code  
Common Category   
Common Service Profiles  
Common Abbreviated Number  
Common Authorization Code  
Force Mobile Through PBX  
Delay Seizure List

### Common Service Profiles - Add - Result [Help](#)

 **Add operation successful for:**

- **CSP Name:** AWV Extensions

**Name Identity**

Property	Value
CSP Number	3
CSP Name	AWV Extensions
Customer	None

**Number Presentation Category**

Property	Value
Request A-number from the PSTN	Restricted for extension
Use Number Presentation Restriction	Not restricted
Number Presentation Restriction is Permitted per Call	No
Allow Network Affiliation	Allowed
Calling Line Identification Presentation Restriction Override	Not Permitted
Never Display Number from PSTN	No
Calling Party Display	PBX group number and name

**Traffic Category**

Property	Value
Block Emergency Switching Characteristics	Yes
Direct Indialling Characteristics	Open
Use Rerouting Limitations	No
Common Abbreviated Number Traffic Class	03
TCD-Category Night	Fully Open
TCD-Category Day	Fully Open
Traffic Connection Class	15

Figure 99: Common Service Profiles - Add - Result

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

Figure 100: 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**.

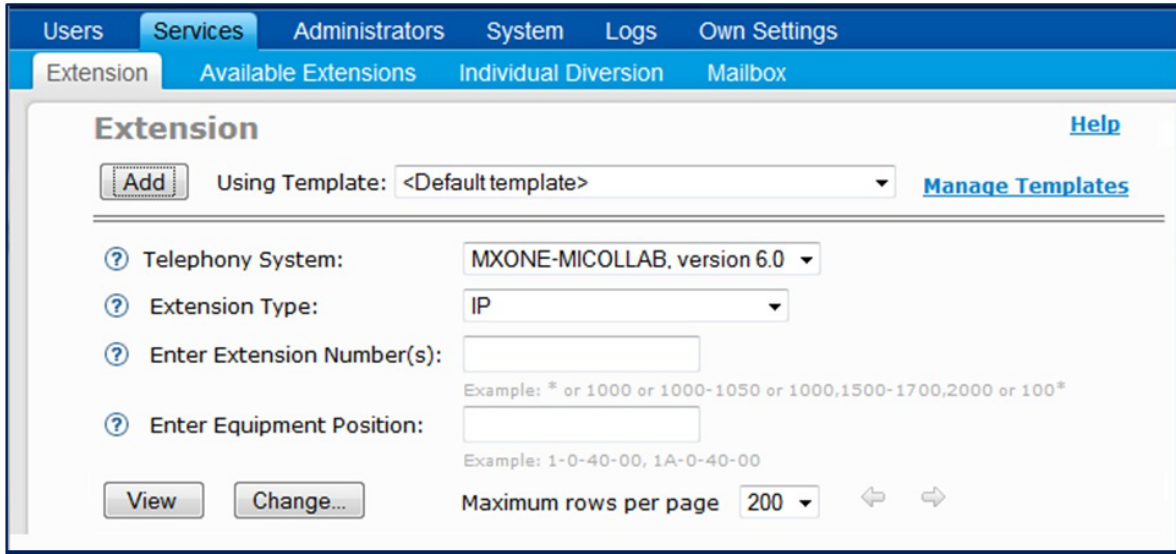


Figure 101: Extension - Add

27. Click **Add**.
28. In Step 1, set the Extension Type to IP.

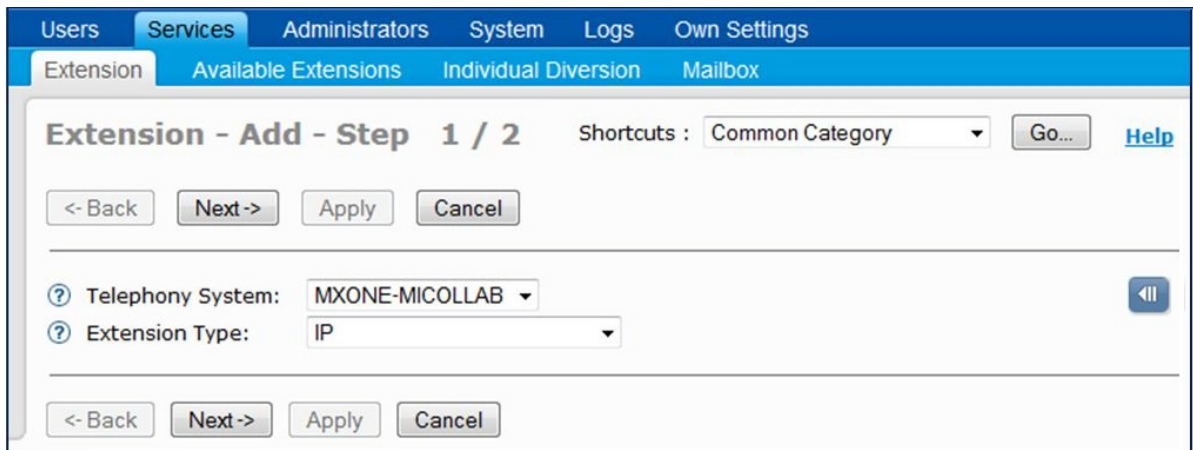


Figure 102: Extension - Add - Step 1

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 89).

The screenshot shows the 'Extension - Add - Step 2 / 2' configuration page. The page is divided into several sections:

- General:** Includes fields for Telephony System (MXONE-MICOLLAB), Extension Number Range (8004-8009), Extension Number (8004), and Description.
- Domain Name:** Set to DEFAULT.
- Server Number:** Set to 1.
- Customer:** Set to None.
- Common Service Profile:** Set to 3 - AWV Extensions (None).
- Language:** Set to Default.
- Boss/Secretary:** Set to None.
- Home Area Code:** Empty field.
- Protocol:** Radio buttons for SIP (selected) and IP.
- Backup Answering Position Number:** Empty field.
- Allow Security Exception:** Checked checkbox.
- Allow EDN:** Unchecked checkbox.
- Name Identity:** Fields for First Name and Last Name.
- Authorization Code:** Edit... button.
- Ring Signal:** Edit... button.
- Personal Number:** Edit... button.
- Function Keys:** Phone Type (Other type), Panel Type (No panel), and Change... button.
- Group Setup:** Hunt Group(s) list with 8003 entered in the first field, and Call Pickup Group (None).

Navigation buttons include '<- Back', 'Next ->', 'Apply', and 'Cancel'. A 'Go...' button and 'Help' link are also present.

Figure 103: Extension - Add - Step2

31. Click **Apply**. The Provisioning Manager shows the operation result.

Extension   Available Extensions   Individual Diversion   Mailbox

**Extension - Add - Result**   Shortcuts : Common Category   Go...   Help

Done

**✓ Add operation successful for:**

- Extension Number: 8004

Legends :  = Advanced field

Property	Value
<b>General</b>	
Telephony System	MXONE-MICOLLAB
Extension Type	IP
Extension Number	8004
Server Number	1
Customer	None
Common Service Profile	3 - AWV Extensions (None)
Language	Default
Allow Security Exception	Yes
IP Address	NOT REGISTERED
<input checked="" type="checkbox"/> Protocol	SIP
Allow EDN	No
Boss/Secretary	None
<input checked="" type="checkbox"/> Blu Star Client Model	None
<input checked="" type="checkbox"/> Allow Video Functionality	No
<input checked="" type="checkbox"/> Allow Third Party SIP Client	No
<input checked="" type="checkbox"/> Enable AMC Functionality	No
<b>Group Setup</b>	
Hunt Group(s)	8003
<b>Personal Number List</b>	
<b>General Data</b>	
List Number	1
List Name	PROFILE1
Status	Active
<b>Call Sequence 1</b>	
Number	8004
Ring Duration [s]	5
If Number Busy Go To	Busy tone
If DND Active Go To	No Progress
Use Once	No
<b>Accept Calls From</b>	
Internal	Yes
Operator	Yes
External	Yes
Individual Repeated Distribution Bypass	Yes
Support SMS Messages	Yes
<b>Personal Number Category Information</b>	
<input checked="" type="checkbox"/> Personal Number After Diversion or Follow Me	No
<input checked="" type="checkbox"/> Restrict First Ring Tone	No
<input checked="" type="checkbox"/> Connected Party Display Information	Show both connected party call list and information
<input checked="" type="checkbox"/> Idle Display Information	Do not show information on idle display
Personal Number	List1 is active
<input checked="" type="checkbox"/> IP Phone Server	

New Snip   Ctrl+N

Add New...   Change This...   Remove This   Add From This...   Done

Figure 104: 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.

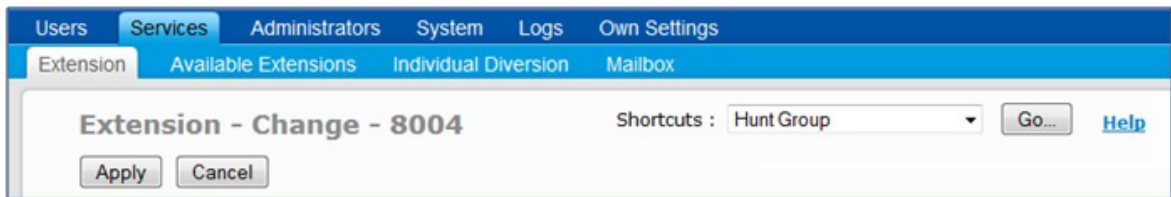


Figure 105: Extension - Change

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

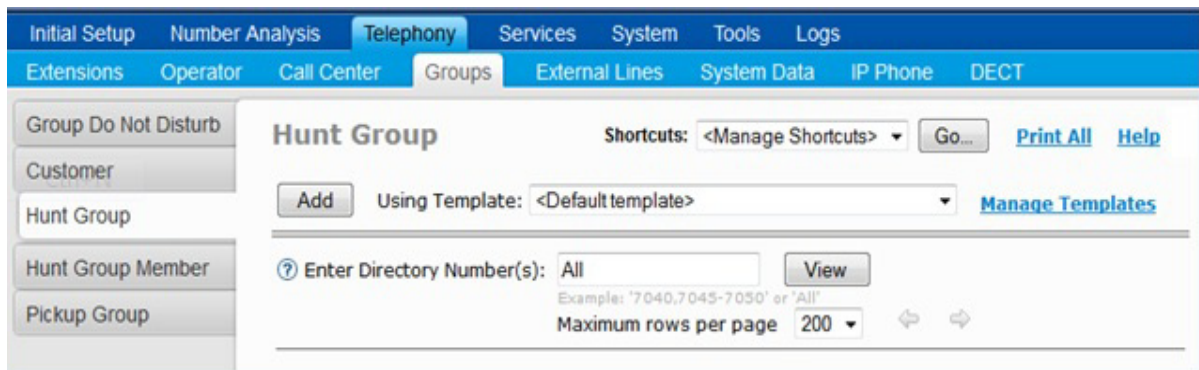


Figure 106: Hunt Group

- 35. Select **Hunt Group Member**.

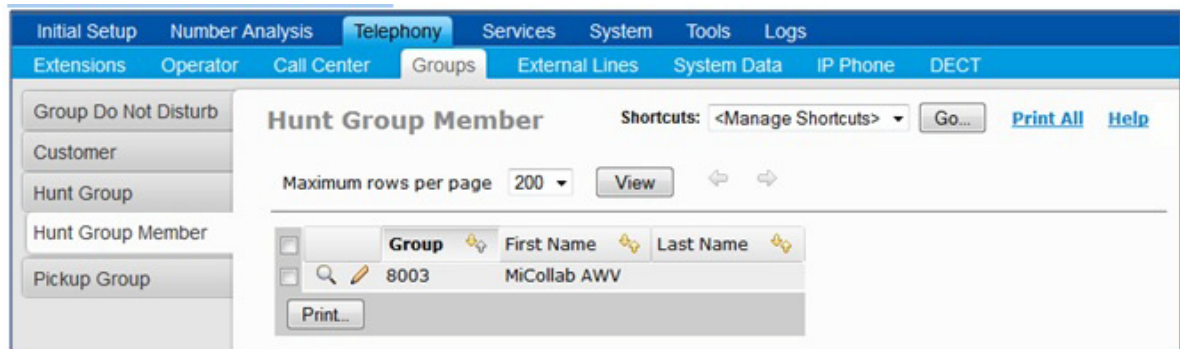


Figure 107: Hunt Group Member

- 36. Review the Hunt Group Members.

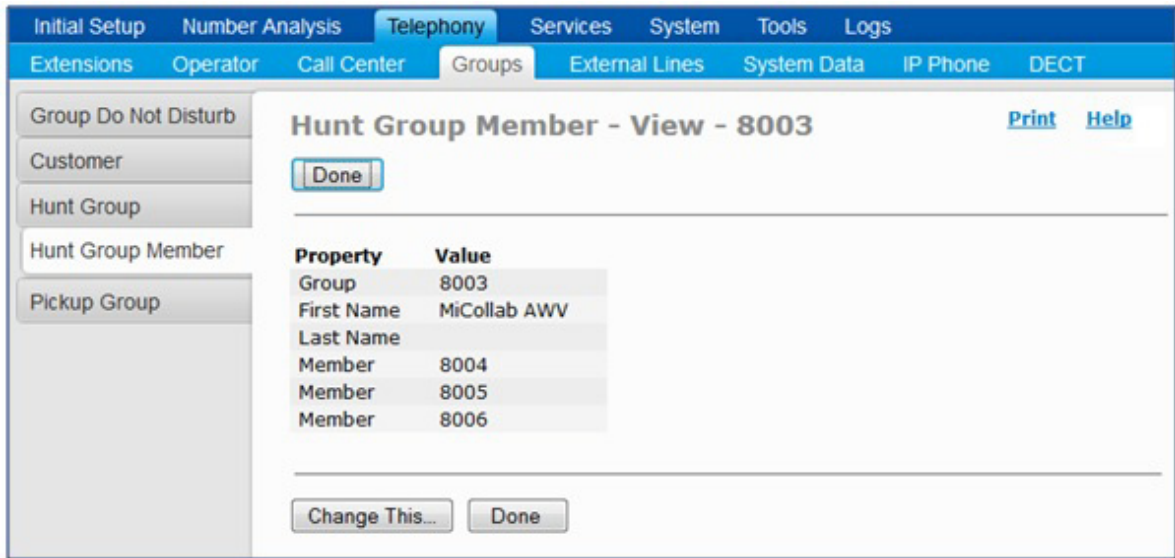


Figure 108: Hunt Group Member - View

37. You can also manage the Hunt Group Members using the **Change This...** function.

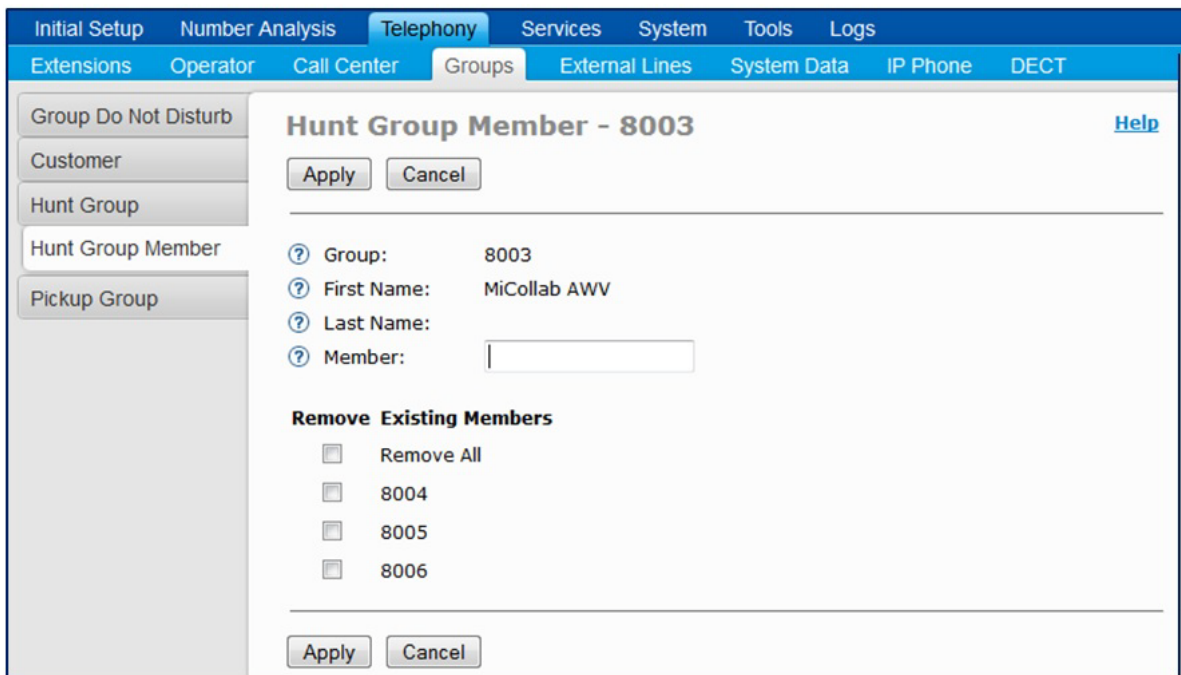


Figure 109: Manage Hunt Group Members - Managing

### CONFIGURE SIP SERVER SETTINGS IN MICOLLAB AWW

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.
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 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 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:

The screenshot shows the 'Manage ICP' configuration form. The 'Name' field contains 'Aastra A5000'. The 'Hostname or IP address' field contains '88.88.88.88'. The 'Type' dropdown menu is open, showing options: 'MiVoice Business', 'MiVoice Business Silhouette', 'MiVoice MX-ONE' (highlighted), 'MiVoice 5000', and 'MiVoice Office'. The 'SIP TLS capable' checkbox is unchecked. The 'Installer password' field is empty. The 'Indirect call recording capable' checkbox is unchecked. A 'Save' button is located at the bottom right of the form.

**Figure 110: Configure MiVoice MX-ONE as ICP on Standalone MBG**

## CONFIGURE SIP TRUNKS

1. Configure the MiVoice MX-ONE with SIP trunks.
2. [Configure the SIP trunks on MBG.](#)

## INTEGRATE MICOLLAB CLIENT SERVICE

### MICOLLAB CLIENT CONFIGURATION

Refer to the *MiCollab Client Service* application help and the *MiCollab Client Administrator 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

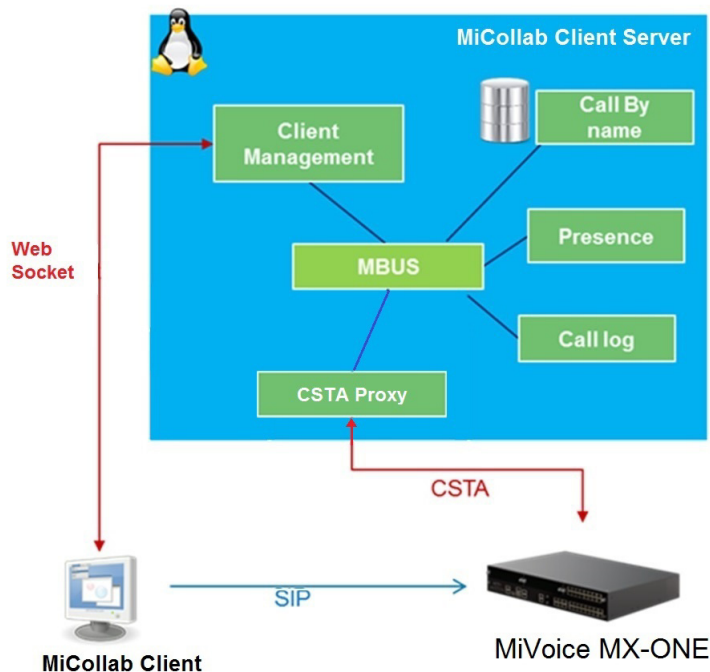
### DEPLOY MICOLLAB CLIENT MOBILE CLIENTS

MiVoice MX-ONE platforms support MiCollab mobile clients. 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 help for descriptions of the other fields. Typically, you will not need to change the default settings.
9. Click **Save**.



**Figure 111: 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.
2. Under **Security**, click **Web Server Certificates**.
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 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.

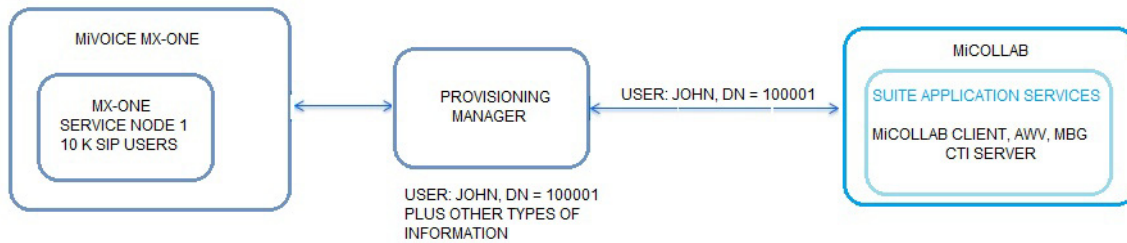
See "User Provisioning" on page 116 for details.

# USER PROVISIONING

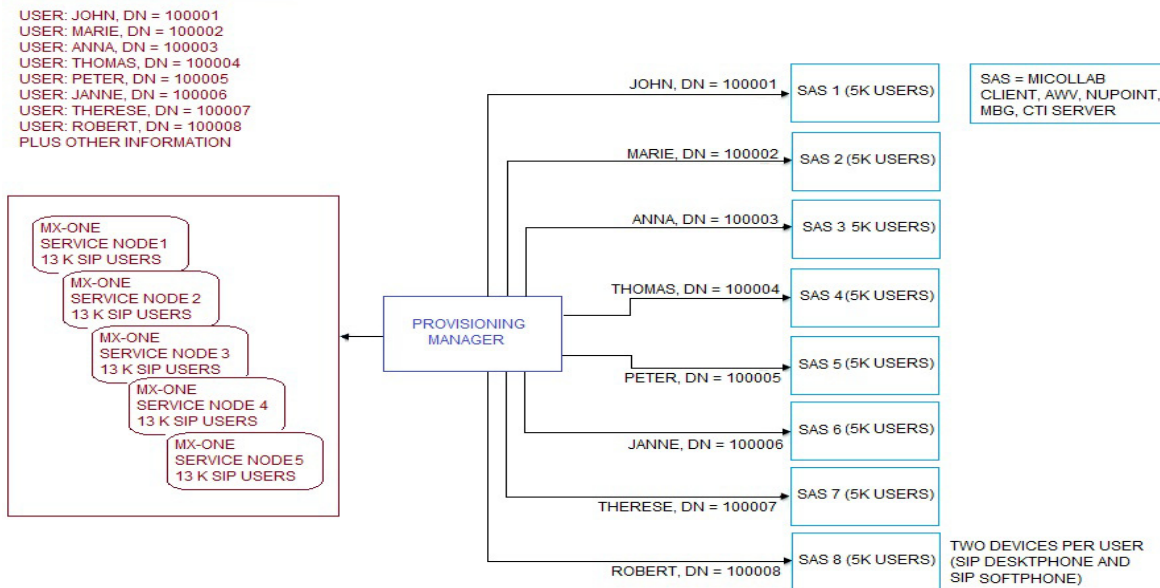
The Provisioning Manager is used to create, delete and change users in MiCollab. In MX-ONE 6.1 SP1 and later, there are two supported MiCollab deployment configurations:

- Single MiCollab Server with 5000 users in MiCollab, requiring 10,000 SIP registrations in the MiVoice MX-ONE (based on a SIP deskphone and SIP softphone per user). See
- Multiple MiCollab servers with 40,000 users in MiCollab, requiring 80,000 SIP registrations in MiVoice MX-ONE (based on a SIP deskphone and SIP softphone per user):

**Note:** Active Directory is not supported for multiple MiCollab servers.



**Figure 112: Single MiCollab Server (5,000 Users in MiCollab and a Minimum of 10,000 SIP Registrations in MX-ONE)**



**Figure 113: Multiple MiCollab Servers (40,000 Users in MiCollab and a Minimum of 80,000 SIP Registrations in MX-ONE)**

## INTEGRATING MICOLLAB SERVERS

If your deployment has one or multiple MiCollab servers, you must add the servers into Provisioning Manager pools (**PM setup > subsystem**).

To integrate the Provisioning Manager with multiple MiCollab servers:

1. Configure MiCollab with Network Elements, Roles, Licenses, and so forth).
2. Create the MiCollab Server in the Provisioning Manager under **System > Subsystem Task**. Figure 114 shows an example of three MiCollab pools; each pool containing eight MiCollab servers.

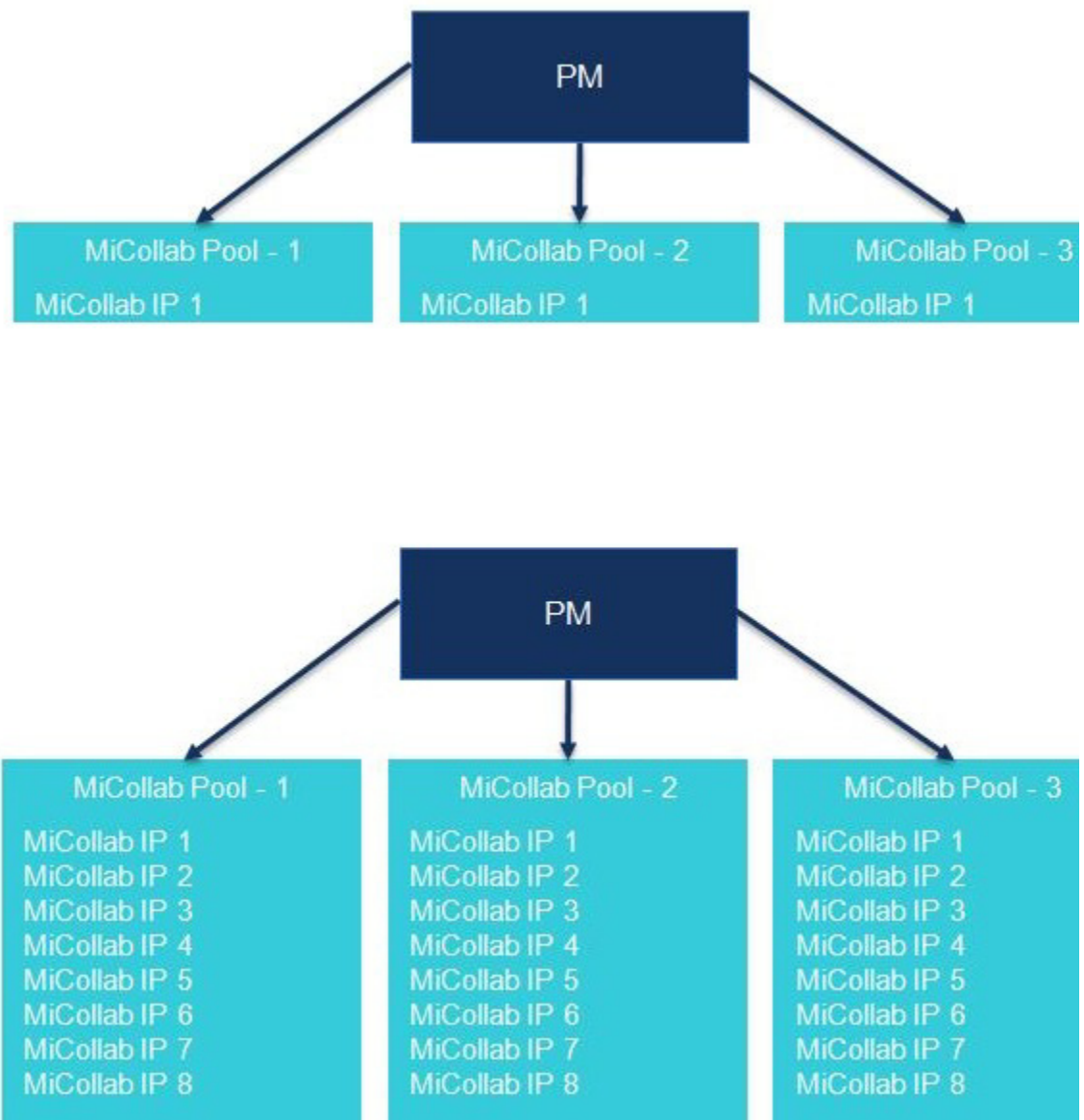
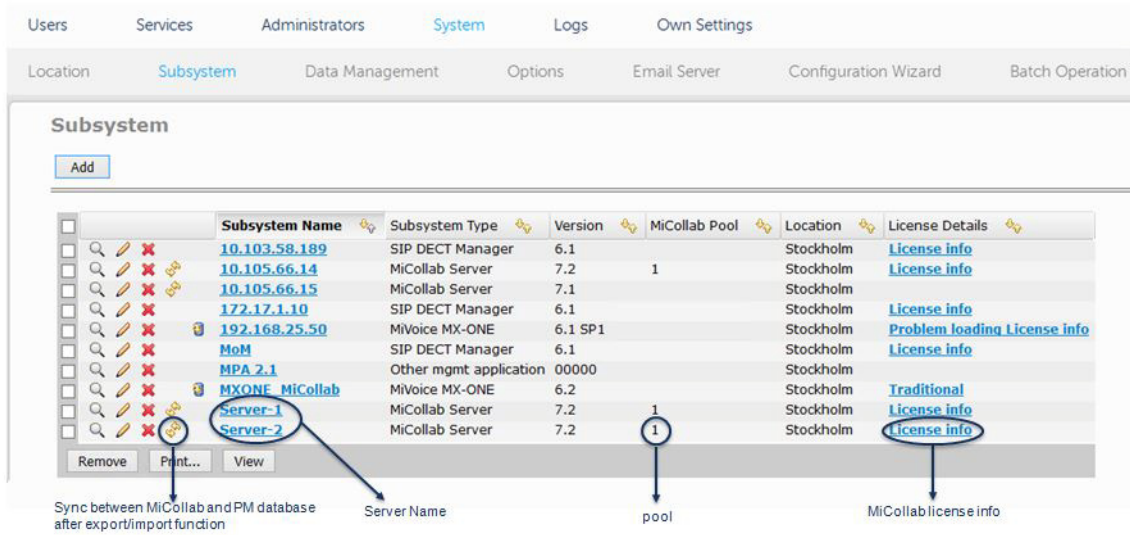


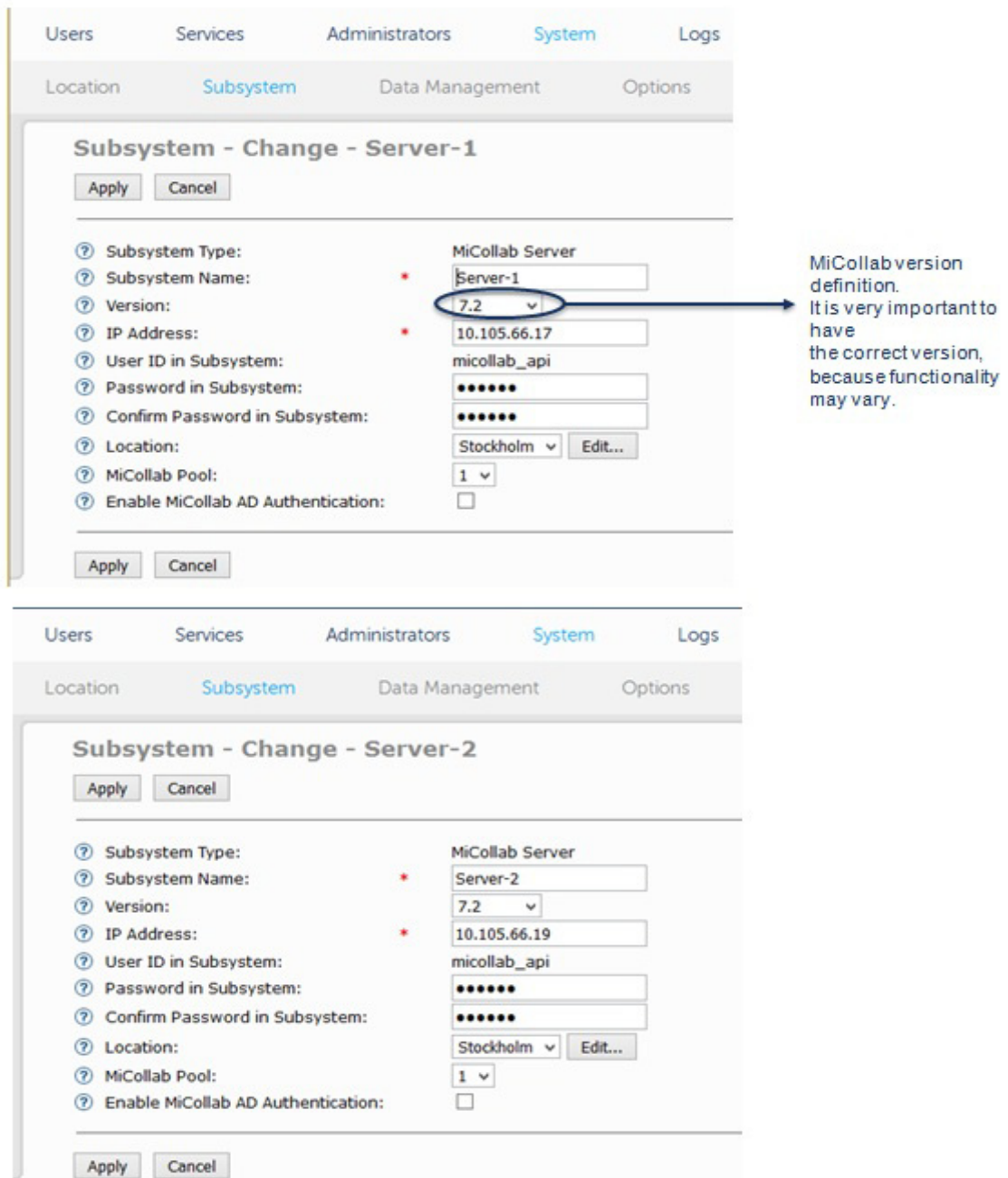
Figure 114: MiCollab Pools

3. Figure 115 shows an example of two MiCollab servers in pool #1.



**Figure 115: Provisioning Manager – MiCollab Subsystem Example**

4. Add the MiCollab servers as subsystems. Ensure that you select the correct release version of the MiCollab.



**Figure 116: MiCollab Subsystems Example: Pool with 2 MiCollab Servers**

5. The **Subsystem > View** shows the number of UCC User Licenses currently used by the server. The numbers are updated after the sync.

Users Services Administrators **System** Logs Own Settings

Location **Subsystem** Data Management Options Email Server

### Subsystem - View - Server-1

Done

Unified Communications and Collaboration (UCC) Bundles		
Bundle	User Licenses	Currently used
UCC Standard User for Enterprise (V4.0)	2500	3
UCC Premium User for Enterprise (V4.0)	1250	2
UCC Entry User for Enterprise (V4.0)	1250	5
UCC Basic User for Enterprise (V4.0)	5000	0

Done

Number is updated after the sync

Users Services Administrators **System** Logs Own Settings

Location **Subsystem** Data Management Options Email Server

### Subsystem - View - Server-2

Done

Unified Communications and Collaboration (UCC) Bundles		
Bundle	User Licenses	Currently used
UCC Standard User for Enterprise (V4.0)	2500	2
UCC Premium User for Enterprise (V4.0)	1250	1
UCC Entry User for Enterprise (V4.0)	1250	0
UCC Basic User for Enterprise (V4.0)	5000	0

Done

Figure 117: Pool with 2 MiCollab Servers - Licenses

6. Access the **User > User** screen to view the User IDs, MiCollab servers, and MiCollab Roles:

User ID	Last Name	First Name	Extension / MiVoice MX-ONE	Department(s)	Import from	Customer	MiCollab Server	MiCollab Role
admin_rd	RD	Admin	200000 / MXONE_MiCollab	Lab_MiCollab				
andre.freitas	Freitas	André	200001 / MXONE_MiCollab	MiCollab	Active Directory		Server-1	Premium_1
anna.carolina	Carolina	Anna	200019 / MXONE_MiCollab	Lab_MiCollab			Server-2	Standard_1
antonio.moura	Moura	Antonio	200002 / MXONE_MiCollab	MiCollab	Active Directory		Server-2	Entry_1
johnbien	Chretien	Jean	200015 / MXONE_MiCollab	Lab_MiCollab			Server-1	Entry_1
johan.gustavsson	gustavsson	Johan	200018 / MXONE_MiCollab	Lab_MiCollab			Server-1	Standard_1
john.smith	Smith	John	200011 / MXONE_MiCollab	MiCollab	Active Directory			
johnstye	stye	John	200017 / MXONE_MiCollab	Lab_MiCollab			Server-1	Premium_1
jtrudeau	Trudeau	Justin	200012 / MXONE_MiCollab	Lab_MiCollab			Server-1	Standard_1
kcampbell	Campbell	kim	200016 / MXONE_MiCollab	Lab_MiCollab			Server-1	Entry_1
maria.souza	Souza	Maria	200003 / MXONE_MiCollab	MiCollab	Active Directory		Server-1	Standard_1
mauro.camargo	Camargo	Mauro	200004 / MXONE_MiCollab	MiCollab	Active Directory		Server-2	Standard_1
paulo.severino	Severino	Paulo	200005 / MXONE_MiCollab	MiCollab	Active Directory		Server-1	Premium_1
pmartin	Martin	Paul	200014 / MXONE_MiCollab	Lab_MiCollab			Server-1	Entry_1
sharper	Harper	Stephen	200013 / MXONE_MiCollab	Lab_MiCollab			Server-2	Entry_1
test_12345	something	Test	200009 / MXONE_MiCollab	Lab_MiCollab			Server-1	None
test1234	1234	Test	200017 / MXONE_MiCollab	Lab_MiCollab			Server-1	Entry_1
tuyio.joy	Joy	Tuyio	200006 / MXONE_MiCollab	MiCollab_01	Active Directory		Server-1	Entry_1
yung.lu	Lu	Yung	200007 / MXONE_MiCollab	MiCollab_01	Active Directory		Server-1	Entry_1

Figure 118: User List

## USER PROVISIONING METHODS

In MX-ONE 6.1 SP1 and later, the method that you use to provision users depends upon the deployment configuration:

- For a single MiCollab Server with 5000 users in MiCollab and a minimum of 10,000 SIP registrations in the MX-ONE (based on a SIP deskphone and SIP softphone per user) you can use the following methods:
  - **Method 1:** Provisioning Manager User task
  - **Method 2:** Provisioning Manager Export tool or
  - **Method 3:** Provisioning Manager Active Directory integration
- For multiple MiCollab servers with 40,000 users in MiCollab and a minimum of 80,000 SIP registrations in MX-ONE (based on a SIP deskphone and SIP softphone per user) you can use either of the following methods.
  - **Method 1:** Provisioning Manager User task (you must manually select the MiCollab server of the user) or
  - **Method 2:** Provisioning Manager Export tool (you must manually specify the MiCollab server of the user)

**Note:** Active Directory is not supported for multiple MiCollab servers.

### METHOD 1: PROVISIONING MANAGER USER TASK

In Method 1, shown in Figure 119 and Figure 120 users are provisioned from the MiVoice MX-ONE Provisioning Manager.

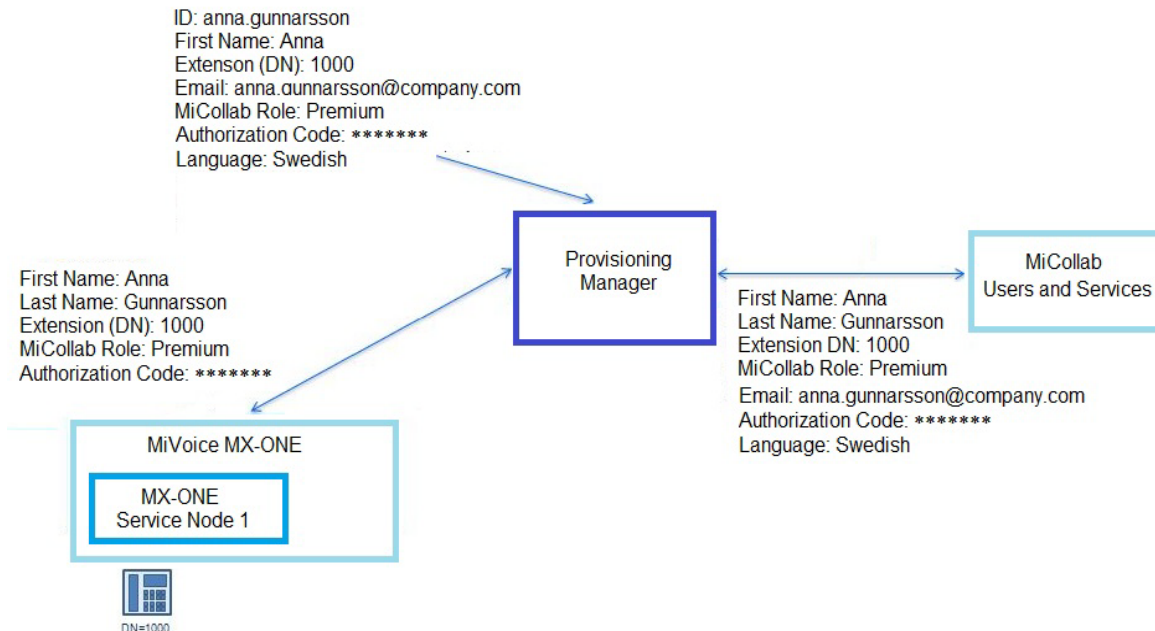


Figure 119: Single MiCollab Server via PM User Task

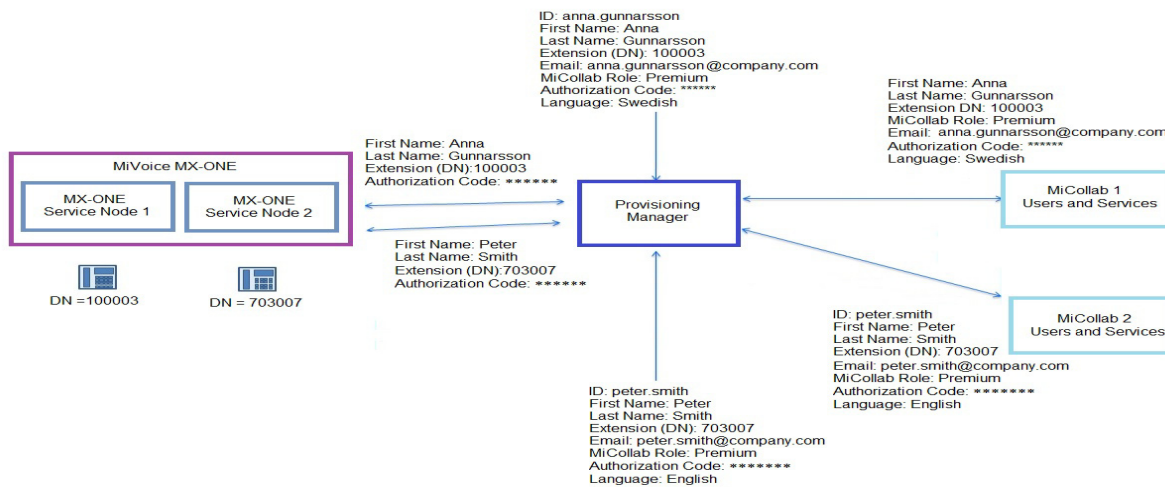


Figure 120: Multi-MiCollab Server via PM User Task

1. Under **Users > User > Add** enter the user's information in Step 1.



Users Services Administrators System Logs Own Settings

User Departments UDF Mapping Unlock

### User - Add - Step 1 / 4

**User**

<- Back Next -> Apply Cancel

First Name:       Last Name: \*

User Id: \*       Confirm Password:

Password:     

Email Address:       SMS:

Alternate First Names:       Alternate Last Names:

Keywords:

**User Defined Fields**

Business:       Business 2:

Mobile Phone:       Mobile Phone 2:

Department(s): \*      Existing Department(s); Location(s):      Selected Department(s); Location(s):

Mitel Networks Corporation; Stockholm

Mitel Networks Corporation\Micolab\_Stockholm;

Mitel Networks Corporation\Micolab\_Stockholm\

Mitel Networks Corporation\Micolab\_Stockholm\

Mitel Networks Corporation\MP\_Users\_for\_AD\_s;

Mitel Networks Corporation\MP\_Users\_for\_AD\_s;

Mitel Networks Corporation\MP\_Users\_for\_AD\_s;

Mitel Networks Corporation\MP\_Users\_for\_AD\_s;

Mitel Networks Corporation; Stockholm

Move Up      Move Down

Use Last Selection:

Provisioning Manager Language:

<- Back Next -> Apply Cancel

Figure 121: Provisioning Manager User Task

2. Assign an existing extension or add a new extension. If the deployment includes multiple MX-ONE service nodes, select the desired node for the extension.

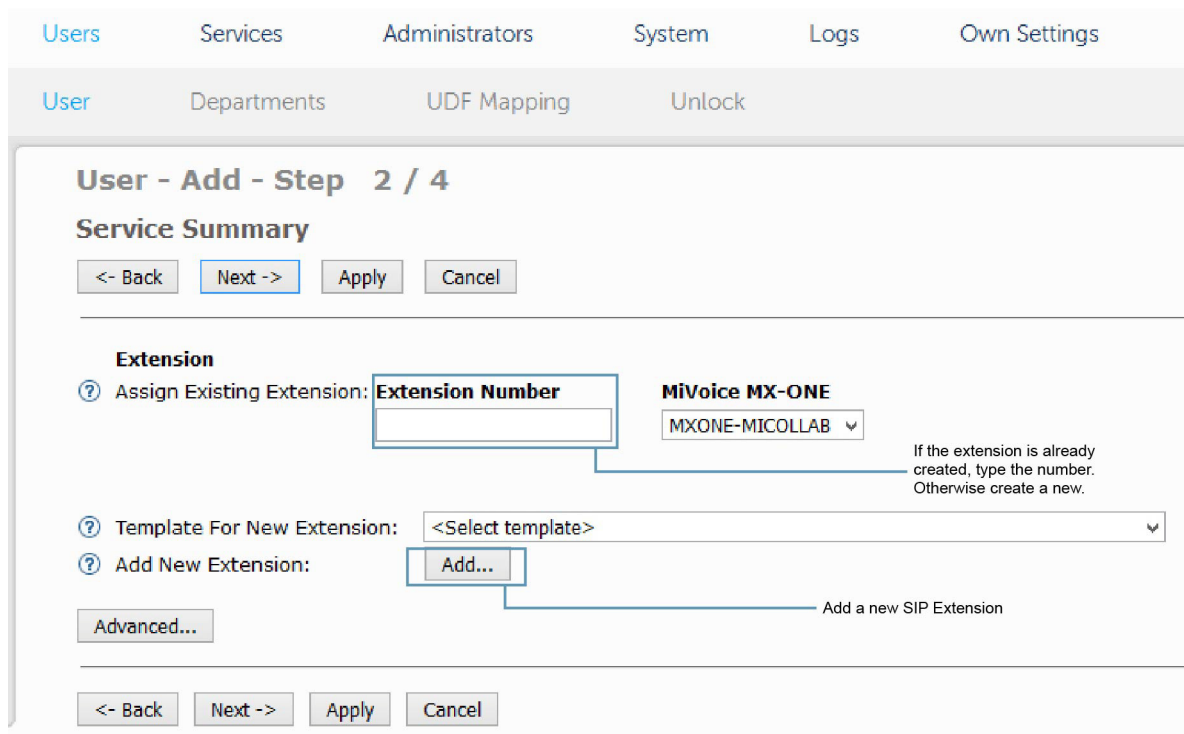


Figure 122: Provisioning Manager User Task - cont.

3. Set the Extension Type to Multi-Terminal.

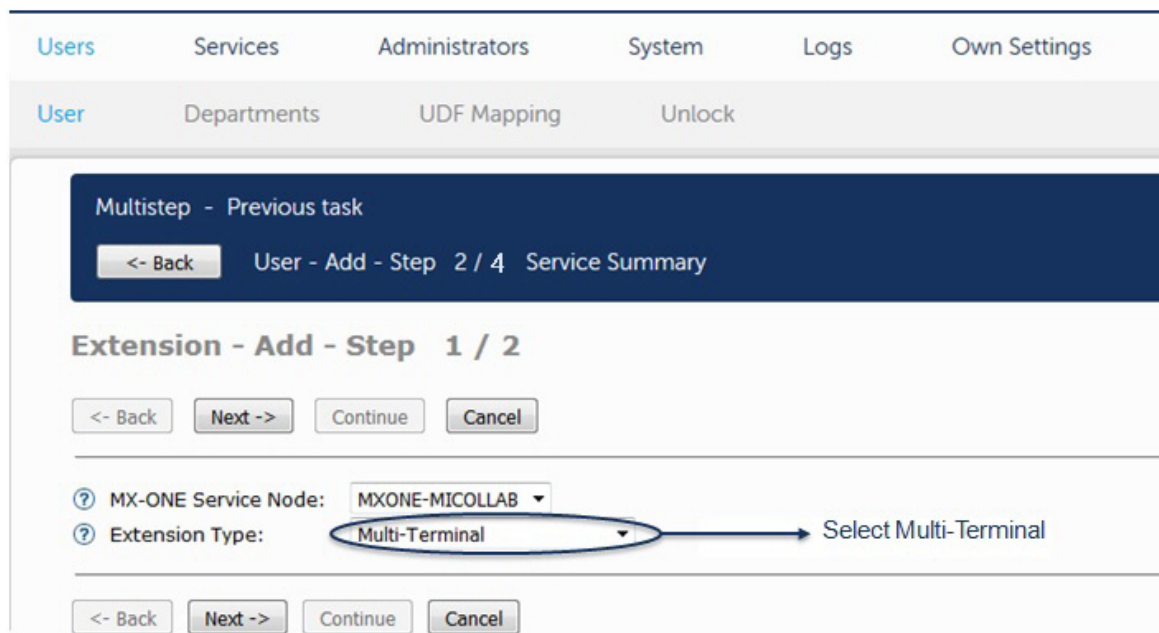


Figure 123: Provisioning Manager User Task - cont.

4. Select the Extension Number DN and click the **Add** button next to IP Extension.

Multistep - Previous task

<- Back User - Add - Step 2 / 4 Service Summary

**Extension - Add - Step 2 / 2**

**Multi-Terminal**

<- Back Next -> Continue Cancel

**General**

MX-ONE Service Node: MXONE-MICOLLAB

Extension Number Range: 6001

Extension Number: 6001 Select the Extension number (DN)

Description:

Server Number: 1

Customer: None

Common Service Profile: 0 - (None)

Phone Language: Default

Backup Answering Position Number:

Allow Security Exception:

Boss/Secretary: None

Home Area Code:

DECT Extension: Add...

Mobile Extension: Add...

IP Extension: Add... Select IP Extension

SIP Remote Terminal: Add...

SIP Auto-registered Terminal: Add...

Figure 124: User Provisioning Task - cont.

5. Enter the maximum number of terminals (SIP extensions) for the user:

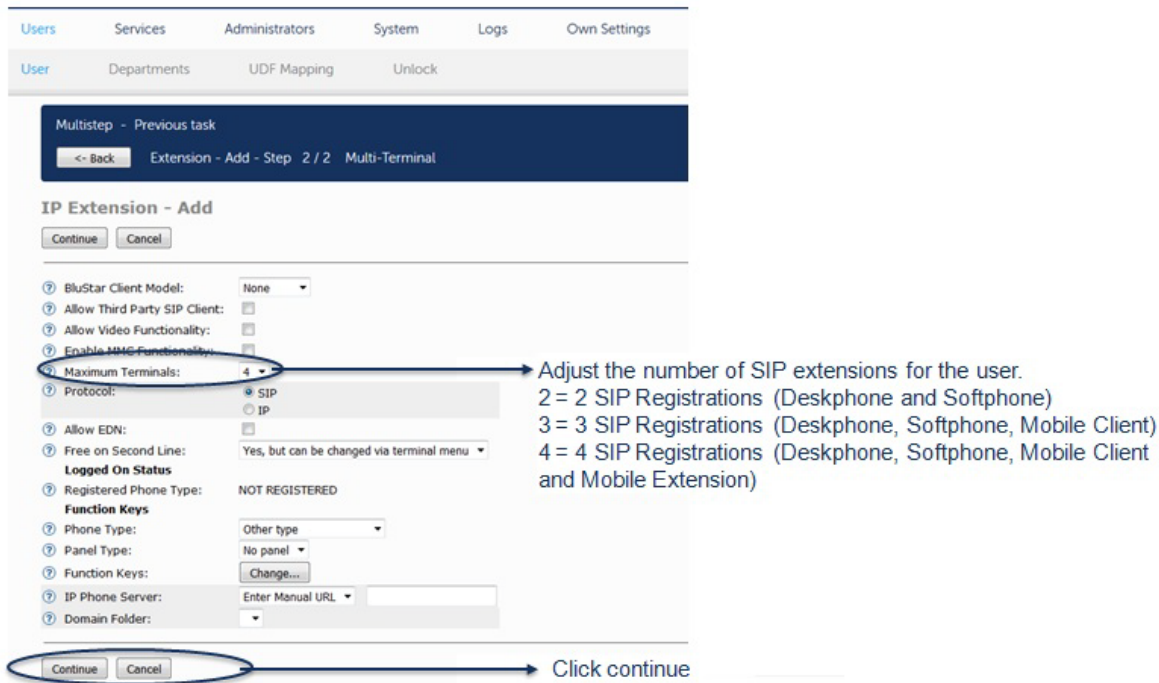


Figure 125: User Provisioning Task - Extension Add - Step 1

6. Click Continue.

Extension - Add - Step 2 / 2

Multi-Terminal Extensionpage

<- Back Next -> Continue Cancel

**General**

MX-ONE Service Node: MXONE-MICOLLAB

Extension Number Range: 6001

Extension Number: 6001

Description:

Server Number: 1

Customer: None

Extension Type: MultiTerminal

Common Service Profile: 0 - (None)

Phone Language: Default

Backup Answering Position Number:

Allow Security Exception:

Boss/Secretary: None

Home Area Code:

DECT Extension: Add...

Mobile Extension: Add...

IP Extension: 6001

SIP Remote Terminal: Add...

SIP Auto-registered Terminal: Add...

Extension page

**Name Identity**

First Name: John

Last Name: Smithson

**Authorization Code**

Authorization Codes: Edit... → Setup the Authorization Code. It is mandatory for Standard and Premium

**Ring Signal**

Ring Signals: Edit...

**Personal Number**

Personal Number List: Edit...

**Group Setup**

Hunt Group(s)

**Hunt Group Number**

Call Pickup Group: None

Group Do Not Disturb: None

Advanced...

<- Back Next -> Continue Cancel

Figure 126: User Provisioning Task - Extension Add - Step 2 of 2

7. Edit the Authorization codes (mandatory for Standard and Premium users).
8. Enter the Authorization and Call Logging Codes for the user and click **Apply**.

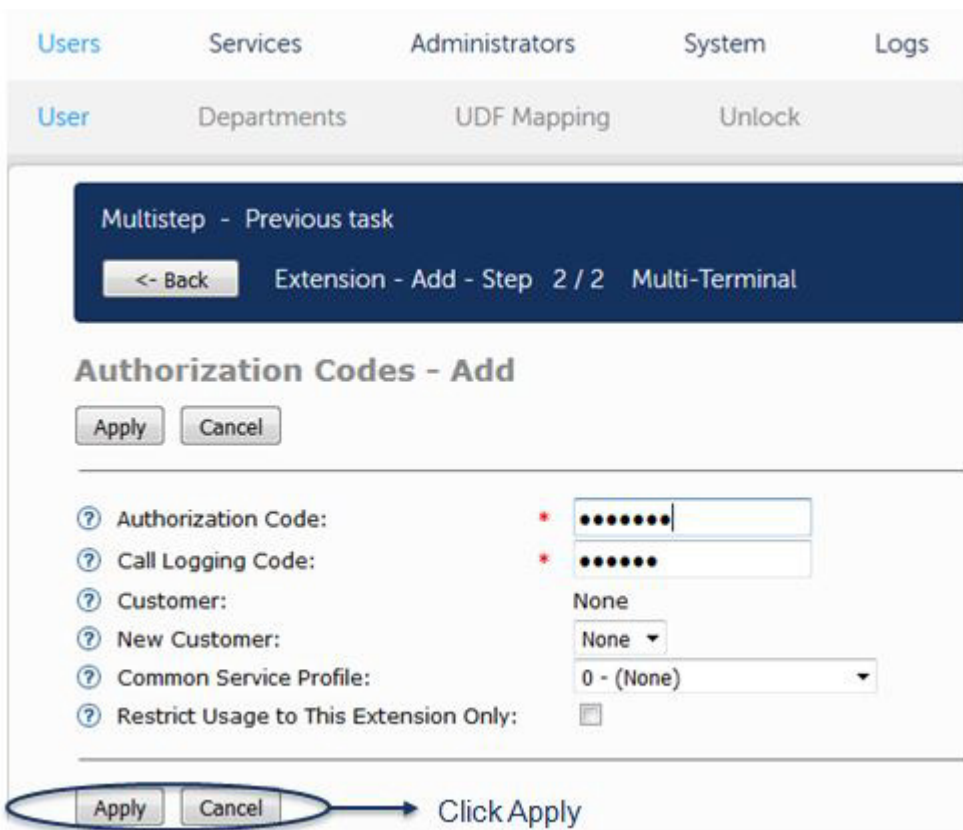


Figure 127: Provisioning User Task - cont.

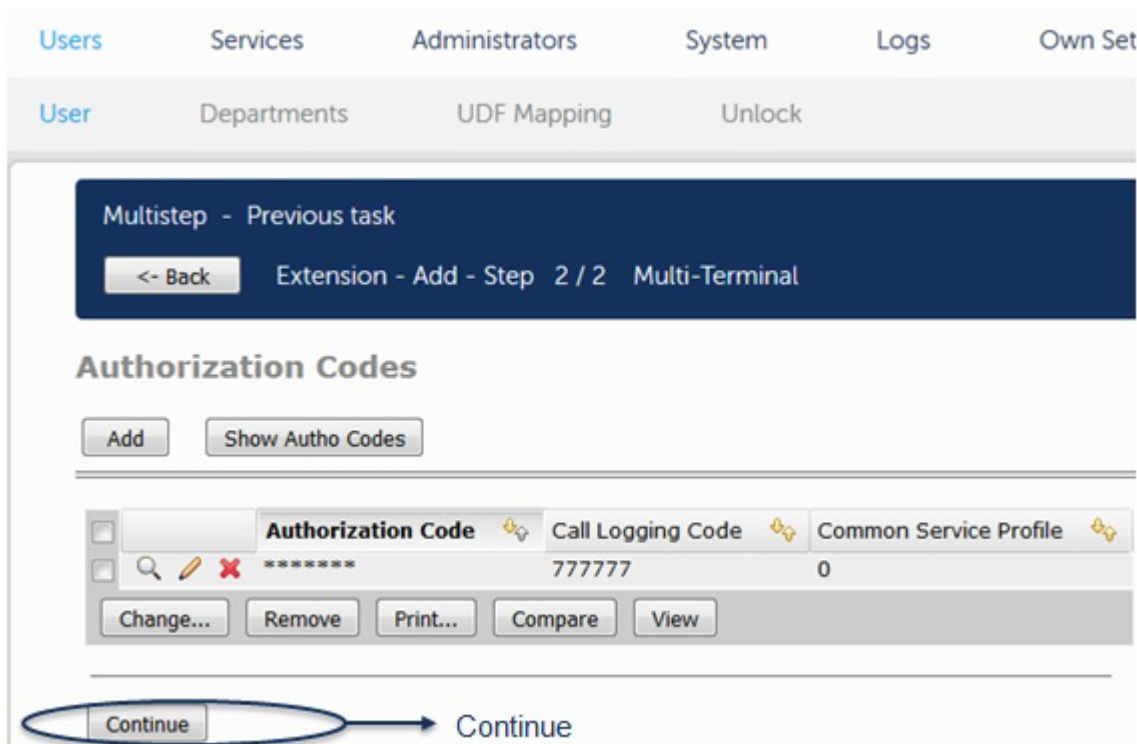


Figure 128: Provisioning User Task - cont.

9. Click **Continue**.
10. Select **MiCollab Extension** and click **Next**.

The screenshot shows the 'User - Add - Step 2 / 3' provisioning interface. The 'Service Summary' section includes navigation buttons: '<- Back', 'Next ->', 'Apply', and 'Cancel'. Below this is the 'Extension' section with two rows:

Extension	Extension Number	MX-ONE Service Node	Servers	MiCollab Extension
Assigned Extensions:	6001	MXONE-MICOLLAB	192.168.25.40	<input checked="" type="checkbox"/>
Assign Existing Extension:	<input type="text"/>	MXONE-MICOLLAB	192.168.25.40	<input type="checkbox"/>

Below the table, there is a 'Template For New Extension' dropdown menu set to '<Select template>' and an 'Add New Extension' button with an 'Add...' sub-button. A blue circle highlights the 'MiCollab Extension' checkbox in the first row, with a blue arrow pointing to it and the text 'Select MiCollab'.

**Figure 129: Provisioning User Task cont.**

11. Assign MiCollab Extension (service node) and select the MiCollab Server.

**Note:** Provisioning Manager will fetch the roles for that specific MX-ONE.

12. Assign Secondary Extension to the user (This field will be available only when the selected MiCollab server version is 8.0 or above).

**Note:** Primary and Secondary extension should be from same MiVoice MX-ONE.

13. Select the MiCollab Prompt language.

The screenshot shows a web interface for adding a user, specifically the 'MiCollab Configuration' step. At the top, there are navigation tabs: 'Users', 'Services', 'Administrators', 'System', 'Logs', and 'Own Settings'. Below these, there are sub-tabs: 'User', 'Departments', and 'Unlock'. The main heading is 'User - Add - Step 3 / 4'. The section is titled 'MiCollab Configuration' and contains several configuration options, each with a question mark icon for help:

- Assign MiCollab Extension(Extension, LIM IP): 6001,192.168.28.9
- Secondary Extension: 6002,192.168.28.9
- MiCollab Pool : 1
- MiCollab Servers: MiCollab-Stockholm
- MiCollab Role: UCC Premium MXONE-MiCollab
- Prompt Language: System Default
- Enable AD Authentication:

Navigation buttons include '<- Back', 'Next ->', 'Apply', and 'Cancel' at the top and bottom of the configuration section.

**Figure 130: Provisioning User Task cont.**

14. You will receive an on-screen reminder regarding the MiCollab role requirements. Click **OK**. The Add User Result is displayed.



Users Services Administrators System Logs Own Settings

User Departments UDF Mapping Unlock

### User - Add - Result

Done

Add operation successful for:

- User Id: john.smithson

Property	Value
User Id	john.smithson
First Name	John
Last Name	Smithson
Email Address	john.smithson@companyA.com
MiCollab Server	10.105.66.15
MiCollab Role	UCC Premium - MX-ONEMiCollab
Servers	192.168.25.40
Prompt Language	Swedish(Sweden)
<b>Department(s)</b>	
Department(s)	Mitel Networks Corporation; Stockholm
<b>Preferences</b>	
Use Last Selection	Yes
Provisioning Manager Language	English
<b>Service Summary</b>	
<b>Property</b>	<b>Value</b>
<b>Extensions</b>	
Extension / MX-ONE Service Node	6001/MXONE-MICOLLAB

Information added in MiCollab

Figure 131: Add User Result

15. If you log into the MiCollab Users and Services application, select the user and click **Edit**, the user information is displayed.

The screenshot shows the 'Users and Services' application interface. At the top, there is a navigation bar with tabs for 'Users', 'Network Element', 'User Templates', 'User Roles', 'Locations', 'Departments', and 'Bulk User Provisioning'. Below the navigation bar, there is a search bar and a status bar indicating 'Unassigned services: 2 (View)' and 'Total number of users: 1'. The main content area is titled 'Edit User - Smithson, John'. The form contains the following fields:

- First Name: John
- Last Name: Smithson
- Display Name: Smithson, John
- UCC Bundle: UCC Premium User for Enterprise (V4.0)
- Department: Mitel Networks Corporation
- Location: Stockholm
- Prompt Language: Swedish (Sweden)
- Primary Email Address: john.smithson@companyA.com
- Distinguished Name: (empty)
- IDS Manageable:

Below the form is the 'Authentication Section' with the following fields:

- Login: john.smithson
- Password: (empty)
- Confirm Password: (empty)

A blue oval highlights the main user information fields in the screenshot.

Figure 132: User Information in MiCollab Users and Services

## METHOD 2: PROVISIONING MANAGER EXPORT TOOL

You can provision the MiCollab server(s) with users by exporting the users from the MiVoice MX-ONE Provisioning Manager. You need to

- Create CSV files with a maximum of 2500 users, and
- Set the Export Type to collect MiCollab user data.

### 1. Access **System > Data Management > Export**.

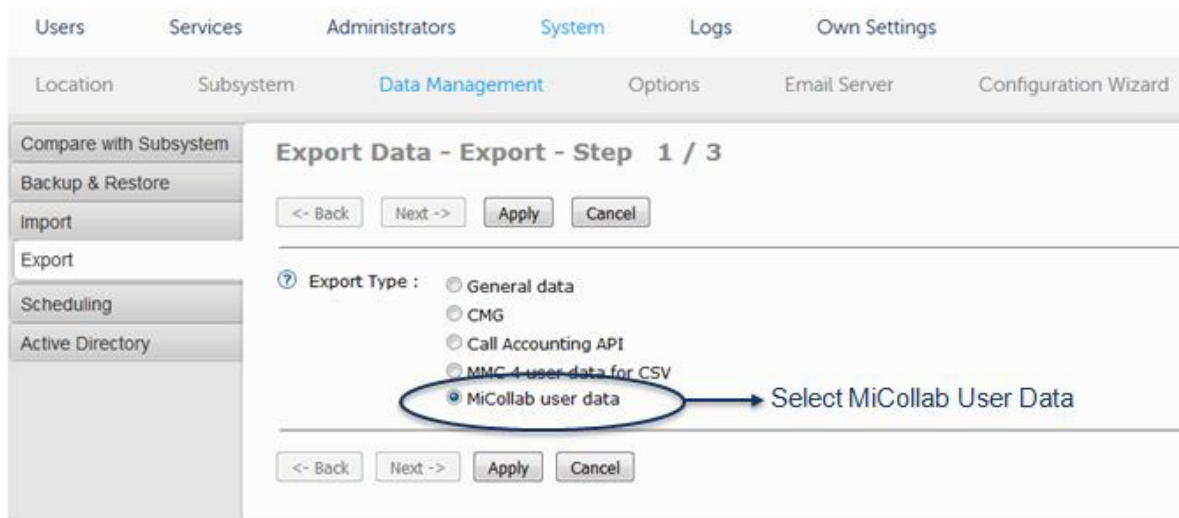
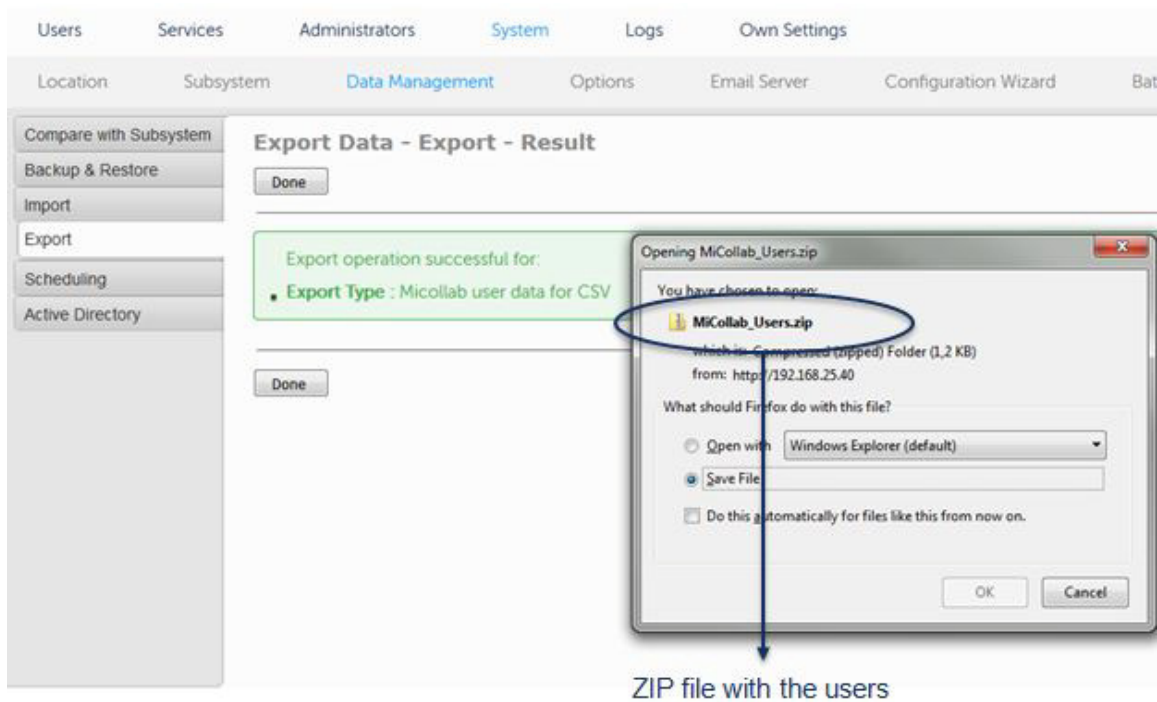


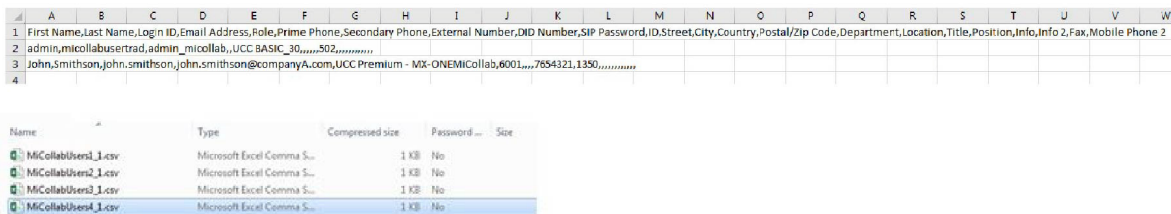
Figure 133: Export Tool: Select MiCollab User Data

### 2. Select **MiCollab user data** and click **Apply**.



**Figure 134: Export User Data**

3. Save the MiCollab\_Users.zip file to your PC.
4. Unzip it and open in Excel. Below is an example:



**Figure 135: CSV File Example**

5. Log into the MiCollab Server manager.
6. Under **Applications**, click **Users and Services**.
7. Click the Bulk User Provisioning tab.
8. Import the CSV file. For detailed instructions see the *Users and Services* application help (see Applications > Users and Services > System Administrator > Provision Users and Services > Bulk User Provisioning)
  - Click **Tools** and then click **Import from File**.
  - Select **Import Bulk Add CSV File**.
  - Click Browse and navigate to the CSV file.
  - Select the file and click **Open**.

- Click **Import**. The data from the file is imported.
- Auto Fill the roles
- Click **Save**.

Figure 136 to Figure 139 show the screens:

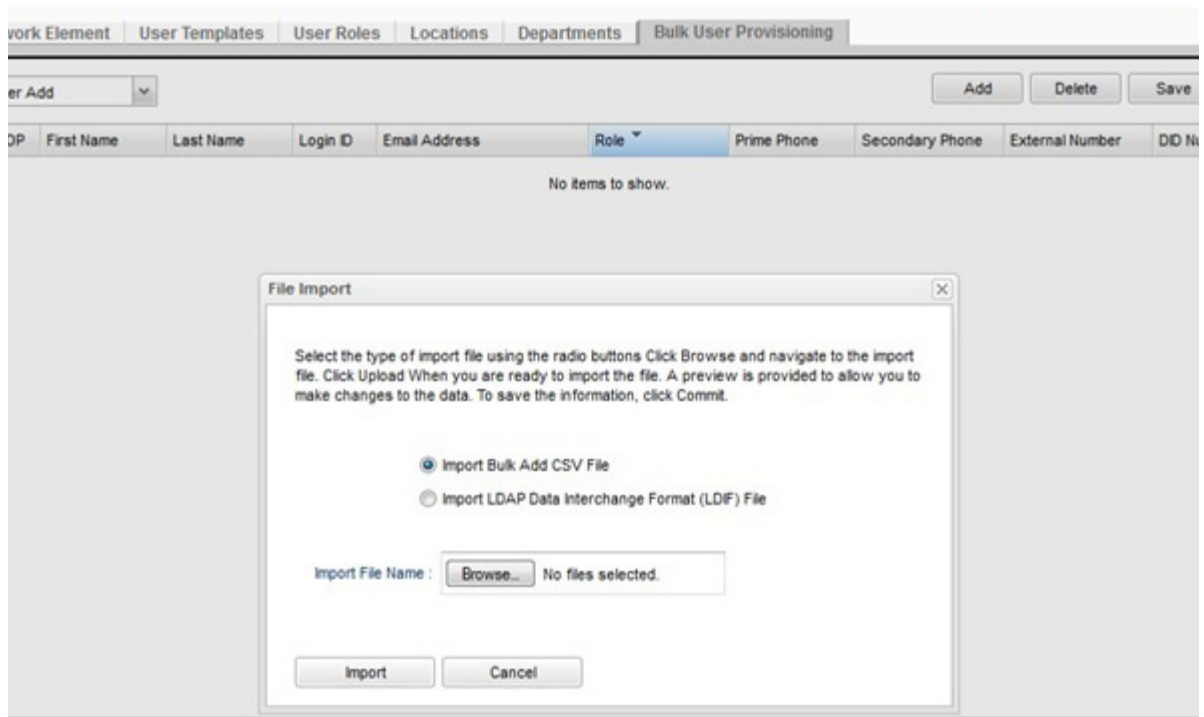


Figure 136: Import CSV File into MiCollab USP Bulk User Provisioning

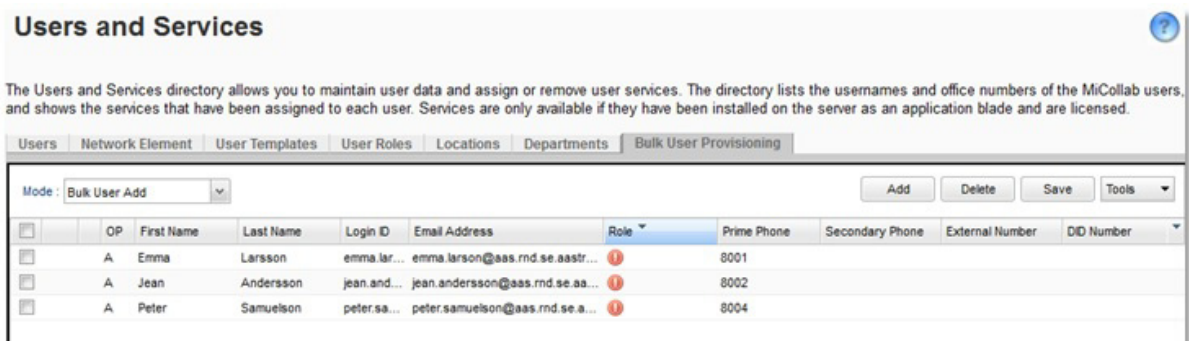


Figure 137: Bulk User Provisioning

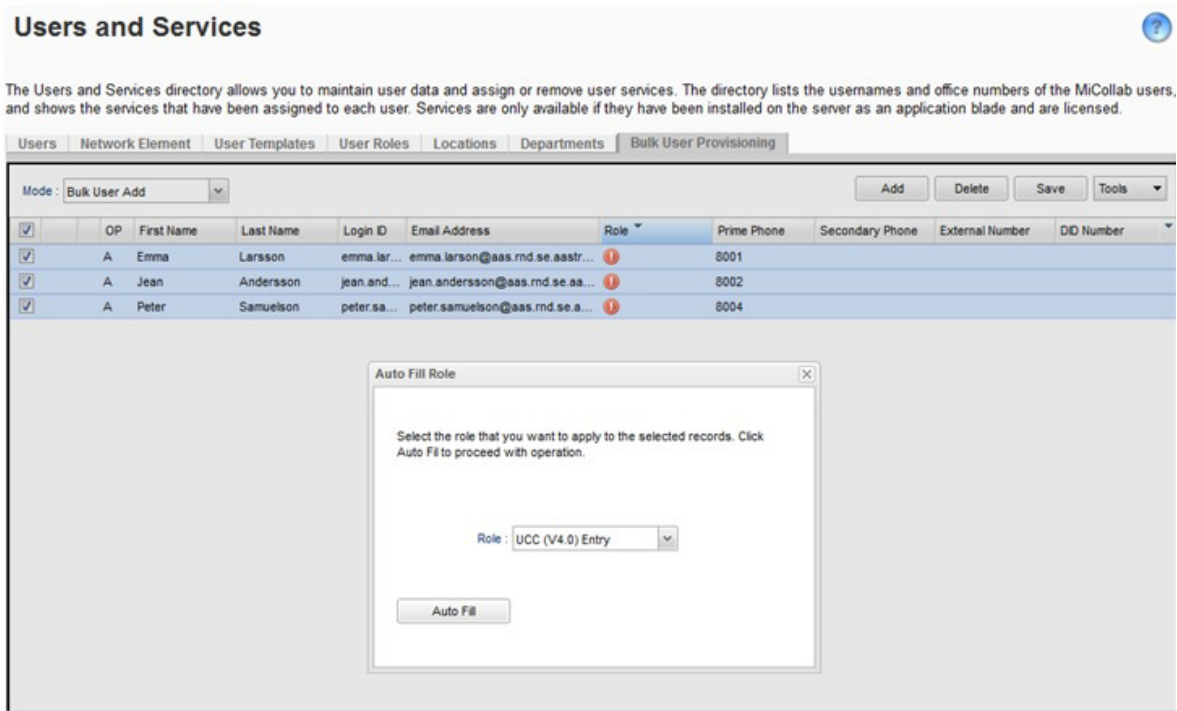


Figure 138: Auto-Fill Roles

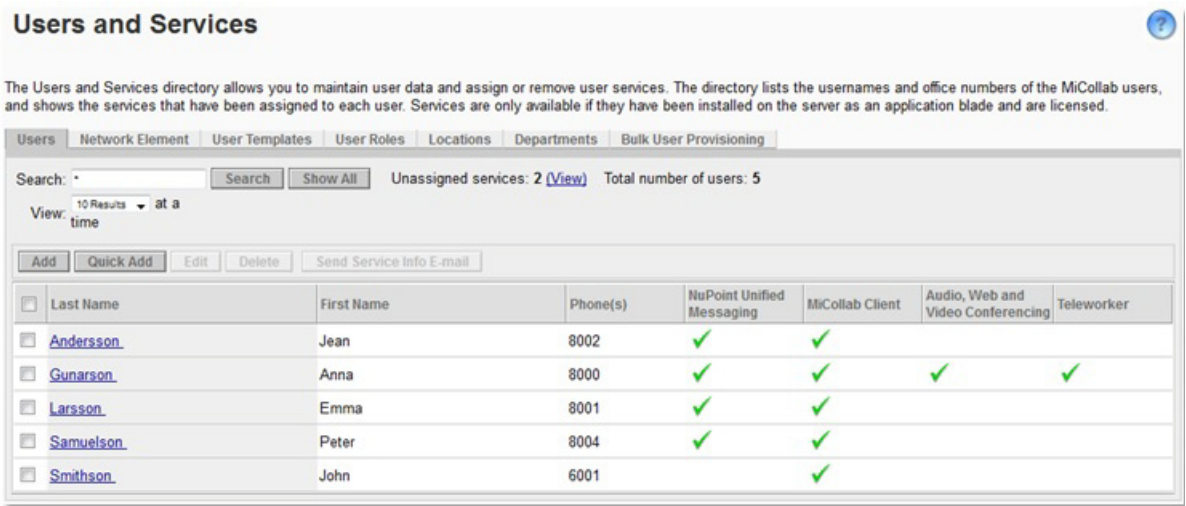
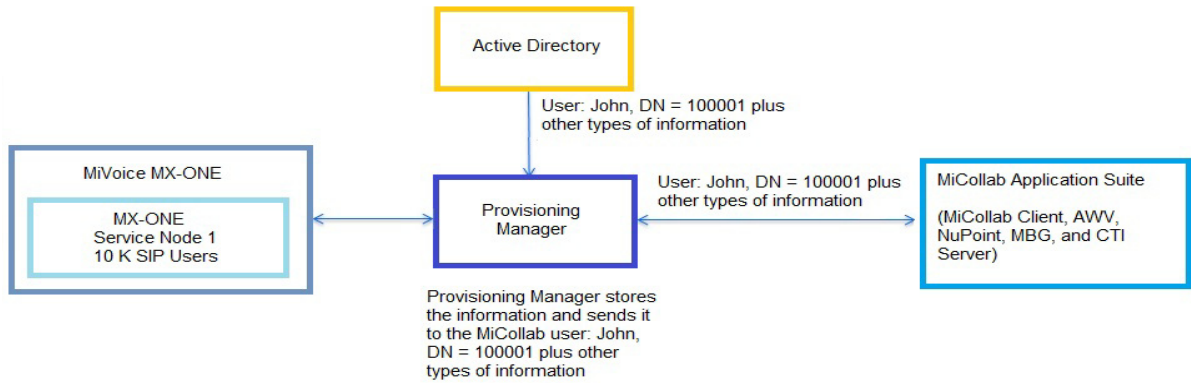


Figure 139: Users Imported into USP Directory

9. After the import is complete check the Provision Manager to verify that the entries have been imported. Figure shows an example:

### METHOD 3: PROVISIONING MANAGER WITH ACTIVE DIRECTORY

Only a single MiCollab Server is supported. Active Directory is not supported with multiple MiCollab servers.



**Figure 140: Active Directory Support**

10. Set up Active Directory in the Provisioning Manager and sync it (see Figure 141). The user entries from the Active Directory server are added to the Provisioning Manager (see Figure 142).

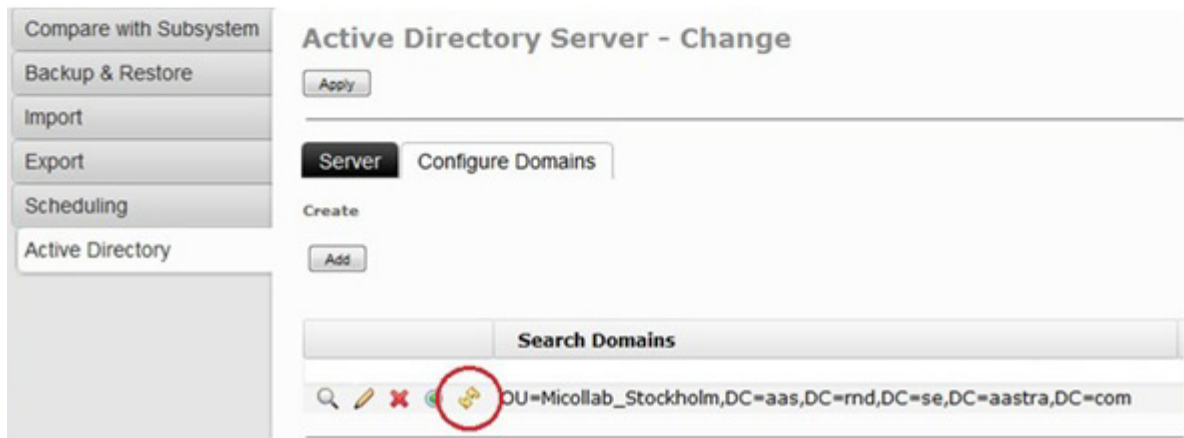
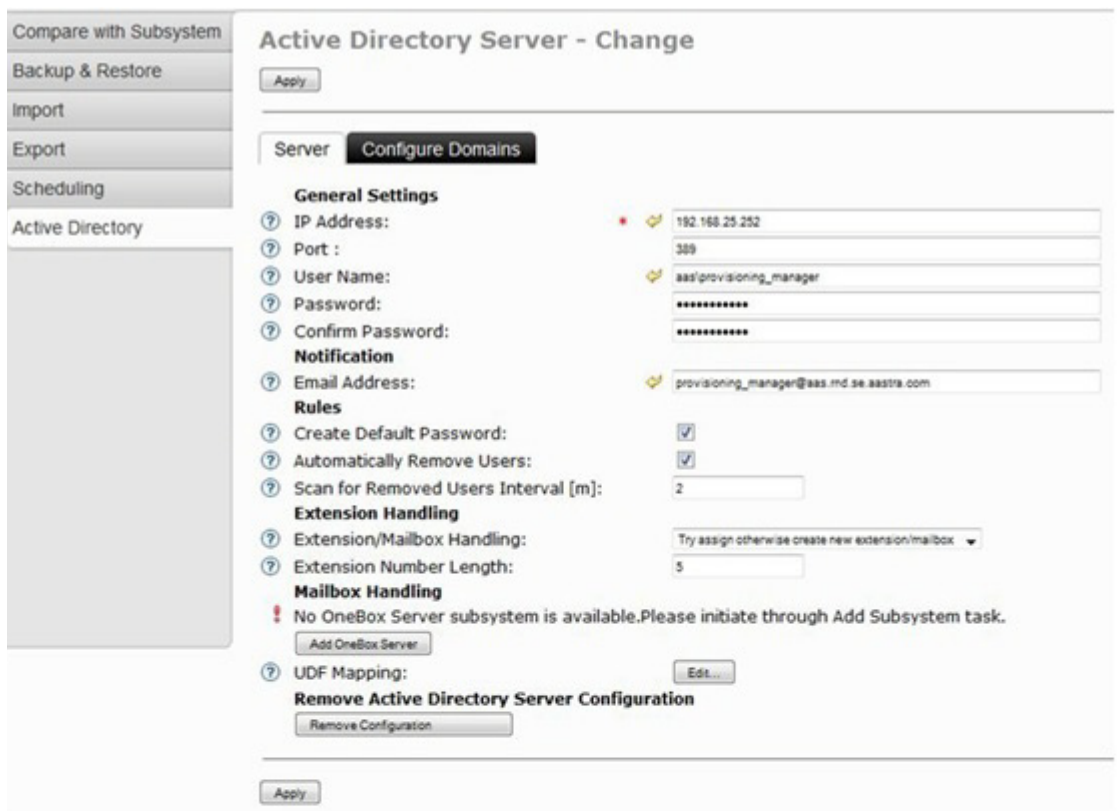


Figure 141: Set up and Sync



Users added in PM from AD

User Id	Last Name	First Name	Extension / Telephony System	Department(s)	Import from	Customer
admin_micollab	micollab	admin	8010 / MXONE-MICOLLAB	Mitel Networks Corporation	Active Directory	
andre.freitas	Freitas	André	8000 / MXONE-MICOLLAB	MiCollab		
anna.gunnarson	Gunarson	Anna	8000 / MXONE-MICOLLAB	Mitel Networks Corporation		
antonio.moura	Moura	Antonio	8011 / MXONE-MICOLLAB	MiCollab	Active Directory	
emma.larson	Larsson	Emma	8001 / MXONE-MICOLLAB	Mitel Networks Corporation		
jean.andersson	Andersson	Jean	8002 / MXONE-MICOLLAB	Mitel Networks Corporation		
john.smithson	Smithson	John	6001 / MXONE-MICOLLAB	Mitel Networks Corporation		
maria.souza	Souza	Maria	8012 / MXONE-MICOLLAB	MiCollab	Active Directory	
mauro.camargo	Camargo	Mauro	8014 / MXONE-MICOLLAB	MiCollab	Active Directory	
paulo.severino	Severino	Paulo	8014 / MXONE-MICOLLAB	MiCollab	Active Directory	
peter.samuelson	Samuelson	Peter	8004 / MXONE-MICOLLAB	Mitel Networks Corporation		

Figure 142: Users Added to Provisioning Manager

**Note:** User is updated in MiCollab Detained Queue when Active Directory sync is done with single MiCollab Server in Provisioning Manager.

11. Export the MiCollab users from the Provisioning Manager to a CSV file.
12. Import the users into the Users and Services Bulk Provisioning tool.

**Users and Services**

The Users and Services directory allows you to maintain user data and assign or remove user services. The directory lists the usernames and office numbers of the MiCollab users only available if they have been installed on the server as an application blade and are licensed.

Users | Network Element | User Templates | User Roles | Locations | Departments | Bulk User Provisioning

Mode: Manage Detained Queue

OP	Timestamp	First Name	Last Name	Domain	Login ID	Email Address	Role	Prime Phone
A	2015-07-06 11:25:21.255	Mauro	Camargo		mauro.cama...	mauro.camargo@as.rnd.se.aastra...	UCC (V4.0) Entry	8014
A	2015-07-06 11:25:20.941	André	Freitas		andre.freitas	andre.freitas@as.rnd.se.aastra.com	UCC (V4.0) Entry	8010
A	2015-07-06 11:25:20.029	Antonio	Moura		antonio.moura	antonio.moura@as.rnd.se.aastra.com	UCC (V4.0) Entry	8011
A	2015-07-06 11:25:20.636	Paulo	Severino		paulo.severino	paulo.severino@as.rnd.se.aastra.c...	UCC (V4.0) Entry	8013
A	2015-07-06 11:25:20.332	Maria	Souza					8012

Operation Progress

Current Record (Login ID) : mauro.camargo  
 Operations Processed : 0 out of 5 (0%)  
 Error count : 0

Cancel

MiCollab Bulk User Provisioning/Manage Detained Queue

Figure 143: Users Added to MiCollab Bulk User Provisioning Detained Queue

13. Import the users from the Bulk User Provisioning tool into the MiCollab directory by selecting the entries and then clicking **Save**. Figure 144 shows the entries imported into the Users and Services application. Figure 145 shows an example entry in the Provisioning Manager.

### Users and Services

The Users and Services directory allows you to maintain user data and assign or remove user services. The directory lists the usernames and office number only available if they have been installed on the server as an application blade and are licensed.

Users | Network Element | User Templates | User Roles | Locations | Departments | Bulk User Provisioning

Search: \*   Unassigned services: 2 [View](#) Total number of users: 10

View: 10 Results at a time

<input type="checkbox"/>	Last Name	First Name	Phone(s)	NetPoint Unified Messaging	MiCollab Client	Audio, Web and Video Conferencing	Teleworker
<input type="checkbox"/>	<a href="#">Andersson</a>	Jean	8002	✓	✓		
<input type="checkbox"/>	<a href="#">Camargo</a>	Mauro	8014	✓	✓		
<input type="checkbox"/>	<a href="#">Freitas</a>	André	8010	✓	✓		
<input type="checkbox"/>	<a href="#">Gunarson</a>	Anna	8000	✓	✓	✓	✓
<input type="checkbox"/>	<a href="#">Larsson</a>	Emma	8001	✓	✓		
<input type="checkbox"/>	<a href="#">Moura</a>	Antonio	8011	✓	✓		
<input type="checkbox"/>	<a href="#">Samuelson</a>	Peter	8004	✓	✓		
<input type="checkbox"/>	<a href="#">Savarino</a>	Paulo	8013	✓	✓		
<input type="checkbox"/>	<a href="#">Smithson</a>	John	6001		✓		
<input type="checkbox"/>	<a href="#">Souza</a>	Maria	8012	✓	✓		

← MiCollab Users and Services Page

Figure 144: Users Added to USP Directory

**User - Change - paulo.severino**

Apply Cancel

---

**User** Service Summary Scheduling

**Extension**

? Assigned Extensions: **Extension Number** **Telephony System** **Micollab Extension**  
 ? [Search] [Edit] [X] 8014 MXONE-MICOLLAB [Add]

? Assign Existing Extension: **Extension Number** **Telephony System** **Micollab Extension**  
 [Text Box] MXONE-MICOLLAB [Add]

? Template For New Extension: <Select template> [Dropdown]

? Add New Extension: [Add...]

**MiCollab Server**

? Telephony System: MXONE-MICOLLAB [Dropdown]

? MiCollab Role: UCC (V4.0) Entry [Dropdown]

? Prompt Language: System Default [Dropdown]

[Advanced...]

---

Apply Cancel

Figure 145: Provisioning Manager User Page

# MAPPING ACTIVE DIRECTORY FIELDS TO PROVISIONING MANAGER

1. Under **Users > UDF Mapping** select the Active Directory Field that needs to be mapped to Provisioning Manager.

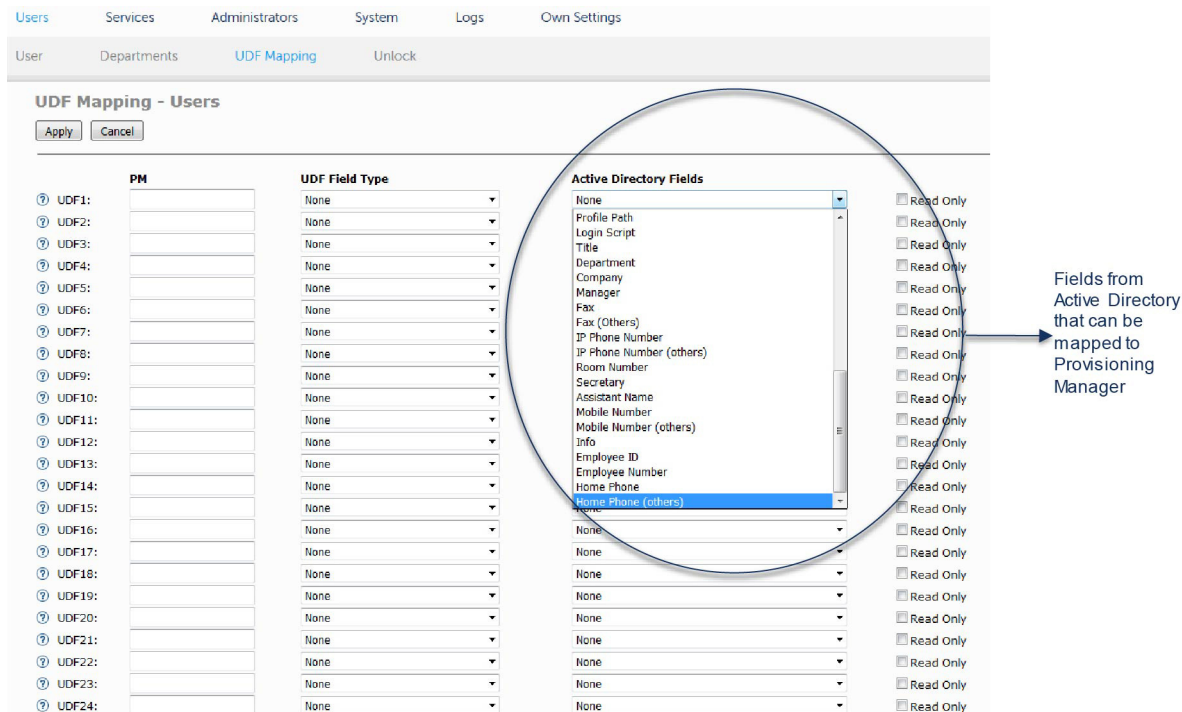


Figure 146: UDF Mapping User Page

2. Enter the Provisioning Manager name select UDF Field Type.

**Note:** Deselect the **Read Only** button to allow user information editing in Provisioning Manager. By default **Read Only** option is selected.

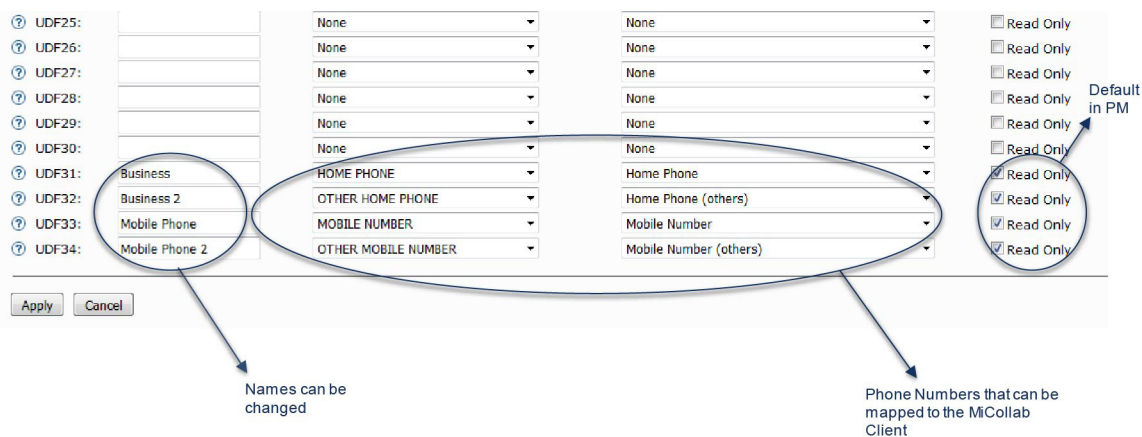


Figure 147: UDF Mapping User Page - cont.

3. Click **Apply**.

## ACTIVE DIRECTORY FIELDS

### IN PROVISIONING MANAGER

- Click **Users > User > Change - anagram** to display the UDF mapped information.

**Note:** Names of the Active Directory fields can be changed in UDF Mapping.

The screenshot displays the 'User - Change - anagram' configuration page in the Provisioning Manager. The page is divided into several sections: 'User', 'Service Summary', 'MCollab Configuration', and 'Scheduling'. The 'User' section contains fields for personal information such as First Name (Pna), Last Name (Gram), User Id (anagram), Password, and Extension Number (41411). The 'User Defined Fields' section includes fields for DID Number, External Number, City (Stockholm), Country (Sweden), Business (39530), Mobile Phone (39529), Business 2 (39527), and Mobile Phone 2 (39528). At the bottom, there are 'Existing Department(s), Location(s)' and 'Selected Department(s), Location(s)' lists, with 'Lab133; Globen' selected. Annotations with arrows point to the 'Business' and 'Mobile Phone' fields, stating 'Names can be changed in the UDF mapping'. Another annotation points to the 'Business 2' and 'Mobile Phone 2' fields, stating 'Phone Numbers that can be mapped to the MCollab Client'.

**Figure 148: Active Directory Fields in Provisioning Manager**

IN MICOLLAB

1. Log into the MiCollab server manager.
2. Under **Applications**, click **Users and Services**.
3. Click the **Users** tab.

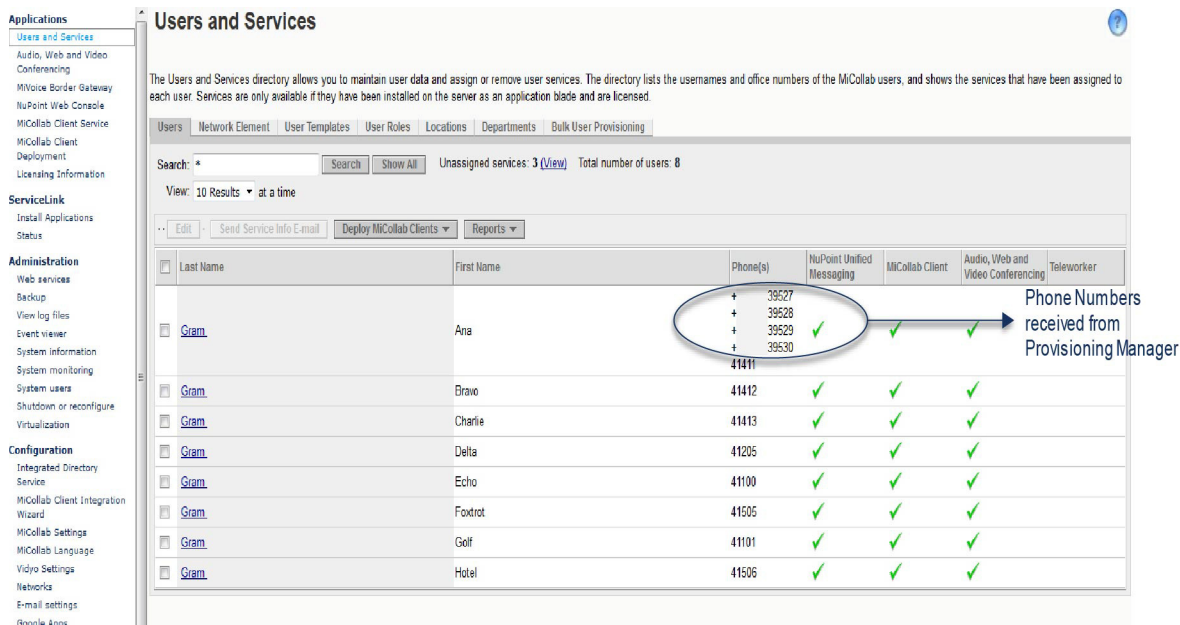


Figure 149: Active Directory Fields in MiCollab

4. Click on a User to see the details.
5. Click on **Phones** tab.

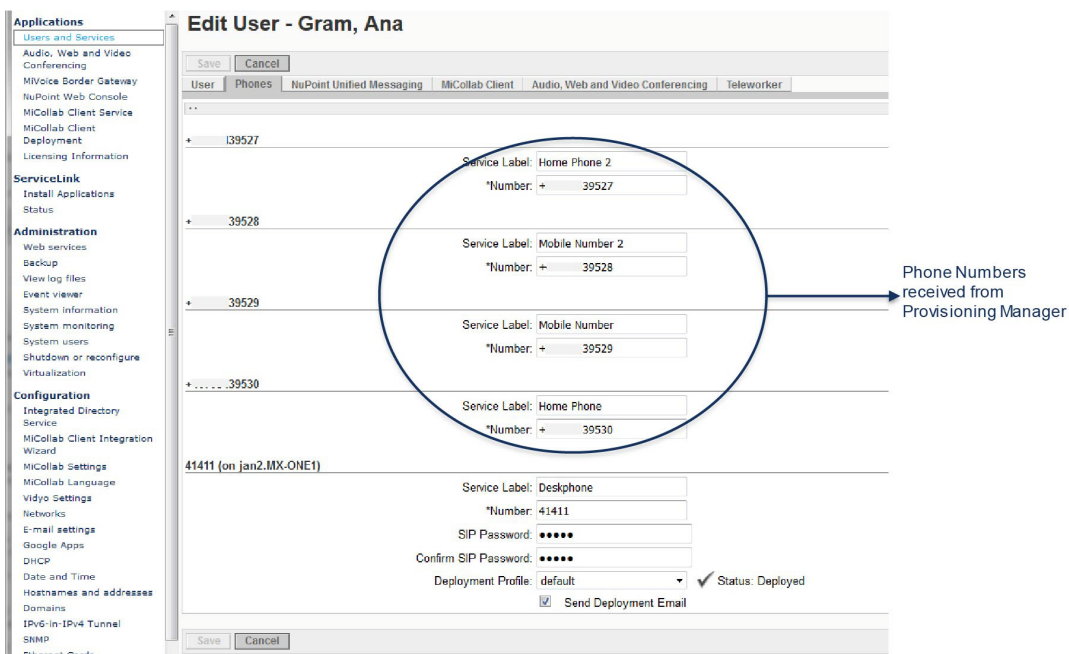


Figure 150: Active Directory Fields in MiCollab - cont.

6. Under **Applications**, click **MiCollab Client Service**.
7. Click **Configure MiCollab Client Service** and then select **Accounts** tab.
8. Click on a User to see the details.
9. Select **Phone Numbers**.

The screenshot displays the 'Account Details' configuration page for a user named 'Ana'. The left sidebar shows a navigation menu with categories like Applications, Administration, and Configuration. The main content area is divided into sections: Login Settings, Licensed Features, and Phone Numbers. The Phone Numbers section contains a table with columns for Type, PRG Label, Number, MAC Address, Published, and Video Capable. A blue circle highlights the 'Number' column, and an arrow points from this circle to the text 'Phone Numbers received from Provisioning Manager'.

Type	PRG Label	Number	MAC Address	Published	Video Capable
<input type="checkbox"/>	Voice Mail	Voicemail	41900	No	No
<input type="checkbox"/>	Desk Phone	DeskPhone	41411	Yes	No
<input type="checkbox"/>	SIP Softphone	SoftPhone	41411	Yes	No
<input type="checkbox"/>	Phone	Home Phone	39530	Yes	No
<input type="checkbox"/>	Phone	Mobile Number	39529	Yes	No
<input type="checkbox"/>	Phone	Home Phone 2	39527	Yes	No
<input type="checkbox"/>	Phone	Mobile Number 2	39528	Yes	No

Figure 151: Active Directory Fields in MiCollab - cont.

IN MICOLLAB CLIENT

1. Log into the **MiCollab Client**.
2. Right click on a user and select **Contact Information**.

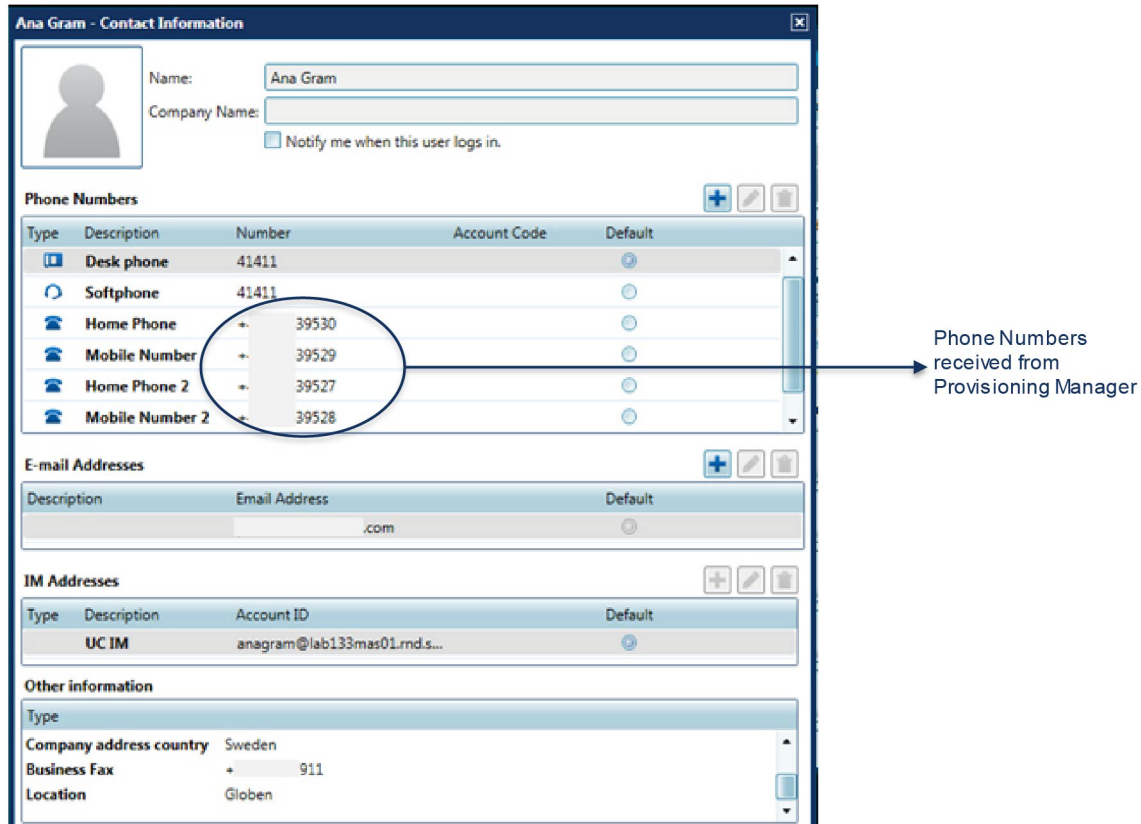


Figure 152: Active Directory Fields in MiCollab Client

## MICOLLAB ADVANCED MESSAGING SETUP IN PROVISIONING MANAGER

### ADD EXISTING MAILBOX

1. In provisioning manager, click **Users > User > Service Summary**.
2. Select **MiCollab AM** in the drop down menu.

**Note:** MiCollab Advanced Messaging Server option is available only if MiCollab Advanced Messaging Server is defined in the sub-system.



The screenshot shows the 'User - Change - teriksson' configuration page. The 'Mailbox' section is active, displaying the 'Assign Existing Mailbox' form. The 'Mailbox Number' field is populated with '67118', and the 'MiCollab Advanced Messaging Server' dropdown is set to 'MiCollab AM'. The 'Add New Mailbox' section is also visible, showing an 'Add...' button. The 'Extension' section shows 'Assigned Extensions' with '67118' and 'MiVoice MX-ONE 1. Inhouse'.

**Figure 153: Add Existing Mailbox**

3. Enter the extension number for the user in **Mailbox Number** and click **Apply**.

## CREATE NEW MAILBOX

1. In provisioning manager, click **Users > User > Service Summary**.
2. Click **Add** under Mailbox section.

The screenshot shows the 'User - Change - teriksson' configuration page. The 'Mailbox' section is active, displaying the 'Add New Mailbox' form. The 'Add...' button is highlighted, indicating the next step in the process. The 'Mailbox Number' field is empty, and the 'MiCollab Advanced Messaging Server' dropdown is set to 'MiCollab AM'. The 'Extension' section shows 'Assigned Extensions' with '67118' and 'MiVoice MX-ONE 1. Inhouse'.

**Figure 154: Create New Mailbox**

3. Select **MiCollab AM** in the drop down menu and click **Next**.

Users Services Administrators System Logs Own Settings

User Departments UDF Mapping Unlock

Multistep - Previous task

<- Back User - Change Service Summary

Mailbox - Add - Step 1 / 2 [Help](#)

<- Back Next -> Continue Cancel

MiCollab Advanced Messaging Server: MiCollab AM

<- Back Next -> Continue Cancel

Figure 155: Mailbox - Add

4. Enter **Mailbox Id**, **Mailbox Extension**, and **Subscriber Name** to setup the mailbox.

Users Services Administrators System Logs Own Settings

User Departments UDF Mapping Unlock

Multistep - Previous task

<- Back User - Change Service Summary

Mailbox - Add - Step 2 / 2

<- Back Next -> Continue Cancel

MiCollab Advanced Messaging Server: MiCollab AM

Mailbox Id: \* 67118

Mailbox Extension: \* 67118

Subscriber Name: \* Tomas Eriksson

Class of Service: None

Message Retention :  Unlimited  Number of days

**Security Code**

Password:

Confirm Password:

**Message Waiting Indicator**

Enable MWI:

Current MWI:

Clear On:  Inbox is empty  First unread message read  All unread messages read

**Messaging Presentation**

Presentation:  Auto play first message  Sort urgent first

Listen by Type:

Order by:  First in first out  Last in first out

**E-mail**

E-mail Server: None

E-mail Address:

E-mail Display Name:

Message Access by Client Application:  None  Unified message  ICA/WPM

**Alternate Extension**

Extension	Extension Number	Media Type	MWI	Name
Extension 1:		Secondary voice	<input type="checkbox"/>	
Extension 2:		Secondary voice	<input type="checkbox"/>	
Extension 3:		Secondary voice	<input type="checkbox"/>	

Advanced...

<- Back Next -> Continue Cancel

Figure 156: Mailbox - Add - cont.

5. Click **Continue**.

**Note: MiCollab Advanced Messaging Server is setup in the MiCollab.**

The screenshot shows the 'User - Change - teriksson' configuration page. The 'Mailbox' section is active, showing the following details:

- Assigned Mailboxes:** A table with columns 'Mailbox Number' and 'MiCollab Advanced Messaging Server'. The first row shows '67118' and 'MiCollab AM'.
- Assign Existing Mailbox:** A form with 'Mailbox Number' (input field) and 'MiCollab Advanced Messaging Server' (dropdown menu).
- Add New Mailbox:** An 'Add...' button.

**Figure 157: Create New Mailbox - cont.**

6. Click **Apply**.
7. Under **MiCollab Configuration** tab, select the MiCollab details.

The screenshot shows the 'User - Change - MiCollabUserTest' configuration page. The 'MiCollab Configuration' tab is active, showing the following details:

- Assign MiCollab Extension(Extension, LIM IP):** 6001.192.168.28.9
- Secondary Extension:** 6002.192.168.28.9
- MiCollab Pool :** 1
- MiCollab Servers:** MiCollab-Stockholm
- MiCollab Role:** UCC Premium MXONE-MiCollab
- Prompt Language:** System Default
- Enable AD Authentication:**

**Figure 158: MiCollab Configuration**

8. Click Apply.

Users Services Administrators System Logs Own Settings

User Departments UDF Mapping Unlock

User - Change - teriksson - Result [Help](#)

Done

Change operation successful for:  
• User Id: teriksson

User

Property	Value
User Id	teriksson
First Name	Tomas
Last Name	Eriksson
Email Address	tomas.eriksson@mitel.com

**MiCollab Configuration**

MiCollab Pool	
MiCollab Server	10. 8
MiCollab Role	Premium User MAM Globen
Prompt Language	System Default

**Department(s)**

Department(s)	Aastra\Enterprise PBX Solutions\Users\Sweden\Technical Support; Stockholm Aastra; Stockholm Aastra\Enterprise PBX Solutions; Stockholm Aastra\Enterprise PBX Solutions\Users; Stockholm Aastra\Enterprise PBX Solutions\Users\Sweden; Stockholm
---------------	---

**Preferences**

Use Last Selection	No
Provisioning Manager Language	English

**Service Summary**

Property	Value
<b>Extensions</b>	
Extension / MiVoice MX-ONE	67118/1. Inhouse 🔍
<b>Mailboxes</b>	
Mailbox / MiCollab Advanced Messaging Server	67118/MiCollab AM 🔍

Change This... Remove This Add From This... Done

Figure 159: User - Change - Result

## 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>#):

Digit	Status
0	Lunch break
1	Gone for the day
2	Away from desk
3	In a meeting
4	Business trip
5	Visiting customer
6	Vacation
7	Not available
8	Back soon
9	Sick-leave

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 ";"\n.import script.txt ini' | sqlite3 csta_config.sqlite
```



# Appendix A

**AUDIO, WEB AND VIDEO CONFERENCING**

**VOICE PROMPTS**





## VOICE PROMPTS

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

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

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

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

## Audio, Web and Video Conferencing Voice Prompts

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

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

## Audio, Web and Video Conferencing Voice Prompts

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

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