

October 24, 2025

# MiVB - Configure MiVoice Business 10.4 for use with PolyAI using MBG

**Description:** This document provides a reference for Mitel Authorized Solutions providers for configuring the Mitel MiVB and MBG to connect to PolyAI system.

**Environment:** MiVoice Business 10.4 (10.4.0.21), MiVoice Border Gateway 12.2.0.72, Mitel 69xx/69xxw MiNET 03.00.00.064 and MiCollab Server 10.1.1.7-01

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Mitel Technical Configuration Notes – Configure MiVoice Business 10.4 for use with PolyAI using MBG.

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## Overview


This document provides a reference to Mitel Authorized Solutions providers for configuring the Mitel MiVB to connect to PolyAI. The different devices can be configured in various configurations depending on your VoIP solution. This document covers a basic setup with required option setup.

### Interop History

Version	Date	Reason
1	July, 2022	Initial interop with Mitel MiVB 9.4 and PolyAI using MBG.
2	October, 2025	Interop with Mitel MiVB 10.4 and PolyAI using MBG.

### Interop Status

The Interop of PolyAI has been given a Certification status. This Trunking device will be included in the Mitel Interoperability Reference Guide (IRG). The status of PolyAI achieved is:

	The most common certification which means PolyAI has been tested and/or validated by the Mitel Third-Party Interop Team. Mitel Product Support will provide all necessary support related to the interop, but issues unique or specific to the 3rd party will be referred to the 3rd party as appropriate.
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### Software & Hardware Setup

This was the test setup to generate a basic SIP call between PolyAI and the MiVB using MBG.

**Note – Although this testing was performed on the below tested variants, the scope of this testing can be extended to other product variants that work with the same firmware. The list of components for which this testing can be considered applicable is given in the “Additional Applicable Variants” column of the following table –**

Manufacturer	Tested Variants	Software Version	Additional Applicable Variants
Mitel	MiVoice Business	10.4 (10.4.0.21)	NA
Mitel	MiVoice Border Gateway	12.2.0.72	NA
Mitel	69xx/69xxw MiNET	03.00.00.064	NA
Mitel	MiCollab Server	10.1.1.7-01	NA
Mitel	MiCollab Client	10.1.9	NA

## Tested Features

This is an overview of the features tested during the Interop test cycle and not a detailed view of the test cases.

Feature	Feature Description	Issues
Basic Call	Making calls from internal/external numbers.	✓
DTMF	Making calls from internal/external numbers and verified DTMF scenario through IVR (RFC2833).	✓
Hold/Retrieve	Holding/Retrieving the current IVR call.	✓
Call Transfer	Making calls from internal/external numbers and PolyAI transferring the call back to Mitel through IVR internal number/external PSTN number/teleworker user/MiCollab client.	✓
Codec	All the scenarios has been performed over G.711 codec.	✓
TLS/SRTP	Making calls from internal/external numbers and PolyAI hangs up, transfer and DTMF calls through IVR.	✓
Resiliency	Testing resiliency feature between MiVB, MBG and the service provider PolyAI.	✓

✓ - No issues found

✗ - Issues found, cannot recommend using

⚠ - Issues found

## Device Limitations and Known Issues

This is a list of problems or unsupported features when PolyAI is connected to the MiVB and MBG.

Feature	Problem Description

## Network Topology

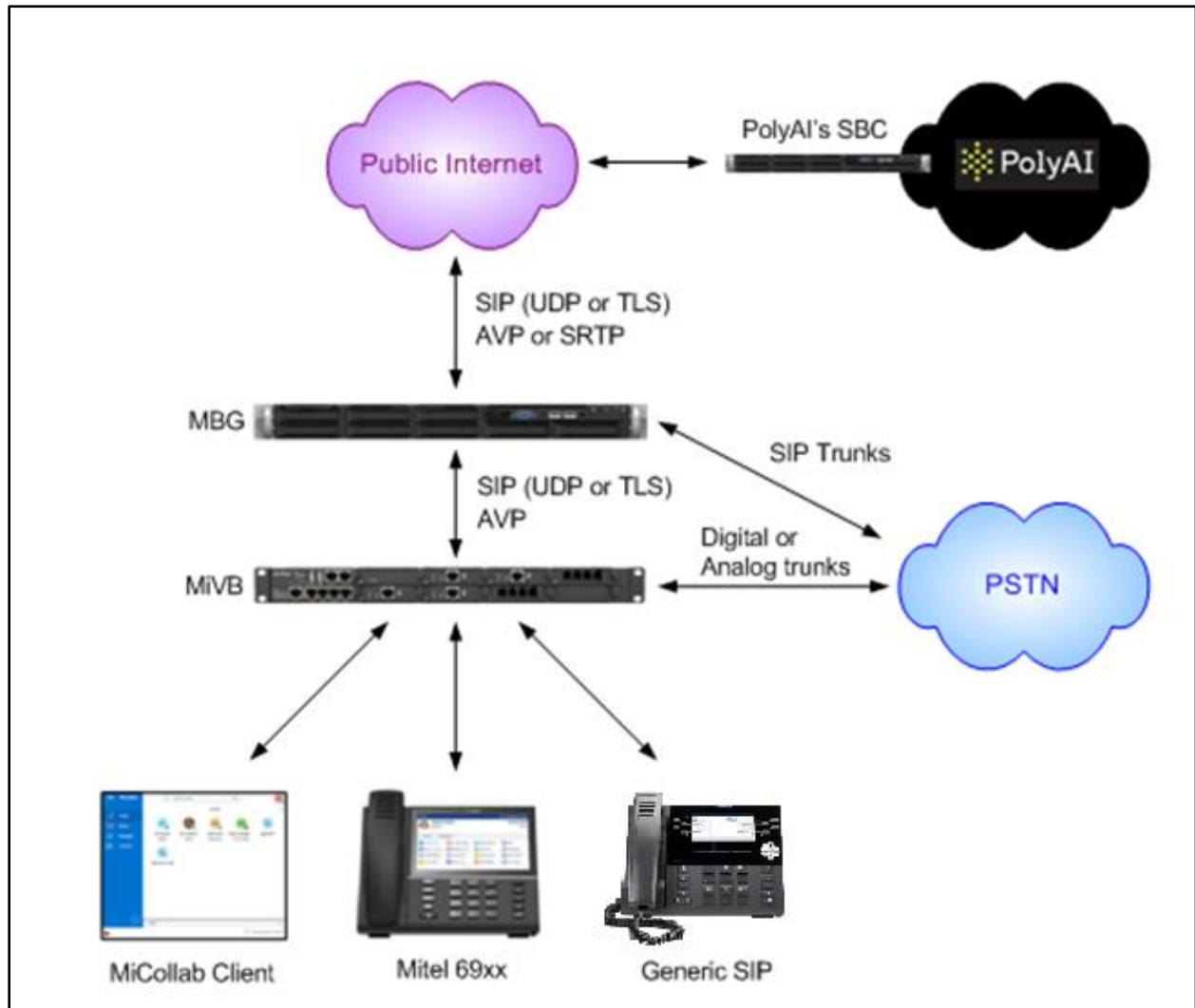


Figure 1 – Network Topology

### Call Flow

Calls to PolyAI can be initiated by any device on the MiVB, or external PSTN calls may be transferred to PolyAI via Automatic Route Selection (ARS). PolyAI will interact with the caller and either provide the requested information or transfer the caller to a different destination. If the caller needs to be transferred elsewhere, PolyAI will perform a SIP-REFER to transfer the caller to the specific Directory Number (DN) on the MiVB.

## Configuration Notes

This section is a description of how the SIP Interop was configured. These notes should give a guideline on how a device can be configured in a customer environment and how PolyAI MiVB programming was configured in our test environment.

*Disclaimer: Although Mitel has attempted to set up the interop testing facility as closely as possible to a customer premise environment, implementation setup could be different onsite. YOU MUST EXERCISE YOUR OWN DUE DILIGENCE IN REVIEWING, planning, implementing, and testing a customer configuration.*

### MiVB Configuration Notes

The following steps show how to program a MiVB to interconnect with PolyAI system.

#### *Configuration Template*

A configuration template can be found in the same Mitel Knowledge Management System (KMS) article as this document. The template is a Microsoft Excel spreadsheet (.csv format) **solely** consisting of the SIP Peer profile option settings used during Interop testing. All other forms should be programmed as indicated below. Importing the template can save you considerable configuration time and reduce the likelihood of data-entry errors. Refer to MiVB documentation on how the Import functionality is used.

#### *Network Requirements*

- There must be adequate bandwidth to support the voice over IP. As a guide, the Ethernet bandwidth is approx. 85 Kb/s per G.711 voice session and 29 Kb/s per G.729 voice session (assumes 20ms packetization). As an example, for 20 simultaneous SIP sessions, the Ethernet bandwidth consumption will be approx. 1.7 Mb/s for G.711 and 0.6Mb/s. Almost all Enterprise LAN networks can support this level of traffic without any special engineering. Please refer to the MiVB Engineering guidelines for further information.
- For high quality voice, the network connectivity must support a voice-quality grade of service (packet loss <1%, jitter < 30ms, one-way delay < 80ms).

#### *Assumptions for MiVB Programming*

The SIP signaling connection uses UDP on Port 5060 or TLS on Port 5061.

## Licensing and Option Selection – SIP Licensing

Ensure that the MiVB is equipped with enough SIP Trunking licenses for the connection to PolyAI. This can be verified within the License and Option Selection form.

For example, if a customer uses SIP trunks (through an MBG) for connecting to PSTN, and those calls are being handled by PolyAI, then each concurrent call from PSTN to PolyAI will consume two (2) MiVB SIP Trunk Licenses and two (2) MBG SIP Proxy license. In contrast, if an internal extension calls PolyAI, then only one (1) MiVB SIP Trunk License and one (1) MBG SIP Proxy license will be consumed. Both MiVB SIP Trunk Licenses and MBG SIP Proxy licenses are concurrent-use licenses, and do not need to be dedicated to PolyAI.

Enter the total number of licenses in the SIP Trunk Licences field. This is the maximum number of SIP trunk sessions that can be configured in the MiVB to be used with all the applications, and SIP trunking devices.

Mitel

MiVoice Business

SDS Distribution Error Status: Warning

MIVB\_94

Licenses

License and Option Selection

System Capacity

Dimension Selection

Application Group Licensing

LAN/WAN Configuration

Voice Network

System Properties

Hardware

Trunks

Users and Devices

Integrated Directory Services

Voice Mail

Call Routing

Music On Hold

Emergency Services Management

Property Management

Maintenance and Diagnostics

License and Option Selection on MIVB\_94

Search DN

Show form on Not Accessible

Change

Print...

Import...

Export...

License and Option Selection

System Type	License Sharing	Hardware Identifier					
Enterprise	No	06558b2d-9813-419b-9f10-648bfc9755					
Licensed Options	Locally Consumed	Locally Allocated	Available for Allocation	Purchased	Local Limits		
					Licenses Allowed	Can be Over Allocated	
Users							
IP Users	7	1000	0	1000	Unrestricted	Yes	
External Hot Desk Users	1	50	0	50	Unrestricted	Yes	
ACD Active Agents	0	500	0	500	Unrestricted	No	
HTML Applications	0	500	0	500	Unrestricted	Yes	
Single Line Users	0	500	0	500	Unrestricted	Yes	
MiVoice Business Console Active Operators	0	10	0	10	Unrestricted	No	
Multi-device Users	0	500	0	500	Unrestricted	Yes	
Multi-device Suites	0	0	20	0	Unrestricted	Yes	
Messaging							
Embedded Voice Mail	6	500	0	500	Unrestricted	Yes	
Embedded Voice Mail PMS	0	No	1	0	Unrestricted	Yes	
Trunking / Networking							
Digital Links	0	0	2	0	Unrestricted	Yes	
SIP Trunks	0	200	0	200	Unrestricted	Yes	
Others							
IDS Connection	0	No	1	0	Unrestricted	Yes	

Figure 2 – License and Option Selection

## Class of Service Assignment

The Class of Service Options Assignment form is used to create or edit a Class of Service and specify its options. Classes of Service, identified by Class of Service numbers, are referenced in the Trunk Service Assignment form for SIP trunks.

Many different options may be required for your site deployment but ensure that at a minimum, the settings below are changed from the defaults:

- Add a descriptive name for the COS in the Comment Field
- Public Network Access via DPNSS set to Yes
- Campon Tone Security/FAX Machine set to Yes
- Busy Override Security set to Yes

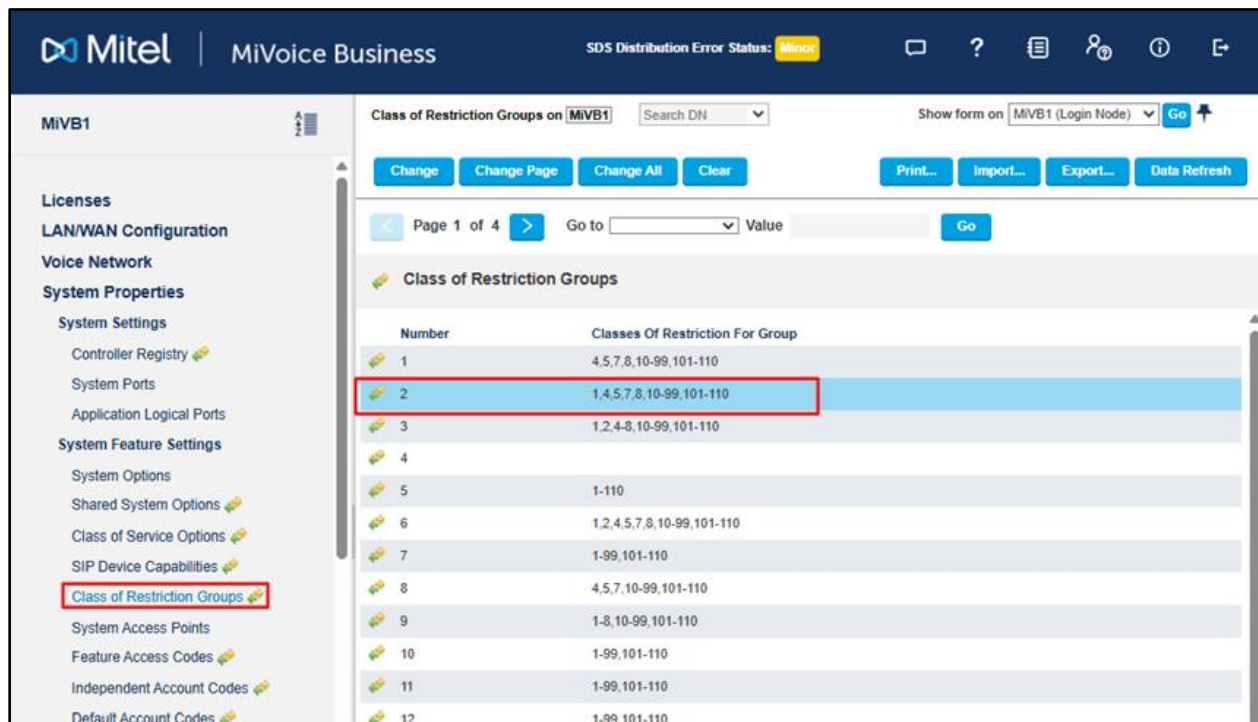
The screenshot displays the Mitel MiVoice Business web interface. The left sidebar contains a navigation menu with the following items: Licenses, LAN/WAN Configuration, Voice Network, System Properties (highlighted), System Settings, System Feature Settings (highlighted), System Options, Shared System Options, Class of Service Options (highlighted), SIP Device Capabilities, Class of Restriction Groups, System Access Points, Feature Access Codes, Independent Account Codes, Default Account Codes, System Account Codes, System Speed Calls, Tenants, SMDR Options, Traffic Report Options, Inward Dialing Modification, Outward Dialing Modification, and System IP Ports. The main content area shows the 'Class of Service Options' form for 'MVB\_94'. The form includes a 'General' tab and a table of settings. The table has the following columns: Class Of Service Number, Comment, and a list of settings with their values.

Class Of Service Number	Comment	Setting	Value
3	PolyAI	ACD	
		ACD Agent Behavior on No Answer	Logout
		ACD Agent No Answer Timer	15
		ACD Make Busy on Login	No
		ACD Silent Monitor Accept	No
		ACD Silent Monitor Accept Monitoring Non-Prime Lines	No
		ACD Silent Monitor Allowed	No
		ACD Silent Monitor Notification	No
		Follow 2nd Alternate Reroute for Recall to Busy ACD Agent	No
		Work Timer	0
		Announce	
		Call Announce Line	No
		Handsfree AnswerBack Allowed	No
		Off-Hook Voice Announce Allowed	No

Figure 3 – Class of Service

## Class of Restriction (COR)

You should verify that any device that will place calls to PolyAI (including stations and PSTN trunks) is assigned a Class of Restriction (COR) which will not block calls to PolyAI. In the example below, COR 2 is assigned to the phones and trunks as well as PolyAI. Since COR 2 is not specifically included in the Class of Restriction for Group list as shown below, any device or trunk using COR 2 will be able to access PolyAI trunks:



Number	Classes Of Restriction For Group
1	4,5,7,8,10-99,101-110
2	1,4,5,7,8,10-99,101-110
3	1,2,4-8,10-99,101-110
4	
5	1-110
6	1,2,4,5,7,8,10-99,101-110
7	1-99,101-110
8	4,5,7,10-99,101-110
9	1-8,10-99,101-110
10	1-99,101-110
11	1-99,101-110
12	1-99,101-110

Figure 4 – Class of Restriction

### Network Element Assignment (PolyAI Trunks)

Create two network elements for PolyAI. PolyAI will provide their Primary and Secondary SBCs IP addresses prior to deployment. PolyAI supports both UDP or TLS, however Mitel recommends using TLS for connectivity to PolyAI over the public internet.

- Set the **Name** appropriately, set the **Type** to “Other” and enter the **FQDN or IP address** of PolyAI’s SBCs.
- Ensure that **SIP Peer** is checked.
- If you are using UDP, set the **Transport/Proxy/Registrar** values to UDP and port 5060 as shown below. If using TLS, set these values to TLS and the port to 5061.

The screenshot displays the Mitel MiVoice Business configuration interface. On the left, a sidebar contains a navigation menu with categories like Licenses, LAN/WAN Configuration, Voice Network, Cluster Elements, Analog Gateway Servers, Admin Groups, Fax Service Profiles, Fax Advanced Settings, Network Zones, Network Zone Topology, Bandwidth Management, Codec Settings, Mass Audio Notification, System Properties, Hardware, Trunks, Users and Devices, Integrated Directory Services, Voice Mail, Call Routing, Music On Hold, Emergency Services Management, and Property Management. The 'Voice Network' section is expanded, and 'Network Elements' is selected. The main area shows a 'Change' dialog box for 'Network Elements on MiVR 94'. The dialog has a 'Name' field set to 'PolyAI-1', a 'Type' dropdown set to 'Other', and an 'FQDN or IP Address' field set to 'PolyAI's Primary SBC IP' with the value '54.77.217.78'. Below these are fields for 'Local' (False), 'Version', and 'Zone' (1). The 'SIP Peer' checkbox is checked. The 'SIP Peer Specific' section contains several fields: 'SIP Peer Transport' (UDP), 'SIP Peer Port' (5060) with a red note 'Change these to TLS and port 5061 if using TLS instead of UDP', 'External SIP Proxy FQDN or IP Address', 'External SIP Proxy Transport' (UDP), 'External SIP Proxy Port' (5060), 'SIP Registrar FQDN or IP Address', 'SIP Registrar Transport' (UDP), 'SIP Registrar Port' (5060), and 'SIP Peer Status' (Auto-Detect/Normal). At the bottom right of the dialog are 'Save' and 'Cancel' buttons.

Figure 5a – Network Element Assignment (Primary PolyAI SBC)

Mitel

MiVoice Business

MiVB\_94

Licenses

LAN/WAN Configuration

Voice Network

Network Elements

Cluster Elements

Analog Gateway Servers

Admin Groups

Fax Service Profiles

Fax Advanced Settings

Network Zones

Network Zone Topology

Bandwidth Management

Codec Settings

Mass Audio Notification

System Properties

Hardware

Trunks

Users and Devices

Integrated Directory Services

Voice Mail

Call Routing

Music On Hold

Emergency Services Management

Change

Network Elements

Name

PolyAI-2

Type

Other

FQDN or IP Address

PolyAI's Secondary SBC IP

34.255.224.245

Local

False

Version

Zone

1

SIP Peer

☒

SIP Peer Specific

SIP Peer Transport

UDP

SIP Peer Port

Change these to TLS and port 5061 if using TLS instead of UDP

5060

External SIP Proxy FQDN or IP Address

External SIP Proxy Transport

UDP

External SIP Proxy Port

5060

SIP Registrar FQDN or IP Address

SIP Registrar Transport

UDP

SIP Registrar Port

5060

SIP Peer Status

Auto-Detect/Normal

Save

Cancel

Figure 5b – Network Element Assignment (Secondary PolyAI SBC)

Configure MiVoice Business 10.4 for use with PolyAI using MBG

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### Network Element Assignment (MBG Proxy)

A MiVoice Border Gateway (MBG) will be needed to proxy all traffic between PolyAI and the MiVB. As such, there needs to be a Network Element configured for the MBG Proxy. For existing installations using SIP trunking, it is likely there is already a Network Element for the MBG Proxy, but it will be configured to work with the existing PSTN carrier's Transport Type (TCP/UDP or TLS) and ports (5060 or 5061). If the carrier's settings are the same as what you plan to use for PolyAI, then no change needs to be made. If the existing MBG Proxy Network Element that is used for PSTN SIP trunks does not match, you will need to create a new Network Element for the MBG Proxy and assign the proper Transport Type and ports:

- Set the **Name** appropriately, set the **Type** to “Outbound Proxy”, and enter the **FQDN or IP address** of the MBG.
- Set the desired **Transport Type** and **Ports** (TLS / 5061 or UDP / 5060).

The screenshot shows the Mitel MiVoice Business configuration interface. On the left is a sidebar with navigation links: Licenses, LAN/WAN Configuration, Voice Network (highlighted with a red box), Network Elements (highlighted with a red box), Cluster Elements, Analog Gateway Servers, Admin Groups, Fax Service Profiles, Fax Advanced Settings, Network Zones, Network Zone Topology, Bandwidth Management, Codec Settings, Mass Audio Notification, System Properties, and Hardware. The main area is titled 'Network Elements on MiVB\_94'. A 'Change' dialog is open, showing the configuration for a Network Element. The 'Name' field is 'MBG\_82'. The 'Type' dropdown is 'Outbound Proxy'. The 'FQDN or IP Address' field is '192.168.10.82' with a red note 'MBG IP Address'. Below this, 'Local' is 'False', 'Version' is empty, and 'Zone' is '1'. The 'Outbound Proxy Specific' section has 'Outbound Proxy Transport Type' set to 'UDP' and 'Outbound Proxy Port' set to '5060' with a red note 'Change to TLS and port 5061 if using TLS instead of UDP'. At the bottom are 'Save' and 'Cancel' buttons.

Figure 6 – Network Element Assignment (MBG Proxy)

## Trunk Attributes

The Trunk Service Number is configured on the Trunk Attributes form.

- Select an unused **Trunk Service Number**, assign appropriate **COS and COR** from the previous steps.
- Set **Dial in Trunks Incoming Digit Modification – Absorb to 0**. Note: Leaving this field blank will cause calls to fail.
- Set the **Trunk Label** to a descriptive name.

The screenshot shows the Mitel MiVoice Business interface. On the left is a navigation menu with categories like Licenses, LAN/WAN Configuration, Voice Network, System Properties, Hardware, Trunks, IP/XNET, SIP, Users and Devices, Integrated Directory Services, Voice Mail, Call Routing, Music On Hold, Emergency Services Management, Property Management, and Maintenance and Diagnostics. The 'Trunks' category is selected, and 'Trunk Attributes' is highlighted. The main area shows the 'Change' form for 'Trunk Attributes'. The form includes the following fields:

Field	Value
Trunk Service Number	2
Release Link Trunk	No
Call Recognition Service	Off
Direct Inward Dialing Service	On
Caller Based Routing Service	Off
Class of Service	3
Class of Restriction	2
Baud Rate	300
Intercept Number	1
Non-dial In Trunks Answer Point - Day	
Non-dial In Trunks Answer Point - Night 1	
Non-dial In Trunks Answer Point - Night 2	
Dial In Trunks Incoming Digit Modification - Absorb	0
Dial In Trunks Incoming Digit Modification - Insert	
Dial In Trunks Answer Point	
Dial In Trunks Insert Forwarding Information	No
Trunk Label	PolyAI

At the bottom right of the form are 'Save' and 'Cancel' buttons.

Figure 7 – Trunk Attributes

## *SIP Peer Profile*

Two new SIP Peer Profiles will need to be created, one for each PolyAI SBCs (Primary and Secondary). The SIP Peer Profiles should be configured with the following options:

- **SIP Peer Profile Label:** Add a descriptive name for the Primary and Secondary PolyAI SIP Peer Profiles.
- **Network Element:** Each SIP Peer Profile needs to be associated with the associated previously created Network Element. For example, SIP Peer Profile “PolyAI1” should be associated with Network Element “PolyAI-1” that was previously created.
- **Registration Username:** Leave blank.
- **Address Type:** Enter FQDN or IP address of the MiVB.
- **Maximum Simultaneous Calls:** If desired, you can restrict the maximum number of concurrent calls to PolyAI that will be allowed. Since SIP trunk licenses are consumed when in use and are shared across the entire system, this value can be particularly important if the quantity of SIP trunk licenses on the system is constrained. Note that this number must be less than the total number of SIP trunk licenses on the system.
- **Minimum Reserved Call Licenses:** Enter a non-zero value here if you wish to reserve a specific quantity of SIP Trunk licenses for accessing PolyAI.
- **Outbound Proxy Server:** Select the MBG Proxy Network Element that was previously configured for both SIP Peer Profiles.
- **Trunk Service Assignment:** Enter the trunk service assignment previously configured.
- **SMDR:** If Call Detail Records are required for SIP Trunking, the SMDR Tag should be configured (by default there is no SMDR, and this field defaults to 0).
- **Authentication:** No usernames or passwords are required for PolyAI and should be left blank. PolyAI uses whitelisting to authorize SIP connections. You will be required to provide the public FQDN or IP address of your MBG during the initial coordination with PolyAI.

**NOTE:** Please configure both SIP Peer Profiles as per the snippets below. The secondary PolyAI SBC’s profile is identical to the primary, so no changes are required except SIP Peer Profile “PolyAI2” should be associated with Network Element “PolyAI-2” that was previously created.

Mitel | MiVoice Business

SDS Distribution Error Status: Warning

MIVB\_94

SIP Peer Profile on MIVB\_94

Search DN

Show form on: Not Accessible

Print... Import... Export... Data R

Add Change Delete

SIP Peer Profile

PolyAI-1	PolyAI1	MBG_82	No	2	1800	1
PolyAI-2	PolyAI2	MBG_82	No	2	1800	1

Basic Call Routing Calling Line ID SDP Options Signaling and Header Manipulation Timers Key Press Event Outgoing DID Ranges Profile Information

SIP Peer Profile Label PolyAI1

Network Element PolyAI-1

Local Account Information

Registration User Name

Address Type IP Address: 192.168.10.94

Administration Options

Interconnect Restriction 1

Maximum Simultaneous Calls 20

Minimum Reserved Call Licenses 0

Outbound Proxy Server MBG\_82

SMDR Tag 0

Trunk Service 2

Zone 1

Authentication Options

User Name

Password

Confirm Password

Authentication Option for Incoming Calls No Authentication

Subscription User Name

Subscription Password

Subscription Confirm Password

Gateway Options

Digital Trunk Licenses 0

Maximum Digital/Analog Channels 0

Figure 8a – SIP Peer Profile Assignment - Basic (Primary PolyAI SBC)

Basic Call Routing Calling Line ID SDP Options Signaling and Header Manipulation Timers Key Press Event Outgoing DID Ranges Profile Information

SIP Peer Profile Label PolyAI2

Network Element PolyAI-2

Local Account Information

Registration User Name

Address Type IP Address: 192.168.10.94

Administration Options

Interconnect Restriction 1

Maximum Simultaneous Calls 20

Minimum Reserved Call Licenses 0

Outbound Proxy Server MBG\_82

SMDR Tag 0

Trunk Service 2

Zone 1

Authentication Options

User Name

Password

Confirm Password

Authentication Option for Incoming Calls No Authentication

Subscription User Name

Subscription Password

Subscription Confirm Password

Gateway Options

Digital Trunk Licenses 0

Maximum Digital/Analog Channels 0

Figure 8b – SIP Peer Profile Assignment - Basic (Secondary PolyAI SBC)

SIP Peer Profile						
PolyAI-1	PolyAI1	MBG_82	No	2	1800	1
PolyAI-2	PolyAI2	MBG_82	No	2	1800	1
<div>Basic</div> <div>Call Routing</div> <div>Calling Line ID</div> <div>SDP Options</div> <div>Signaling and Header Manipulation</div> <div>Timers</div> <div>Key Press Event</div> <div>Outgoing DID Ranges</div> <div>Profile Information</div>						
Alternate Destination Domain Enabled						No
Alternate Destination Domain FQDN or IP Address						
Enable Special Re-invite Collision Handling						No
Only Allow Outgoing Calls						No
Private SIP Trunk						No
Reject Incoming Anonymous Calls						No
Reroute Incoming Calls With 486 Responses When Trunks Are Congested						No
Reroute Outgoing Calls On 500 Responses						No
Route Call Using P-Called-Party-ID (if present)						Yes
Route Call Using To Header						No

Figure 9 – SIP Peer Profile Assignment - Call Routing

SIP Peer Profile						
PolyAI-1	PolyAI1	MBG_82	No	2	1800	1
PolyAI-2	PolyAI2	MBG_82	No	2	1800	1
<div>Basic</div> <div>Call Routing</div> <div>Calling Line ID</div> <div>SDP Options</div> <div>Signaling and Header Manipulation</div> <div>Timers</div> <div>Key Press Event</div> <div>Outgoing DID Ranges</div> <div>Profile Information</div>						
Default CPN						
Default CPN Name						
CPN Restriction						No
Override From Header with Default CPN						No
Public Calling Party Number Passthrough						No
Strip PNI						No
Use Diverting Party Number as Calling Party Number						No
Use Original Calling Party Number If Available						No

Figure 10 – SIP Peer Profile Assignment - Calling Line ID

SIP Peer Profile						
PolyAI-1	PolyAI1	MBG_82	No	2	1800	1
PolyAI-2	PolyAI2	MBG_82	No	2	1800	1
<div>Basic</div> <div>Call Routing</div> <div>Calling Line ID</div> <div>SDP Options</div> <div>Signaling and Header Manipulation</div> <div>Timers</div> <div>Key Press Event</div> <div>Outgoing DID Ranges</div> <div>Profile Information</div>						
Allow Peer To Use Multiple Active M-Lines						Yes
Allow Using UPDATE For Early Media Renegotiation						No
Avoid Signaling Hold to the Peer						Yes
AVP Only Peer						Yes
Enable Mitel Proprietary SDP						No
Force sending SDP in initial Invite message						Yes
Force sending SDP in initial Invite - Early Answer						No
Ignore SDP Answers in Provisional Responses						No
IP Media Default						ipv4
Limit to one Offer/Answer per INVITE						Yes
NAT Keepalive						Yes
Prevent Codec Selection on Answer						No
Prevent the Use of IP Address 0.0.0.0 in SDP Messages						Yes
Reject Call without telephone-event payload						No
Renegotiate SDP To Enforce Symmetric Codec						No
Repeat SDP Answer If Duplicate Offer Is Received						No
Restrict Audio Codec						No Restriction
RTP Packetization Rate Override						No
RTP Packetization Rate						20ms
Special handling of Offers in 2XX responses (INVITE)						No
Suppress Use of SDP Inactive Media Streams						Yes

Figure 11 – SIP Peer Profile Assignment - SDP Options

SIP Peer Profile						
PolyAI-1	PolyAI1	MBG_82	No	2	1800	1
PolyAI-2	PolyAI2	MBG_82	No	2	1800	1
<div>Basic</div> <div>Call Routing</div> <div>Calling Line ID</div> <div>SDP Options</div> <div>Signaling and Header Manipulation</div> <div>Timers</div> <div>Key Press Event</div> <div>Outgoing DID Ranges</div> <div>Profile Information</div>						
<div>Trunk Group Label</div> <div>Allow Display Update</div> <div>Build Contact Using Request URI Address</div> <div>De-register Using Contact Address not *</div> <div>Disable Reliable Provisional Responses</div> <div>Disable Use of User-Agent and Server Headers</div> <div>Discard Received P-Asserted-Identity Headers</div> <div>Domain for Trunk Context</div> <div>Emergency Call Headers</div> <div>E.164: Enable sending '+'</div> <div>E.164: Add '+' if digit length &gt; N digits</div> <div>E.164: Do not add '+' to Emergency Called Party</div> <div>E.164: Do not add '+' to Called Party</div> <div>Force Max-Forward: 70 on Outgoing Calls</div> <div>If TLS use 'sips:' Scheme</div> <div>Ignore Incoming Loose Routing Indication</div> <div>Include Diversion Header for EHDU</div> <div>Mode for Out-of-Band DTMF</div> <div>Multilingual Name Display</div> <div>Only use SDP to decide 180 or 183</div> <div>Prefer From Header for Caller ID</div> <div>Q.850 Reason Headers</div> <div>Require Reliable Provisional Responses on Outgoing Calls</div> <div>Suppress Incoming Name</div> <div>Suppress Redirection Headers</div> <div>Use Fixed Retry Time for 491</div> <div>Use Privacy: none</div>						
Use Privacy: none						No
Use P-Asserted Identity Header						Yes
Use P-Asserted Identity for Billing						No
Use P-Call-Leg-ID Header						No
Use P-Early-Media Header						No
Use P-Preferred Identity Header						No
Use Restricted Character Set For Authentication						No
Use To Address in From Header on Outgoing Calls						No
Use user=phone						No
Use user=phone for Diversion Header						No
User-Defined Header Name						
User-Defined Header Value						
Retry Registration On 404 Response From Peer						No

Figure 12 – SIP Peer Profile Assignment - Signaling and Header Manipulation

SIP Peer Profile						
PolyAI-1	PolyAI1	MBG_82	No	2	1800	
PolyAI-2	PolyAI2	MBG_82	No	2	1800	
<div>Basic</div> <div>Call Routing</div> <div>Calling Line ID</div> <div>SDP Options</div> <div>Signaling and Header Manipulation</div> <div>Timers</div> <div>Key Press Event</div> <div>Outgoing DID Ranges</div> <div>Profile Information</div>						
Keep-Alive (OPTIONS) Period						60
Registration Period						3600
Registration Period Refresh (%)						50
Registration Maximum Timeout						90
Session Timer						1800
Session Timer: Local as Refresher						No
Subscription Period						3600
Subscription Period Minimum						300
Subscription Period Refresh (%)						80
Invite Ringing Response Timer						0

Figure 13 – SIP Peer Profile Assignment - Timers

SIP Peer Profile						
PolyAI-1	PolyAI1	MBG_82	No	2	1800	1
PolyAI-2	PolyAI2	MBG_82	No	2	1800	1
<div> Basic Call Routing Calling Line ID SDP Options Signaling and Header Manipulation Timers <b>Key Press Event</b> Outgoing DID Ranges Profile Information </div>						
Allow Inc Subscriptions for Local Digit Monitoring						No
Allow Out Subscriptions for Remote Digit Monitoring						No
Force Out Subscriptions for Remote Digit Monitoring						No
Request Outbound Proxy to Handle Out Subscriptions						No
KPML Transport						default
KPML Port						0

Figure 14 – SIP Peer Profile Assignment - Key Press Event

SIP Peer Profile						
PolyAI-1	PolyAI1	MBG_82	No	2	1800	1
PolyAI-2	PolyAI2	MBG_82	No	2	1800	1
<div> Basic Call Routing Calling Line ID SDP Options Signaling and Header Manipulation Timers Key Press Event <b>Outgoing DID Ranges</b> Profile Information </div>						
<div> <div>Index</div> <div>DID Range</div> <div>CPN Substitution</div> <div>Update</div> </div>						

Figure 15 – SIP Peer Profile Assignment - Outgoing DID Ranges

SIP Peer Profile						
PolyAI-1	PolyAI1	MBG_82	No	2	1800	
PolyAI-2	PolyAI2	MBG_82	No	2	1800	
<div> Basic Call Routing Calling Line ID SDP Options Signaling and Header Manipulation Timers Key Press Event Outgoing DID Ranges <b>Profile Information</b> </div>						
Creator						
Date Created						
Created with Version						
Service Provider						
Vendor Notes						

Figure 16 – SIP Peer Profile Assignment- Profile Information

## ARS Digit Modification Plans

PolyAI does not require any additional digits to be added or absorbed. Ensure that you have a Digit Modification Plan that neither absorbs nor inserts any digits.

The screenshot shows the Mitel MiVoice Business web interface. The left sidebar contains a navigation menu with the following items: Licenses, LAN/WAN Configuration, Voice Network, System Properties, Hardware, Trunks, Users and Devices, Integrated Directory Services, Voice Mail, Call Routing (highlighted with a red box), Automatic Route Selection (ARS), ARS Call Progress Tone Detection, ARS Digit Modification Plans (highlighted with a red box), ARS Maximum Dialed Digits, ARS Routes, and ARS Route Lists. The main content area is titled 'ARS Digit Modification Plans on MIVB\_94'. It includes a search bar, a 'Show form' link, and buttons for 'Change', 'Change Page', 'Change All', 'Clear', and 'Print...'. Below these is a pagination control showing 'Page 1 of 55' and a 'Go to' field. The main table is titled 'ARS Digit Modification Plans' and has the following columns: Digit Modification Number, Number of Digits to Absorb, Digits to be Inserted, and Final Tone Plan/Information Marker. The table contains 10 rows, with row 2 highlighted in blue and a red box around the 'Number of Digits to Absorb' value of 0.

Digit Modification Number	Number of Digits to Absorb	Digits to be Inserted	Final Tone Plan/Information Marker
1	3		
2	0		
3	0		
4	0		
5	0		
6	0		
7	0		
8	0		
9	0		
10	0		

Figure 17 – Digit Modification Assignment

## ARS Routes

Two ARS Routes are required for PolyAI, one for each SIP Peer Profile. In the step after this one, they will be placed into the same ARS Route List.

Create two new ARS Routes as shown below:

- Select an unused **Route Number** for each.
- **Routing Medium:** Select SIP Trunk.
- **SIP Peer Profile:** Select the associated PolyAI SIP Peer Profile (PolyAI Primary for the first ARS Route, Secondary for the second ARS Route).
- **COR Group Number:** Use the previously created COR.

The screenshot displays the Mitel MiVoice Business configuration interface. On the left, a sidebar lists various configuration categories: Licenses, LAN/WAN Configuration, Voice Network, System Properties, Hardware, Trunks, Users and Devices, Integrated Directory Services, Voice Mail, Call Routing, and Automatic Route Selection (ARS). The 'Call Routing' category is expanded, and 'ARS Routes' is selected. The main area shows the 'ARS Routes' configuration window, which is titled 'Change'. The window contains several fields: 'Route Number' (2), 'Routing Medium' (SIP Trunk), 'SIP Peer Profile' (PolyAI1), 'COR Group Number' (2), 'Digit Modification Number' (2), 'Route Type' (PSTN Access Via DPNSS), and 'Compression' (Off). The 'ARS Routes' section is highlighted with a red box. The bottom right of the window has 'Save' and 'Cancel' buttons.

Figure 18a – SIP Trunk Route Assignment (Primary PolyAI SBC)

MiVoice Business

MiVB\_94

ARS Routes on MiVB\_94

Change

ARS Routes

Route Number3

Routing MediumSIP Trunk

Trunk Group Number

SIP Peer ProfilePolyAI2

PBX Number / Cluster Element ID

COR Group Number2

Digit Modification Number2

Digits Before Outpulsing

Route TypePSTN Access Via DPNSS

CompressionOff

SaveCancel

Figure 18b – SIP Trunk Route Assignment (Secondary PolyAI SBC)

## ARS Route List

A Route List will need to be created that contains both PolyAI ARS Routes. All calls to PolyAI will be sent to this Route List. If the Primary Route is unavailable, the call will be routed to the Secondary Route.

- Select an unused **Route List** Number.
- **1st Choice route**: Choose the first ARS Route created in the previous step (PolyAI Primary).
- **2nd Choice route**: Choose the second ARS Route created in the previous step (PolyAI Secondary).

**Mitel** | MiVoice Business

MiVB\_94

ARS Route Lists on **MiVB\_94**

ARS Route Lists Search:

Find a field named: **List Number** that has a value of:

**Change**

**Change Range Programming - ARS Route Lists** [Help](#)

This form allows you to change one or more records, starting at the following record:

List Number	1st Choice route	2nd Choice route	2nd Choice Warning Tone	3rd Choice route	3rd Choice Warning Tone
2	2	3	No		No

1. Enter the number of records to change: 1

2. Define the Change Range Programming Pattern:

Field Name	Change action	Value to change	Increment by
List Number	-	2	-
1st Choice route	Change to	2	
2nd Choice route	Change to	3	
2nd Choice Warning Tone	Change to	<input checked="" type="radio"/> No <input type="radio"/> Yes	-

[Preview](#) [Save](#) [Cancel](#)

Figure 19 – ARS Route List Assignment

## ARS Digits Dialed

ARS will be used to route calls to PolyAI when a specific string of digits is dialed, whether directly from an internal extension or as a PSTN Direct Inward Dial (DID) destination. For most customers, a single entry is all that is required. However, if there are multiple PolyAI Agent workflows, then multiple digit strings can be defined to access each of those separate workflows. The programming will be the same for each digit string. You will be required to provide the digit strings(s) and the desired associated Agent workflow to PolyAI during the initial coordination and setup.

- Choose the **Digits Dialed** string(s).
- **Number of Digits to Follow**: Set to 0.
- **Termination Type**: Set to List.
- **Termination Number**: Select the ARS Route List number created in the previous step.

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MiVB\_94

ARS Digits Dialed on MiVB\_94

Add Change Delete

< Page 1 of 1 > Go to Value

**Change**

**Change Range Programming - ARS Digits Dialed** Help

This form allows you to change one or more records, starting at the following record:

Digits Dialed	Number of Digits to Follow	Termination Type	Termination Number
1501	Unknown	List	2

1. Enter the number of records to change: 1

2. Define the Change Range Programming Pattern:

Field Name	Change action	Value to change	Increment by
Digits Dialed	Change to	1501	-
Number of Digits to Follow	Change to	Unknown	-
Termination Type	Change to	List	-
Termination Number	Change to	2	-

Preview Save Cancel

Figure 20 – ARS Digit Dialed Assignment

## Direct Inward Dial (DID) Routing

External PSTN calls can be routed directly to PolyAI as DID numbers:

- Click “Add”
- **DID Number:** Enter the external PSTN DID number to be routed to PolyAI
- **Destination Number:** Enter the same digit string that was programmed in ARS for internal extensions to reach PolyAI

The screenshot shows the Mitel MiVoice Business interface. On the left is a navigation menu with options like Licenses, LAN/WAN Configuration, Voice Network, System Properties, Hardware, Trunks, Users and Devices, Integrated Directory Services, Voice Mail, Call Routing, Automatic Route Selection (ARS), Call Handling, Business Schedules, Interconnect Restriction, Intercept Handling, Call Coverage Services, Dial Out of Queue Lists, Call Rerouting Always Alternatives, Call Rerouting First Alternatives, Call Rerouting Second Alternatives, Call Rerouting, Call Park, and Direct Inward Dialing Service. The 'Direct Inward Dialing Service' option is highlighted with a red box. The main area shows the 'Change Range Programming - Direct Inward Dialing Service' dialog box. It includes a table with the following data:

DID Number	Primary Node Id (PNI)	Destination Number	DID Type
8674364044		1501	Standard DID

Below the table, there are two steps:

1. Enter the number of records to change: 1
2. Define the Change Range Programming Pattern:

The 'Define the Change Range Programming Pattern' section has a table with the following data:

Field Name	Change action	Value to change	Increment by
DID Number	Change to	8674364044	
Primary Node Id (PNI)	Change to		
Destination Number	Change to	1501	

At the bottom of the dialog box are buttons for 'Preview', 'Save', and 'Cancel'.

Figure 21 – Direct Inward Dial (DID)

## MiVoice Border Gateway Configuration Notes

When configuring MiVoice Border Gateway (MBG), you need to identify the working MiVB ICP where to forward SIP messages to and then to configure the SIP trunk.

To do this:

- Login to MBG and click **MiVoice Border Gateway**
- In the right pane, click **Network** tab and then **ICPs** (see Figure 22 for details)

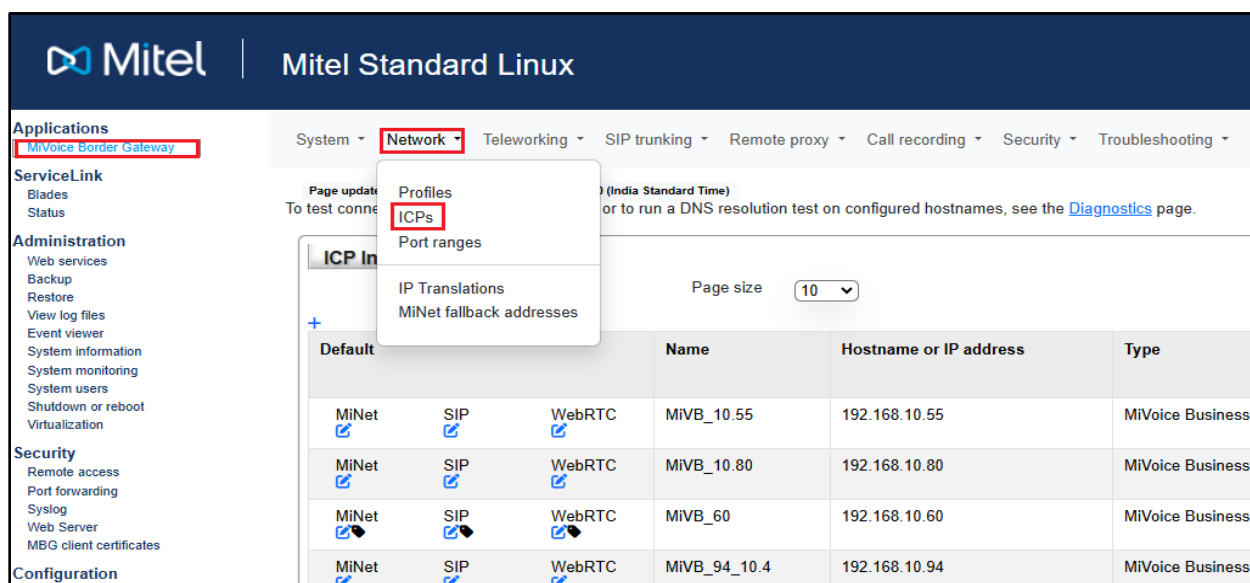


Figure 22 – MBG's Configuration page

- On ICPs page, ensure that the “working” MiVB is configured. If needed, click **Add ICP** link and add a new Mitel switch.
- Click **Save** button

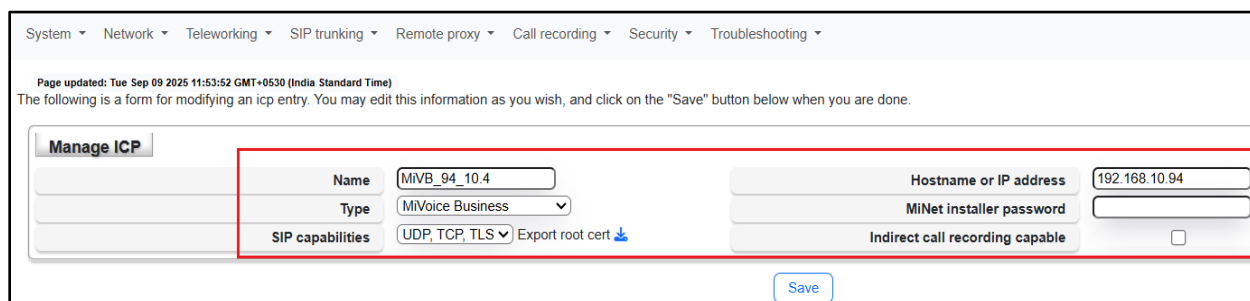


Figure 23 – ICP configuration page

- Next configure the SIP trunking by clicking on the “**SIP Trunking**” tab and selecting “**SIP Trunks**”. See figure 24.

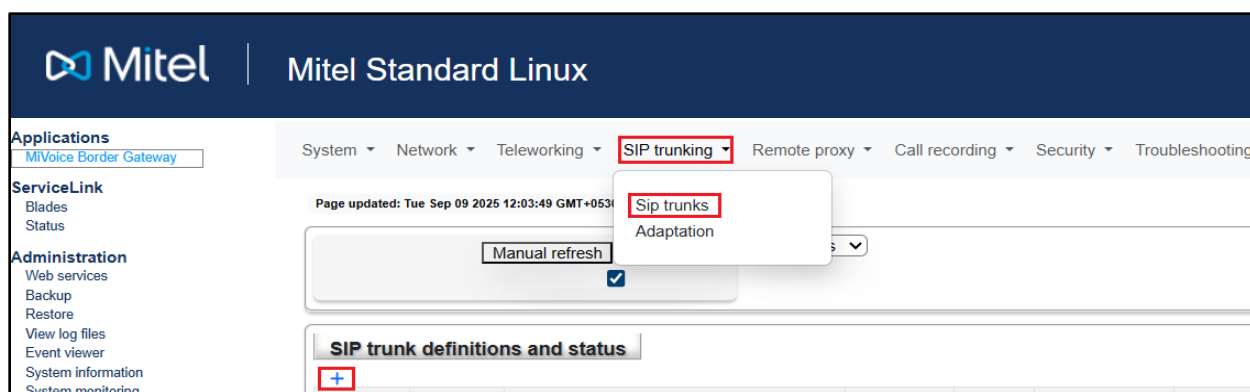


Figure 24 - MBG SIP Trunking Configuration

- The MBG will need to be programmed with both PolyAI SBCs (Primary and Secondary), as shown below. See figure 25 and 26.
- On the SIP Trunking Configuration page click on the “+” symbol and create SIP trunks for each PolyAI SBCs (Primary and Secondary).

Enter the SIP Trunking details as shown in figure 25 and 26:

- **Profile > Name:** Provide a descriptive name for the trunk.
- **Connection > Transport protocol:** Select UDP or TLS.
- **Connection > Remote trunk endpoint address:** Enter the respective IP address of the PolyAI Primary or Secondary SBCs.
- **Connection > Remote trunk endpoint port:** For UDP, use 5060. For TLS, use 5061.
- **Connection > Outgoing TLS trust profile (if using TLS):** Select “Outgoing trust profile for “PolyAI” after uploading PolyAI certificate on MBG under **Security** --> **Trust Store** as per figure 28.
- **Trunk-side RTP security** – If using TLS, Both Inbound and Outbound should be set to “SRTP only”.
- **Icp-side RTP security** – For both UDP and TLS, set inbound and outbound to “RTP only.” During certification testing for TLS, RTP/AVP was used between MiVB and MBG, and RTP/SAVP between MBG and PolyAI.
- You must click “**Save**” prior to performing the next step. Once the initial trunk configuration has been Saved, click “**Quick add rule**”.
- Click the blue “+” next to “**Add rule**”.
- **Header Match:** Select Request URI.
- **Rule:** Enter “\*” into this field.
- **Primary ICP:** Select the primary MiVB where the SIP trunks have been built during the previous steps.
- **Secondary ICP:** if there is a resilient MiVB in use, and PolyAI SIP trunk programming has been replicated on that MiVB as well, select the resilient MiVB. Otherwise, this field can remain blank.

**Manage SIP trunk**

**Profile**

Enabled ☒

Name PolyAI-1

**Authentication**

Authentication username

Authentication password

Confirm authentication password

Require mediasec ☐

**Protocol**

PRACK support Use master setting

Options keepalives Always

Options interval 60

Rewrite host in PAI ☒

Idle timeout (s) 3600

Use source port in contact header ☐

**Trunk-side RTP security**

If using TLS, change these to SRTP only

Inbound SRTP or RTP

Outbound RTP only

Preferred cipher AES\_CM\_128\_HMAC\_SHA1\_32

**Connection**

If using TLS, change to TLS and port 5061 instead of UDP

Transport protocol UDP

Remote trunk endpoint address 54.77.217.78

Remote trunk endpoint port 5060

Accept traffic from all UDP ports ☒

**SIP adaptation**

Receive pipeline

Send pipeline

**Media**

Local streaming between trunk calls ☐

RTP address override

**ICP-side RTP security**

Inbound RTP only

Outbound RTP only

Preferred cipher AES\_CM\_128\_HMAC\_SHA1\_32

Load routing rules (1 rules) Edit loaded rules Quick add rule Save

Filter load on rule substring

Header match	Rule	Primary ICP	Secondary ICP	Description
1 Request URI	*	MIVB_94_10.4		

Figure 25 - MBG SIP Trunking Configuration for Primary PolyAI SBC

**Manage SIP trunk**

**Profile**

Enabled ☒

Name PolyAI-2

**Authentication**

Authentication username

Authentication password

Confirm authentication password

Require mediasec ☐

**Protocol**

PRACK support Use master setting

Options keepalives Always

Options interval 60

Rewrite host in PAI ☒

Idle timeout (s) 3600

Use source port in contact header ☐

**Trunk-side RTP security**

If using TLS, change these to SRTP only

Inbound SRTP or RTP

Outbound RTP only

Preferred cipher AES\_CM\_128\_HMAC\_SHA1\_32

**Connection**

If using TLS, change to TLS and port 5061 instead of UDP

Transport protocol UDP

Remote trunk endpoint address 34.255.224.245

Remote trunk endpoint port 5060

Accept traffic from all UDP ports ☒

**SIP adaptation**

Receive pipeline

Send pipeline

**Media**

Local streaming between trunk calls ☐

RTP address override

**ICP-side RTP security**

Inbound RTP only

Outbound RTP only

Preferred cipher AES\_CM\_128\_HMAC\_SHA1\_32

Load routing rules (1 rules) Edit loaded rules Quick add rule Save

Filter load on rule substring

Header match	Rule	Primary ICP	Secondary ICP	Description
1 Request URI	*	MIVB_94_10.4		

Figure 26 - MBG SIP Trunking Configuration for Secondary PolyAI SBC

- **Check status:** Click on “SIP Trunking” and then click on “SIP Trunks”, see the status for both PolyAI SBCs trunks as per the figure 27.

Enabled	Name	Remote endpoint	Transport	Status	Down reason	Active calls by node	Calls (Max) / CPH (Max)	Txn / Txnerr	DNS check			
✓	NWTEL	whpbx.cs2k.nwtel.ca : 5060	udp	✓	N/A	0 (2) calls 0 (472) cph	0 txns 1136 txnerrs	N/A	✓			
✓	PolyAI-1	54.77.217.78 : 5060	udp	✓	N/A	0 (1) calls 0 (910) cph	0 txns 1604 txnerrs	N/A	✓			
✓	PolyAI-2	34.255.224.245 : 5060	udp	✓	N/A	0 (1) calls 0 (427) cph	0 txns 1643 txnerrs	N/A	✓			

Figure 27 – SIP Trunk Status for Both PolyAI SBCs

Please upload the PolyAI certificate onto the MBG under **Security** → **Trust Store** for the TLS/SRTP connection.

**Upload X509 certificate list**

Name: PolyAI

File: Choose file | DigiCert...2.crt.pem

Cancel Save

Name	Length	In use
PolyAI	1	✓
SBCon	1	

Figure 28 – Certificate Upload

## Glossary

MiVoice Business	MiVB
MiVoice Border Gateway	MBG
MiNET Interface	MiNET
Mitel Solutions Alliance	MSA
Knowledge Management System	KMS
Class of Service	COS
Automatic Route Selection	ARS