



Mitel Application Notes

Configure Mitel 6970 as Generic SIP Phone with MiVoice Connect.

Description: This document provides a technical configuration details to Mitel Partners for configuring Mitel 6970 as Generic SIP Phone with MiVoice Connect 19.1SP1.

Environment: MiVoice Connect 19.1SP1, Mitel 6970 Conference Phone with SIP Firmware v5.1.1.4030

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Mitel Technical Configuration Notes – Configure 6970 Conference phone as Generic SIP Phone with MiVoice Connect 19.1SP1.

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1 Overview

This document provides a reference to Mitel Channel Partners for setting up 6970 as Generic SIP device with MiVoice Connect. This document outlines the functionality of the 6970 conference Phone with SIP firmware 5.1.1.4030. Future versions of the SIP firmware are planned to support native device integration with MiVC.

This document covers converting a 6970 device from MiNET to Generic SIP firmware (FW), configuration and registration as a 3rd Party/Generic SIP device with MiVC.

2 6970 Out of Box

The 6970 device is shipped with MiNET firmware and needs to be converted to SIP firmware then registered as 3rd party SIP device with MiVC.

Note: The resident 6970 MiNET firmware version on a new device has a mechanism where in certain conditions it may connect to the Mitel RCS server to upgrade the MiNET firmware. Please allow this operation to complete prior to converting to 6970 SIP firmware.

2.1 Converting 6970 device from MiNET to Generic SIP

Converting a 6970 device from MiNET to Generic SIP can be done in two ways:

1. Using DHCP Option 159
2. Using Local TFTP server

2.1.1 Converting a 6970 from MiNET to Generic SIP using DHCP Option 159

This method is recommended for those whom have access to modify DHCP option tags. Please use the following procedure to convert a 6970 device from MiNET to SIP.

- ❖ Place the 6970 device SIP FW build (6970.st) into the path of your HQ server.
 - C:\inetpub\ftproot\6970files
- ❖ Login to your local DHCP Server
- ❖ Go to Scope Options, right click and select Configure Options
- ❖ Select Option159 in Scope options window
- ❖ Enable Option159 and configure your HTTP server IP address as mentioned below
 - (<http://<<ip-address>>/fileserver/6970files>) and press Apply and Ok.
- ❖ Now Connect your 6970 to the LAN network

- ❖ The 6970 acquires an IP address from the DHCP server and HTTP server information in the DHCP offer
- ❖ The 6970 contacts the HTTP server and downloads the SIP FW build
- ❖ 6970 device gets updated with the SIP FW build and boots.

2.1.2 Converting the Mitel 6970 from MiNET to SIP using local TFTP server:

This method is recommended for those whom do not have access to modify DHCP options. Please use the following procedure to convert a 6970 device from MiNET to SIP.

- ❖ Run a TFTP server on your local PC
- ❖ Place the 6970 specific SIP FW build (6970.st) file into the TFTP server
- ❖ Connect the 6970 to a PoE enabled LAN network / switch port (Device takes around 2mins boot-up)
- ❖ The 6970 obtains an IP address from the DHCP server
- ❖ The 6970 boots with MiNET firmware 01.05.00.XXX build pre-loaded from the factory.
- ❖ While booting the device may display 'Contacting Server 0.0.0.0' at 95% complete since it's a new device and no servers are configured. (also see Note in section 2)
- ❖ **Press the Dialpad hard key on the 6970 --> select Settings (If Settings is not displayed click the tab with 3 dots on the bottom right corner of the display)**
- ❖ On the 6970, go into Settings and logon to Advanced settings by entering 73738 as a password
- ❖ Go to Network -> Static Settings and enter the TFTP server's IP address
- ❖ Save Settings and Press the Restart icon to download the configuration files
- ❖ 6970 contacts the TFTP server and downloads the SIP FW build
- ❖ The 6970 converts from MiNET to SIP FW and then boots.

3 Configuration required on MIVC platform for registering a 6970 phone:

This section describes the detailed steps required on the MIVC platform to configure Mitel 6970 Phone as SIP extensions.

3.1 User Creation on Director:

1. Navigate to Administration > Users > Users
2. Click New, to create a new user
3. Define the First name: and Last name: Enter the appropriate user information
4. Define an Extension: Mitel Connect Director will automatically assign the next available extension number, but it can also be modified to any available extension number
5. Define a SIP phone password: There is no default SIP phone password configured, it is masked with the appearance that there is a default password and must be defined by the Mitel Director Administrator. Make certain to type the password in both fields.
6. Click SAVE

Users

Extension 300-4000801: 6970_Phone [View Escalation Profile](#) [View Programmable Buttons](#)

GENERAL TELEPHONY VOICE MAIL ROUTING MEMBERSHIP APPLICATIONS DNIS

First name: 6970_Phone Last name:

Extension: 300-4000801 [SHOW REFERENCES](#)

Email address: FUSHQ6970User1 [Edit System Directory record](#)

Client username: 6970_Phone

Include in System Dial by Name directory

Make extension private

DID Settings: (not configured) [change settings...](#)

PSTN failover: None

Caller ID (overwrite DID): (e.g. +1 (408) 331-3300)

License type: Extension and Mailbox

Access license: Connect Client

User group: US_LDVS_Executives [Go to this user group](#)

Site: Headquarters [Go to this site](#)

Language: English(US)

Primary phone port: IP phone: SIP-300-4000801-0132252948114276849 [change settings...](#)

Current port: SIP-300-4000801-013225294811427684 [GO PRIMARY PHONE](#)

Jack #:

Mailbox server: Headquarters

Client password: (6 - 26 characters)

 must change on next login

SIP phone password: (6 - 26 characters)

3.2 SIP Proxy Settings – Allocating Ports for SIP Extensions

This section describes the Switch configuration required on the Mitel system to work with the Mitel 6970 Phones. Depending on the switch type, Mitel Voice Switches and Virtual Phone Switches support variable numbers of SIP Proxies and IP Phones, and can be verified on the Switch Edit page of Mitel

Connect Director.

The following example shows Port allocation designated on a Switches for IP Phones and SIP Proxy resources

Port	Port Type	Trunk Group	Description	Jack Number
1	5 IP Phones	P01		
2	100 SIP Proxy	P02		

Built-in capacity:		
IP phone +	SIP trunks =	Total
25	0	25 of 30 (100 SIP proxy ports)

3.3 Site Settings

The next settings to address are the administration of Sites. The Administrator can designate up to two Proxy switches per site for redundancy and reliability: one switch is assigned as the primary Proxy server, and the other switch acts as the backup Proxy server in case the primary fails.

1. Navigate to Administration > System > Sites
2. Select the name of the Site in which SIP Proxies will be assigned
3. In the General Tab, set **Proxy switch 1**: Select the switch configured with SIP Proxies for the Site
4. Click **SAVE**

Virtual IP address:

Proxy switch 1:

Proxy switch 2:

3.4 Configure a SIP Profile

This section describes the steps required to configure the "SIP Profiles" for the Mitel 6970 Phones. By default, the 6970 Phones use the "System" profile. In order to optimize the functionality, you will need to add a custom profile. This is accomplished from Mitel Connect Director.

1. Navigate to Administration > Telephones > SIP Profiles
2. Click **New**, to create a new SIP Profile
3. In the General Tab, define a **Name**: we recommend a name that describes the SIP endpoint.
4. For the parameter **User agent**, enter "Mitel 6970*" (without quotes, make sure to include the asterisk)
5. The parameter "Priority:" defaults to 100, no change is required.

6. Enable the profile by checking (enabling) the Enable option.

7. In the “Custom Parameters:” section, add the following entries

Accept302=ext

MWI=notify

SIP Phone Profiles

6970

GENERAL

Name: 6970

User agent: Mitel 6970*

Priority: 100

Enable

System parameters:

```
OptionsPing=0
SendEarlyMedia=0
MWI=none
1CodecAnswer=1
StripVideoCodec=0
```

Custom parameters:

```
Accept302=ext
MWI=notify
```

8. Click SAVE

4 Registering 6970 with MiVoice Connect as a generic SIP device

Registering 6970 with MiVoice Connect as a generic SIP device can be done in 4 ways

1. From the 6970 Web UI
2. From the 6970 phone TUI
3. Using DHCP option 159 with Config files
4. Using a Local TFTP Server with Config files

4.1 Registering the 6970 with MiVoice Connect as a generic SIP device from the 6970 Phone WEB UI:

After conversion of 6970 device from MiNet to SIP, follow the procedure below to register it with MiVoice Connect as a generic SIP device from 6970 WEB UI.

- ❖ Open the Web interface of 6970 phone by using the IP address of the phone

- ❖ Enter Username - admin and default Password – 22222

Note: An admin can change the default Password by adding “**admin password: 12345**” (Without quotes) in the Startup.cfg or Mac.cfg File.

- ❖ Then go to Advanced Settings>Global SIP and provide below mentioned details

Basic SIP Authentication Settings

Screen Name	<input type="text" value="User name"/>
Screen Name 2	<input type="text"/>
Phone Number*	<input type="text" value="User Extension"/>
Caller ID	<input type="text" value="User name"/>
Authentication Name*	<input type="text" value="User Extension"/>
Password*	<input type="text"/>

Basic SIP Network Settings

Proxy Server	<input type="text" value="10.210.23.34"/>
Registrar Server	<input type="text" value="10.210.23.34"/>

Parameter	Values
Screen name	The User can provide any values for this field like Username or Extension
Phone Number*	It should be the User Extension created on Director
Caller ID	The User can provide any values for this field like Username or Extension
Authentication Name*	It should be the User’s Extension or Client Username created on Director. We recommend using User’s Extension.
Password*	It should be the SIP Phone Password provided in the Director
Registrar Server*	User can provide any Switch IP having SIP proxy capacity and the Switch should be configured as Site proxy.
Proxy Server*	User should provide same Switch IP provided in registrar server Field

- ❖ Click on Save Settings
- ❖ 6970 device registers with MiVoice Connect server using server IP and user details.
- ❖ The 6970 shows the assigned Username on top left corner of the display once it comes to idle state and should be able to make To and from calls from device.
- ❖ The System Information window on 6970 Web UI shows the 6970 phone status, information and registration status.

Mitel

Status
System Information

Operation
User Password
Phone Lock
Softkeys and XML
Keypad Speed Dial
Directory
Reset
Login/Logout

Basic Settings
Preferences
Account Configuration
Custom Ringtones

System Information

Network Status

Attribute	LAN Port
Link State	Up
Negotiation	Auto
Speed	100Mbps
Duplex	Full

Hardware Information

Attribute	Value
MAC Address:	08:00:0F:CC:03:5B
BT MAC Address:	08:00:0F:CC:03:5C
Platform	6970 Rev: 000

Firmware Information

Attribute	Value
Firmware Version	5.1.1.3017
Firmware Release Code	SIP
Date/Time	Oct 14 2019 14:55:23
Boot Version	

SIP Status

Line	SIP Account	Status	Backup Registrar Used?
1	4001@192.168.152.235:5060	Registered	No
2	4001@192.168.152.235:5060	Registered	No

4.2 Registering the 6970 with MiVoice Connect as a generic SIP device from 6970 Phone UI:

After conversion of the 6970 from MiNet to SIP, follow the procedure below to register it with MiVoice Connect as a generic SIP device from the 6970 Phone UI.

- ❖ On the 6970, go into Settings and login to Advanced Settings using default password 22222
- ❖ Tap on SIP>>Call Server and enter these details from your MiVC associated IP credentials
Proxy Server: 10.30.105.81 # switch IP
Registrar Server: 10.30.105.81 # switch IP
- ❖ Click on Save.
- ❖ Tap on SIP>>User and enter these details from your MiVC associated configuration
User Name*: Username
Display Name: Displayname
Screen Name: Screenname
Auth Name*:9876 #User Extension or client Username created on MiVoice Connect
Password*: 123456 # SIP phone password on MiVoice Connect
- ❖ Save and Restart (2nd page of Settings) the 6970.
- ❖ The 6970 registers with MiVoice Connect using Server IP and User details.
- ❖ The 6970 shows the assigned User Name on top left corner of the display once it is fully registered and now should be able handle calls.

4.3 Registering a 6970 on MiVoice Connect as generic SIP using Option159 and Config Files:

- ❖ Create and place device config (0800Fxxx.cfg) and startup (startup.cfg) config files into the below path of your HQ server.
 - C:\inetpub\ftproot\6970files

4.3.1.1 Example of 0800010fxxx.cfg file:

```
sip auth name:9876                #User Extension created on MiVoice Connect
sip password: 123456              # SIP phone password on MiVoice Connect
sip user name: Username
sip display name: Displayname
sip screen name: Screenname
```

4.3.1.2 Example of startup.cfg file:

```
sip proxy ip: 10.30.105.81        # switch IP or FQDN
sip registrar ip: 10.30.105.81   # switch IP or FQDN
log issue: 1
audio diagnostic: 1
```

The startup.cfg file is required to enable 'Log Issue' on a soft key and for support of Audio Diagnostics on the 6970 phone.

- ❖ Login to your local DHCP Server
- ❖ Go to Scope Options, right click and select Configure Options
- ❖ Select Option159 in Scope options window
- ❖ Enable Option159 and configure your HTTP server IP address as mentioned below
 - (<http://<<ip-address>>/fileserver/6970files>) and press Apply and Ok.
- ❖ Now connect your 6970 to the LAN
- ❖ The 6970 device obtains an IP address from the DHCP server and HTTP server information
- ❖ 6970 contacts HTTP server and using the 0800Fxxx.cfg and startup.cfg files then registers with MiVC platform
- ❖ The 6970 shows the assigned User Name on top left corner of the display once it is fully registered and now should be able handle calls.

4.4 Registering a 6970 with MiVoice Connect as a generic SIP device using Local TFTP server

After conversion of the 6970 from MiNet to SIP, follow the procedure below to register it with MiVoice Connect as a generic SIP device using a Local TFTP server.

- ❖ Place the 0800Fxxx.cfg and startup.cfg files in the local TFTP server
- ❖ Go into the 6970 Settings and login to Advanced Settings using password 22222
- ❖ Tap on Configuration Server, select download protocol as TFTP (if not set already), enter the TFTP server IP address against primary server.
- ❖ Save and restart the phone.
- ❖ The 6970 acquires 0800Fxxx.cfg and startup.cfg files from the TFTP server
- ❖ The 6970 registers with MiVoice Connect server using Server IP and User details obtained from 0800Fxxx.cfg and startup.cfg files
- ❖ The 6970 shows the assigned User Name on top left corner of the display once it is fully registered and now should be able make and receive calls.

Note: A startup.cfg file is mandatory without this file, the unit will not request a 0800Fxxx.cfg.

The startup.cfg file is required to enable 'Log Issue' on a soft key and for support of Audio Diagnostics on the 6970 phone.

5 Upgrading 6970 SIP firmware:

Upgrading 6970 SIP firmware can be done 2 ways;

1. Using the Firmware Update page in the 6970 WEB UI.
2. Using DHCP option 159(Refer Section 2.1.1)

Note: A startup.cfg file is mandatory for Upgrading the 6970 Phone firmware using DHCP option 159.

5.1 Using the Firmware Update page in the 6970 WEB UI:

You can use the Mitel Web UI to manually update the 6970 firmware. It can be configured to perform the update using any of the protocols that the phone supports: TFTP, FTP, HTTP, or HTTPS.

- ❖ Login the 6970 WEB page by entering its IP address into your browser (Username is admin and default Password is 22222)
- ❖ Select Firmware Update under Advanced Settings menu
- ❖ In the "File Name" field, enter the firmware file name 6970.st

- ❖ In the “Download Protocol” field, select the protocol from the list to use for downloading the new firmware. Valid values are:
 - TFTP
 - FTP
 - HTTP
 - HTTPS
- ❖ In the “Server” field, enter the IP address of the TFTP server, or the domain name of the FTP , HTTP , or HTTPS servers (dependent on the protocol you selected in step 3)
- ❖ If applicable, in the “Path” field enter the path location on the protocol server for where the new firmware resides. For example, C:\mitel\configserver\firmwareupgrade
- ❖ In the “Port” field, enter the port number of the protocol server. For example, 80 (for HTTP) or 443 (for HTTPS)
- ❖ (FTP only) - In the “Username” field, enter the username that is used for authentication when the FTP server is accessed
- ❖ (FTP only) - In the “Password” field, enter the password that is used for authentication when the FTP server is accessed
- ❖ Click Download Firmware
- ❖ This starts the upgrade process and ‘Checking for Firmware’ will be presented on the 6970 display. When the upgrade is complete the ‘Firmware Upgrade Successful’ is presented on the WEB UI.

6 6970 Phone Settings:

The Settings menu on 6970 phone allows you to customize the phone settings, view network information and configure select features.

The following phone settings can be accessed through the Settings menu:

- Language
- Time and Date
- Status
- Bluetooth (Not Supported)
- Directory
- Call Forward
- Lock
- Diagnostics
- Audio
- Display
- Dialing
- Restart

See the Appendix for further details on configuring Settings

7 Key Features Support for the 6970 as a Generic / 3rd Party SIP device on MiVC

The following table list key features, whether they are supported if any specific programming is required

via the 6970 WEB UI.

Features requiring 6970 programmable keys are enabled through the WEB UI, Operation and Softkeys / XML menu

Feature	
Feature Name	Supported
Hold / Retrieve (via programmable key)	Yes
Mute / Unmute	Yes
Attended and Blind Transfer	Yes
Conference (3 party only)	Yes
Dial-In Conference	Yes
Call Forward	Yes
Directory (Local entries only)	Yes
Dial by name (Local directory Only)	Yes
Music on Hold	Yes
NTP	Yes
Redial (via Programmable key)	Yes
Call History (via Programmable key)	Yes
Speed Dial (via Programmable key)	Yes
Voice mail (only direct access via UI)	Yes
Codec Negotiation	Yes
Paging groups (Manual answer only)	Yes
Feature Access Codes (Star Codes)	Yes
Transport protocol (UDP)	Yes
Meet Me Conference	Yes
Phone Lock	Yes
Transport protocol (TCP and TLS)	No
Merge Call	No
Call recording	No
SRTP	No
Mobile Link	No
Pickup groups	No
IPV6	No
SRTP Support	No
XML Support	No

7.1 Recommendations:

- ❖ Do not disable web interface for 6970 as it is required for select feature programming, SIP configurations and troubleshooting.
- ❖ Please do change any configuration from the 6970 Web UI unless specified in this Application Note. Any such change may affect the 6970's operation.
- ❖ We recommend using UDP as a transport protocol on 6970 Web UI. Since TLS and TCP connection on 6970 WebUI is not supported by our MIVC platform.

- ❖ Do not make any codec selection from 6970 device web interface. All Codec selections must be done from MiVC platform only.
- ❖ A startup.cfg file is recommended so to enable 'Log Issue' on a soft key and for support of Audio Diagnostics on the 6970 phone.

7.2 6970 Phone Limitations for Generic SIP support on MiVC:

- ❖ Sometime calls from 6970 phone fails due to SIP packet fragmentation. [DTP-50863]
- ❖ A list of softkeys and Xml as mentioned in [DTP-51070] is not supported on 6970 phones.
- ❖ The 'backspace' and 'cancel' softkeys is not displayed while entering the digits in 6970 phone.[DTP-50645]
- ❖ It is not recommended to move the 6970 phone from one switch to another switch manually from Connect Director under telephony page. [DTP-51255]

8 Mitel Accessory support:

8.1 6970 Corded Extension Microphones

To ensure better coverage of the larger premises, the Mitel 6970 IP Conference Phone supports up to 2 extension microphones. Use of the extension microphone will extend the pickup range of the phone to allow it to be used in large boardrooms. Their effective pickup range is ~7ft (2m) apart from the 6970. Each extension microphone has a Mute button, an LED indicator, and the microphone

To connect an extension microphone:

1. On the back of the phone, locate the micro-USB input port.
2. Carefully insert the extension microphone cable into the micro-USB input port.

Use of corded extension microphones

1. Locate them on the conference table so that to boost the sound pick up for all the participants of the conference call.
2. Mute and unmute the extension microphone during a call by pressing the (Mute) button on the microphone.

8.2 Mitel WIFI Accessory

The Mitel Wi-Fi Accessory provides POE to the 6970 via wireless 802.11 a/b/g/n dual band (2.4Ghz / 5Ghz) network connectivity

9 Troubleshooting:

Use of a startup.cfg file is recommended and required so to enable 'Log Issue' on a soft key and for support of Audio Diagnostics on the 6970 phones.

When a customer experiences any issue on their 6970 it is recommended, they tap the 'Log Issue' key after the incident and then contact TAC for support

If a customer is experiencing an Audio issue such as echo, packet low, 1-way or no-way audio it is recommended they start an Audio diagnostic by tapping the 6970 Settings and Diagnostics. (1-5 minutes can be set for the trace), After the trace is complete, the user must 'Log Issue'

A 'Log Issue' operation packages the 6970 logs for download. The logs are presented for download in the WEB UI under Advanced Settings and Troubleshooting menu in the Support Information. (the user must wait 5 minutes before downloading the logs form the WEB UI otherwise, they will be '0 bytes').

When contacting Mitel TAC to report a problem please download the Log Files, local.cfg and server.cfg files to associated with the incident.

9.1 Log Issue Key:

You can collect and upload logs to the diagnostic server from your 6970 SIP phones that can help to debug issues on the Mitel 6970 SIP phones.

By default, Log Issue is not displayed on the phone's UI, we can enable by using the Configuration file

Collecting and Uploading Logs

1. Press the Settings softkey on your 6970 phone.
2. Press the Log Issue softkey and wait for at least five minutes for the log processing to occur.

The phone UI displays 'Logging the issue - Please wait...!'

For information on downloading logs from the Web UI using Get Log Files command, see "[Performing Troubleshooting Tasks](#)," on page 13.

9.2 If outgoing call from 6970 fails:

If outgoing call from 6970 fails, due to network fragmentation, then reduce the codec length on the 6970 WEB UI by following the below steps:

1. Open the Web interface of 6970 phone by using the IP address of the phone.
2. Enter Username - admin and Password - 22222.
3. Then go to Advanced Settings>Global SIP >Codec Preference List and Select the preferred codecs from the list.

10 Performing Troubleshooting Tasks

When Customer encounter any issues use the following procedures to perform troubleshooting on the IP phone via the Mitel Web UI.

1. Click on Advanced Settings->Troubleshooting.

To set log settings:

2. In the "Log IP" field, enter the IP address of the log server (i.e. the server to which log information will be transmitted).

3. In the "Log Port" field, enter the port number associated with the IP address specified in the "Log IP" field. This port passes the information from the IP phone to the IP address location.

4. Click Save Settings to save your settings.

5. Click on Operation->Reset.

6. In the "Restart Phone" field click Restart to restart the IP phone.

To set blog modules:

7. Select the applicable module.

8. Enter a debug level value in the "Debug Level" field for a module. Valid values are:

DEBUG LEVEL VALUE

Fatal Errors	1
Errors	2
Warnings	4
Init	8
Functions	16
Info	32

All debug levels OFF 0

All Debug Levels ON 65535

The value of "0" turns all debug levels OFF for a module. The value of "65535" turns all debug levels ON for a module.

9. Click Save Settings to save your settings.

10. Click on Operation->Reset.

11. In the "Restart Phone" field click Restart to restart the IP phone.

To perform support tasks:

12. To store the local configuration file to the specified location, click on Save As in the "Get local.cfg" field.

13. To store the server configuration file to the specified location, click on Save As in the "Get server.cfg" field.

14. To retrieve phone logs (syslogs) from the SIP phone, click on Save As in the "Get Log Files" field.

15. To display task and stack status information, as well as Free Memory and Maximum Block Free Memory on the phone, click on Show in the "Show Task and Stack Status" field.

11 APPENDIX - 6970 SETTINGS

11.1 Language:

You can customize the screen and the input language of the phone.

To change the phone 6970 UI language:

1. Tap the Settings softkey on the phone screen to open the Settings menu.
2. Tap the (Language) icon.
3. Select Screen Language.
4. Swipe up and down to view the language available for selection.

5. Tap the applicable language
6. Tap the Save softkey to save your changes.

11.2 Time and Date:

On the 6970 Conference Phone, the following time and date sub-options are available to be configured:

- **Settings:**

- Time Format
- Daylight Savings
- Date Format

- **Time Zone**

- **Set Date and Time:**

- Use Network Time (configure time servers)
- Enter Time and Date

Settings

Configuring the Time Format, Daylight Savings, and Date Format using the IP Phone UI

1. Tap the Settings softkey on the phone screen to open the Settings menu.
2. Tap the (Time and Date) icon.
3. Tap the (Settings) icon.
4. Select the desired time format. Valid values are 12 Hour and 24 Hour (the default is 12 Hour).
5. Tap Daylight Savings.
6. Select the desired daylight savings setting. Valid values are:
 - Off
 - 30 min summertime
 - 1h summertime
 - Automatic (default)
7. Tap Date Format.
8. Swipe up and down to scroll through the list and choose the desired date format. Valid values are:
 - WWW MMM DD (default)
 - DD-MMM-YY
 - YYYY-MM-DD
 - DD/MM/YYYY
 - DD/MM/YY
 - DD-MM-YY
 - MM/DD/YY
 - MMM DD
 - DD MMM YYYY
 - WWW DD MMM
 - DD MMM
 - DD.MM.YYYY
9. Tap the Save softkey to save your changes.

11.2.1 Time Zone

Configuring the Time Zone using the IP Phone UI

1. Tap the Settings softkey on the phone screen to open the Settings menu.
2. Tap the (Time and Date) icon.
3. Tap the (Time Zone) icon.

A list of time zones displays for different areas of the world.

4. Swipe up and down to scroll through the region list and highlight the desired region. Valid values are:

- America
- Asia
- Atlantic
- Australia
- Europe
- Pacific
- Others

5. Swipe up and down to scroll through the time zone list and choose the time zone that applies to your area. The default time zone is US-Eastern.
6. Tap the Save softkey to save your changes.

11.2.2 Set Date and Time

Configuring the Date and Time using the IP Phone UI

With a valid time server enabled your IP phone will synchronize the time displayed with the specified configuration server. The phone will use the time from Time Server 1 unless it is not configured or unavailable, in which case it will move on to Time Server 2, and if necessary, Time Server 3.

1. Tap the Settings softkey on the phone screen to open the Settings menu.
2. Tap the (Time and Date) icon.
3. Tap the (Set Date and Time) icon.
4. If you want to synchronize the time and date using a time server, ensure there is a checkmark in the box corresponding to the Use Network Time setting. If there is no checkmark, tap the checkbox to enable the Use Network Time setting.
 - a. Tap the Time Server 1, Time Server 2, or Time Server 3 field.
 - b. Using the on-screen keyboard, enter an IP address or domain name for the time server
5. If you want to manually set the date and time, tap the Use Network Time checkbox to clear the checkmark and disable the setting.
 - a. Tap the Enter Time or Enter Date field.
 - b. Using the on-screen keyboard, change the time and date accordingly.

When entering the time, use the right arrow key on the on-screen keyboard to toggle between AM and PM.

6. Tap the Save softkey to save your changes.

11.3 Status:

Status provides detailed technical information that is useful to system administrators for troubleshooting issues.

To view the Status menu:

1. Tap the Settings softkey to open the Settings menu.
2. Tap the Status icon.
3. Tap the Status category to view the status details.

The following status items are available to view:

- Firmware Info
- Network
- Storage
- Error Messages

11.4 Directory:

You can configure directory entries to display using the contact's first name and then last name or vice versa. Moreover, the option to sort contacts using either their first name or last name is available through the Directory > Settings options menu.

Settings

Configuring Directory display and sorting options using the IP Phone UI

1. Tap the Settings softkey on the phone screen to open the Settings menu.
2. Tap the (Directory) icon
3. Tap the (Settings) icon.
4. Select the desired display name order.
5. Tap Sorting Preferences.
6. Select the desired sorting preference.
7. Tap the Save softkey to save your changes.

11.5 Lock:

11.5.1 Password

This category allows you to change the user password for your phone. Changing your password ensures that only you can alter your phone settings and helps keep your system secure. You can change your user password using the IP phone UI or the Mitel Web UI.

Setting a user password using the IP Phone UI

1. Tap the Settings softkey on the phone screen to open the Settings menu.
2. Tap the (Lock) icon.
3. Tap the (Password) icon.
4. In the Current Password: field, enter the current user password.
5. In the New Password: field, enter the new user password.
6. In the Re-enter Password: field, re-enter the new user password.
7. Tap the Save softkey to save your changes.

A Password Changed confirmation message displays on the screen.

11.5.2 Phone Lock

You can lock your phone to prevent the phone from being used or configured. You can lock the phone using the IP phone UI, Mitel Web UI or by configuring a Lock softkey on your phone.

Locking the phone using the IP Phone UI

1. Tap the Settings softkey on the phone screen to open the Settings menu.
2. Tap the (Lock) icon.
3. Tap the (Phone Lock) icon.
4. At the Lock the phone? prompt, tap Yes.

The message Phone is locked and a lock icon displays on the Home screen. Additionally, the Message Waiting Indicator (MWI) will turn on.

Note: Alternatively, if configured, you can lock the phone by simply tapping a Lock softkey.

Unlocking the phone using the IP Phone UI

1. Tap the Unlock softkey.
2. At the Enter Unlock Password prompt, enter your user password and tap the blue Enter key.
3. At the Unlock the phone? prompt, tap Yes.

11.6 Configuring lock settings using the Mitel Web UI

11.6.1 Configuring a Phone Lock softkey

1. Click on Operation > Softkeys and XML.
2. Select from Key 1 through Key 48 on the Top keys.

or

Select from Key 1 through Key 30 on the Bottom keys.

3. In the Type field, select Phone Lock from the list of options.
4. Click Save Settings.

Note: You can unlock the phone using the IP Phone UI only if the Lock softkey was preliminary configured. If it was not, you can unlock the phone through the Mitel Web UI.

11.6.2 Resetting a user password

If you forget your password, you can reset it and enter a new password. The reset user password feature resets the password to the factory default which is blank (no password). You can reset a user password using the Mitel Web UI only.

1. Click on Operation > Phone Lock.
2. In the Reset User Password field, click Reset.

Note: Valid values when creating or changing a password are 0 to 4294967295 (integers only; symbols and alpha characters are not allowed). The default password is an empty string (i.e. leave the field blank).

3. In the Current Password field, leave this blank.
4. In the New Password field, enter a new password.
5. In the Password Confirm field, re-enter your new user password.
6. Click Save Settings.

11.7 Diagnostics:

The Audio Diagnostics sub-menu allows you to collect up to 5 minutes of audio log files that can help to debug audio issues on the Mitel 6970 SIP phones.

11.7.1 Capturing Audio Log Files Using the IP Phone UI

To capture audio diagnostic logs on the 6970 phones:

1. Press the (Settings) key on the phone to enter the Settings menu.
2. Navigate to Diagnostics > Audio Diagnostics using the navigation keys and press the Select softkey.
3. In the Timeout input field, enter the amount of time (in minutes from 1 to 5) you would like to run the audio diagnostic tool for, using the dialpad keys.
4. Press the Start softkey.

The IP phone displays "Capturing" and when the timeout elapses, "Collecting Logs" is displayed. When all the logs have been collected, a "Complete" message is displayed.

5. Once the capture is completed, go to 6970 Web UI click on Advanced Settings>Diagnostics and collect the logs by clicking on Save as in the Collect Logs Field.

Note:

1. Press the Stop softkey at any time to stop capturing the audio diagnostic logs.
2. A "log issue" is issued only after the completion of an audio diagnostics run

11.8 Audio:

The Audio setting on the Mitel 6970 IP Conference Phone allows you to personalize ring tones and tone sets.

11.8.1 Configuring ring tones using the IP Phone UI

11.8.1.1 Global configuration only.

1. Tap the Settings softkey on the phone screen to open the Settings menu.
2. Tap the (Audio) icon.
3. Tap the Ring Tones icon.
4. Select the desired ring tone (Tone 1 through Tone 15, Silent, or any custom ring tones installed)
5. Tap the Save softkey to save your changes.

The ring tone you select is immediately applied to the IP phone.

11.8.2 Configuring tone sets using the IP Phone UI:

11.8.2.1 Global configuration only.

1. Tap the (Settings) softkey on the phone screen to open the Settings menu.
2. Tap the (Audio) icon.
3. Tap the Tone Set icon.
4. Swipe up and down to scroll through the list and select the desired tone set.
5. Tap the Save softkey to save your changes.

The tone set you select is immediately applied to the IP phone.

11.8.3 Configuring ring tones and tone sets using the Mitel Web UI

1. Click Basic Settings > Preferences > Ring Tones.

11.8.3.1 For global configuration

2. In the Ring Tones section, select a country from the Tone Set field.
3. Select a value from the Global Ring Tone field.

For per-line configuration

4. In the Ring Tone section, select a line for which you want to set ring tone.
5. Select a value from the Line N field.
6. Click Save Settings.

11.8.4 Installing custom ring tones using the Mitel Web UI

1. Click on Basic Settings > Custom Ringtones
2. Click the Browse... button corresponding to the desired ringtone position.
3. Navigate to the folder containing the WAV file you want to upload, select the file using your left mouse button and press the Open button.

The filename should now be displayed to the right of the respective Browse... button.

4. Click the Upload button to upload the file to the phone.
5. Repeat Steps 2 to 4 to upload additional WAV files to the phone.

Notes:

1. Access to the Custom Ringtones Web UI menu is only available if enabled by your System Administrator.
2. Ringtones must be in .wav format. The IP phones support the following WAV file specifications:
 - G.711 μ -law and a-law Codec
 - 20 ms packet size
 - Mono 8KHz
3. Individual WAV files cannot exceed 1 MB in size (the total combined size of the eight WAV files cannot exceed 8 MB).
4. Filenames must contain only ASCII characters.

11.9 Display:

The display setting allows you to set the following on your phone:

- **Home screen:**

The **Screen mode** option allows you to select how your Home screen is displayed. There are two options available.

The **Screen Saver Timer** setting allows you to configure the amount of time (up to 7200 seconds) the phone must be idle before the screen saver starts

- **Brightness:**

The **Brightness Level** setting on allows you to set the amount of light that illuminates the LCD display. There are 5 levels available.

The **Brightness Timer** option allows you to set the amount of time you want the LCD display to stay illuminated before turning the backlight off during a period of inactivity. You can set the timer from 1 to 36000 seconds. Default is 600 (10 minutes).

- **Push Notifications:**

The **Sound checkbox** allows you to turn on and off the sound of the push notifications.

The **Bluetooth checkbox** allows you to turn on and off the push notification when the Bluetooth

device is paired or unpaired.

The **External checkbox** allows you to turn on and off the push notifications for external events.

To configure the display settings:

1. Tap the Settings softkey on the phone screen to open the Settings menu.
2. Tap the (Display) icon.
3. In the Screen mode field, select the screen mode by tapping the left and right arrows.
4. In the Screen Saver Timer field, enter a value, in seconds, using the on-screen keyboard.
5. In the Brightness Level field, select the intensity of brightness by tapping the left and right arrows.
6. In the Brightness Timer field, enter a value, in seconds, using the on-screen keyboard.
7. Check the Sound checkbox, to enable sound for the push notifications.
8. Check the Bluetooth checkbox to enable push notifications when pairing or unpairing a Bluetooth device.
9. Check the External checkbox, to enable push notifications for external events.
10. Tap the Save softkey to save the changes.

To drop the changes, tap the Cancel softkey.

11.10 Restart:

You should only restart your Mitel 6970 IP Conference Phone if directed to do so by your system Administrator