Mitel MiVoice 6900 Series IP Phones

RELEASE 1.5.2 ADMINISTRATOR GUIDE

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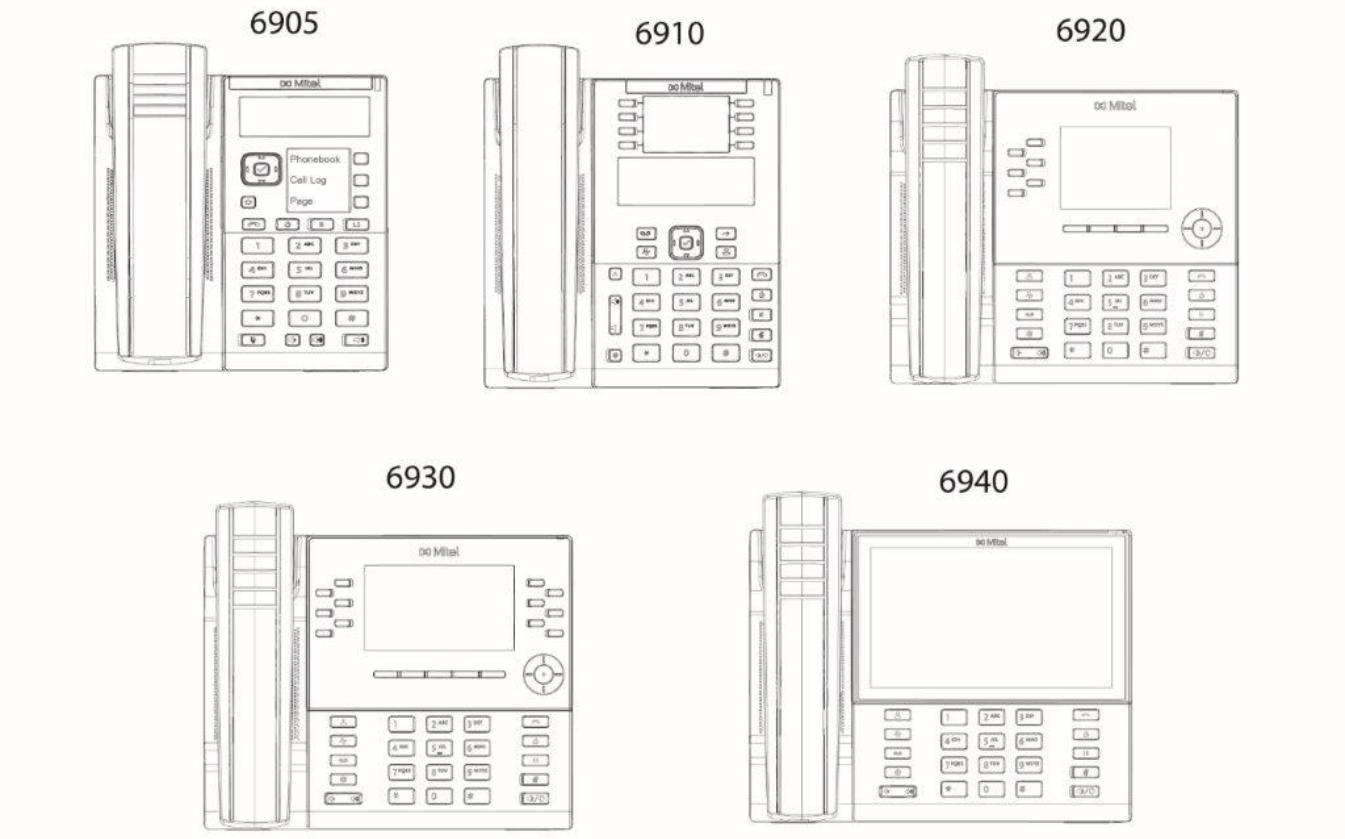
Contents

About this guide

This guide explains how to use the administrator features of the Mitel MiVoice 6900 Series (6905, 6910, 6920, 6930, and 6940) IP phones that can be accessed through the IP phones' advanced **Settings** menu and Web UI.



This document contains information that is at a technical level, more suitable for system and network administrators. Prior knowledge of IP telephony concepts is recommended.

Supporting documentation

To access phone and system-specific documentation:

1. Log in to **Mitel MiAccess Portal**.
2. From the left-hand menu, click **Doc Center**.
3. Click **DEVICES AND ACCESSORIES.**
4. Navigate to **IP PHONES** > **6900 SERIES** >**6900 IP PHONES** and select the required document.

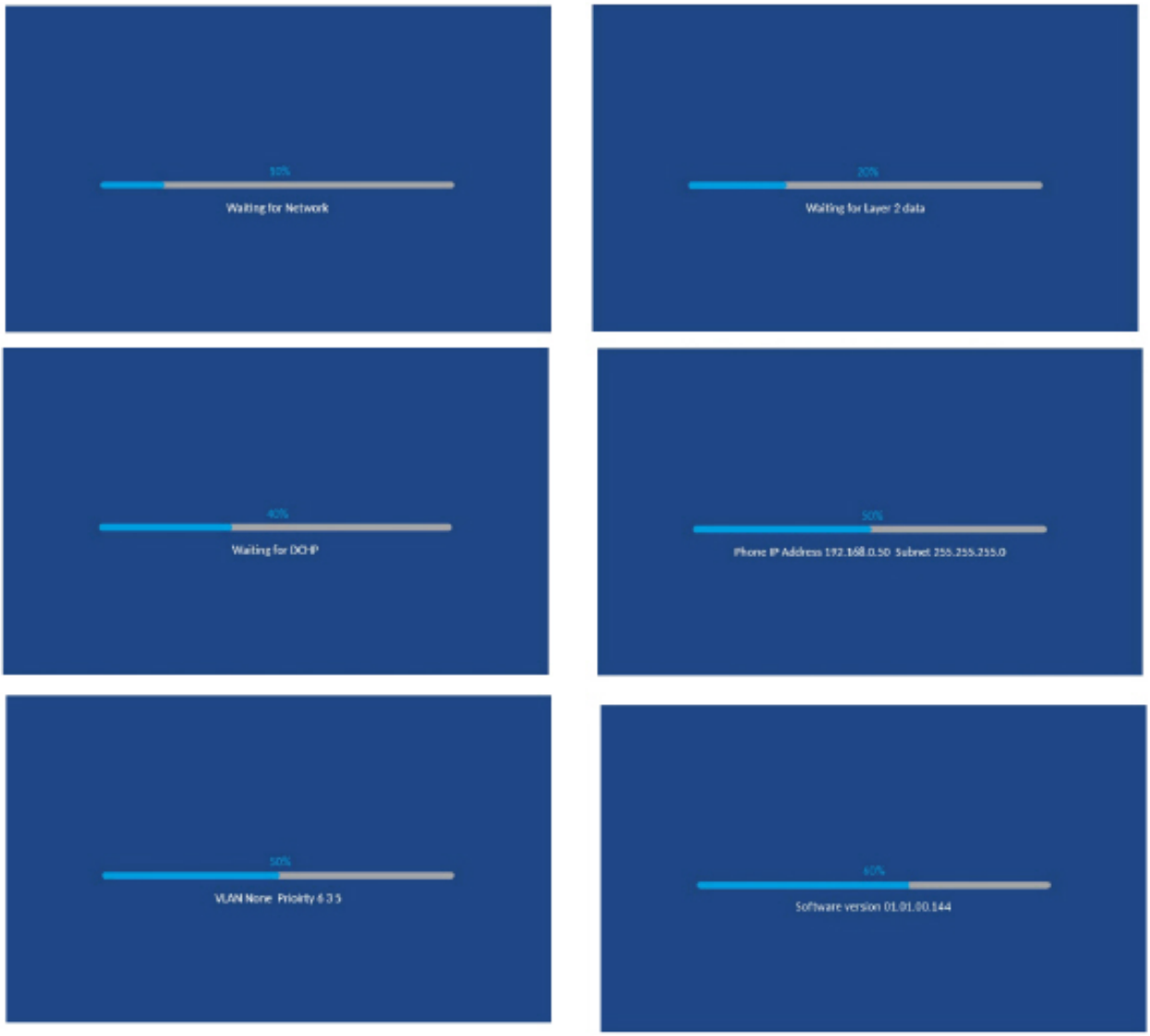
Getting started

The Mitel MiVoice 6900 Series IP phones must be set up and be configured prior to its first use. This section describes phone behavior and start up screens you may see when the phone is first plugged in, or when it is restarted.

Plugging in and starting the phone

The Mitel MiVoice 6900 Series IP phones automatically begins the start-up and network discovery sequence as soon as it is connected. The phone goes through this process the first time you plug in your phone and every time you restart your phone.

The phone displays the following startup screens:



The Mitel MiVoice 6900 Series IP phone then contacts the call server and completes the start-up process.

WARNING 1: DO NOT UNPLUG OR REMOVE POWER TO THE PHONE DURING THE START-UP PROCESS.

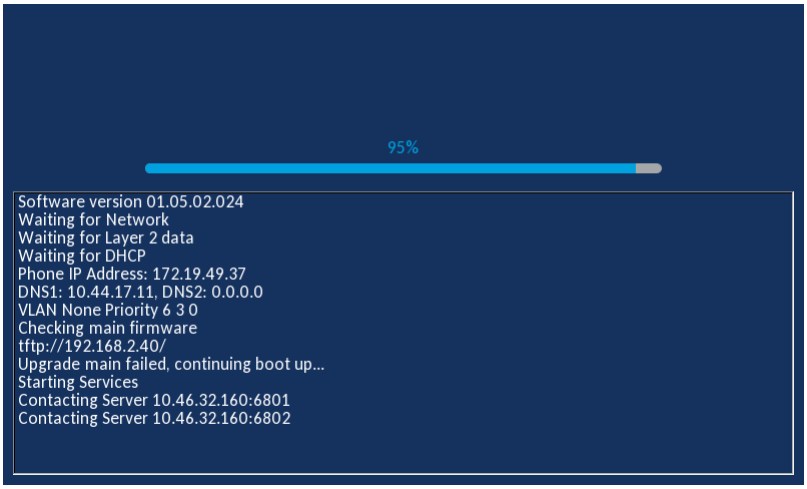
WARNING 2: DO NOT REBOOT THE PHONE OR LAUNCH THE PHONE APP DURING STARTUP WHILE THE SETTINGS APP IS ON THE DISPLAY.

Bootup Debug Mode

During an 6900 series IP Phone bootup, to view a list of all bootup messages displayed on the screen enter into the boot up debug mode. This feature is used to diagnose the reason for a bootup failure.

To enter into the boot up debug mode:

1. During the IP Phone boot up process, after the status bar appears, press the  (Goodbye) key. As the start up process continues, the screen displays all boot up messages in a list.



2. To exit the boot up debug mode, press the (Goodbye) key.

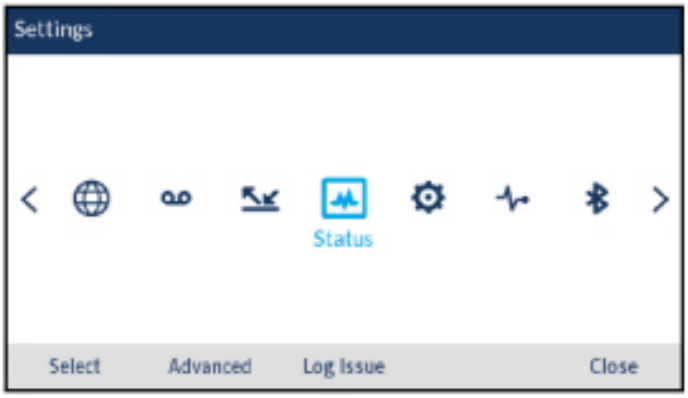
Settings menu

Basic menu

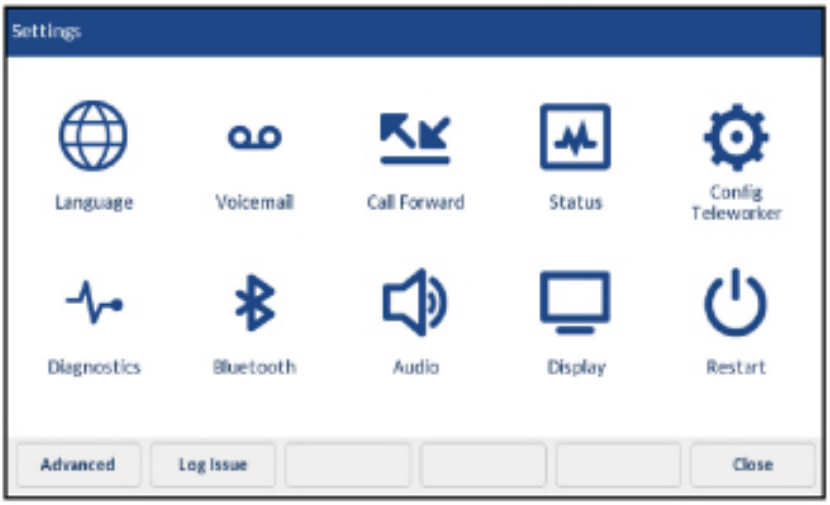
The  (**Settings**) key on the 6920, 6930, and 6930 provides access to the **Settings** menu.

Mitel MiVoice 6920 Settings

Mitel MiVoice 6930 Settings



Mitel MiVoice 6940 Settings



This menu provides a single location to access all the phone settings. The basic **Settings** menu provides access to the following user-level phone settings.

Icon	Setting
	Status

Icon	Setting
	Language
	Voicemail
	Call Forward
	Config Teleworker
	Diagnostics
	Audio Diagnostics
	Ping
	TCP DUMP
	DHCP Trace
	Bluetooth (6930 and 6940 only)
	Audio
	Ring Tones
	Audio Path

Icon	Setting
	Display
	Restart

NOTE: Aside from Status, all other user-level settings are outside of this document's scope. For detailed information on the remaining user-level phone settings, see the respective model's *Mitel MiVoice IP Phone User Guide*.

The basic Settings menu also provides a Log Issue softkey. When pressed, two log files are generated; *dumpstate-logissue.txt* and *dumpstate-phoneinfo.txt*.

The dumpstate-phoneinfo.txt log file contains Call Server revision and phone DN.

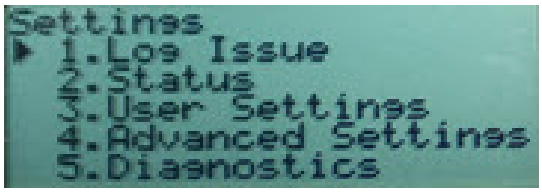
The dumpstate-logissue.txt log file contains the following information:

- Date and time.
- IP phone model, firmware version, firmware timestamp, and source control revision.
- Detailed memory information.
- Detailed CPU information.
- Detailed Display Message (DMESG) information.
- Detailed process information.
- Detailed file system information.
- Detailed network status information.
- Detailed kernel information.

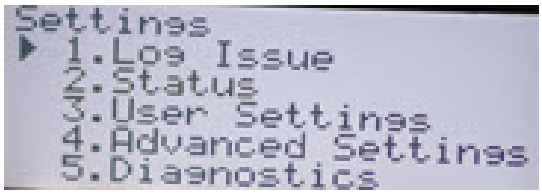
The dumpstate-logissue.txt and *dumpstate-phoneinfo.txt* log files can be downloaded using the Mitel Web UI (see *Collect Logs*) or remotely using the MiVoice Business System Administration Tool (see *Remote collection of log files*).

The  (**Settings**) key on the 6905/6910 provides access to the Settings menu.

Mitel MiVoice 6905 Settings



Mitel MiVoice 6910 Settings



This menu provides a single location to access all the phone settings. The basic Settings menu provides access to the following user-level phone settings:

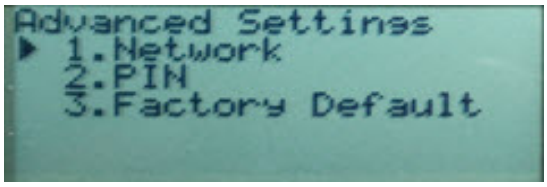
1. Log Issue
2. Status

3. User Settings
4. Advance Settings
5. Diagnostics
6. Restart Phone

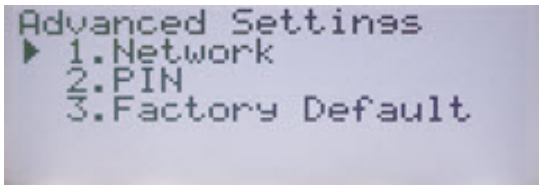
Advanced menu

Press the  (Setting key) and navigate to **Advanced Settings** on the 6905/6910 IP phones. By entering the Administrator password (default 73738) the following additional administrator-level settings are available for selection:

Mitel MiVoice 6905 Advanced Settings



Mitel MiVoice 6910 Advanced Settings



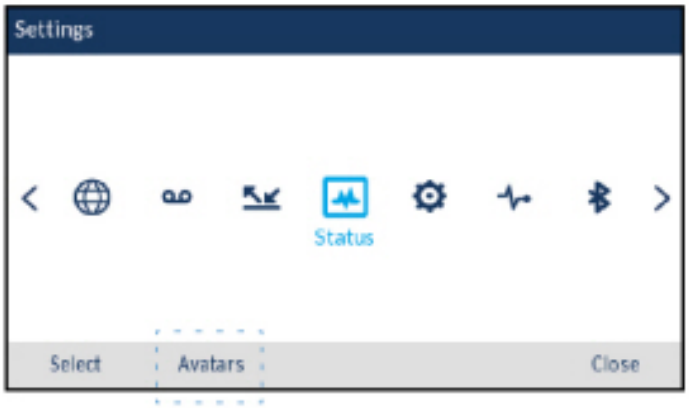
This menu provides a single location to access all the phone settings. The basic Settings menu provides access to the following user-level phone settings:

1. Network
2. PIN
3. Factory Default

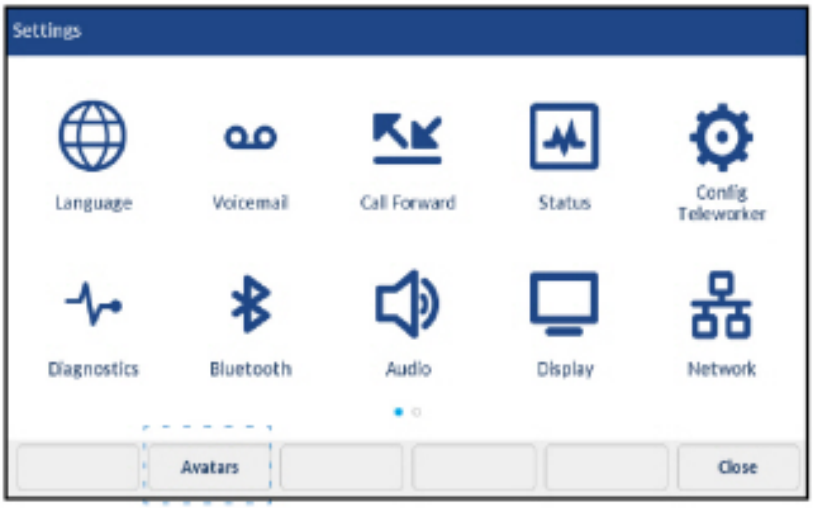
By pressing or tapping the Advanced softkey on the 6920/6930/6940 IP phones and enter the Administrator password (default 73738) the following additional administrator-level settings are available for selection:

Mitel MiVoice 6920 Advanced menu

Mitel MiVoice 6930 Advanced menu



Mitel MiVoice 6940 Advanced menu



NOTE:

1. The **Avatars** softkey is displayed on all Mitel MiVoice 6920, 6930, and 6940 IP phones. However, Avatars are supported only on the Mitel MiVoice 6940 IP phone. Pressing or tapping the Avatars softkey clears the cache on the Mitel MiVoice 6920, 6930, and 6940 IP Series IP phone.
2. Avatars are updated after a preset timer duration on the System Administrator tool.
3. The 6940 IP phone validates new Avatars during the next call or reboot.

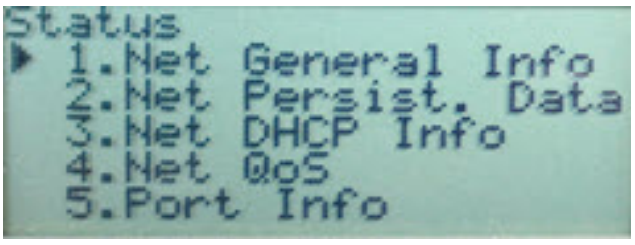
Icon	Setting
	Network
	•Settings

Icon	Setting
	•Ethernet Ports
	•VLAN Settings
	•802.1x
	•Network Services
	PIN
	•Erase PIN
	•Modify PIN
	Restore Default

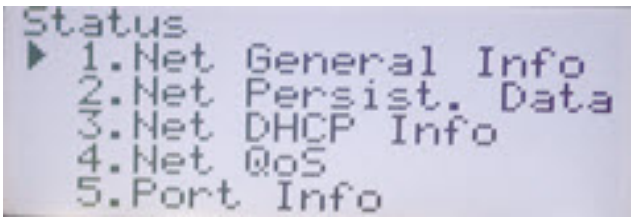
Status

The **Status** menu on the Mitel MiVoice 6900 Series IP phones is a read-only menu that displays general phone information and the current network status details. The Status menu is available to both users and Administrators and does not require a password to access.

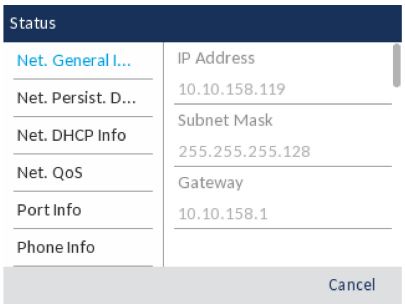
Mitel MiVoice 6905 Status



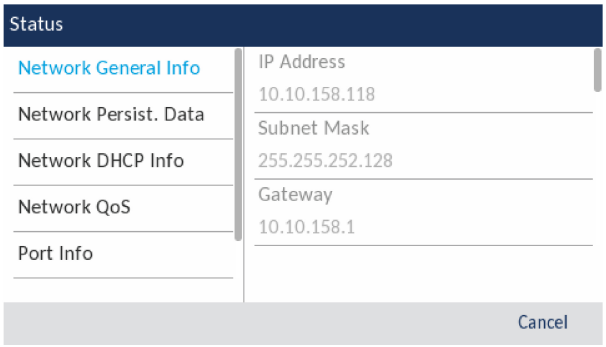
Mitel MiVoice 6910 Status



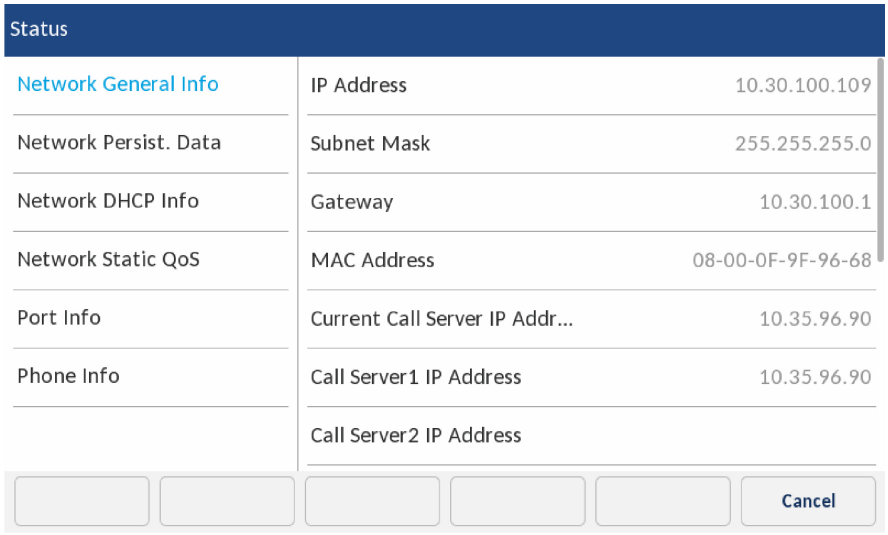
Mitel MiVoice 6920 Status



Mitel MiVoice 6930 Status



Mitel MiVoice 6940 Status



The following table outlines the information displayed in the **Status** menu:

Item	Description
Network General Info	Displays information on the following general network parameters currently configured on the IP phone: • IP Address • Subnet Mask • Gateway • MAC Address • Current Call Server IP Address • Call Server1 IP Address • Call Server2 IP Address • Call Server3 IP Address • Call Server4 IP Address • TFTP Server IP Address • TFTP Server Port • File Sever • IPA IP Address • Primary DNS • Secondary DNS
Network Persist. Data	Displays information regarding the IP addresses of the call servers the IP phone is currently connected to.
Network DHCP Info	Displays information regarding the current DHCP status, Renewal Time Values (T1), and Rebinding Time Values (T2).
Network Static QoS	Displays information regarding the current VLAN, L2P, and DSCP Quality of Service (QoS) parameters.
Port Info	Displays information on the port speeds and duplex methods that the IP phone is currently using on its LAN and PC ports.
Phone Info	Displays information regarding the model, hardware revision, main firmware version, boot version of the IP phone, and phone uptime, as well as the call server firmware revision.

NOTE: The Mitel MiVoice 6900 Series IP phones support DHCP Options 43 and 125.

Network

The **Network** menu allows you to configure the following network settings:

- Static Network Settings
- Ethernet Ports
- VLAN Settings
- 802.1x
  - 802.1X EAP-TLS Support
- Network Services

Static Network Settings

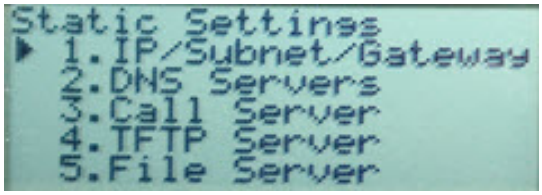
The Mitel MiVoice 6900 Series IP phones can be configured to utilize DHCP or static network settings.

The Static Network Settings sub-menu allows you to configure network settings on your phone manually. Configuring static network settings automatically disables DHCP functionality.

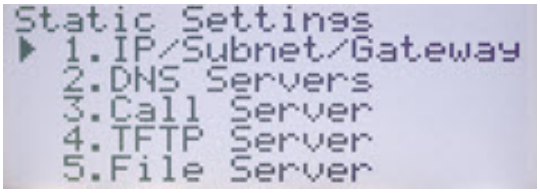
To manually configure static network settings on the Mitel MiVoice 6905/6910 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Use the navigation keys to navigate to Advanced Settings and press the **Enter** key.
3. Input the Administrator password (default is 73738) and press the **Enter** Key.
4. Navigate to **Network** and press the **Enter** key.
5. Navigate to **Static Settings** and press the **Enter** key.

Mitel MiVoice 6905 Static Network Settings



Mitel MiVoice 6910 Static Network Settings



6. Use the navigation key to navigate through the applicable parameter's input field and enter the respective values using the dialpad keys. Applicable parameters include:
   - **IP Address:**

     IP address of the IP phone.
   - **Subnet Mask:**

     The IP address range local to the IP phone.
   - **Gateway:**

     The IP address of the network's gateway or default router IP address.
   - **Primary DNS:**

     The IP address of the primary DNS server.
   - **Secondary DNS:**

     The IP address of the secondary DNS server.
   - **Call Server IP Address:**

     The IP address of the call server.

- **TFTP Server IP Address:**

  The IP address of the Trivial File Transfer Protocol (TFTP) server.
- **TFTP Server Port:**

  The TFTP port the TFTP server uses.
- **File Server:**

  The URL of the File Server. Used for migrating Mitel MiVoice 6900 Series IP phones from SIP to MiNet. Refer to the *SIP Administrator Guide* for more information
- **IPA IP Address:**

  IP address of the IP Phone Analysis (IPA) server.

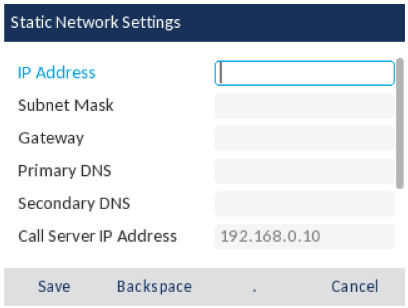
NOTE: The **left navigation key** is used to delete the last digit/character entered and the dot (".") softkey can be used to enter a dot where applicable.

7. Press the down navigation key to **Save** your changes.

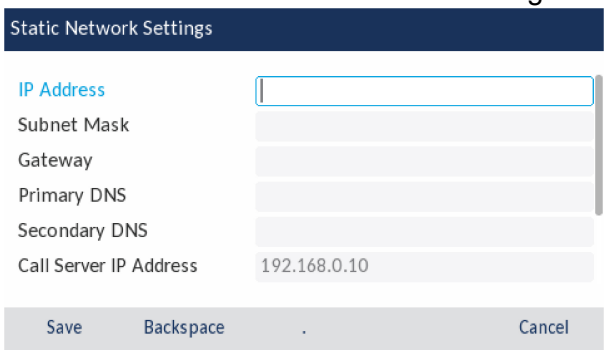
To manually configure static network settings on the Mitel MiVoice 6920/6930 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Press the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and press the **Enter** softkey.
4. Navigate to **Network** > **Static Setting** using the navigation keys and press the **Select** softkey.

Mitel MiVoice 6920 Static Network Settings



Mitel MiVoice 6930 Static Network Settings



5. Navigate to the applicable parameter's input field using the navigation keys and enter in the respective values using the dialpad keys. Applicable parameters include:

- **IP Address:**

  IP address of the IP phone.
- **Subnet Mask:**

  The IP address range local to the IP phone.
- **Gateway:**

  The IP address of the network's gateway or default router IP address.
- **Primary DNS:**

  The IP address of the primary DNS server.
- **Secondary DNS:**

The IP address of the secondary DNS server.

- **Call Server IP Address:**

  The IP address of the call server.

- **TFTP Server IP Address:**

  The IP address of the Trivial File Transfer Protocol (TFTP) server.

- **TFTP Server Port:**

  The TFTP port the TFTP server uses.

- **File Server:**

  The URL of the File Server. Used for migrating Mitel MiVoice 6900 Series IP phones from MiNet to SIP. Refer to the *SIP Administrator Guide* for more information.

- **IPA IP Address:**

  IP address of the IP Phone Analysis (IPA) server.

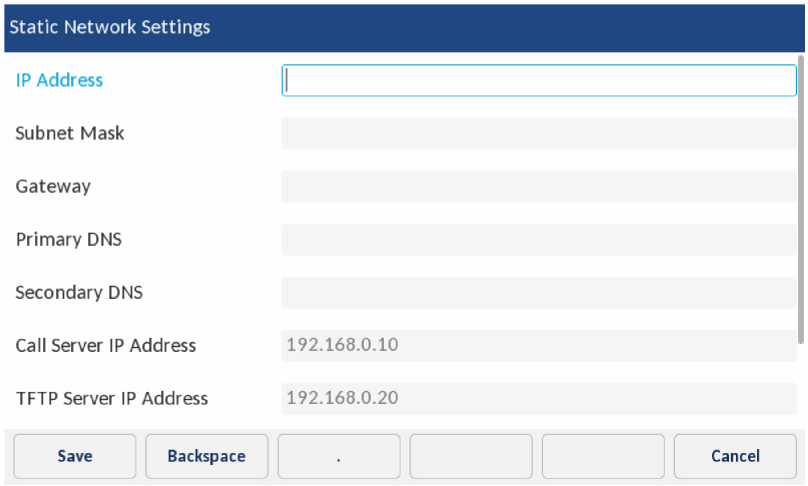
  NOTE: The Backspace softkey can be used to delete the last digit/character entered and the dot (".") softkey can be used to enter a dot where applicable.

6. Press the **Save** softkey to save your changes.

To manually configure static network settings on the Mitel MiVoice 6940 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Tap the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and tap the Enter softkey.
4. Tap the **Network** icon.
5. Tap the **Static Settings** icon

Mitel MiVoice 6940 Static Network Settings



6. Tap the applicable parameter's input field and enter in the respective values using the dialpad keys. Applicable parameters include:

- **IP Address:**
  IP address of the IP phone.
- **Subnet Mask:**
  The IP address range local to the IP phone.
- **Gateway:**
  The IP address of the network's gateway or default router IP address.
- **Primary DNS:**
  The IP address of the primary DNS server.
- **Secondary DNS:**
  The IP address of the secondary DNS server.
- **Call Server IP Address:**
  The IP address of the call server.
- **TFTP Server IP Address:**
  The IP address of the Trivial File Transfer Protocol (TFTP) server.
- **TFTP Server Port:**
  The TFTP port the TFTP server uses.
- **File Server:**
  The URL of the File Server. Used for migrating Mitel MiVoice 6900 Series IP phones from MiNet to SIP. Refer to the *SIP Administrator Guide* for more information
- **IPA IP Address:**
  IP address of the IP Phone Analysis (IPA) server.

  NOTE: The Backspace softkey can be used to delete the last digit/character entered and the dot (".") softkey can be used to enter a dot where applicable.

7. Tap the **Save** softkey to save your changes.

NOTE: *For MiCloud Flex deployments, enter the call server FQDN instead of the IP Address to register the phone.*

For more information, see *MiCloud Flex Deployment Guide.*

Configuring 6900 phones for MiVoice Connect Deployment

To configure static network settings for 6900 phones on MiVoice Connect deployment.

1. On the phone, press the **Settings** key > **Advanced** softkey.
2. Enter the **Admin Password** and select **Network** > **Static Settings.**
3. Configure the **IP Address**, **Subnet Mask**, and **Gateway** parameters.
4. Select **Save**.

If the DHCP fails, then users have the option of bringing the 6900 phone back to service if they have configured a static IP Address, Subnet Mask, and Gateway. If these are configured, then if the DHCP process fails, the 6900 set skips the DHCP process and auto-prompts the user to choose a service and input parameter values and then gets back into service.

- If the user chooses MiCloud Connect, the 6900 set flips to SIP if the SIP build is present in the inactive partition.

- If the user chooses MiVoice Connect and enters configuration server as the input, then after reboot, the set skips the DHCP process and downloads SIP firmware.
- If the user chooses MiVoice Border Gateway and inputs the call server address, then after network stack and restart, the 6900 set skips the DHCP process and comes back into service.

Ethernet Ports

The Mitel MiVoice 6900 Series IP phones have two built-in 10/100/1000 Ethernet ports (one LAN and one PC) located on the back of the phone.

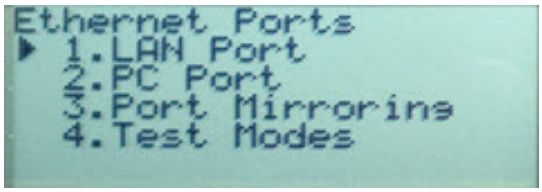
The **Ethernet Ports** sub-menu allows you to change the speed and duplex method of the IP phone's LAN and PC ports as well as enable or disable port mirroring.

To configure Ethernet port options on the Mitel MiVoice 6905/6910 IP phone:

1. Press the  **(Settings)** key on the phone to enter the **Settings** menu.
2. Use the navigation keys to navigate to **Advanced Settings** and press the **Enter** key.
3. Input the Administrator password (default is 73738) and press the **Enter** Key.
4. Navigate to **Network** and press the **Enter** key.
5. Navigate to **Ethernet Ports** and press the **Enter** key.

Figure 3.1:

Mitel MiVoice 6905 Ethernet Ports



Mitel MiVoice 6905 Ethernet Ports

6. With **LAN Port** highlighted, press the up and down navigation key to navigate to the selected column and press Enter. Use the up and down navigation key to select the desired speed and duplex method and press the right navigation key to Save the selection. Applicable values include:

   – **Auto** (Default):

   Auto-negotiation is when two connected devices choose common transmission parameters. In the auto-negotiation process, the connected devices share their speed and duplex capabilities and connect at the highest common denominator (the highest speed being 1000Mbps and highest duplex being full). Auto-negotiation can be used by devices that are capable of different transmission rates, different duplex modes, and/or different standards at the same speed. You can set the ports on the IP phone to auto-negotiate during transmission.

   – **Half 10Mbps or Half 100Mbps:**

   Half-duplex data transmission means that data can be transmitted in both directions on a signal carrier, but not at the same time. For example, on a LAN using a technology that has half-duplex transmission, one device can send data on the line and then immediately receive data on the line from the same direction in which data was just transmitted. Half-duplex transmission implies a bidirec-

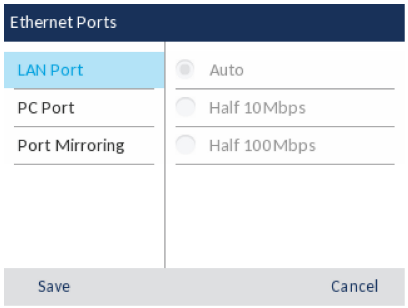
tional line (one that can carry data in both directions). On the IP phone, you can set the half-duplex transmission to transmit in 10Mbps or in 100Mbps.

7. Press the left navigation key to navigate back to the **LAN Port** options column and then press the down navigation key to highlight the **PC Port** option.
8. With **PC Port** highlighted, press the up and down navigation key to navigate to the selected column and press the Enter key. Use the up and down navigation key to select the desired speed and duplex method and press the right navigation key to Save the selection. The PC port shares the same applicable values as the LAN port above (Auto, Half 10Mbps, and Half 100Mbps).
9. Press the left navigation key to navigate back to the **PC Port** options column and press the down navigation key to highlight the **Port Mirroring** option.
10. With **Port Mirroring** highlighted, press the up and down navigation key to navigate to the selected column and press the Enter key. Use the up and down navigation key to enable or disable (default) port mirroring. Port mirroring allows you to mirror the LAN and PC ports to and from the phone for debugging purposes. Press the right navigation key to Save the selection.
11. Do not us e the **Test Modes** option. Thi s functionality is for testing the Ethernet connectivity of the phone and if selected, sets the phone to non-working state. If you accidentally enable the Test Modes option, you must power cycle the phone to get it back to work.
12. Press the right navigation key to save your changes.

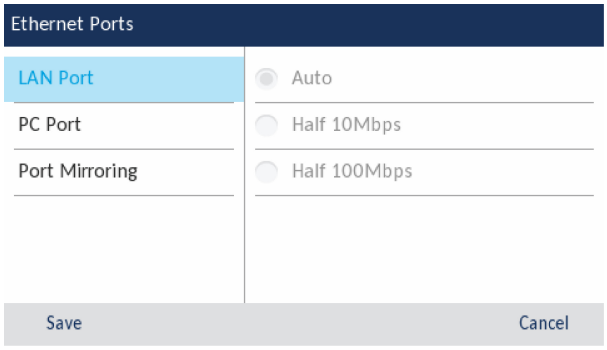
To configure Ethernet port options on the Mitel MiVoice 6920/6930 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Press the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and press the **Enter** softkey.
4. Navigate to **Network** > **Ethernet Ports** using the navigation keys and press the **Select** softkey.

Mitel MiVoice 6920 Ethernet Ports



Mitel MiVoice 6930 Ethernet Ports



5. With **LAN Port** highlighted, press the right navigation key to navigate to the selection column and use the up and down navigation keys to select the desired speed and duplex method. Applicable values include:
   - **Auto** (Default):

Auto-negotiation is when two connected devices choose common transmission parameters. In the auto-negotiation process, the connected devices share their speed and duplex capabilities and connect at the highest common denominator (the highest speed being 1000Mbps and highest duplex being full). Auto-negotiation can be used by devices that are capable of different transmission rates, different duplex modes, and/or different standards at the same speed. You can set the ports on the IP phone to auto-negotiate during transmission.

– **Half 10Mbps or Half 100Mbps:**

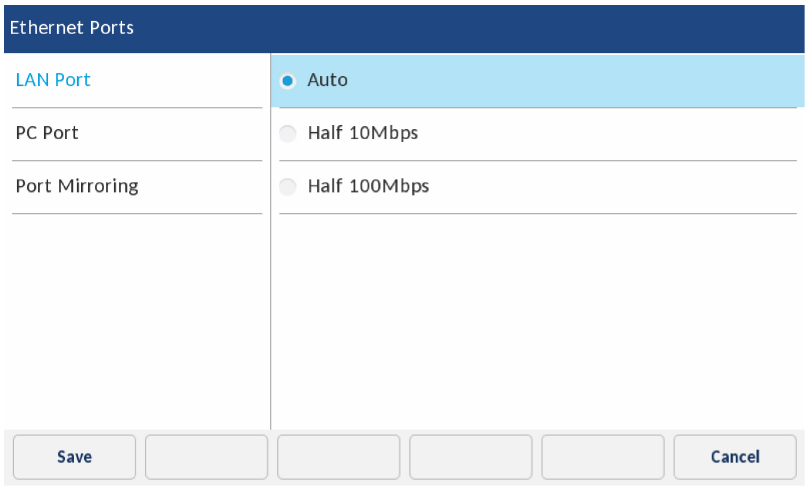
Half-duplex data transmission means that data can be transmitted in both directions on a signal carrier, but not at the same time. For example, on a LAN using a technology that has half-duplex transmission, one device can send data on the line and then immediately receive data on the line from the same direction in which data was just transmitted. Half-duplex transmission implies a bidirectional line (one that can carry data in both directions). On the IP phone, you can set the half-duplex transmission to transmit in 10Mbps or in 100Mbps.

6. Press the left navigation key to navigate back to the **LAN Port** options column and then press the down navigation key to highlight the **PC Port** option.
7. With **PC Port** highlighted, press the right navigation key to navigate to the selected column and use the up and down navigation keys to select the desired speed and duplex method. The PC port shares the same applicable values as the LAN port above (Auto, Half 10Mbps, and Half 100Mbps).
8. Press the left navigation key to navigate back to the **PC Port** options column and then press the down navigation key to highlight the **Port Mirroring** option.
9. With **Port Mirroring** highlighted, press the right navigation key to navigate to the selected column and use the up and down navigation keys to enable or disable (default) port mirroring. Port mirroring allows you to mirror the LAN and PC ports to and from the phone for debugging purposes.
10. Do not use the **Test Modes** option. This functionality is for testing the Ethernet connectivity of the phone and if selected, sets the phone to non-working state. If you accidentally enable the Test Modes option, you must power cycle the phone to get it back to work.
11. Press the **Save** softkey to save your changes.

To configure Ethernet port options on the Mitel MiVoice 6940 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Tap the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and tap the **Enter** softkey.
4. Tap the **Network** icon.
5. Tap the **Ethernet Ports** icon.

Mitel MiVoice 6940 Ethernet Ports



6. With **LAN Port** highlighted, tap the desired speed and duplex method. Applicable values include:
   - **Auto** (Default):

     Auto-negotiation is when two connected devices choose common transmission parameters. In the auto-negotiation process, the connected devices share their speed and duplex capabilities and connect at the highest common denominator (the highest speed being 1000Mbps and highest duplex being full). Auto-negotiation can be used by devices that are capable of different transmission rates, different duplex modes, and/or different standards at the same speed. You can set the ports on the IP phone to auto-negotiate during transmission.
   - **Half 10Mbps or Half 100Mbps:**

     Half-duplex data transmission means that data can be transmitted in both directions on a signal carrier, but not at the same time. For example, on a LAN using a technology that has half-duplex transmission, one device can send data on the line and then immediately receive data on the line from the same direction in which data was just transmitted. Half-duplex transmission implies a bidirectional line (one that can carry data in both directions). On the IP phone, you can set the half-duplex transmission to transmit in 10Mbps or in 100Mbps.
7. Tap **PC Port** located in the left column.
8. With **PC Port** highlighted, tap the desired speed and duplex method. The PC port shares the same applicable values as the LAN port above (Auto, Half 10Mbps, and Half 100Mbps).
9. Tap **Port Mirroring** located in the left column.
10. With **Port Mirroring** highlighted, tap **Enable** or **Disable** (default) to enable or disable port mirroring. Port mirroring allows you to mirror the LAN and PC ports to and from the phone for debugging purposes.
11. Do not use the **Test Modes** option. This functionality is for testing the Ethernet connectivity of the phone and if selected, sets the phone to non-working state. If you accidentally enable the Test Modes option, you must power cycle the phone to get it back to work.

12. Tap the **Save** softkey to save your changes.

VLAN Settings

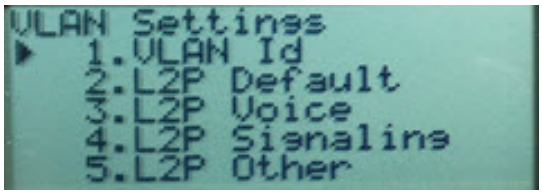
Virtual Local Area Network (VLAN) is a feature that allows for multiple logical Ethernet interfaces to send outgoing RTP packets over a single physical Ethernet. By configuring specific VLAN parameters, the Mitel MiVoice 6900 Series IP phones have the capability of adding and removing tags, and processing the ID and priority information contained within the tag.

The **VLAN Settings** sub-menu allows you to define the VLAN ID you want to associate with the Ethernet port, configure VLAN Layer 2 Protocol (L2P) priorities, and input Differentiated Servers Code Point (DSCP) values.

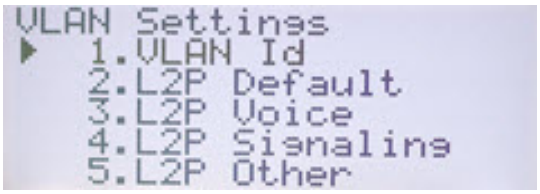
To configure VLAN settings on the Mitel MiVoice 6905/6910 IP phone:

1. Press the  **(Settings)** key on the phone to enter the **Settings** menu.
2. Use the navigation keys to navigate to Advanced Settings and press the **Enter** key.
3. Input the Administrator password using the dialpad keys (default is 73738) and press the **Enter** key.
4. Navigate to **Network** and press the **Enter** key.
5. Navigate to **VLAN Settings** and press the **Enter** key.

Mitel MiVoice 6905 Settings



Mitel MiVoice 6910 VLAN Settings



6. In the **VLAN id** input field, enter the VLAN number you want to associate with the Ethernet port using the dialpad keys and press the down navigation key to Save the changes.
7. Press the down navigation key to navigate to the L2P related input fields and use the left and right navigation keys to set the desired priorities. The following L2P-related input fields are available:
   - **L2P Default:**

     Specifies the default VLAN priority value for L2P voice, signaling, and other if they are not specified. The value has a range of 0 to 7.
   - **L2P Voice:**

     Specifies the VLAN priority value for L2P voice traffic in the range of 0 to 7.
   - **L2P Signaling:**

     Specifies the VLAN priority value for L2P signaling traffic in the range of 0 to 7.
   - **L2P Other:**

     Specifies the VLAN priority value for L2P other traffic in the range of 0 to 7.
8. Press the down navigation key to navigate to the DSCP-related input fields and enter the desired DSCP values using the dialpad keys. The following DSCP-related input fields are available:

- **DSCP Default:**

  Specifies the default DSCP value for voice, signaling, and other if they are not specified. The value has a range of 0 to 63.
- **DSCP Voice:**

  Specifies the DSCP value for voice traffic in the range of 0 to 63.
- **DSCP Signaling:**

  Specifies the DSCP value for signaling traffic in the range of 0 to 63.
- **DSCP Other:**

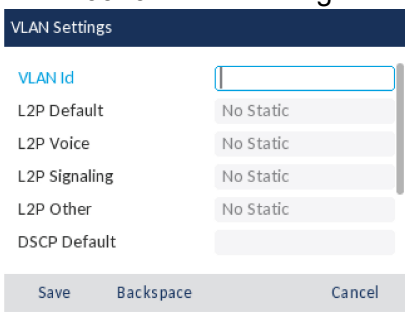
  Specifies the DSCP value for other traffic in the range of 0 to 63.

9. Press the down navigation key to Save your changes.

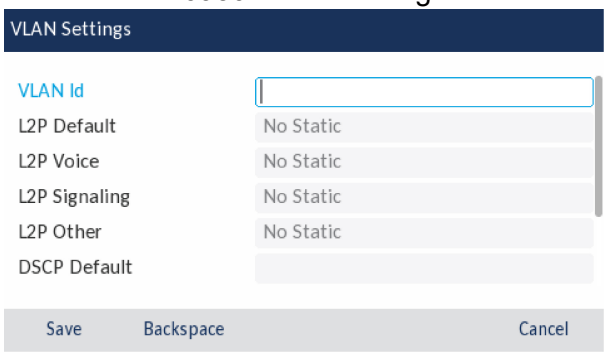
To configure VLAN settings on the Mitel MiVoice 6920/6930 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Press the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and press the **Enter** softkey.
4. Navigate to **Network** > **VLAN Settings** using the navigation keys and press the **Select** softkey.

Mitel MiVoice 6920 VLAN Settings



Mitel MiVoice 6930 VLAN Settings



5. In the **VLAN id** input field, enter the VLAN number you want to associate with the Ethernet port using the dialpad keys.
6. Press the down navigation key to navigate to the L2P-related input fields and use the left and right navigation keys to set the desired priorities. The following L2P-related input fields are available:

   - **L2P Default:**

     Specifies the default VLAN priority value for L2P voice, signaling, and other if they are not specified. The value has a range of 0 to 7.
   - **L2P Voice:**

     Specifies the VLAN priority value for L2P voice traffic in the range of 0 to 7.
   - **L2P Signaling:**

     Specifies the VLAN priority value for L2P signaling traffic in the range of 0 to 7.
   - **L2P Other:**

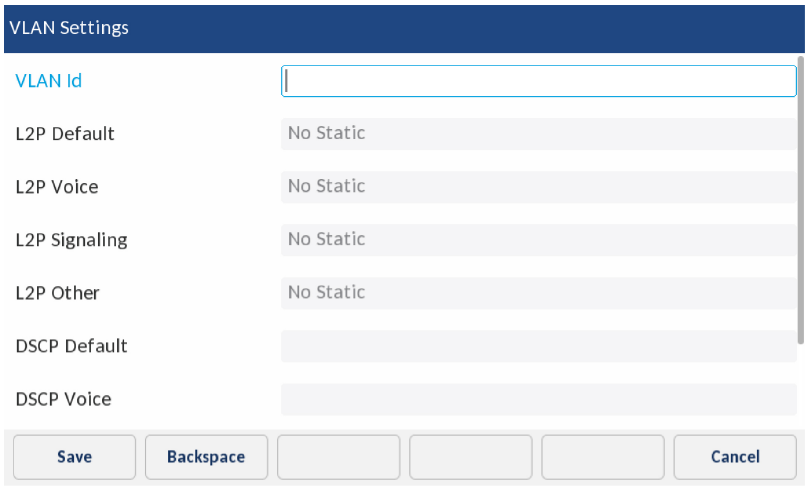
Specifies the VLAN priority value for L2P other traffic in the range of 0 to 7.

7. Press the down navigation key to navigate to the DSCP-related input fields and enter the desired DSCP values using the dialpad keys. The following DSCP-related input fields are available:
   - **DSCP Default:**
     Specifies the default DSCP value for voice, signaling, and other if they are not specified. The value has a range of 0 to 63.
   - **DSCP Voice:**
     Specifies the DSCP value for voice traffic in the range of 0 to 63.
   - **DSCP Signaling:**
     Specifies the DSCP value for signaling traffic in the range of 0 to 63.
   - **DSCP Other:**
     Specifies the DSCP value for other traffic in the range of 0 to 63.
8. Press the **Save** softkey to save your changes.

To configure VLAN settings on the Mitel MiVoice 6940 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Tap the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and tap the **Enter** softkey.
4. Tap the **Network** icon.
5. Tap the **VLAN Settings** icon.

Mitel MiVoice 6940 VLAN Settings



6. In the **VLAN id** input field, enter the VLAN number you want to associate with the Ethernet port using the dialpad keys.
7. Tap the applicable L2P-related input field and tap the left and right arrow buttons to set the desired priorities. The following L2P-related input fields are available:

- **L2P Default:**

  Specifies the default VLAN priority value for L2P voice, signaling, and other if they are not specified. The value has a range of 0 to 7.
- **L2P Voice:**

  Specifies the VLAN priority value for L2P voice traffic in the range of 0 to 7.
- **L2P Signaling:**

  Specifies the VLAN priority value for L2P signaling traffic in the range of 0 to 7.
- **L2P Other:**

  Specifies the VLAN priority value for L2P other traffic in the range of 0 to 7.

8. Tap the applicable DSCP-related input field and enter the desired DSCP values using the dialpad keys. The following DSCP-related input fields are available:

- **DSCP Default:**

  Specifies the default DSCP value for voice, signaling, and other if they are not specified. The value has a range of 0 to 63.
- **DSCP Voice:**

  Specifies the DSCP value for voice traffic in the range of 0 to 63.
- **DSCP Signaling:**

  Specifies the DSCP value for signaling traffic in the range of 0 to 63.
- **DSCP Other:**

  Specifies the DSCP value for other traffic in the range of 0 to 63.

9. Tap the **Save** softkey to save your changes.

802.1X

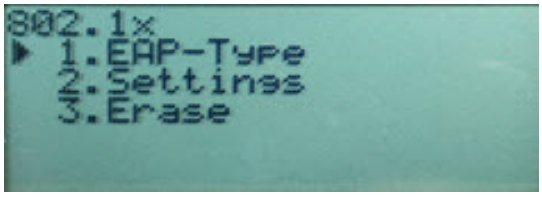
The Mitel MiVoice 6900 Series IP phones support IEEE 802.1X and facilitates media-level access control. It offers the capability to permit or deny network connectivity, control LAN access, and apply traffic policy, based on user or endpoint identity. This feature supports both the EAP-MD5 and EAP-PEAP protocols. It also supports EAP-TLS which is configured only through staging. For details, see section "802.1X EAP-TLS Support".

The 802.1X sub-menu allows you to define the EAP authentication type as well as the identity and password used for 802.1X authentication.

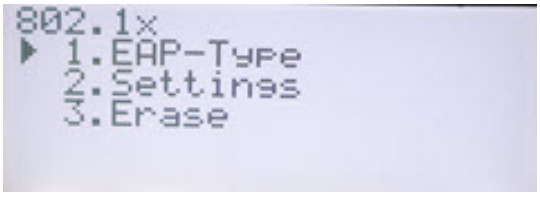
To configure 802.1X settings on the Mitel MiVoice 6905/6910 IP phone:

1. Press the  (**Settings)** key on the phone to enter the **Settings** menu.
2. Use the navigation keys to navigate to Advanced Settings and press the **Enter** key.
3. Input the Administrator password using the dialpad keys (default is 73738) and press the **Enter** softkey.
4. Navigate to **Network** and press the **Enter** key.
5. Navigate to **802.1x** and press the **Enter** key.

Mitel MiVoice 6905 802.1x

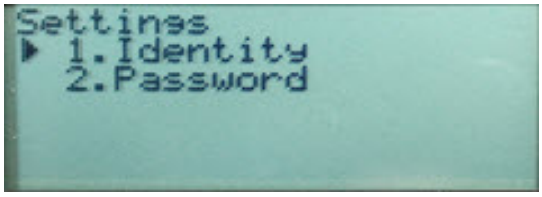


Mitel MiVoice 6910 802.1x

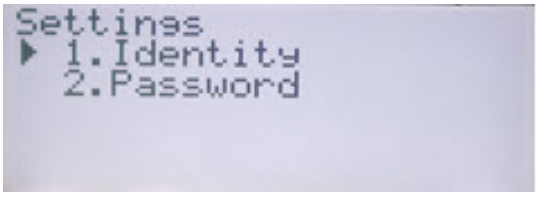


6. In the **EAP-Type** field, press the right navigation key and press the up or down navigation key to enable an EAP authentication type/method (EAP-MD5 or EAP-PEAP). Press the right navigation key to Save the selection.
7. Press the left navigation key to navigate back to the **802.1x** options. Press the down navigation key to select the **Settings** option and press the Enter key.

Mitel MiVoice 6905 802.1x Settings



Mitel MiVoice 6910 802.1x Settings



8. In the **Identity** input field, enter the identity or user name used for authenticating the phone and press the down navigation key to the changes.

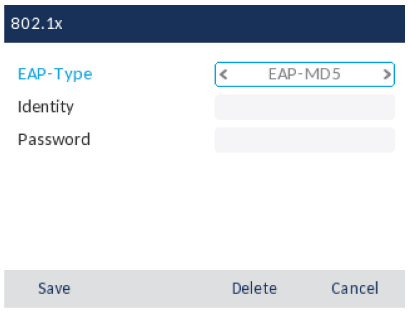
   NOTE: The left navigation key is used to delete the last digit/character entered and the ABC/abc/123 softkey can be used to switch the dialpad keys from lower to uppercase as well as from alphabetic to numeric.
9. Press the down navigation key to navigate to the **Password** input field and enter the password used for authenticating the phone and press the down navigation key to **Save** the changes.

   NOTE: The left navigation key is used to delete the last digit/character entered and the ABC/abc/123 softkey can be used to switch the dialpad keys from lower to uppercase as well as from alphabetic to numeric.
10. Press the left navigation key to navigate back to the **802.1x** options. Press the down navigation key to select the **Erase** option and press the Enter key.
11. Press the right navigation key to erase the settings or press the left navigation key to navigate back to **802.1x**.

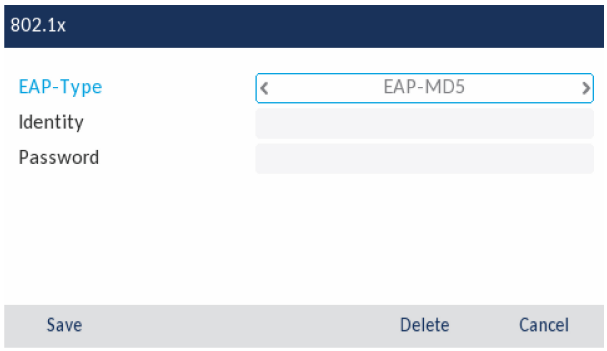
To configure 802.1X settings on the Mitel MiVoice 6920/6930 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Press the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and press the **Enter** softkey.
4. Navigate to **Network** > **802.1x** using the navigation keys and press the **Select** softkey.

Mitel MiVoice 6920 802.1x



Mitel MiVoice 6930 802.1x



5. In the **EAP Type** field, press the left and right navigation keys to enable an EAP authentication type/method (EAP-MD5 or EAP-PEAP).
6. Press the down navigation key to navigate to the **Identity** input field and enter the identity or user name used for authenticating the phone.

NOTE: The **Backspace** softkey can be used to delete the last digit/character entered and the ABC/abc/123 softkey can be used to switch the dialpad keys from lower to uppercase as well as from alphabetic to numeric.

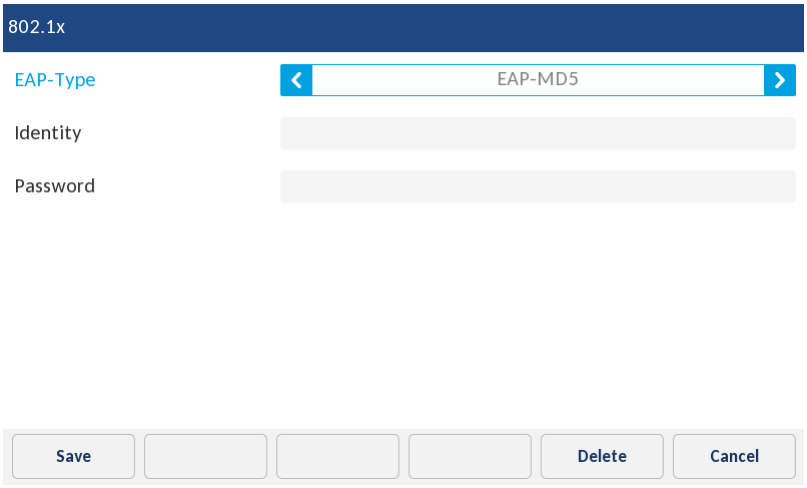
7. Press the down navigation key to navigate to the **Password** input field and enter the password used for authenticating the phone.

NOTE: The **Backspace** softkey can be used to delete the last digit/character entered and the ABC/abc/123 softkey can be used to switch the dialpad keys from lower to uppercase as well as from alphabetic to numeric.

8. Press the **Save** softkey to save your changes.

To configure 802.1X settings on the Mitel MiVoice 6940 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Tap the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and tap the **Enter** softkey.
4. Tap the **Network** icon.
5. Tap the **802.1x** icon.



6. In the **EAP Type** field, tap the left and right arrow buttons to enable an EAP authentication type/method (EAP-MD5 or EAP-PEAP).
7. Tap the **Identity** input field and enter the identity or username used for authenticating the phone using the on-screen keyboard.
8. Tap the **Password** input field and enter the password used for authenticating the phone using the on-screen keyboard.
9. Tap the **Save** softkey to save your changes.

802.1X EAP-TLS Support

The Mitel MiVoice 6900 Series IP phones support configuration and download of 802.1x EAP-TLS certificates using the startup.cfg configuration file.

Configure and Download Certificates

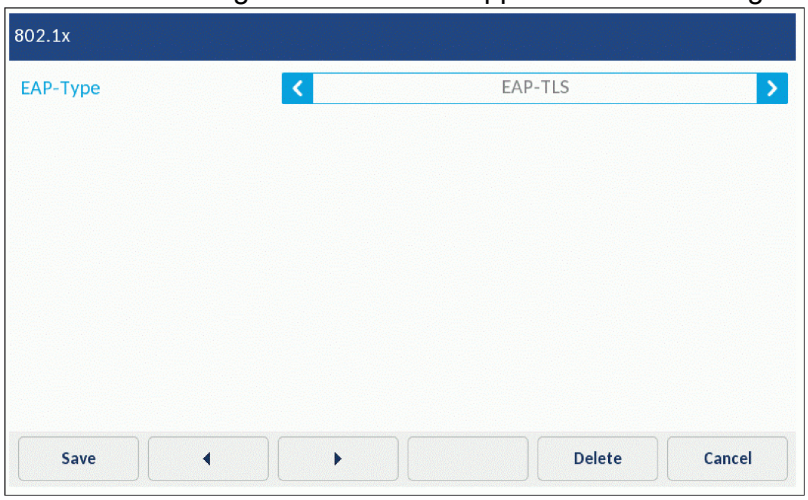
The following lists the configuration and download process for 802.1x EAP-TLS certificates:

1. At boot, the 6900 Series IP phone receives the server URL through DHCP options 43 or 66.
2. The phone downloads the startup.cfg file from the corresponding server using TFTP, FTP, HTTP, or HTTPS.
3. A "Downloading startup.cfg" message displays on the phone.
4. The phone downloads certificates using the URLs provided in startup.cfg file.
5. 802.1x settings are applied to enable EAP-TLS on the phone.
6. An "Applying 802.1x settings" message displays on the phone.
7. A phone reboot occurs.
8. After reboot, EAP-TLS appears in EAP-Type on the phone UI.

To view the configured 802.1X settings on the phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Press the **Advanced** softkey.

3. Input the Administrator password using the dialpad keys (default is 73738) and press the **Enter** softkey.
4. Navigate to **Network > 802.1x** using the navigation keys and press the **Select** softkey.
5. EAP-TLS displays in the non-editing mode since it is applied from the configuration file.



After the 802.1x settings are applied to the phone, it can be removed from the staging LAN and connected to the target corporate LAN with 802.1x EAP-TLS authentication enabled. If staging is done on a switch with separate "staging" VLAN which has the ability to automatically redirect to the target corporate LAN, the phone re-directs to the target VLAN after successful authentication.

NOTE:

1. Staging only supports configuration of EAP-TLS and no support is provided for EAP-MD5/EAP-PEAP.
2. An Administrator may switch from EAP-TLS to EAP-MD5/EAP-PEAP/disable using 6900 Series IP phone GUI. However, switching from EAP-MD5/EAP-PEAP/disable to EAP-TLS is not supported on the phone GUI. This requires staging of the phone to configure EAP-TLS.
3. In startup.cfg file, ensure to provide full URLs for certificates.

Configure Option 43 in DHCP server

The server URL is provided in the **cfg_srvr_url** tag in Option 43 as shown in the following examples:

- TFTP Server URL
  cfg_srvr_url=tftp://<IP | FQDN >/startup.cfg
- FTP Server URL
  cfg_srvr_url=ftp://<user>:<password>@<IP | FQDN >/startup.cfg
- HTTP Server URL
  cfg_srvr_url=http://<IP | FQDN>/startup.cfg
- HTTPS Server URL
  cfg_srvr_url=https://<IP | FQDN >/startup.cfg

Note: The MiNet end recognizes "ipphone.mitel.com" while the 6910 and 6920 IP phones on the SIP side send "AstraIPPhone69XX", which is not recognized by the server. Because of this, a MiNet customer is unable to access special option information such as TFTP server IP address from the DHCP server by using the Option 43 with Phone Vendor-ID option. To enable the phone to retrieve special option information, the MiNet customer must configure the DHCP server to support "vendor-class-6910" vendor ID.

Configure Option 66 in DHCP server

The server URL is provided in Option 66 as shown in following examples:

- TFTP Server URL
  tftp://<IP | FQDN >/startup.cfg
- FTP Server URL
  ftp://<user>:<password>@<IP | FQDN >/startup.cfg
- HTTP Server URL
  http://<IP | FQDN >/startup.cfg
- HTTPS Server URL
  https://<IP | FQDN >/startup.cfg

EAP-TLS Configuration Parameters

The startup.cfg configuration file contains following parameters to configure the EAP-TLS protocol on the 6900 Series IP phone:

- **eap type** - Specifies the type of authentication to use on the IP Phone for EAP-TLS use 2
- **identity** - Specifies the identity or username used for authenticating the phone
- **802.1x local certificate** - Use 1 local certificate
- **802.1x private key** - 1 private key that corresponds to local certificate
- **802.1x root and intermediate certificates** - Use 1 root and 0 or 1 intermediate certificates
- **802.1x trusted certificates** - 0 or more trusted certificates (a maximum of 2)

The following are examples of startup.cfg file using the TFTP, FTP, HTTP, and HTTPS servers:

TFTP

eap type: 2

identity: testuser

802.1x local certificate: tftp://<IP | FQDN >/ipphone.crt.pem

802.1x private key: tftp://<IP | FQDN >/ipphone.privatekey.pem

802.1x root and intermediate certificates: tftp://<IP | FQDN>/root.pem

802.1x trusted certificates: tftp://<IP | FQDN >/radius_server.crt.pem

FTP

eap type: 2

identity: testuser

802.1x local certificate: ftp://<user>:<password>@<IP | FQDN >/ipphone.crt.pem

802.1x private key: ftp://<user>:<password>@<IP | FQDN >/ipphone.privatekey.pem

802.1x root and intermediate certificates: ftp://<user>:<password>@<IP | FQDN >/root.pem

802.1x trusted certificates: ftp://<user>:<password>@<IP | FQDN >/radius_server.crt.pem

HTTP

eap type: 2

identity: testuser

802.1x local certificate: http://<IP | FQDN >/ipphone.crt.pem

802.1x private key: http://<IP | FQDN >/ipphone.privatekey.pem

802.1x root and intermediate certificates: http://<IP | FQDN >/root.pem

802.1x trusted certificates: http://<IP | FQDN >/radius_server.crt.pem

HTTPS

eap type: 2

identity: testuser

802.1x local certificate: https://<IP | FQDN >/ipphone.crt.pem

802.1x private key: https://<IP | FQDN >/ipphone.privatekey.pem

802.1x root and intermediate certificates: https://<IP | FQDN >/root.pem

802.1x trusted certificates: https://<IP | FQDN >/radius_server.crt.pem

Configure SCEP for 802.1x Certificate

With Release 1.5.1, Mitel 6900 Series IP phones support downloading 802.1x certificate using SCEP. The phones must download the configuration file from the configuration server in order to download the 802.1x certificate using SCEP.

At boot, the phone fetches <MAC>.cfg file from the provided server address using the DHCP option 125/43 cfg_srvr_url tag or DHCP Option 66.

The <MAC>.cfg format for SCEP is as follows:

eap type:2

identity: <Identity>

scep srv url: <scep server url>

scep password: <Password>

common name: <common name>

where,

- eap type must be set to 2 to enforce the phone to use EAP TLS for 802.1x authentication.
- identity contains the identity that is used for 802.1x EAP TLS.
- scep password is optional and based on the password policy set on the SCEP server.
- common name is optional. If no common name is specified, then the phone's MAC address (in colon format) will be considered as the common name for certificate issuance.

Other optional parameters:

802.1x trusted certificates: https:///radius_server.crt.pem

802.1x trusted certificates contain the URL for the phone to download the Radius server CA certificate. It is optional and if not present in the configuration file, the phone will use the CA certificate received from the SCEP server.

Certificate Enrollment

After downloading the <MAC>.cfg file, the phone parses the file and contacts the SCEP server using the URL provided in **scep srv url**, generates the CSR, and gets the 802.1x certificate. For SCEP connection, the phone uses the **scep password** and **common name**. The phone uses the same key for 802.1x local key (used for EAP-TLS) and SCEP certificate enrollment.

After successfully downloading the certificate from the SCEP server, the phone applies the changes to 802.1x settings and reboots to gain access to the authenticated environment.In case of failure, the set does not apply any of the settings and reboots after displaying the failure message on the screen.

Certificate Renewal

The phone sends a SCEP certificate renewal message to the SCEP server when 80% of 802.1x certificate validity duration has elapsed.In case of renewal failures, after unauthenticated due to certificate expiry, the phone reboots and reattempts enrollment to gain access to the authenticated environment.

Network Services

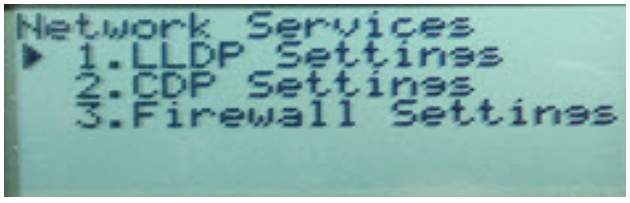
The following additional network services can be enabled/disabled using the Network Services sub-menu on the Mitel MiVoice 6900 Series IP phones:

- **LLDP Settings**: Link Layer Discovery Protocol - Media Endpoint Discovery (LLDP-MED) allows for information sharing between the IP phones and network devices such as L2 Ethernet switches. LLDP-MED can be used to simplify the deployment of IP phones with auto-discovery. This means that IP phones can auto-discover network policy from an LLDP-MED compliant L2 switch to obtain network policy information pertaining to VLAN, L2P, and DSCP.
- **CDP Settings**: The Mitel MiVoice 6900 Series IP phones are compatible with the Cisco Discovery Protocol (CDP). CDP can be used on the IP phones for the purpose of configuring port duplex and speed settings, port MAC identification, and auxiliary VLAN assignment.
- **Firewall Settings**: The Mitel MiVoice 6900 Series IP phones support an integrated Micro Firewall. When enabled, the Micro Firewall filters and blocks all undesirable packets sent to the phone.

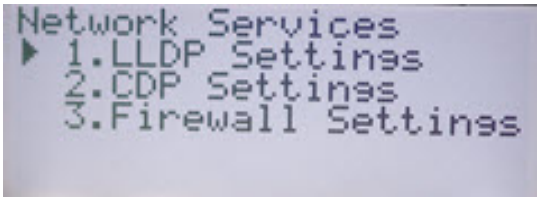
To configure additional network services on the Mitel MiVoice 6905/6910 IP phone:

1. Press the  **(Settings)** key on the phone to enter the **Settings** menu.
2. Use the navigation keys to navigate to **Advanced Settings** and press the **Enter** key.
3. Input the Administrator password (default is 73738) and press the **Enter** Key.
4. Navigate to **Network** and press the **Enter** key.

Mitel MiVoice 6905 Network Services



Mitel MiVoice 6910 Network Services



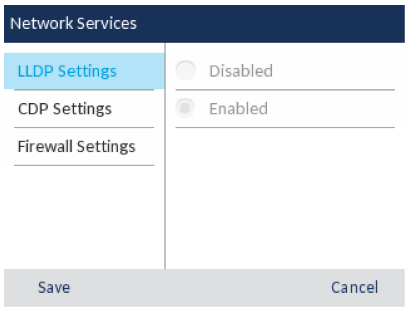
5. Navigate to **Network Services** and press the **Enter** key.
6. With the **LLDP Settings** highlighted, press the right navigation key to navigate to the selection column and use the up and down navigation keys to enable or disable LLDP services and press the right navigation key to **Save** the selection.
7. Press the left navigation key to navigate back to the **Network Settings** options column and then press the down navigation key to select the **CDP Settings** option.

8. With **DP Settings** highlighted, press the right navigation key to navigate to the selection column and use the up and down navigation keys to enable or disable CDP services and press the right navigation key to **Save** the selection.
9. Press the left navigation key to navigate back to the **Network Settings** options column and then press the down navigation key to highlight the **Firewall Settings** option.
10. With **Firewall Settings** highlighted, press the right navigation key to navigate to the selection column and use the up and down navigation keys to enable or disable the firewall services and press the right navigation key to **Save** the selection.

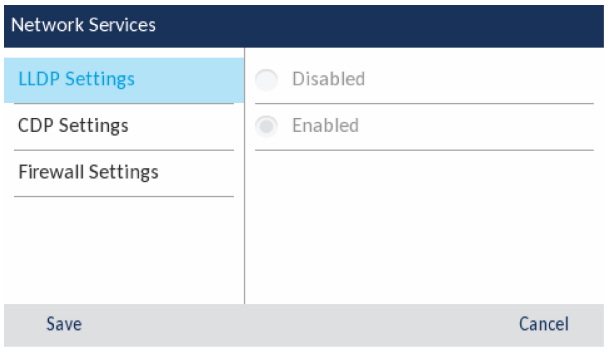
To configure additional network services on the Mitel MiVoice 6920/6930 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Press the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and press the **Enter** softkey.
4. Navigate to **Network** > **Network Services** using the navigation keys and press the **Select** softkey.

Mitel MiVoice 6920 Network Services



Mitel MiVoice 6930 Network Services



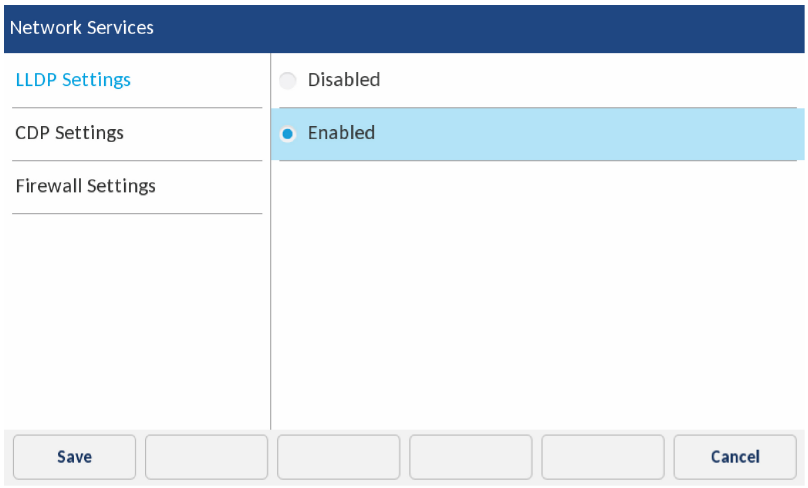
5. With **LLDP Settings** highlighted, press the right navigation key to navigate to the selection column and use the up and down navigation keys to enable or disable LLDP services.
6. Press the left navigation key to navigate back to the LLDP options column and then press the down navigation key to highlight the **CDP Settings** option.
7. With **CDP Settings** highlighted, press the right navigation key to navigate to the selection column and use the up and down navigation keys to enable or disable CDP services.
8. Press the left navigation key to navigate back to the **CDP Settings** options column and then press the down navigation key to highlight the **Firewall Settings** option.
9. With **Firewall Settings** highlighted, press the right navigation key to navigate to the selection column and use the up and down navigation keys to enable or disable the firewall services.
10. Press the **Save** softkey to save your changes.

To configure additional network services on the Mitel MiVoice 6940 IP phone:

1. Press the  (**Settings**) key on the phone to enter the Settings menu.
2. Tap the **Advanced** softkey.

3. Input the Administrator password using the dialpad keys (default is 73738) and tap the Enter softkey.
4. Tap the **Network** icon.
5. Tap the **Network Services** icon.

Mitel MiVoice 6940 Network Services



6. With **LLDP Settings** highlighted, tap Enable or Disable to enable or disable LLDP services.
7. Tap **CDP Settings** located in the left column.
8. With **CDP Settings** highlighted, tap **Enable** or **Disable** to enable or disable CDP services.
9. Tap **Firewall Settings** located in the left column.
10. With **Firewall Settings** highlighted, tap **Enable** or **Disable** to enable or disable firewall services.
11. Tap the **Save** softkey to save your changes.

PIN

The **PIN** menu allows you to erase and modify the registration pin. The registration pin is used to register the Mitel MiVoice 6900 Series IP phones with the MiVB database.

Erase PIN

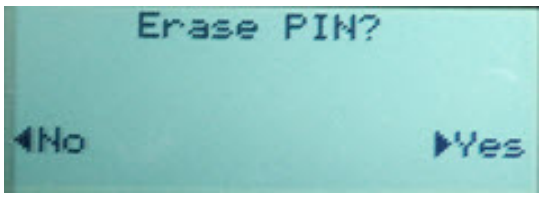
The **Erase PIN** sub-menu allows you to erase the registration pin on the IP phone.

To erase the registration pin on the Mitel MiVoice 6905/6910 IP phone:

1. Press the  **(Settings)** key on the phone to enter the **Settings** menu.
2. Use the navigation keys to navigate to **Advanced Settings** and press the **Enter** key.

3. Input the Administrator password (default is 73738) and press the **Enter** Key.
4. Navigate to **PIN** and press the **Enter** key.

Mitel MiVoice 6905 Erase PIN



Mitel MiVoice 6910 Erase PIN

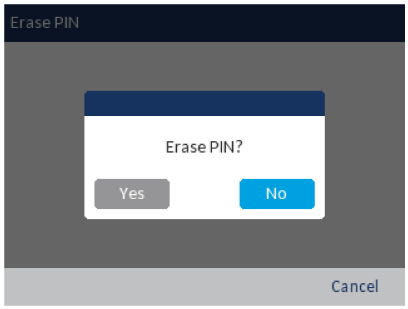
5. Use the right navigation key to select **Erase PIN** and use the right navigation key to select **Yes** and press the **Enter** key.

NOTE: Use the left navigation key to select **No** and press the select button (middle button in the navigation cluster) to cancel the request.

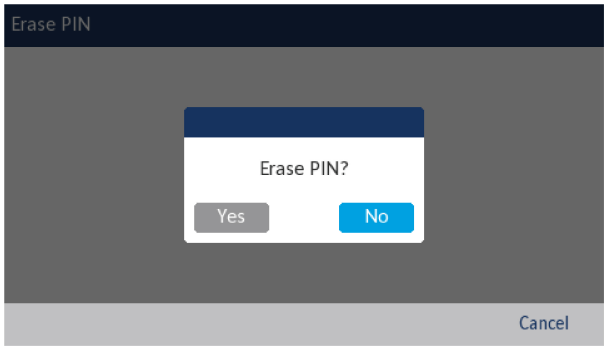
To erase the registration pin on the Mitel MiVoice 6920/6930 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Press the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and press the **Enter** softkey.
4. Navigate to **PIN** > **Erase PIN** using the navigation keys and press the **Select** softkey.

Mitel MiVoice 6920 Erase PIN



Mitel MiVoice 6930 Erase PIN



5. Use the left navigation key to select **Yes** and press the select button (middle button in the navigation cluster).

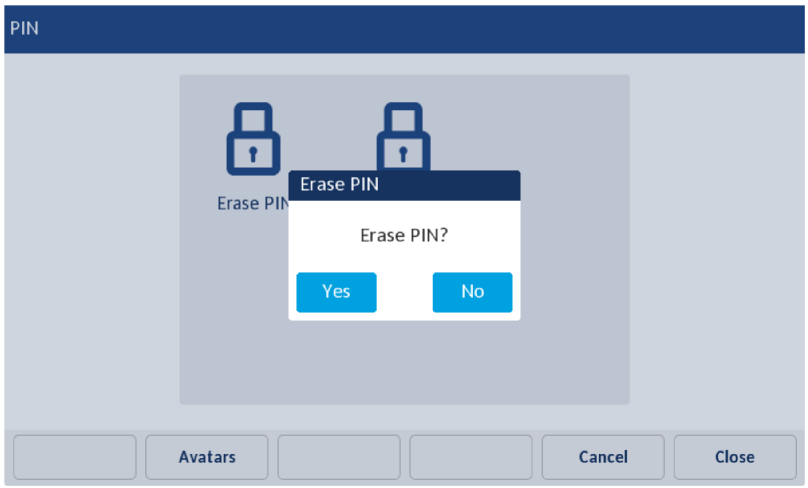
NOTE: Navigate to **No** and press the select button (middle button in the navigation cluster) to cancel the request.

To erase the registration pin on the Mitel MiVoice 6940 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Tap the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and tap the **Enter** softkey.

4. Tap the **PIN** icon.
5. Tap the **Erase PIN** icon.

Mitel MiVoice 6940 Erase PIN



6. Tap **Yes**.

NOTE: Tap **No** to cancel the request.

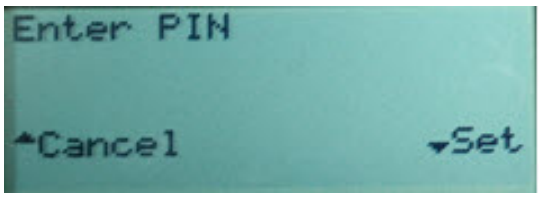
Modify PIN

The **Modify PIN** sub-menu allows you to modify the registration pin on the IP phone.

To modify the registration pin on the Mitel MiVoice 6905/6910 IP phone:

1. Press the  **(Settings)** key on the phone to enter the **Settings** menu.
2. Use the navigation keys to navigate to **Advanced Settings** and press the **Enter** key.
3. Input the Administrator password (default is 73738) and press the **Enter** Key.
4. Navigate to **PIN** and press the **Enter** key.

Mitel MiVoice 6905 Modify PIN



Mitel MiVoice 6910 Modify PIN

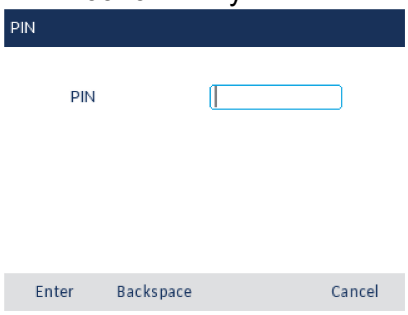
5. Use the down navigation key to navigate to **Modify PIN** and press the right navigation key.
6. In the **Enter PIN** input field, enter the PIN and press the down navigation key to modify the PIN.

NOTE: The left navigation key is used to delete the last digit entered and the ABC/abc/123 softkey can be used to switch the dialpad keys from lower to uppercase as well as from alphabetic to numeric.

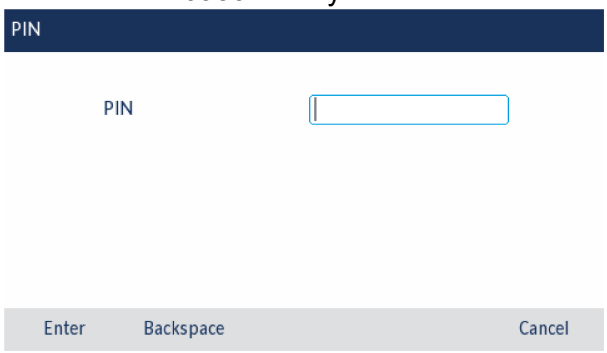
To modify the registration pin on the Mitel MiVoice 6920/6930 IP phone:

1. Press the (**Settings**) key on the phone to enter the **Settings** menu.
2. Press the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and press the **Enter** softkey.
4. Navigate to **PIN** > **Modify PIN** using the navigation keys and press the **Select** softkey.

Mitel MiVoice 6920 Modify PIN



Mitel MiVoice 6930 Modify PIN



5. Enter the new pin using the dialpad keys.

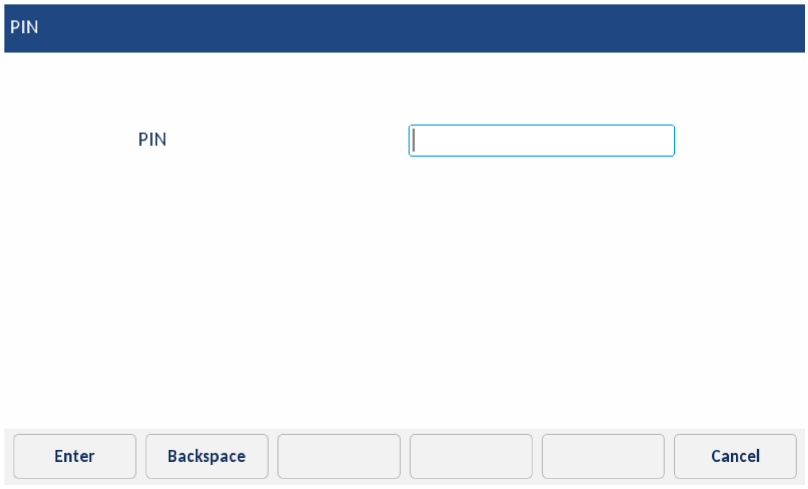
NOTE: The **Backspace** softkey can be used to delete the last digit entered

6. Press the **Enter** softkey to save your changes.

To modify the registration pin on the Mitel MiVoice 6940 IP phone:

1. Press the (**Settings**) key on the phone to enter the **Settings** menu.
2. Tap the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and tap the **Enter** softkey.
4. Tap the **PIN** icon.
5. Tap the **Modify PIN** icon.

Mitel MiVoice 6940 Modify PIN



6. Enter the new pin using the dialpad keys.

NOTE: The **Backspace** softkey can be used to delete the last digit entered.

7. Tap the **Enter** softkey to save your changes.

Diagnostics

The **Diagnostics** menu allows you to perform the following diagnostic routines:

- Audio Diagnostics
- Ping
- TCP DUMP
- DHCP Trace
- Traceroute

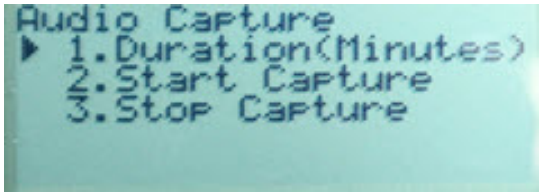
Audio Diagnostics

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 MiVoice 6900 Series IP phones.

To capture audio diagnostic logs on the Mitel MiVoice 6905/6910 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Navigate to **Diagnostics** > **Audio Capture** using the navigation keys and press the Enter key.

Mitel MiVoice 6905 Audio Capture



Mitel MiVoice 6910 Audio Capture

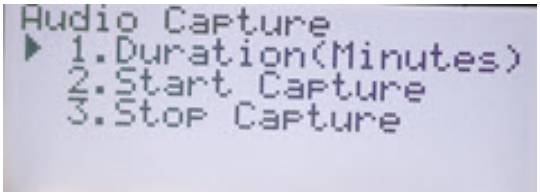


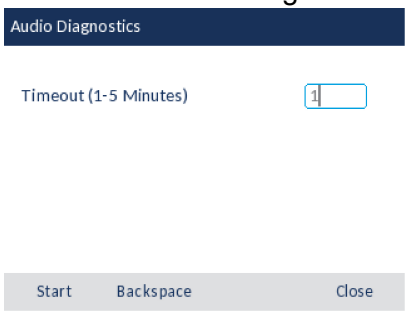
Figure 3.2:

3. In the **Duration (Minutes)** 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 and press the down navigation key to save the changes.
4. To start capturing, navigate to **Start Capture** and press the right navigation key.
5. To start capturing, navigate to **Stop Capture** and press the right navigation key.

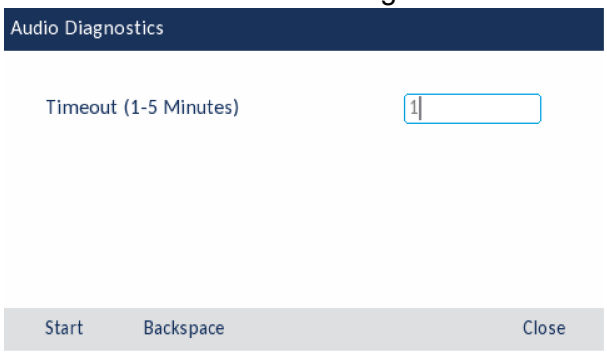
To capture audio diagnostic logs on the Mitel MiVoice 6920/6930 IP phone:

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.

Mitel MiVoice 6920 Audio Diagnostics



Mitel MiVoice 6930 Audio Diagnostics



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.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.

NOTE:

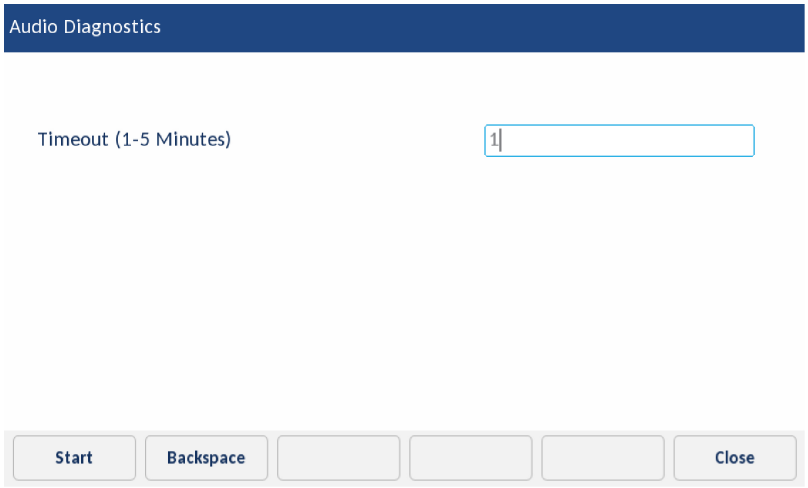
1. Press the **Stop** softkey at any time to stop capturing the audio diagnostic logs.
2. A "log issue" is issued only after the completion of an audio diagnostics run.

CAUTION: Do not change the audio device when you run the audio diagnostics tool.

To capture audio diagnostic logs on the Mitel MiVoice 6940 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Tap the **Diagnostics** icon.
3. Tap the **Audio Diagnostics** icon.

Mitel MiVoice 6940 Audio Diagnostics



4. 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.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.

NOTE:

1. Tap 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.

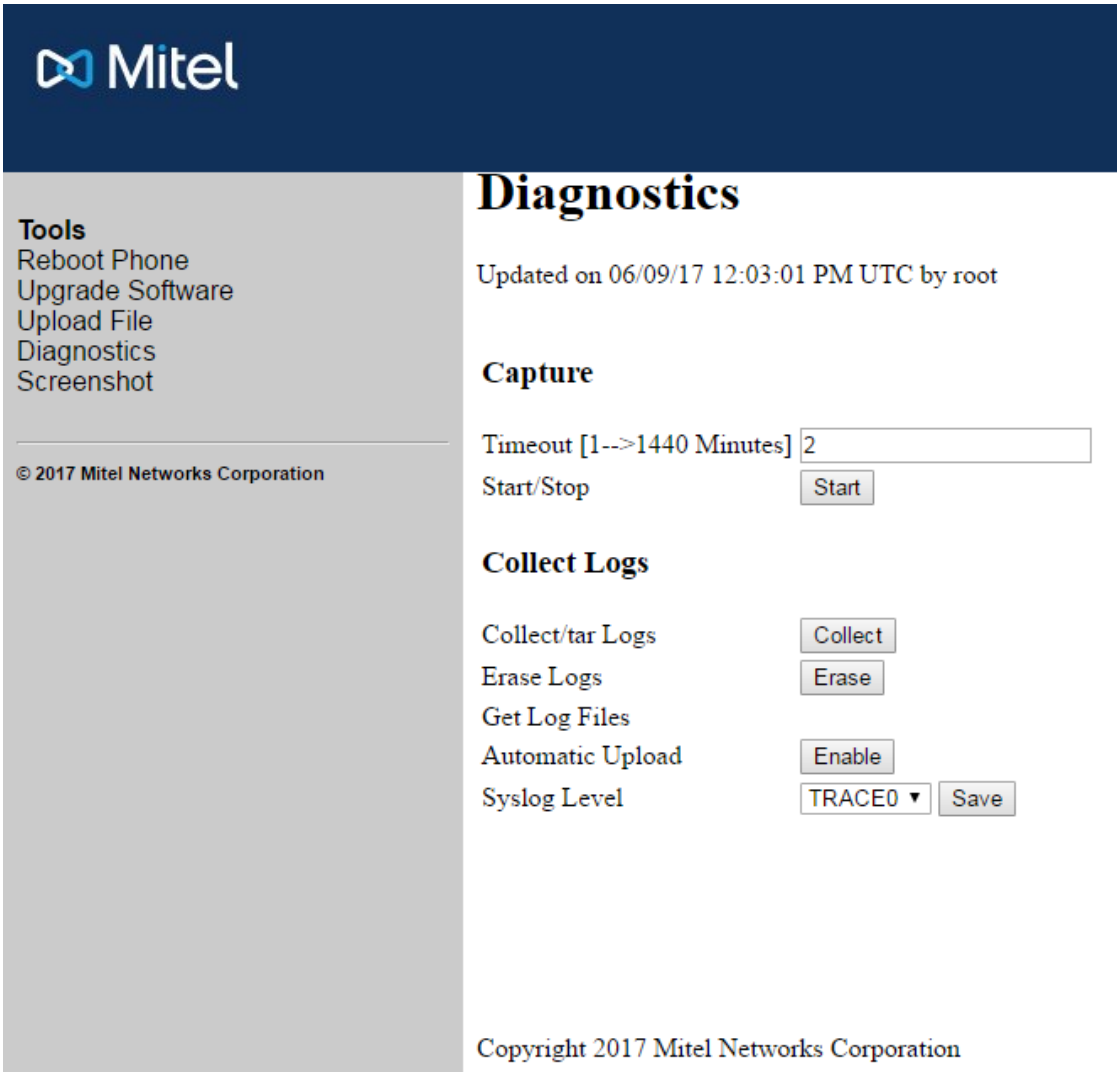
CAUTION: Do not change the audio device when you run the audio diagnostics tool.

To save the audio diagnostic logs to your PC using the Mitel Web UI:

1. Open your web browser and enter the phone's IP address or host name into the address bar.
2. Enter your username and password and click **OK**/**Login**.

   The status window displays for the IP phone you are accessing.

   NOTE: The default username is "root" and the default password is "73738".
3. Click on **Diagnostics**.



4. Click on the **Download Audio Log Files** link beside **Get Log Files**.
5. Save the file to the desired location on your computer.

NOTE: For more information on Mitel Web UI features, see *"Web UI Features"*.

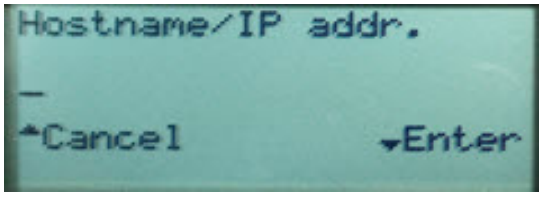
Ping

The **Ping** sub-menu allows you to ping a hostname or IP address directly from the Mitel MiVoice 6900 Series IP phone. This tool can be used to verify whether or not network connections between the Mitel MiVoice 6900 Series IP phone and other network endpoints are intact.

To use the ping tool on the Mitel MiVoice 6905/6910 IP phone:

1. Press the (**Settings)** key on the phone to enter the **Settings** menu.
2. Use the navigation keys to navigate to **Diagnostics** and press the **Enter** key.
3. Use the navigation key to navigate to **Ping** and press the **Enter** Key.

Mitel MiVoice 6905 Ping



Mitel MiVoice 6910 Ping

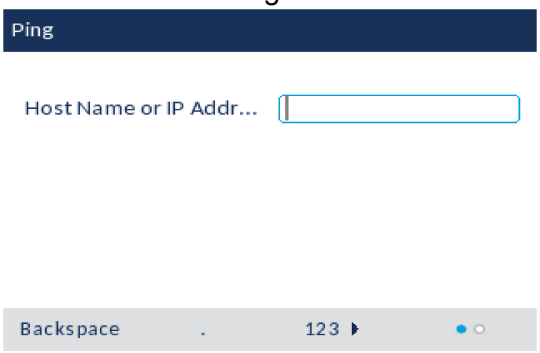
4. In the **Hostname/IP addr.** input field, enter the hostname or IP address of the network endpoint you want to ping using the dialpad keys and press the down navigation key to **Save** the changes.

   NOTE: The left navigation key is used to delete the last digit/character entered, the dot (".") key can be used to enter a dot where applicable, and the abc/123 softkey can be used to switch the dialpad keys from alphabetic to numeric.

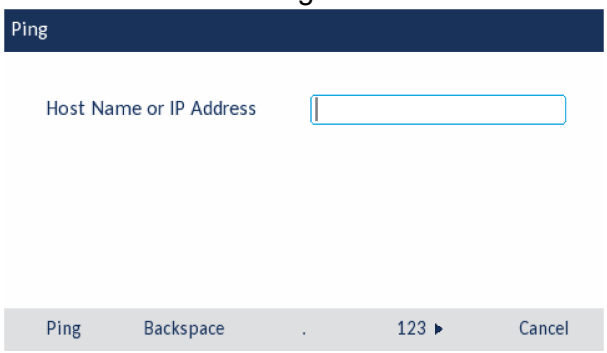
To use the ping tool on the Mitel MiVoice 6920/6930 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Navigate to **Diagnostics** > **Ping** using the navigation keys and press the **Select** softkey.

Mitel MiVoice 6920 Ping



Mitel MiVoice 6930 Ping



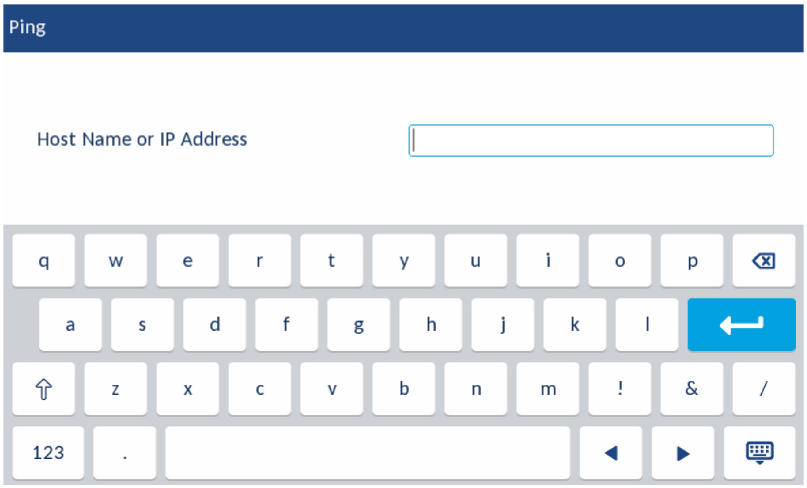
3. In the **Hostname/IP addr.** input field, enter the hostname or IP address of the network endpoint you want to ping using the dialpad keys.

NOTE: The **Backspace** softkey can be used to delete the last digit/character entered, the dot (".") softkey can be used to enter a dot where applicable, and the abc/123 softkey can be used to switch the dialpad keys from alphabetic to numeric.

4. Press the **Ping** softkey to begin.The IP phone displays the number of packets sent, the number of packets received, and the Round-Trip Time (RTT) min/avg/max in milliseconds.

To use the ping tool on the Mitel MiVoice 6940 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Tap the **Diagnostics** icon.
3. Tap the **Ping** icon.



Mitel MiVoice 6940 Ping

4. In the **Hostname/IP addr.** input field, enter the hostname or IP address of the network endpoint you want to ping using the on-screen keyboard.
5. Tap the **Ping** softkey to begin.The IP phone displays the number of packets sent, the number of packets received, and the Round-Trip Time (RTT) min/avg/max in milliseconds.

TCP DUMP

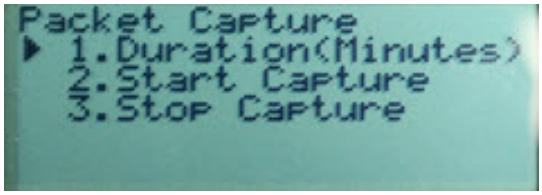
The **TCP DUMP** sub-menu allows you to capture TCP network packets for up to 1440 minutes that can in turn be used to help debug and troubleshoot various issues.

NOTE: During a TCP DUMP network packet capture, only the most recent 20 MB of the capture is retained.

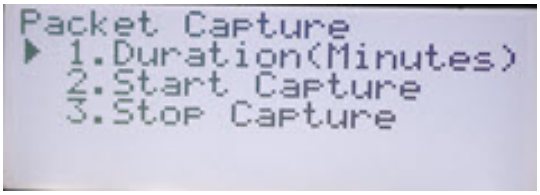
To capture TCP network packets on the Mitel MiVoice 6905/6910 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Navigate to **Diagnostics** > **Packet Capture** using the navigation keys and press the **Enter** key.

Mitel MiVoice 6905 TCP Dump



Mitel MiVoice 6910 TCP Dump

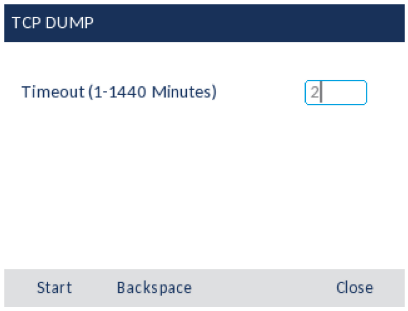


3. In the **Duration (Minutes)** input field, enter the amount of time (in minutes from 1 to 1440) you would like to capture TCP network packet data using the dialpad keys and press the down navigation key to save the changes.
4. To start capturing, navigate to **Start Capture** and press the right navigation key.
5. To start capturing, navigate to **Stop Capture** and press the right navigation key.

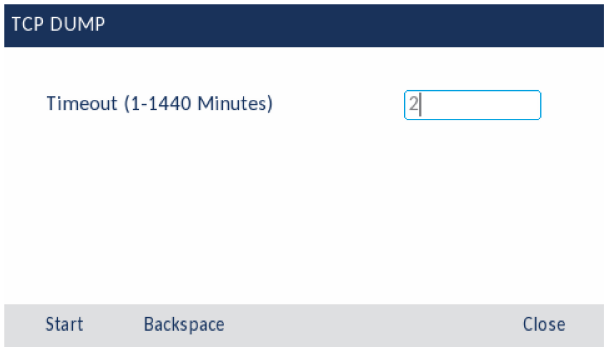
To capture TCP network packets on the Mitel MiVoice 6920/6930 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Navigate to **Diagnostics** > **TCP DUMP** using the navigation keys and press the **Select** softkey.

Mitel MiVoice 6920 TCP DUMP



Mitel MiVoice 6930 TCP DUMP



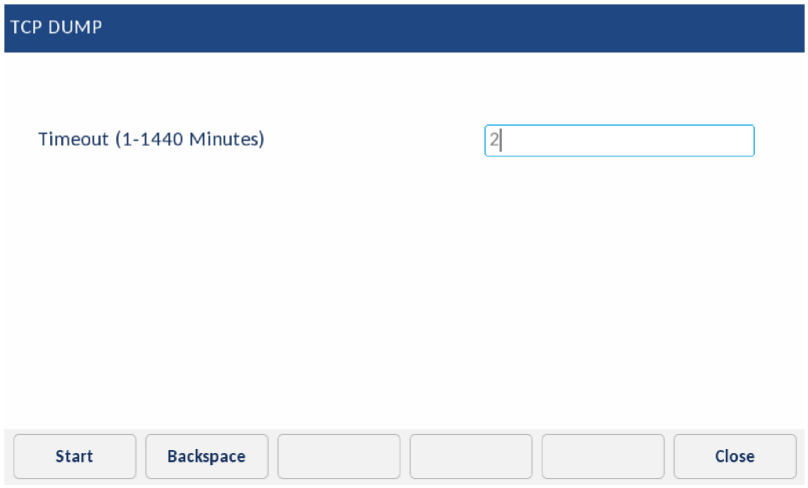
3. In the **Timeout** input field, enter the amount of time (in minutes from 1 to 1440) you would like to capture TCP network packet data using the dialpad keys.The IP phone displays "Capturing..." and when the timeout elapses, "Complete..." is displayed.

NOTE: Press the **Stop** softkey at any time to stop capturing the TCP DUMP logs.

To capture TCP network packets on the Mitel MiVoice 6940 IP phone:

1. Press the  (**Settings**) key on the phone to enter the **Settings** menu.
2. Tap the **Diagnostics** icon.
3. Tap the **TCP DUMP** icon.

Mitel MiVoice 6940 TCP DUMP



4. In the **Timeout** input field, enter the amount of time (in minutes from 1 to 1440) you would like to capture TCP network packet data using the dialpad keys.The IP phone displays "Capturing..." and when the timeout elapses, "Complete..." is displayed.

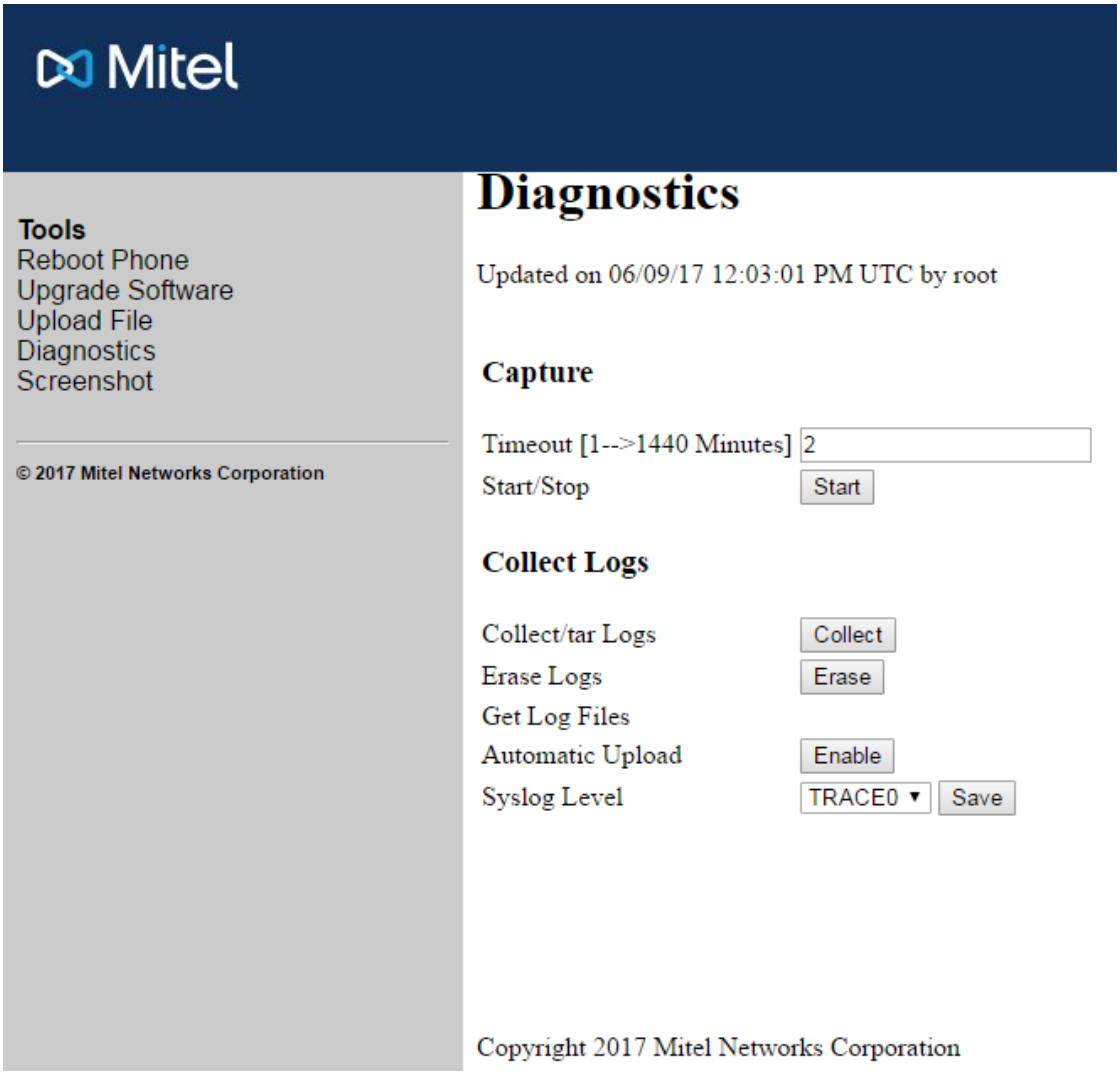
NOTE: Tap the **Stop** softkey at any time to stop capturing the TCP DUMP logs.

To save the TCP network packet logs to your PC using the Mitel Web UI:

1. Open your web browser and enter the phone's IP address or host name into the address bar.
2. Enter your username and password and click **OK**/**Login**.

   The status window displays for the IP phone you are accessing.

   NOTE: The default username is "root" and the default password is "73738".
3. Click on **Diagnostics**.



4. Click on the **Download Log Files** link beside **Get Log Files**.
5. Save the file to the desired location on your computer.

   NOTE: For more information on Mitel Web UI features, see *"Web UI Features"*.

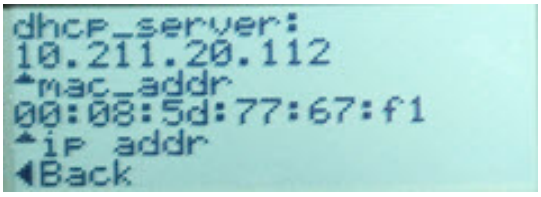
DHCP Trace

The **DHCP Trace** sub-menu allows you to perform a DHCP trace request. You can then review the parameters that the DHCP trace returns. After you have reviewed the trace information, the DHCP Lease is released.

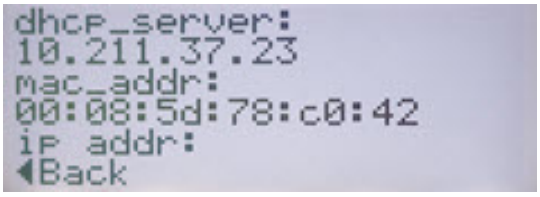
To perform a DHCP trace on the Mitel MiVoice 6905/6910 IP phone:

1. Press the (**Settings)** key on the phone to enter the **Settings** menu.
2. Use the navigation keys to navigate to **Diagnostics** and press the **Enter** key.
3. Use the navigation key to navigate to **DHCP Trace** and press the **Enter** Key.

Mitel MiVoice 6905 DHCP Trace



Mitel MiVoice 6910 DHCP Trace



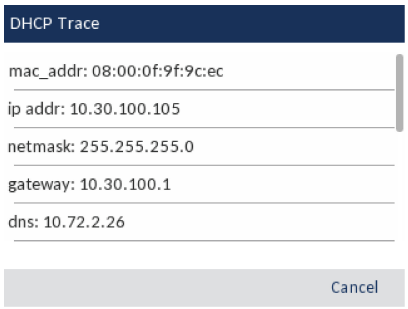
The following parameters and associated values are displayed:

- **mac_addr:**
  The MAC address of the IP phone.
- **ip addr:**
  The IP address of the IP phone.
- **netmask:**
  The IP address range local to the IP phone.
- **gateway:**
  The IP address of the network's gateway or default router IP address.
- **dns:**
  The IP address of the primary DNS server.
- **icp:**
  The IP address of the call server.
- **tftp:**
  The IP address of the TFTP server.
- **http:**
  The IP address of the HTTP server.
- **ipa:**
  The IP address of the IPA server.
- **VLAN:**
  The VLAN id of the IP phone.
- **l2p:**
  L2P priorities for default, voice, signaling, and other.
- **dscp:**
  DSCP values for default, voice, signaling, and other.

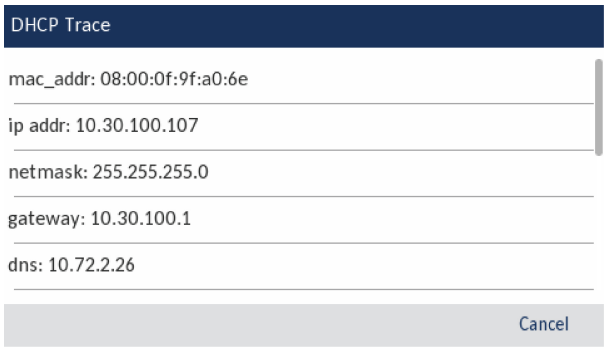
To perform a DHCP trace on the Mitel MiVoice 6920/6930 IP phone:

1. Press the (**Settings**) key on the phone to enter the **Settings** menu.
2. Navigate to **Diagnostics** > **DHCP Trace** using the navigation keys and press the **Select** softkey.

Mitel MiVoice 6920 DHCP Trace



Mitel MiVoice 6930 DHCP Trace



The following parameters and associated values are displayed:

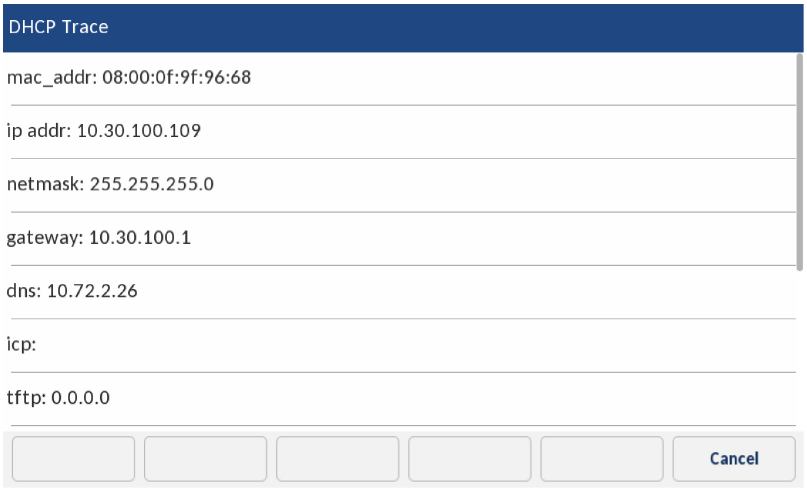
- **mac_addr:**
  The MAC address of the IP phone.
- **ip addr:**
  The IP address of the IP phone.
- **netmask:**
  The IP address range local to the IP phone.
- **gateway:**
  The IP address of the network's gateway or default router IP address.
- **dns:**
  The IP address of the primary DNS server.
- **icp:**
  The IP address of the call server.
- **tftp:**
  The IP address of the TFTP server.
- **http:**
  The IP address of the HTTP server.
- **ipa:**
  The IP address of the IPA server.
- **VLAN:**
  The VLAN id of the IP phone.
- **l2p:**
  L2P priorities for default, voice, signaling, and other.
- **dscp:**
  DSCP values for default, voice, signaling, and other.

To perform a DHCP trace on the Mitel MiVoice 6940 IP phone:

1. Press the (**Settings**) key on the phone to enter the **Settings** menu.
2. Tap the **Advanced** softkey.

3. Input the Administrator password using the dialpad keys (default is 73738) and tap the **Enter** softkey.
4. Tap the **Diagnostics** icon.
5. Tap the **DHCP Trace** icon.

Mitel MiVoice 6940 DHCP Trace



The following parameters and associated values are displayed:

- **mac_addr:**
  The MAC address of the IP phone.
- **ip addr:**
  The IP address of the IP phone.
- **netmask:**
  The IP address range local to the IP phone.
- **gateway:**
  The IP address of the network's gateway or default router IP address.
- **dns:**
  The IP address of the primary DNS server.
- **icp:**
  The IP address of the call server.
- **tftp:**
  The IP address of the TFTP server.
- **http:**
  The IP address of the HTTP server.
- **ipa:**
  The IP address of the IPA server.
- **VLAN:**
  The VLAN id of the IP phone.
- **l2p:**
  L2P priorities for default, voice, signaling, and other.
- **dscp:**
  DSCP values for default, voice, signaling, and other.

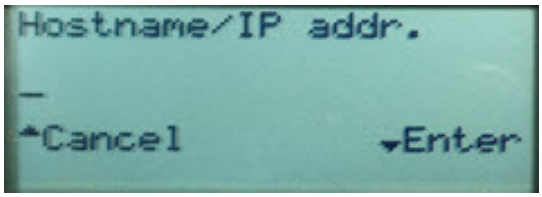
Traceroute

The **Traceroute** sub-menu allows you to perform a trace request. You can then review the parameters that the DHCP trace returns. After you have reviewed the trace information, the DHCP Lease is released.

To use the ping tool on the Mitel MiVoice 6905/6910 IP phone:

1. Press the (**Settings)** key on the phone to enter the **Settings** menu.
2. Use the navigation keys to navigate to **Diagnostics** and press the **Enter**key.
3. Use the navigation key to navigate to **Traceroute** and press the **Enter**Key.

Mitel MiVoice 6905 Traceroute



Mitel MiVoice 6910 Traceroute

4. In the **Hostname/addrs.** input field, enter the hostname or IP address of the network endpoint you want to ping using the dialpad keys and press the down navigation key to Save the changes.

Restore Default

The **Restore Default** option allows you to restore the Mitel MiVoice 6900 Series IP phone to its factory default settings.

Note: Performing a factory default is only applicable to the phone settings and does not affect the firmware version loaded on the phone.

To perform a factory default on the Mitel MiVoice 6905/6910 IP phone:

1. Press the (**Settings)** key on the phone to enter the **Settings** menu.
2. Use the navigation keys to navigate to **Advanced Settings** and press the **Enter** key.
3. Input the Administrator password (default is 73738) and press the **Enter** Key.
4. Navigate to **Factory Default** and press the **Enter** key.

Mitel MiVoice 6905 Restore Default

Mitel MiVoice 6910 Restore Default

5. Use the right navigation key to select **Yes** and press the **Enter** key.

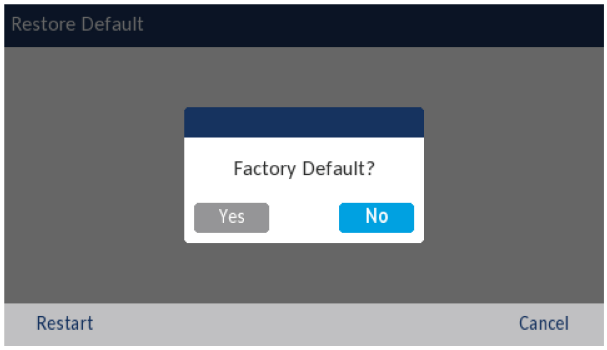
Note: Use the left navigation key to navigate to **No** and press **Enter** Key to cancel the request.

To perform a factory default on the Mitel MiVoice 6920/6930 IP phone:

1. Press the (**Settings**) key on the phone to enter the **Settings** menu.
2. Press the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and press the **Enter** softkey.
4. Navigate to **Restore Default** using the navigation keys and press the **Select** softkey.

Mitel MiVoice 6920 Restore Default

Mitel MiVoice 6930 Restore Default



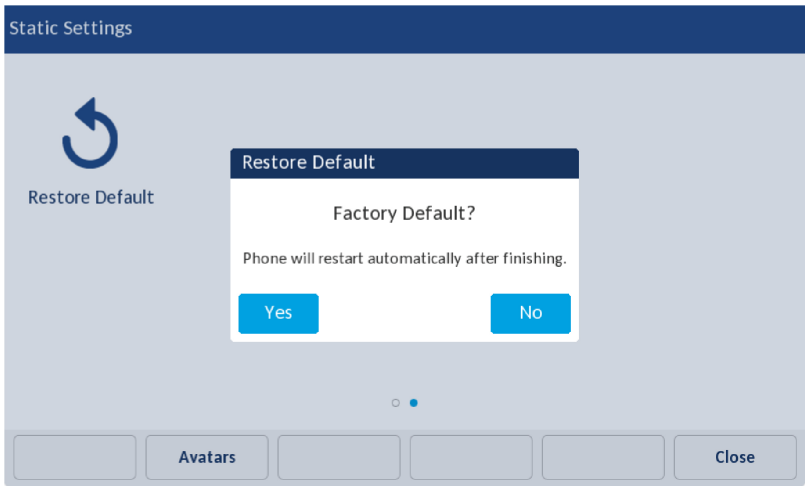
5. Use the left navigation key to select **Yes** and press the select button (middle button in the navigation cluster).

Note: Navigate to **No** and press the select button (middle button in the navigation cluster) to cancel the request.

To perform a factory default on the Mitel MiVoice 6940 IP phone:

1. Press the (**Settings**) key on the phone to enter the **Settings** menu.
2. Tap the **Advanced** softkey.
3. Input the Administrator password using the dialpad keys (default is 73738) and tap the **Enter** softkey.
4. Swipe left on the screen to change to the second page of settings.
5. Tap the **Restore Default** icon.

Mitel MiVoice 6940 Restore Default



6. Tap **Yes.**

Note: Tap **No** to cancel the request.

Manual Upgrade

By factory default, the 6900 Series IP Phones have the MiNet firmware pre-installed. You can upgrade the default firmware to the latest release of MiNet. You can also enable interoperability with Mitel's SIP-based solutions by upgrading the 6900 Series IP Phones to the SIP firmware.

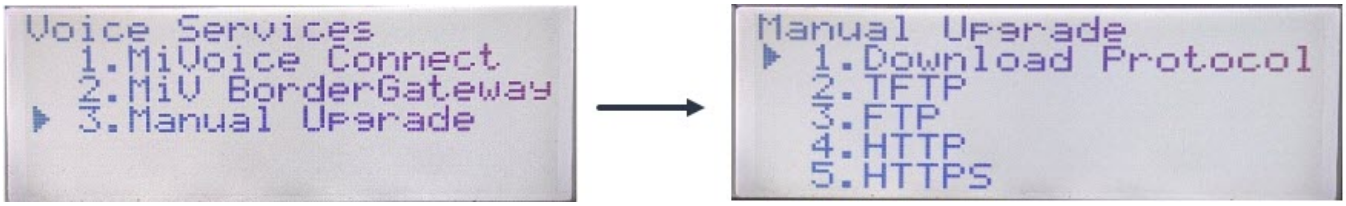
To perform the manual upgrade, you must configure a connection to the server where the firmware is stored. The 6900 Series IP Phones support the following protocols to download a new firmware:

- TFTP
- FTP
- HTTP
- HTTPS

NOTE: The server must be configured to support downloading firmware using any of these protocols.

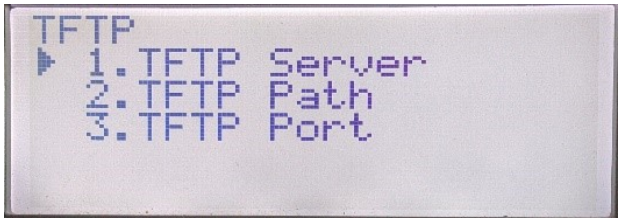
To configure connection settings for a manual upgrade of 6905 and 6910 IP Phones:

1. Press the  key to enter the Settings menu.
2. Navigate to **Voice Services**> **Manual Upgrade**.



3. In the **Download Protocol** field, select the protocol for downloading firmware from the server.

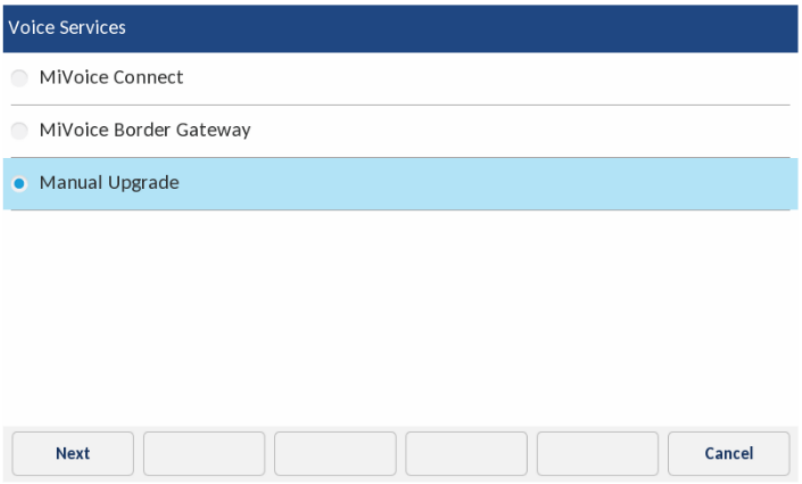
4. In the **Server** field, enter the domain name or the IP address of the server.
5. In the **Port** field, enter the server port that is used for downloading firmware.
6. In the **Path** field, enter the name of the folder(s) where the firmware you want to install is stored.
7. The following screen displays the fields for TFTP and similarly, you may select any of the protocols and update required fields.



8. Press **Save**.
9. Navigate back to the Manual Upgrade screen and select the **Restart Phone** option.

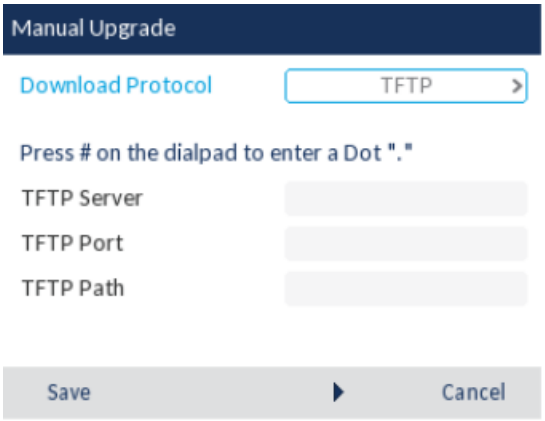
To configure connection settings for a manual upgrade of 6920, 6930 and 6940 IP Phones:

1. Press the  key to enter the Settings menu.
2. Navigate to **Voice Services** > **Manual Upgrade** and press/tap the **Next** softkey.



NOTE: The service options under Voice Services also displays MiCloud Connect, if the IP phone has an alternate SIP load available.

3. In the **Download Protocol** field, select the protocol for downloading firmware from the server.



4. In the **Server** field, enter the domain name or the IP address of the server.
5. In the **Port** field, enter the server port that is used for downloading firmware.
6. In the **Path** field enter the name of the folder(s) where the firmware you want to install is stored.
7. Press/ tap **Save**.

   The IP Phone automatically reboots.

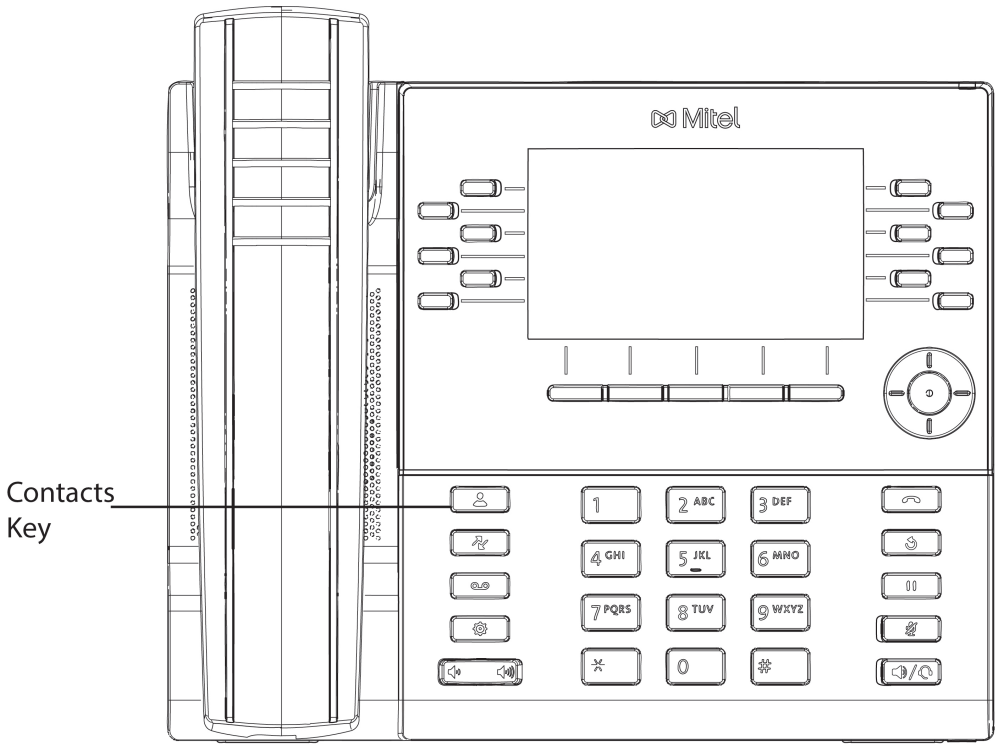
After a restart, the IP Phone downloads the firmware from server and completes the upgrade.

NOTE:

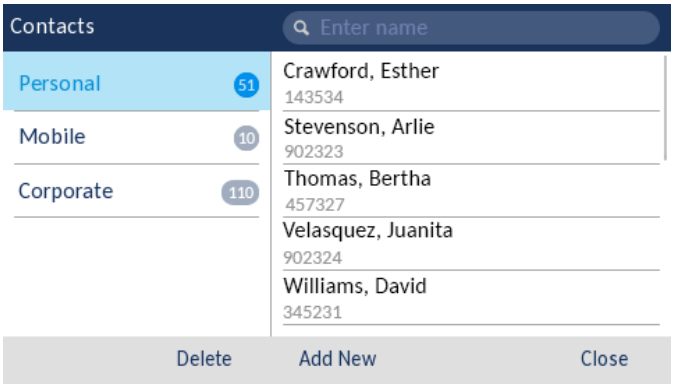
- The IP Phone initially attempts to download the MiNet firmware. If unsuccessful, the phone next attempts to download the SIP firmware.
- On a failure scenario, the IP Phone displays an **Upgrade main failed** status message followed by the address entered by the user.

LDAP (Corporate) Directory Contacts

The **Contacts** application is your personal phone book and directory, conveniently stored within your phone. The Mitel MiVoice 6900 Series IP phones support a localized **Personal** contact folder as well as enhanced functionality allowing for interoperability with LDAP (**Corporate**) directories. The Administrator must set up access to the LDAP (**Corporate**) directory.



The number of **Corporate** contacts displayed on the phone is the number of contacts configured on the LDAP (**Corporate**) directory. For example, if the LDAP (**Corporate**) directory is configured with 110 contacts, then the phone displays **110** for **Corporate** in the **Contacts** application.



NOTE:

1. The Administrator can configure up to 10,000 contacts on the LDAP (**Corporate**) directory.
2. The Mitel MiVoice 6900 Series IP phones now support LDAP in teleworker mode. Refer to the *Mitel IP Sets Engineering Guidelines* for details on configuration requirements.

Web UI Features

Administrators have the ability to perform the following by accessing and using the Mitel MiVoice 6900 Series IP phone's Web UI:

- Reboot the IP phone.
- Manually upgrade the IP phone software.
- Upload a file to the IP phone.
- Capture and download debug logs as well as enable automatic uploading of crash reports.
- Capture a screen shot of what is currently being displayed on the IP phone's screen.

Ensure to enable the Web UI from the MiVoice Business maintenance command line and add the following commands:

- pd send <extension> enable_web
- pd send <extension> disable_web

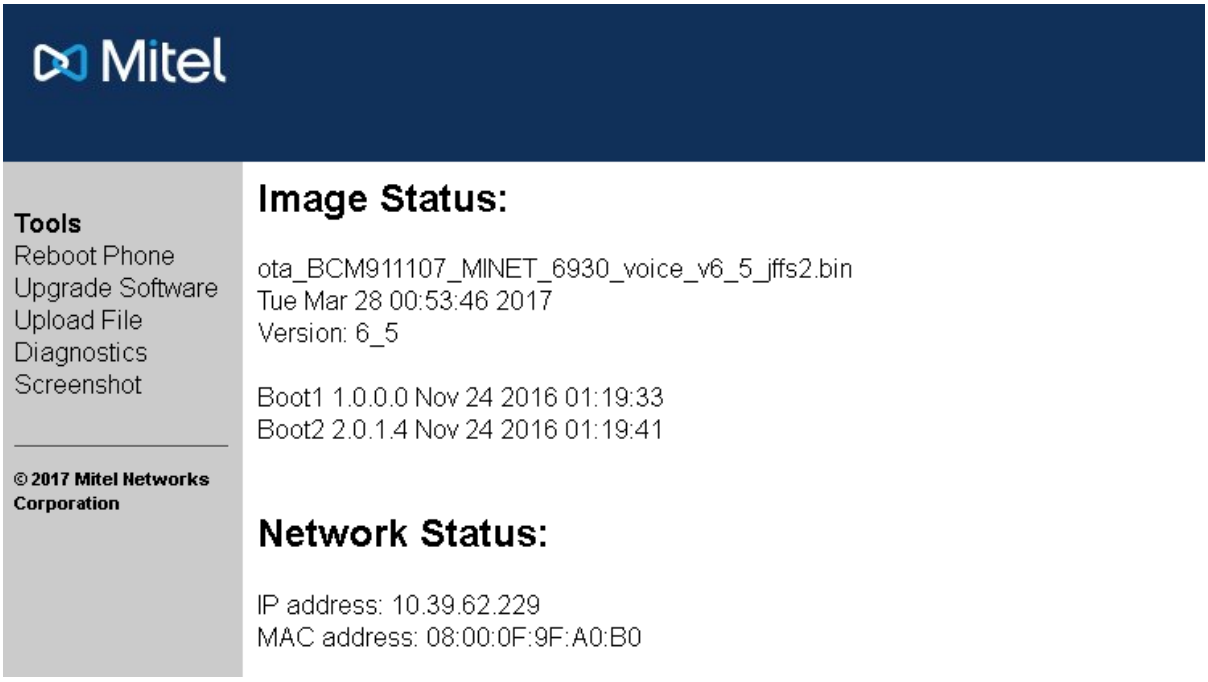
NOTE: Ensure to clear the **Enable AutoComplete** check box before running the commands.

The Mitel Web UI supports all major web browsers such as Internet Explorer, Mozilla Firefox, Google Chrome, and Apple Safari.

To access the IP phone's Mitel Web UI:

1. Open your web browser and enter the phone's IP address or host name into the address bar.
2. Enter your username and password and click **OK**/**Login**.

   The status window displays for the IP phone you are accessing.



NOTE: The default username is "root" and the default password is "73738".

Reboot Phone

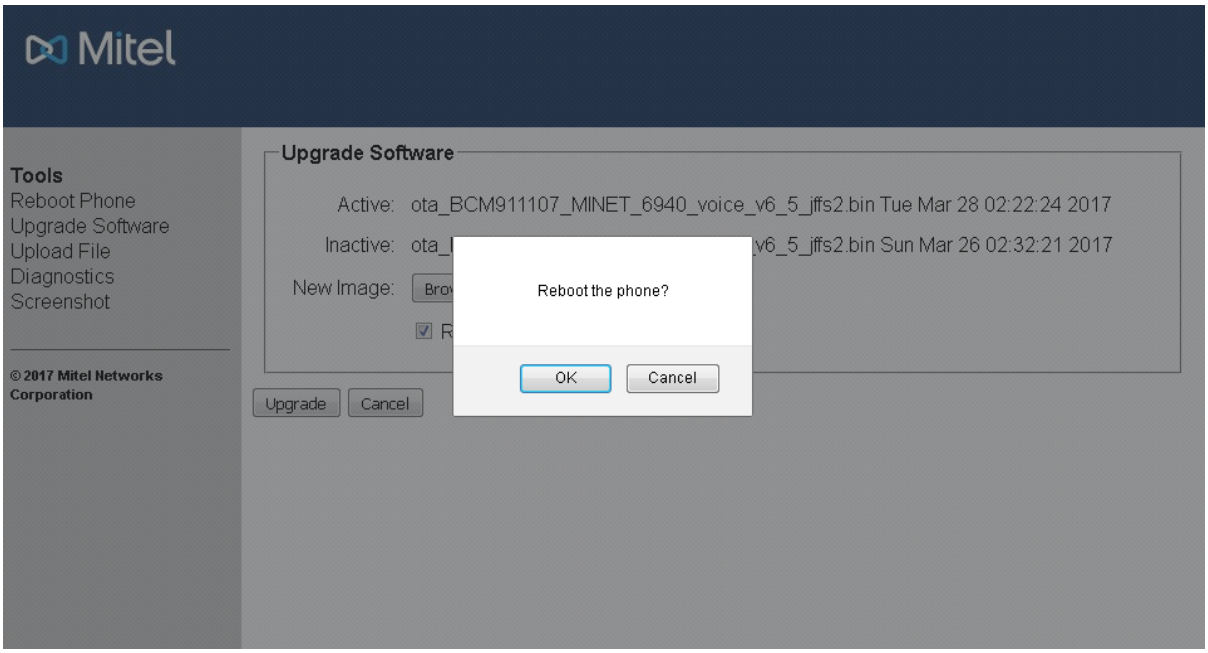
The **Reboot Phone** option on the Mitel Web UI allows you to remotely reboot the respective Mitel MiVoice 6900 Series IP phone.

To reboot the respective IP phone:

1. Open your web browser and enter the phone's IP address or host name into the address bar.
2. Enter your username and password and click **OK**/**Login**.

   The status window displays for the IP phone you are accessing.

   NOTE: The default username is "root" and the default password is "73738".
3. Click on **Reboot Phone**.



4. Click **OK**.

   The IP phone reboots.

Upgrade Software

The Mitel MiVoice 6900 Series IP Phone software can be upgraded through the TFTP server in accordance with the MiVB platform.

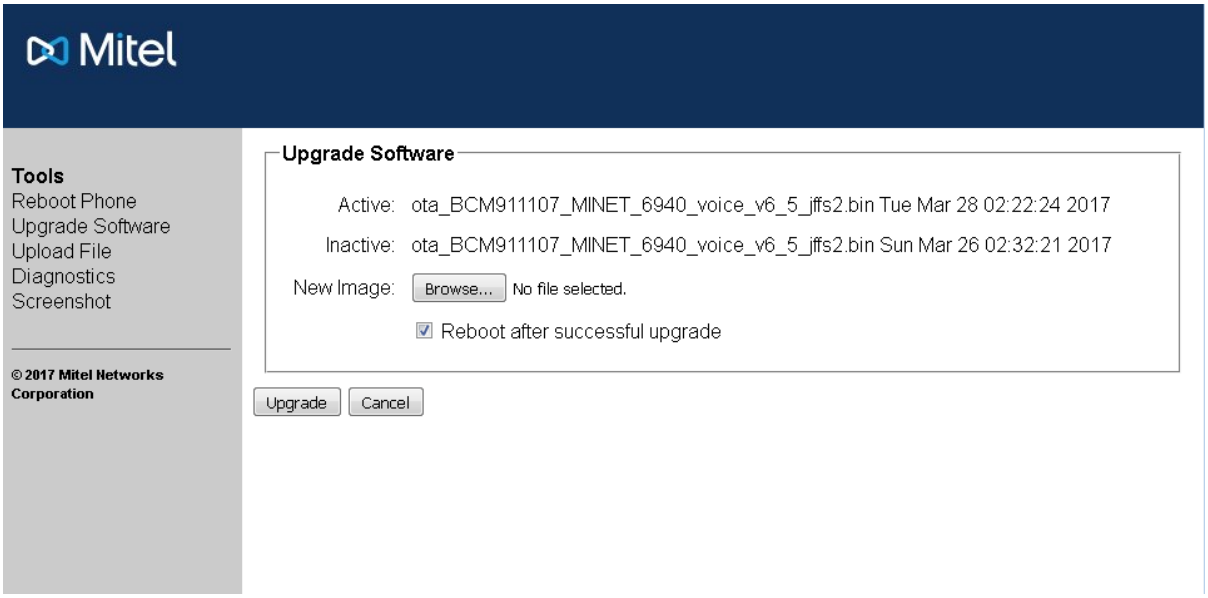
NOTE: The software upgrade through the Mitel Web UI is for Mitel Technical Support personnel use only.

To upgrade the software of the respective IP phone:

1. Open your web browser and enter the phone's IP address or hostname into the address bar.
2. Enter your username and password and click **OK**/**Login**.

   The status window displays for the IP phone you are accessing.

   NOTE: The default username is "root" and the default password is "73738".
3. Click **Upgrade Software**.



4. Click the **Browse** button beside **New Image** and select the software file you want to upgrade to.
5. Ensure a checkmark is in the checkbox beside **Reboot after successful upgrade**, otherwise click on the checkbox to enable the reboot option.
6. Click **Upgrade**.

   The phone upgrades and reboots when the upgrade has been completed.

Upload File

Although the **Upload File** option on the Mitel Web UI allows you to upload a file to a defined folder on the Mitel MiVoice 6900 Series IP Phone, it is recommended that files are not uploaded to your IP phone.

NOTE: The **Upload File** option is for Mitel Technical Support personnel use only.

Diagnostics

The **Diagnostics** > **Capture** option allows you to capture TCP network packets for up to 1440 minutes as well as various logs that can in turn be used to help debug and troubleshoot various issues.

NOTE: The capturing of TCP network packets can be initiated on the IP phone's native UI as well. For more information, see *TCP DUMP*.

The **Diagnostics** > **Collect** option allows you to collect the captured logs, download the captured logs and reports, and also enable/disable automatic uploading of crash reports to an IPA TFTP server.

Capture

To capture TCP network packets and logs using the Mitel Web UI:

1. Open your web browser and enter the phone's IP address or host name into the address bar.
2. Enter your username and password and click **OK**/**Login**.

   The status window displays for the IP phone you are accessing.

   NOTE: The default username is "root" and the default password is "73738".
3. Click on **Diagnostics**.
4. In the **Timeout** input field, enter the amount of time (in minutes from 1 to 1440) you would like to capture TCP network packet data using the dialpad keys.
5. Click **Start**.

   NOTE: Click **Stop** at any time to stop capturing the TCP packet data.

Collect Logs

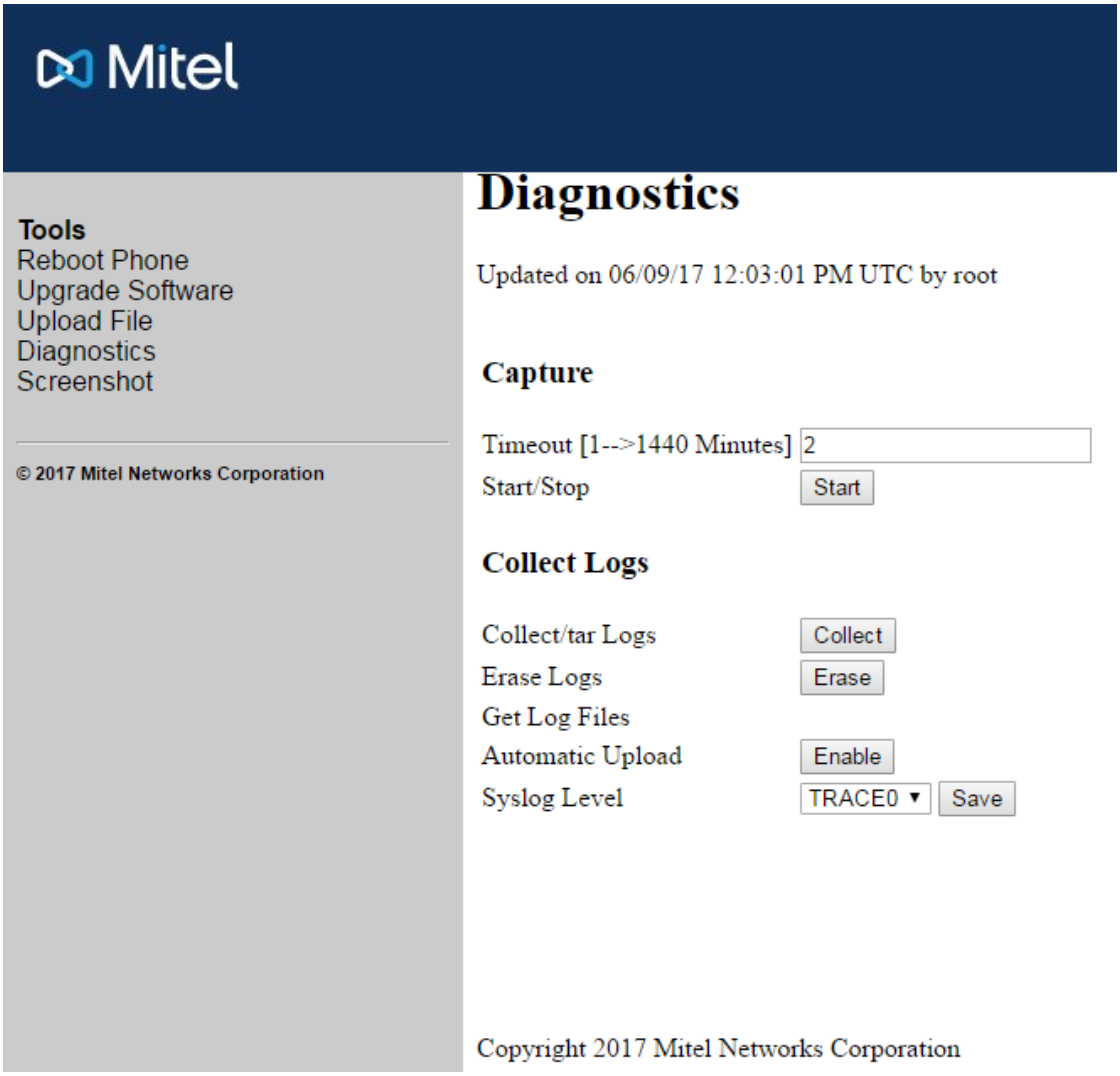
Collect/tar Logs and Get Log Files

To save the logs to your PC using the Mitel Web UI:

1. Open your web browser and enter the phone's IP address or hostname into the address bar.
2. Enter your username and password and click **OK** /**Login**.

   The status window displays for the IP phone you are accessing.

   NOTE: The default username is "root" and the default password is "73738".
3. Click on **Diagnostics**.



4. Click on the **Erase** button beside **Erase Logs** to erase the old *.tar* file.
5. If the capture was initiated using the Mitel Web UI, click on the **Collect** button beside **Collect/tar Logs** .
6. Click on the **Download Log Files** link beside **Get Log Files**.

NOTE: The Download Log Files link also allows you to download log files that have been captured through the **Diagnostics** menu on the 6900 Series IP phones. For more information, see *"Diagnostics"*.

7. Save the file to the desired location on your computer.

NOTE: This menu can also be used to save audio diagnostic log files and logs captured via the **Log Issue** softkey. For details, see *"Audio Diagnostics"* and *"Basic menu"*.

Automatic upload

Enabling the automatic upload feature using the Mitel MiVoice 6900 Series IP phone's Web UI allows crash reports to be sent automatically to the IPA TFTP server upon detection of a phone failure.

NOTE: The automatic upload feature must be used under the direction of the Mitel Technical Support personnel only.

Before enabling this feature, the IP address of the IPA server must be defined on the phone in the **Network > Static Network Settings** sub-menu. Additionally, a TFTP server must be installed and running on the PC/server where the IPA server is running. The reports will be collected on and can be accessed via the TFTP server.

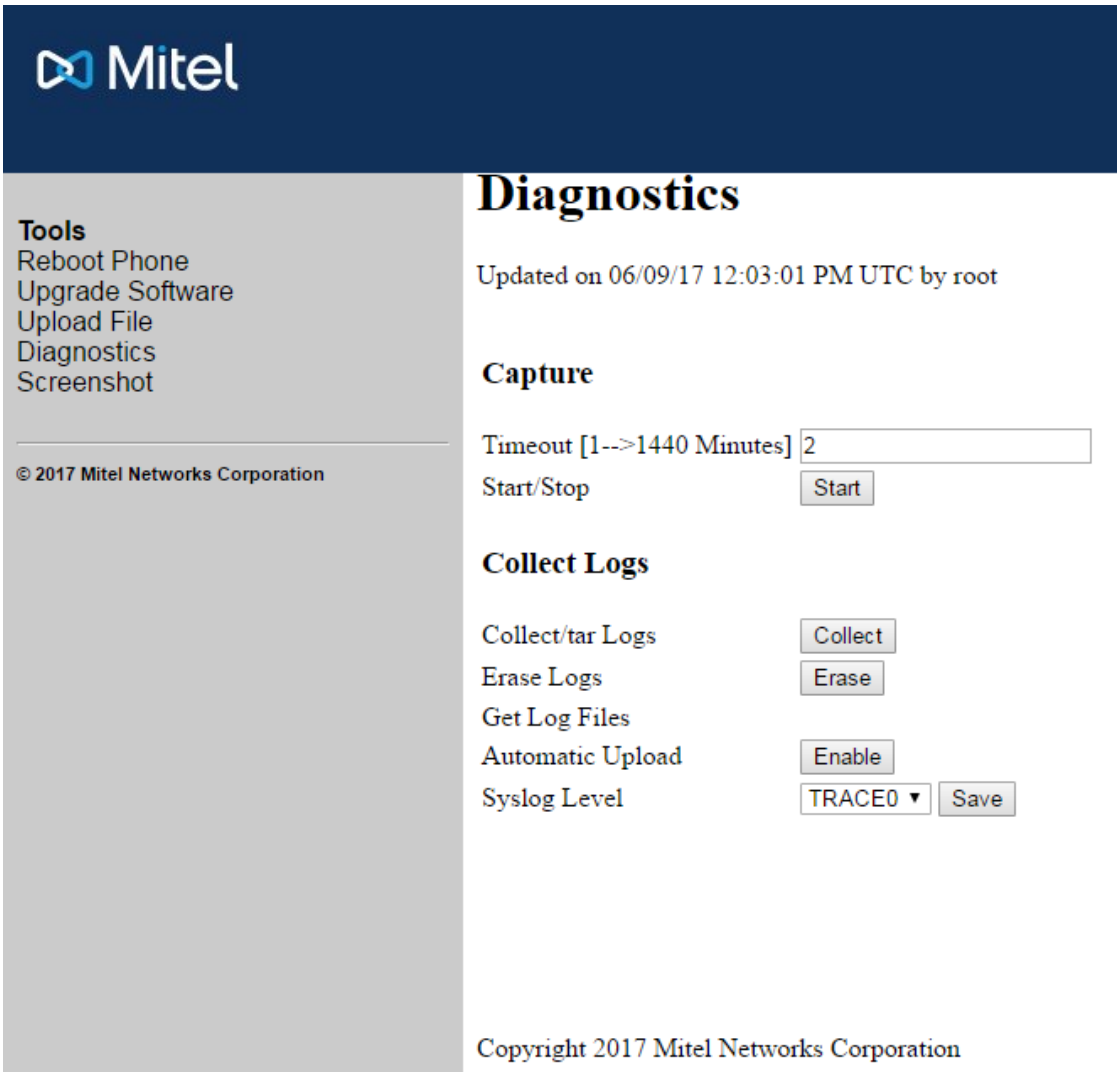
NOTE: For details on how to define static network settings, see *"Static Network Settings"*.

To enable this feature using the Mitel Web UI:

1. Open your web browser and enter the phone's IP address or hostname into the address bar.
2. Enter your username and password and click **OK/Login**.

   The status window displays for the IP phone you are accessing.

   NOTE: The default username is "root" and the default password is "73738".
3. Click on **Diagnostics**.



4. Click on the **Enable** button beside **Automatic upload**.

Set syslog level

To set the syslog (system log) level:

1. In the **Syslog Level** drop-down list, select the log level.
2. Click on the **Save** button.

NOTE: The log collected through an external application, for example, IP Phone Analyzer (IPA), is based on the log level selected in the **Syslog Level** drop-down list. For example, if the **Syslog Level** is set to **TRACE**, then the IPA can set the log level to TRACE, WARN and so on, and receive logs based on the set log level. If the **Syslog Level** is set to **WARN**, then the highest log level IPA can set is WARN. TRACE level logs will not be available.

Screenshot

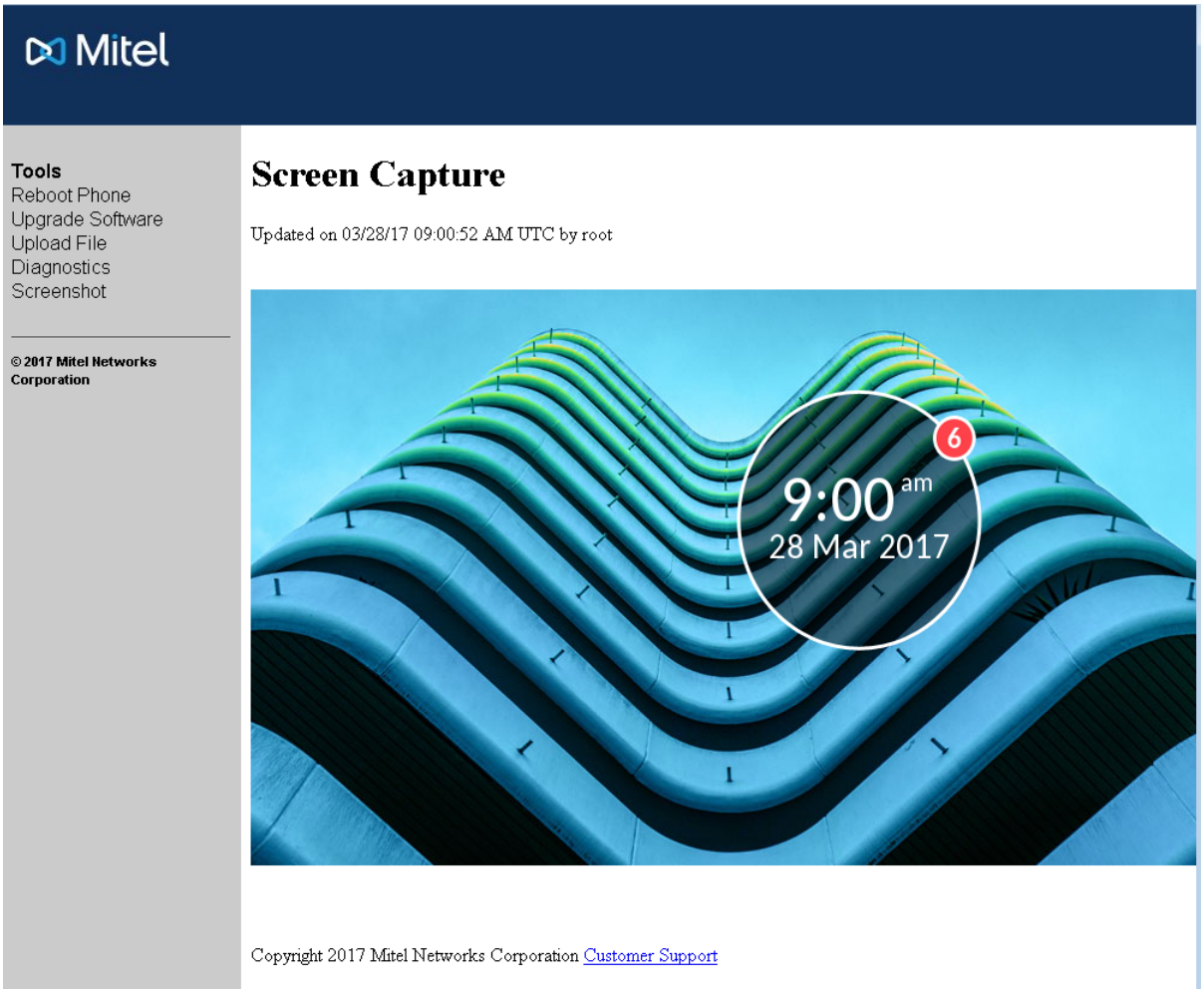
The **Screenshot** option allows you to capture a screenshot image of what is currently displayed on the respective IP phone's LCD screen in PNG format. This can be used to help document the procedures leading up to an issue or help in identifying issues with the UI.

To take a screenshot:

1. Open your web browser and enter the phone's IP address or host name into the address bar.
2. Enter your username and password and click **OK**/**Login**.

   The status window displays for the IP phone you are accessing.

   NOTE: The default username is "root" and the default password is "73738".
3. Click on **Screenshot**.



4. Right click on the image to save the image to a desired location on your PC.

Remote collection of log files

You can press the **Log Issue** softkey in the 6900 Series IP Phone to upload the *dumpstate-logissue.txt* and *dumpstate-phoneinfo.txt* log files to a server using the MiVoice Business System Administration Tool.

To remotely collect log files using the MiVoice Business System Administration Tool:

1. Log in to the MiVoice Business System Administration Tool.
2. Navigate to the **Maintenance and Diagnostics > Maintenance Command** form.
3. Clear the **Enable AutoComplete** check box.
4. In the **Command** field, do one of the following:

   a. To upload log files to a server using HTTP(S) that requires no user authentication, enter the `pd send <extension> log_upload_http(s)://<IP address>|<FQDN>:<port-no>/<upload_dir>` command, where

   - `extension` is the directory number of the phone.
   - `IP address` is the IP address of the server.
   - `FQDN` is the Fully Qualified Domain Name of the server.
   - `portno` (optional) is port number to which log file is uploaded. If no port number is specified, the system uploads the log files to the default port 80 for HTTP and 443 for HTTPS.
   - `upload_dir` (optional) is the directory where you want to upload the log file. Ensure that the specified directory path does not contain the character #. If an upload directory is not specified, then the system uploads the log files to the root of the directory.

   b. To upload log files to a server using HTTP(S) that requires user authentication, enter the `pd send <extension> log_upload_http(s)://<username>:<password>@<IP ad-dress>|<FQDN>:<portno>/<upload_dir>` command, where

   - `extension` is the directory number of the phone.
   - `username` and `password` is the user credentials for the server.
   - `IP address` is the IP address of the server.
   - `FQDN` is the Fully Qualified Domain Name of the server.
   - `portno` (optional) is port number to which log file is uploaded. If no port number is specified, the system uploads the log files to the default port 80 for HTTP and 443 for HTTPS.
   - `upload_dir` (optional) is the directory where you want to upload the log file. Ensure that the specified directory path does not contain the character #. If an upload directory is not specified, then the system uploads the log files to the root of the directory.

   c. To upload log files to a server using FTP that requires no user authentication, enter the `pd send <extension> log_upload_ftp://<IP address>|<FQDN>:<portno>/<up-load_dir>` command, where

   - `extension` is the directory number of the phone.
   - `IP address` is the IP address of the server.
   - `FQDN` is the Fully Qualified Domain Name of the server.
   - `portno` (optional) is port number to which log file is uploaded. If no port number is specified, the system uploads the log files to the default port 21.

- `upload_dir` (optional) is the directory where you want to upload the log file. Ensure that the specified directory path does not contain the character #. If an upload directory is not specified, then the system uploads the log files to the root of the directory.

d. To upload log files to a server using FTP that requires user authentication, enter the `pd send <extension> log_upload_ftp://<username>:<password>@<IP ad-dress>|<FQDN>:<portno>/<upload_dir>` command, where

- `extension` is the directory number of the phone.
- `username` and `password` is the user credentials for the server.
- `IP address` is the IP address of the server.
- `FQDN` is the Fully Qualified Domain Name of the server.
- `portno` (optional) is port number to which log file is uploaded. If no port number is specified, the system uploads the log files to the default port 21.
- `upload_dir` (optional) is the directory where you want to upload the log file. Ensure that the specified directory path does not contain the character #. If an upload directory is not specified, then the system uploads the log files to the root of the directory.

e. To upload log files to the server using TFTP, enter the `pd send extension log_up-load_tftp://<IP address>|<FQDN>:<portno>` command, where

- `extension` is the directory number of the phone.
- `IP address` is the IP address of the server
- `FQDN` is the Fully Qualified Domain Name of the server.
- `portno` (optional) is port number to which log file is uploaded. If no port number is specified, the system uploads the log files to the default port 69.

5. Press **Enter**.

   The system compresses the log files to *DebugLogs_<MAC>_<date_time>.tar* file and uploads the *DebugLogs_<MAC>_<date_time>.tar* file to the specified location on the server, where *MAC* is the MAC address of the IP phone.

NOTE:

1. The 6900 Series IP Phones support only PUT method for uploading log files to a server using HTTP or HTTPS.
2. The *dumpstate-remote_collect.txt* log file is generated when the command in step 4 is executed. This log file contains the same information as in the *dumpstate-logissue.txt* log file.
3. The upload process can take a maximum of 10 minutes to complete. Check the server location for the *DebugLogs_<MAC>_<date_time>.tar* file. If the file is missing, then the upload has failed. Re-run the command to upload the log files.
4. The system ignores the upload command when the upload is in progress.
5. If the client fails to upload the log files, then when you execute the command next time, the *DebugLogs_<MAC>_<date_time>.tar* file will include the *OldDebugLogs_<MAC>_<date_time>.tar* file, which contains previously collected remote log files. If two consecutive uploads fail, the system deletes the *OldDebugLogs_<MAC>_<date_time>.tar* file, and subsequent uploads will not contain the old logs tar file.

Limited warranty

Mitel warrants this product against defects and malfunctions in accordance with Mitel's authorized, written functional specification relating to such products during a one (1) year period from the date of original purchase (“Warranty Period”). If there is a defect or malfunction, Mitel shall, at its option, and as the exclusive remedy, either repair or replace the product at no charge, if returned within the Warranty Period. If replacement parts are used in making repairs, these parts may be refurbished, or may contain refurbished materials. If it is necessary to replace the product, it may be replaced with a refurbished product of the same design and color. If it should become necessary to repair or replace a defective or malfunctioning product under this warranty, the provisions of this warranty shall apply to the repaired or replaced product until the expiration of ninety (90) days from the date of pick up, or the date of shipment to you, of the repaired or replacement product, or until the end of the original Warranty Period, whichever is later. Proof of the original purchase date is to be provided with all products returned for warranty repairs.

Exclusions

Mitel does not warrant its products to be compatible with the equipment of any particular telephone company. This warranty does not extend to damage to products resulting from improper installation or operation, alteration, accident, neglect, abuse, misuse, fire or natural causes such as storms or floods, after the product is in your possession. Mitel will not accept liability for any damages and/or long distance charges, which result from unauthorized and/or unlawful use.

Mitel shall not be liable for any incidental or consequential damages, including, but not limited to, loss, damage or expense directly or indirectly arising from the customer’s use of or inability to use this product, either separately or in combination with other equipment. This paragraph, however, shall not apply to consequential damages for injury to the person in the case of products used or bought for use primarily for personal, family or household purposes.

This warranty sets forth the entire liability and obligations of Mitel with respect to breach of warranty, and the warranties set forth or limited herein are the sole warranties and are in lieu of all other warranties, expressed or implied, including warranties or fitness for particular purpose and merchantability.

Warranty repair services

Should the product fail during the Warranty Period;

- **In North America**, please call 1-800-574-1611 for further information.
- **Outside North America**, contact your sales representative for return instructions.

You will be responsible for shipping charges, if any. When you return this product for warranty service, you must present proof of purchase.

After warranty service

Mitel offers ongoing repair and support for this product. This service provides repair or replacement of your Mitel product, at Mitel's option, for a fixed charge. You are responsible for all shipping charges. For further information and shipping instructions:

- **In North America**, contact our service information number: 1-800-574-1611.
- **Outside North America**, contact your sales representative.

NOTE: Repairs to this product may be made only by the manufacturer and its authorized agents, or by others who are legally authorized. This restriction applies during and after the Warranty Period. Unauthorized repair will void the warranty.

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