

Multiline Client (MLC) Mobile User's Guide

for Android and Apple Devices

NEC Enterprise Communication Technologies, Inc.

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1

Introduction

The Multiline Client Application is a SIP based application for Android and Apple devices, allowing you to make and receive calls through NEC SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 PBXs over Wi-Fi network connections in your organization.

The following topics are included in this chapter:

Chapter Topics

- [Assumptions and Dependencies](#)
- [Overview](#)
- [How This Guide is Organized](#)

Assumptions and Dependencies

Ensure the following requirements are met:

- The PBX interoperability with the supported PBXs is completed and the client is configured accordingly by the PBX.
- The PBX and Multiline Client Application are deployed with a trusted relationship where possible.
- Multiline Client Application running on ANDROID Smart Phone devices hardware is compatible with the Android OS.
- The multiple profiles available in the client must be used to connect to one PBX at a time but different PBXs can be connected to the client at different times to allow mobility of the client. The default profile is the only active profile at any given time.
- The wireless network must support QoS for VoIP. QoS for VoIP will improve voice quality and reliability. Refer to your WLAN equipment manufacture for your network settings.

Overview

Business communication systems play a critical role in the success of interactions in all scenarios, specifically providing required security, privacy, flexibility and cost effectiveness.

Similarly, the revolution of mobile communication resulted in a large ecosystem of applications around both iOS and Android OSes. This specification focuses on voice communication applications available from NEC that operates with NEC SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500.

The Multiline Client Application supports the features expected from an NEC terminal including but not limited to:

- Making extension and trunk calls
- Receiving extension and trunk calls
- Call hold, direct and consultative transfers
- Call conferencing

The Multiline Client Application also provides a number of device driven features.

How This Guide is Organized

<i>Chapter 1 Introduction</i>	This chapter outlines how to use the guide, including the organization and chapter layout for the Multiline Client Application.
<i>Chapter 2 Installing Multiline Client</i>	This chapter describes the process to install the Multiline Client.
<i>Chapter 3 Multiline Client Application Screen Layouts</i>	This chapter provides information on using the Multiline Client screen layout.
<i>Chapter 4 Multiline Client Operating Procedures</i>	This chapter provides information on Multiline Client operating procedures.
<i>Chapter 5 Multiline Client Application Status</i>	This chapter provides information on how to read Multiline Client status.
<i>Chapter 6 Audio Tool (Android Only)</i>	This chapter provides information on how to configure the Audio Tool on the Android device.
<i>Chapter 7 More (User Accounts, Activation and About)</i>	This chapter provides information on account configuration, licensing and application version.

2

Installing Multiline Client

The Multiline Client Application is installed from the appropriate store for the device (Google Play or iTunes). You must have an account with the store to install this application. If the application is already installed it can be accessed using the Multiline Client icon on the APPS page.

- Step 1** To install the NEC Multiline Client application go to the appropriate device store.
- Step 2** Search for NEC Multiline Client.
- Step 3** Choose to install the NEC Multiline Client and follow the corresponding instructions.
- Step 4** Open the application using the Multiline Client icon.



NOTE

If the connection fails contact your administrator to establish network connectivity

Device Requirements

- Android - Kit Kat 4.4



NOTE

All Android devices with Kit Kat 4.4 may not be supported. Due to the many hardware variations in Android devices, the OS may function differently between devices. There is a 7 day trial period to verify your device before purchasing additional devices and licensing. There is also an Audio Tool to optimize the voice quality on Android Devices.

- Apple - iPhone 5 and above with iOS V9.1 or higher

MLC Requirements

- V2.0.7 or higher for Android devices
- V2.0.6 or higher for Apple devices

3

Multiline Client Application Screen Layouts

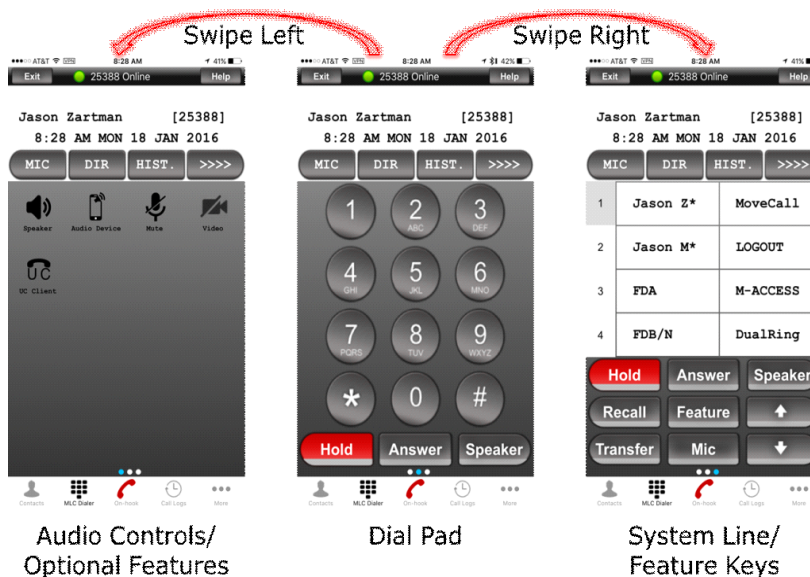
This chapter provides information on the screen layout, the menu items for easy navigation, and function innovations.

MLC Dialer

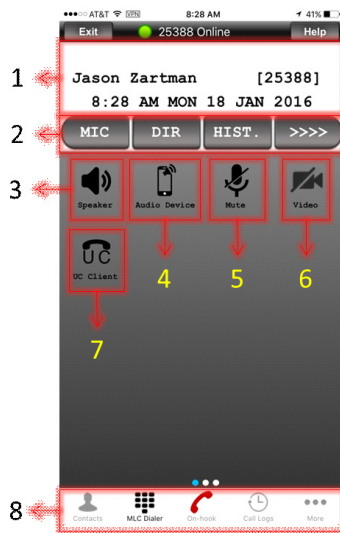
The Multiline Client Dialer splits into three screens.

- Audio Controls/Optional Features
- Dial Pad
- System Line/Feature Keys

Figure 3-1 Multiline Client Application MLC Dialer Screens (iPhone and Android Phone)



Refer to [Figure 3-2](#), [Figure 3-3](#) and [Figure 3-4](#) for more information.

Figure 3-2 Audio Controls and Optional Features Screen (A)

Features in Audio Controls and Optional Features Screen (A):


1. **Station Display** - Displays call/feature activity information plus date, time and Soft Key operation.
2. **Soft Keys** - Any feature shown is available. The appropriate feature key is displayed on the screen according to the call handling process. For feature operating procedures refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 System Manuals.
3. **Speaker** - Answer incoming calls on hands-free speakerphone; disconnect active speakerphone calls and switch audio to your phones' external speaker during active internal speaker, wired headset or Bluetooth® headset calls.
4. **Audio Device** - During active calls switch audio to your internal phone speaker, Bluetooth® or wired headset.
5. **Mute** - Mute/Unmute the mic during active calls.
6. **Video** - During an active call initiate a video call between MLC client users. (Supported in v1.3.1 and higher).
7. **UC Client** - Provides access to user web client logon. (Refer to your UC server documentation for access and feature support).
8. **MLC Menu Bar** - Use the Phone (On-Hook/Off-Hook) button  to answer incoming calls on your phones' internal speaker, Bluetooth® or wired headset; disconnect active internal speaker, Bluetooth® and wired headset calls and switch audio to your internal speaker, Bluetooth® or wire headset during active hands-free speakerphone calls. Access your Contacts, MLC Dialer, Call Logs and More configuration options.

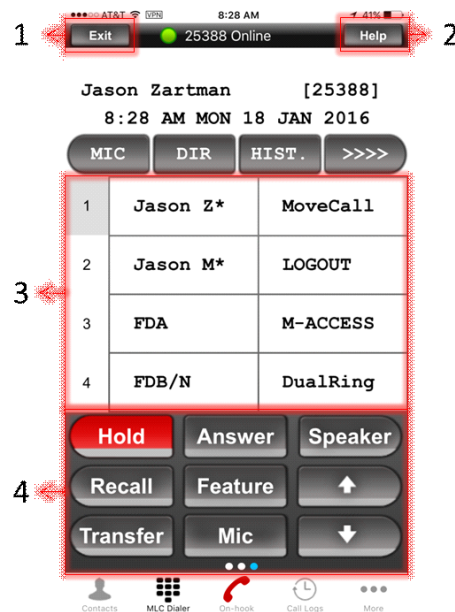
Figure 3-3 Dial Pad Screen (B)



Features in Dial Pad Screen (B):

- 1 **Status Display** - Displays station login, incoming call, license activation and message waiting status information.
- 2 **Dial Pad** - Dial outgoing going calls, feature access codes and send digits for accessing dial-in systems.
- 3 **Commonly Used Call Keys**
 - **Hold** - Press this key to place an internal or external call on hold.
 - **Answer** - When this key is lit, press key to answer a waiting calls. Refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 system manuals for additional feature operations.
 - **Speaker** - Controls the built-in speaker which can be used for Hands-free dialing/monitoring. Answer incoming calls on hands-free speakerphone; disconnect active speakerphone calls and switch audio to your phones' external speaker during active internal speaker, wired headset or Bluetooth® headset calls. This key lights when speakerphone is active.

Figure 3-4 System Line/Feature Keys Screen (C)



Features in System Line/Feature Keys Screen (B):

1. **Exit** - The user can exit from the Help mode and other phone options by pressing this key. For additional feature operating procedures refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 System Manuals.
2. **Help** - Explanations of the Soft Keys can be called up in the station display by pressing this key. For additional feature operating procedures refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 System Manuals.
3. **Line/Feature Keys** - 32 line/feature keys (4 pages of 8 keys). Access the additional pages by pressing 1-4. These keys can be programmed as flexible Line Keys/Programmable Feature Keys by your system administrator.

When Telephony Server Administrator sets "One-Touch Speed Dial key" on the programmable keys, users can assign any numbers (ex. Telephone number, etc.) to the key (up to 24 digits).

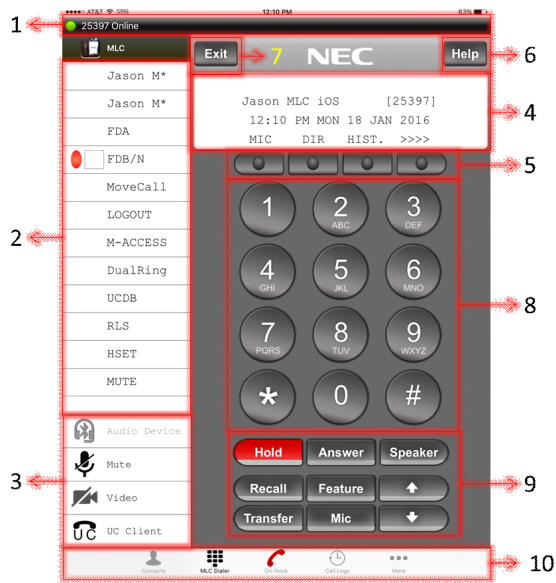
For additional feature operating procedures refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 System Manuals.

4. Call Control Keys

- **Hold** - Press this key to place an internal or external call on hold.
- **Answer** - When this key is lit, press key to answer a waiting calls. Refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 system manuals for additional feature operations.

- **Speaker** - Controls the built-in speaker which can be used for Hands-free dialing/monitoring. Answer incoming calls on hands-free speakerphone; disconnect active speakerphone calls and switch audio to your phones' external speaker during active internal speaker, wired headset or Bluetooth® headset calls. This key lights when speakerphone is active.
- **Recall** - Press key to finish the call and hear the dial tone to make another outgoing call.
- **Feature** - Used to activate any features as terminal setup functions, etc. and to program One-Touch Speed Dial Keys.
- **Transfer** - Allows the station user to transfer established calls to another station, without attendant assistance.
- **Mic** - Controls microphone during hands-free speakerphone calls. This key lights indicating mic on/off for speakerphone calls.
- **Up/Down Arrows** - Volume controls for Android devices. iPhone users must use the hard keys on the device for volume control.

Figure 3-5 Multiline Client Application MLC Dialer Portrait Screen (iPad and Android Tablet)



Portrait Layout

1. **Status Display** - Displays station login, incoming call and message waiting status information.
2. **Line/Feature Keys** - 32 line/feature keys (4 pages of 8 keys). Access the additional pages by pressing 1-4. These keys can be programmed as flexible Line Keys/Programmable Feature Keys by your system administrator.

When Telephony Server Administrator sets “One-Touch Speed Dial key” on the programmable keys, users can assign any numbers (ex. Telephone number, etc.) to the key (up to 24 digits).

For additional feature operating procedures refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 System Manuals.

3. Audio Controls/Optional Features

- **Audio Device** - During active calls switch audio to your internal tablet speaker, Bluetooth® or wired headset.
- **Mute** - Mute/Unmute the mic during active calls.
- **Video** - During an active call initiate a video call between MLC client users. (Supported in v1.3.1 and higher)
- **UC Client** - Provides access to user web client logon. (Refer to your UC server documentation for access and feature support)

4. **Station Display** - Displays call/feature activity information plus date, time and Soft Key operation.

5. **Soft Keys** - Any feature shown is available. The appropriate feature key is displayed on the screen according to the call handling process. For feature operating procedures refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 System Manuals.

6. **Help** - Explanations of the Soft Keys can be called up in the station display by pressing this key. For additional feature operating procedures refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 System Manuals.

7. **Exit** - The user can exit from the Help mode and other phone options by pressing this key. For additional feature operating procedures refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 System Manuals.

8. **Dial Pad** - Dial outgoing going calls, feature access codes and send digits for accessing dial-in systems.

9. Call Control Keys

- **Hold** - Press this key to place an internal or external call on hold.
- **Answer** - When this key is lit, press key to answer a waiting calls. Refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 system manuals for additional feature operations.
- **Speaker** - Controls the built-in speaker which can be used for Hands-free dialing/monitoring. Answer incoming calls on hands-free speakerphone; disconnect active speakerphone calls and switch audio to speakerphone during active internal speaker, wired headset or Bluetooth headset calls. This key lights when speakerphone is active.
- **Recall** - Press key to finish the call and hear the dial tone to make another outgoing call.
- **Feature** - Used to activate any features as terminal setup functions, etc. and to program One-Touch Speed Dial Keys.
- **Transfer** - Allows the station user to transfer established calls to another station, without attendant assistance.
- **Mic** - Controls microphone during hands-free speakerphone calls. This key lights indicating mic on/off for speakerphone calls.
- **Up/Down Arrows** - Volume controls for Android devices. iPhone users must use the hard keys on the device for volume control.


10. **MLC Menu Bar** - Use the Phone (On-Hook/Off-Hook) button  to answer incoming calls on your tablets' internal speaker, Bluetooth® or wired headset; disconnect active internal speaker, Bluetooth® and wired headset calls and switch audio to your internal speaker, Bluetooth® or wire headset during active hands-free speakerphone calls. Access your Contacts, MLC Dialer, Call Logs and More configuration options.

Figure 3-6 Multiline Client Application MLC Dialer Landscape Screen (iPad and Android Tablet)



Landscape Layout


1. **Status Display** - Displays station login, incoming call and message waiting status information.
2. **Line/Feature Keys** - 32 line/feature keys (4 pages of 8 keys). Access the additional pages by pressing 1-4. These keys can be programmed as flexible Line Keys/Programmable Feature Keys by your system administrator.

When Telephony Server Administrator sets “One-Touch Speed Dial key” on the programmable keys, users can assign any numbers (ex. Telephone number, etc.) to the key (up to 24 digits).

For additional feature operating procedures refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 System Manuals.

3. **Audio Controls/Optional Features**

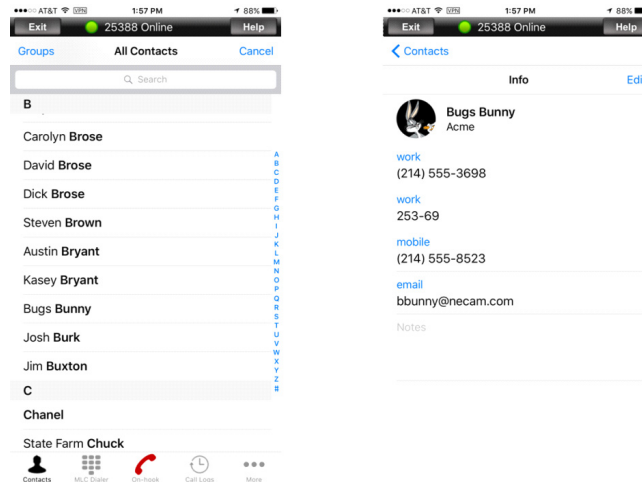
- **Audio Device** - During active calls switch audio to your internal tablet speaker, Bluetooth® or wired headset.
- **Mute** - Mute/Unmute the mic during active calls.
- **Video** - During an active call initiate a video call between MLC client users. (Future Release)

- **UC Client** - Provides access to user web client logon. (Refer to your UC server documentation for access and feature support)
4. **Station Display** - Displays call/feature activity information plus date, time and Soft Key operation.
 5. **Soft Keys** - Any feature shown is available. The appropriate feature key is displayed on the screen according to the call handling process. For feature operating procedures refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 System Manuals.
 6. **Help** - Explanations of the Soft Keys can be called up in the station display by pressing this key. For additional feature operating procedures refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 System Manuals.
 7. **Exit** - The user can exit from the Help mode and other phone options by pressing this key. For additional feature operating procedures refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 System Manuals.
 8. **Dial Pad** - Dial outgoing going calls, feature access codes and send digits for accessing dial-in systems.
 9. **Call Control Keys**
 - **Hold** - Press this key to place an internal or external call on hold.
 - **Answer** - When this key is lit, press key to answer a waiting calls. Refer to your UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 system manuals for additional feature operations.
 - **Speaker** - Controls the built-in speaker which can be used for Hands-free dialing/monitoring. Answer incoming calls on hands-free speakerphone; disconnect active speakerphone calls and switch audio to speakerphone during active internal speaker, wired headset or Bluetooth® headset calls. This key lights when speakerphone is active.
 - **Recall** - Press key to finish the call and hear the dial tone to make another outgoing call.
 - **Feature** - Used to activate any features as terminal setup functions, etc. and to program One-Touch Speed Dial Keys.
 - **Transfer** - Allows the station user to transfer established calls to another station, without attendant assistance.
 - **Mic** - Controls microphone during hands-free speakerphone calls. This key lights indicating mic on/off for speakerphone calls.
 10. **MLC Menu Bar** - Use the Phone (On-Hook/Off-Hook) button  to answer incoming calls on your tablets internal speaker, Bluetooth® or wired headset; disconnect active internal speaker, Bluetooth® and wired headset calls and switch audio to your internal speaker, Bluetooth® or wire headset during active hands-free speakerphone calls. Access your Contacts, MLC Dialer, Call Logs and More configuration options.

Contacts

Clicking the **Contact** button opens your contacts within the MLC App, as shown [Figure 3-7](#). Device contacts are automatically imported and updated in MLC. Example shown is iPhone, Android devices and tablets function in a similar fashion.

Figure 3-7 Multiline Client — Contacts



Calling from Contacts

Open the desired contact and select number to dial. A dial plan is required to add outside access code (i.e. 9). Refer to Advanced Settings for more details.

Editing Contacts

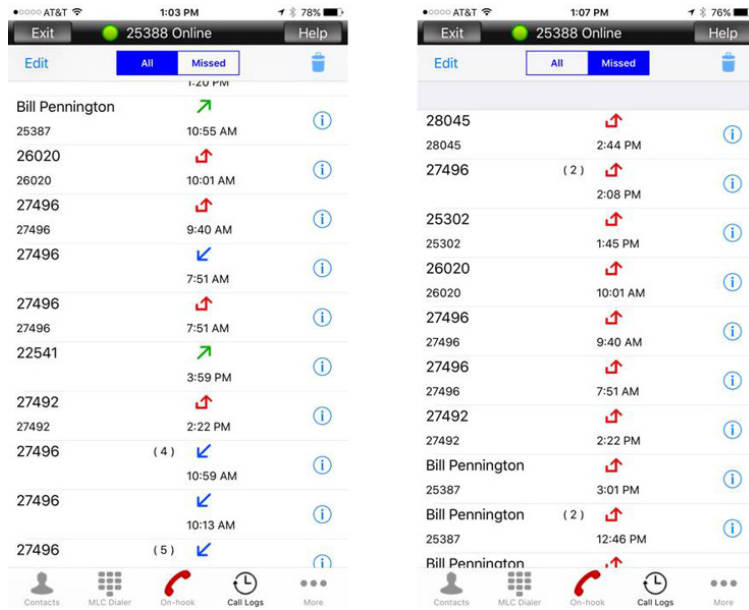
- Editing Contacts is not supported. Edit existing contacts through the devices native contacts.

Call Logs

The call logs for incoming, outgoing and missed calls are captured in the call logs.

Selecting the Call Logs Menu item opens the call logs screen, as shown in [Figure 3-8](#). Example shown is iPhone, Android devices and tablets function in a similar fashion.

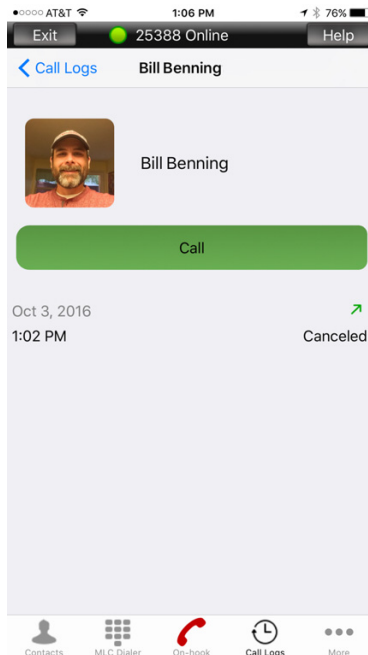
Figure 3-8 Call Logs screen



As shown above, the user can either display All calls or Missed calls from the Call Logs. Click the number to return missed calls or redial incoming/outgoing calls.

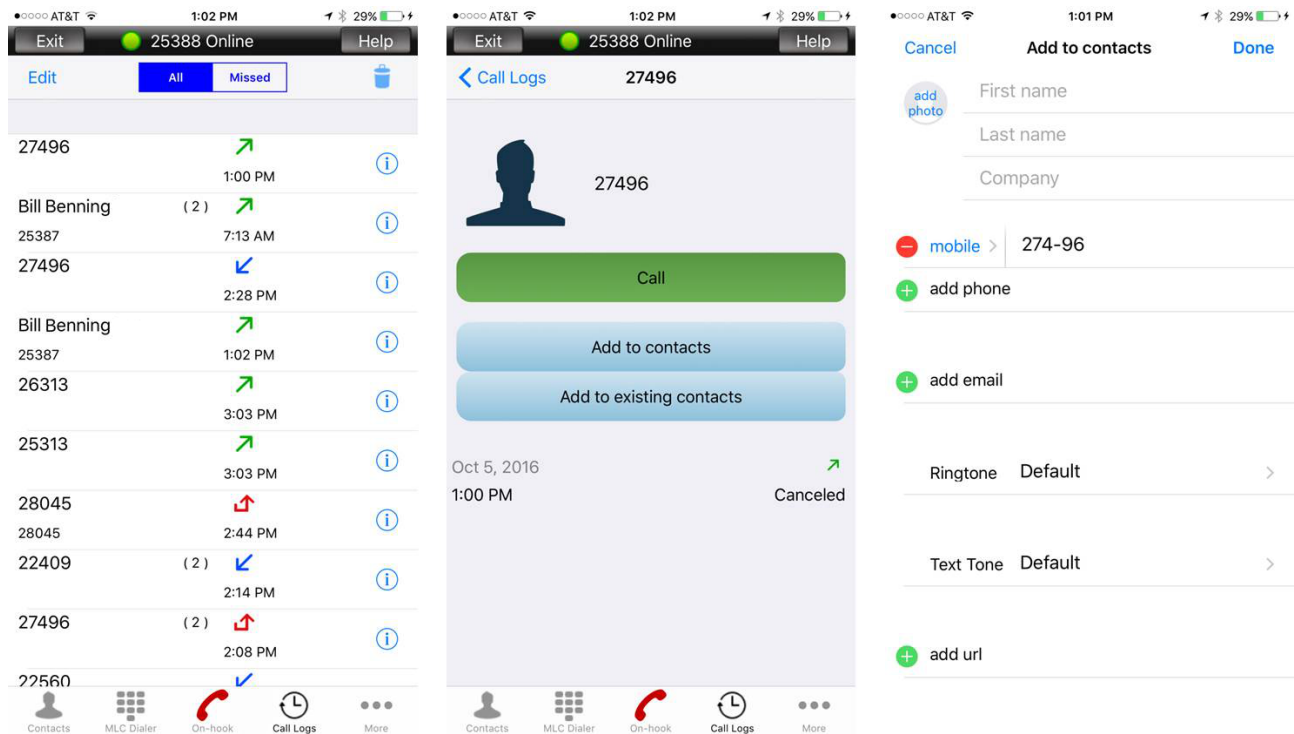
There are three different icons showing the different call log types:

- Incoming Answered Call
- Outgoing Call
- Missed Incoming Call



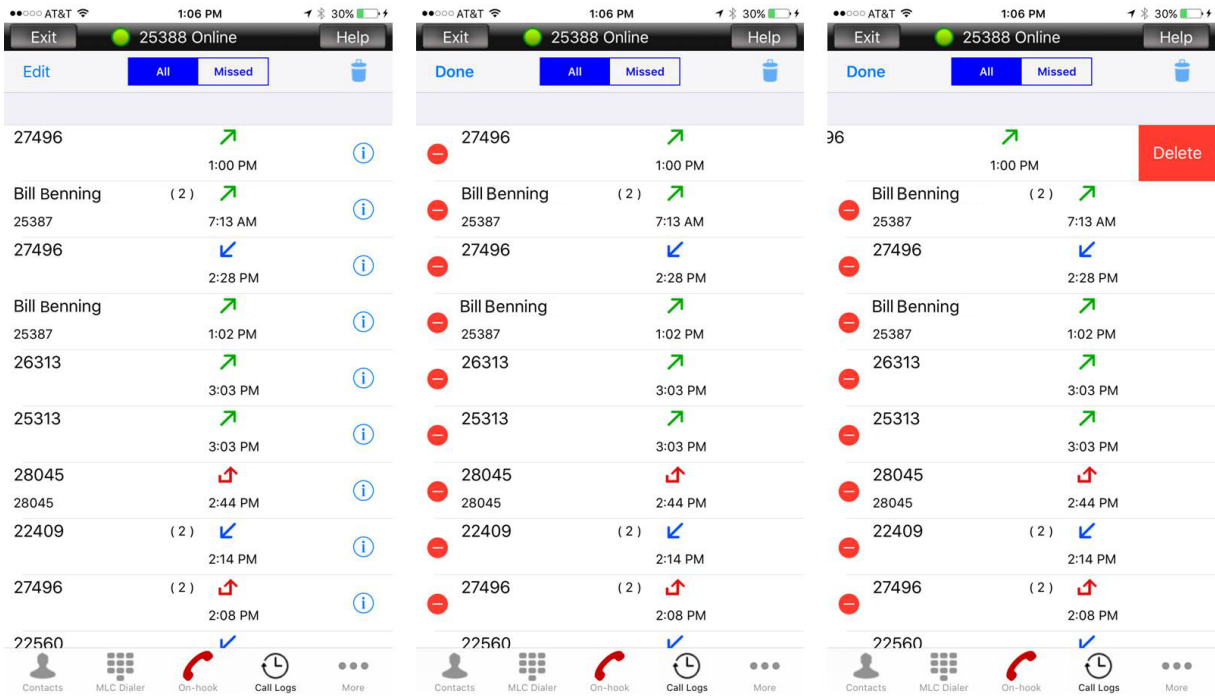
- Selecting the info icon displays the contact name and number of calls in brackets. It also displays the type of call, time/date and the duration of the call.
- You can also return the call by clicking Call.
- A dial plan is required to add outside access code (i.e. 9). Refer to Advanced Settings for more details.

Creating and Saving Call Logs to Contacts

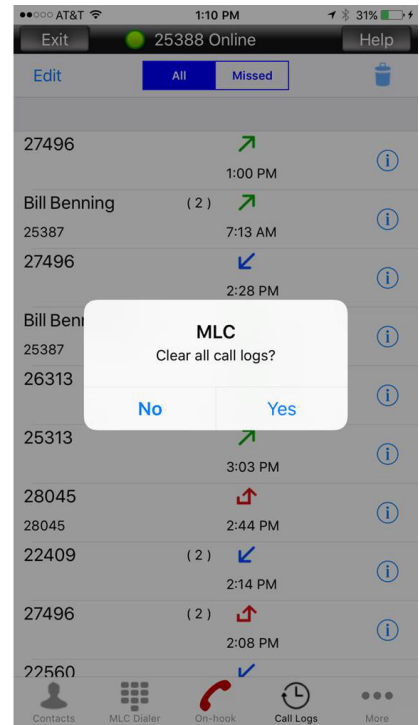
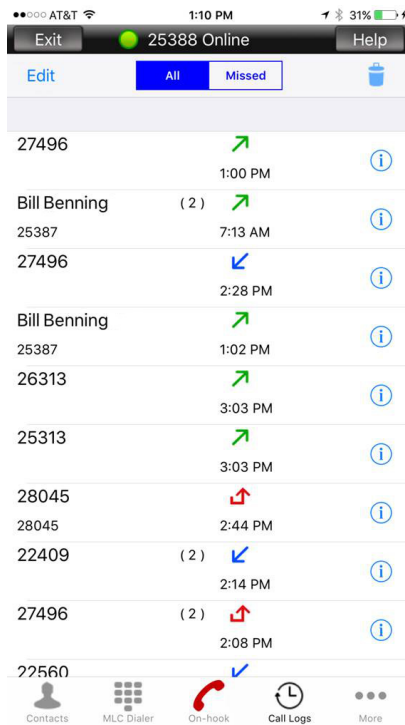


- Selecting the info icon of an unsaved number displays additional call information and options.
- It also displays the type of call, time/date and the duration of the call.
- You can also return the call by clicking Call.
- A dial plan is required to add outside access code (i.e. 9). Refer to Advanced Settings for more details.

Deleting Individual and All Call Logs



- Tap **Edit** to remove the single entries by selecting the minus key and Delete.

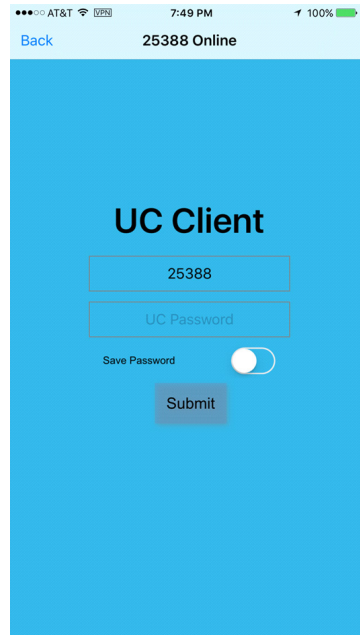


- Delete all calls from the call logs by selecting the trash can then **Yes**.

UC Client

Selecting the UC icon invokes the UC application available on your PBX platform, as shown in [Figure 3-9](#).

Figure 3-9 UC Client



Refer to UC server documentation for further information.



4

Multiline Client Operating Procedures

This chapter provides basic call controls, receiving/sending calls, changing audio sources and maintenance procedures.

Pairing Bluetooth® Headset

Follow your device and Bluetooth headset pairing instructions. After a successful pairing your headset is now available during an active call. Tones and sounds may be heard through the headset depending on your device settings.

Connecting Wired Headset

Verify your headset is compatible with your device. Connect the headset to the headphones jack on your device. Your headset is now available during an active call. Tones and sounds may be heard through the headset depending on your device settings.


Audio Source Priorities (using On-hook/ Off-Hook button)

1. Bluetooth Headset
 2. Wired Headset
 3. Phone Internal Speaker
- The Bluetooth headset has the highest priority, followed by wired headset and internal speaker.
 - When a Bluetooth headset is connected during a call, the audio will be set automatically to the Bluetooth headset.
 - When a Bluetooth headset is disconnected during a call, the audio will be set to the next highest priority audio source.


- When a wired headset is connected during a call, the audio will be set automatically to the wired headset regardless of audio source priority.
- When a wired headset is disconnected during a call, the audio will be set to the next highest priority.
- When a wired headset is connected the phone's internal speaker cannot be selected. To switch to the internal speaker simply disconnect the headset.
- If the audio source is changed during a call, the audio source will reset back to the highest priority on the next call.

Answer Incoming Call

With Phone Internal Speaker, Bluetooth or Wired Headset

1. Receive an incoming call (Line Feature Screen is displayed and Status Bar flashes).
 - Incoming call indication color is set by UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 system setting. Contact your IT department or authorized NEC dealer for support)
2. Press the On-Hook button  to answer the call.

With Hands-free Speakerphone

1. Receive an incoming call (Line Feature Screen is displayed and Status Bar flashes).
 - Incoming call indication color is set by UNIVERGE SV8100/SV9100, SV8300/SV9300 and SV8500/SV9500 system setting. Contact your IT department or authorized NEC dealer for support)
2. Press the Speaker button  to answer the call in hands-free speakerphone mode.

While phone is locked iOS10 with 3D Touchscreen

1. Receive an incoming call (Incoming call notification is displayed).
2. Hard press the notification to accept the call.

While phone is locked iOS10 without 3D Touchscreen

1. Receive an incoming call (Incoming call notification is displayed).
2. Swipe notification to the right to accept the call.

While phone is locked Android



1. MLC application will appear with full control.
2. When the call ends, the phone returns to locked.





When receiving an incoming cell call while talking on the MLC, you must place the MLC call on hold before answering the cell call. If not, you will hear both calls at the same time.

Make Outgoing Call

With Phone Internal Speaker, Bluetooth or Wired Headset

- SV9100/SV9300 Users
 1. Dial desired number using the MLC Dialer number pad.
 2. Press the On-Hook button  to send dialed digits.
- SV9500 Users
 3. Press the On-Hook button  to receive dial tone.
 4. Dial desired number using the MLC Dialer number pad.

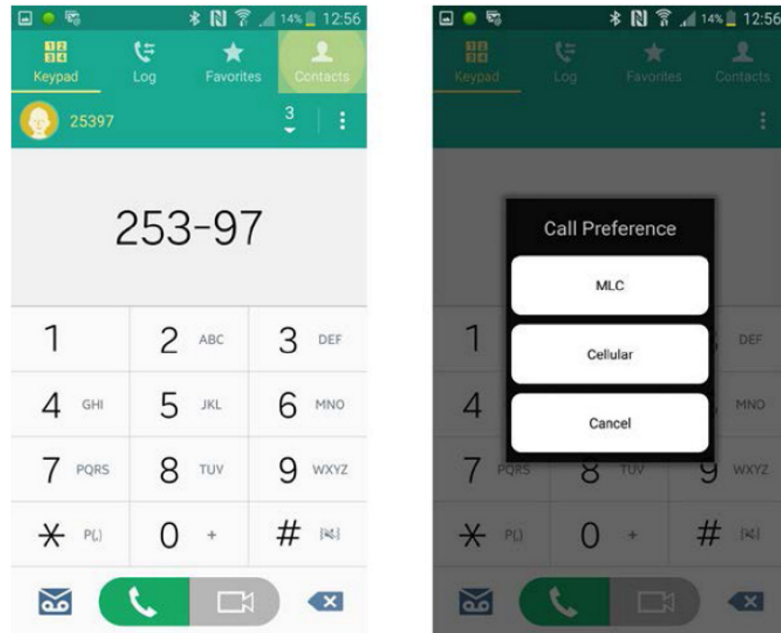
With Hands-free Speakerphone

- SV9100/SV9300 Users
 1. Dial desired number using the MLC Dialer number pad.
 2. Press the Speaker button  to send dialed digits.
- SV9500 Users
 3. Press the Speaker button  to receive dial tone.
 4. Dial desired number using the MLC Dialer number pad.

Android Only Native Dialer (Cell Phone Dial Pad)

The Android native dialer can be used to make outgoing calls depending on account settings (see section 6).

1. **Always Prompt:** Dialer selection popup appears before sending digit. Select MLC to send call with MLC. Select Cellular to send call over cellular service.
2. **MLC:** When MLC is active all calls made with native dialer will be sent using MLC.
3. **Cellular:** All calls made with the native dialer are sent over the cellular service.

Figure 4-1 Android Only Native Dialer**NOTE**

Outgoing calls made through MLC contacts and call logs will be in hands-free speakerphone mode. Pressing the On-Hook button will change the audio source to your phone internal speaker, Bluetooth or wired headset. Refer to changing your audio source for more details.

Disconnect Call


While on Phone Internal Speaker, Bluetooth or Wired Headset

- Press the Off-Hook button to disconnect the call.

While on Hands-free Speakerphone





- Press the Speaker button  to disconnect the call.

Mute/Unmute the Mic





- Toggle the microphone on/off with the Mute/Unmute buttons  .

Changing the Audio Source

While on Phone Internal Speaker, Bluetooth® or Wired Headset

- Press the Speaker button  to switch call to hands-free speakerphone.
- Press the Speaker button  to switch the call to hands-free speakerphone.
- Press the Audio Device button  to view audio device selection menu.
 - Select Audio Device (active audio device will be shown in green)
 - Phone (only on iPhone and Android Phones)
 - Bluetooth
 - Headset
 - Dismiss (Close audio device menu)
- Press the Off-Hook button  to disconnect the call.

While on Hands-free Speakerphone

- Press the On-Hook button  to switch to the audio device with the highest priority.
- Press the Audio Device button  to view audio device selection menu.
 - Select Audio Device (active audio device will be shown in green)
 - Phone (only on iPhone and Android Phones)
 - Bluetooth
 - Headset
 - Dismiss (Close audio device menu)
 - Press the Speaker button  to disconnect the call.
 - Press the Speaker button  to disconnect the call.



5

Multiline Client Application Status

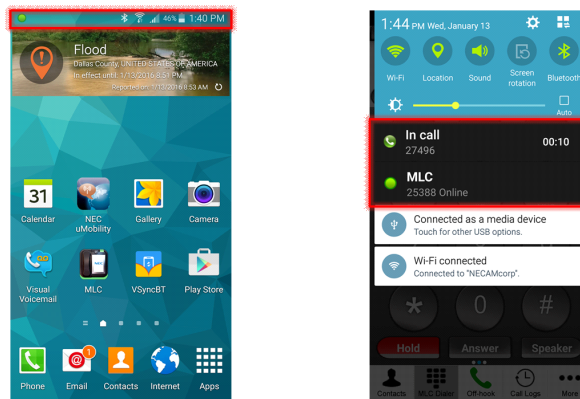
This chapter explains user online status notifications.

Android Registration Status Notifications

Notification Bar

Select the Status Notification drop down to display [Figure 5-1](#).

Figure 5-1 Multiline Client Application Status Notifications—Notification Bar



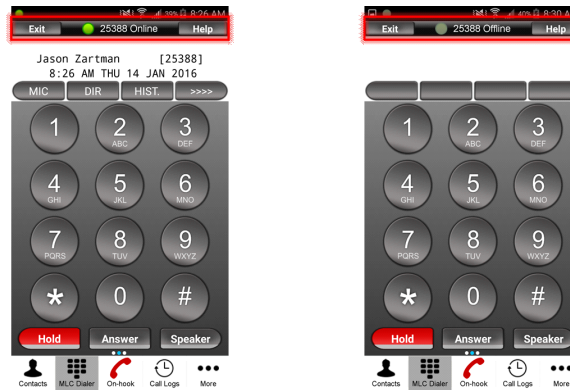
This view provides a quick look at the application status, including Online or Offline state, Call information during an active call, and voice mail indication if there is a pending message.

Notice also that the Notification area shows the call counter during an active call for both the extension and trunk calls.

MLC Status Bar

The MLC registration **Online/Offline** status is shown at the top of the MLC application (Figure 5-2).

Figure 5-2 Multiline Client Application Status Notifications—MLC Status Bar



iPhone/iPad Registration Status Notification

This section explains the iPhone/iPad Status Notifications.

MLC Status Bar

The MLC registration **Online/Offline** status is shown at the top of the MLC application (Figure 5-3).

Figure 5-3 Multiline Client Application Status Notification—MLC Status Bar (iPhone/iPad)







6

Audio Tool (Android Only)

Due to the many types of Android devices, it has become necessary to provide a way to train the device for best Audio settings. This is accomplished with the addition of the Audio tool that is located under the **More** tab.

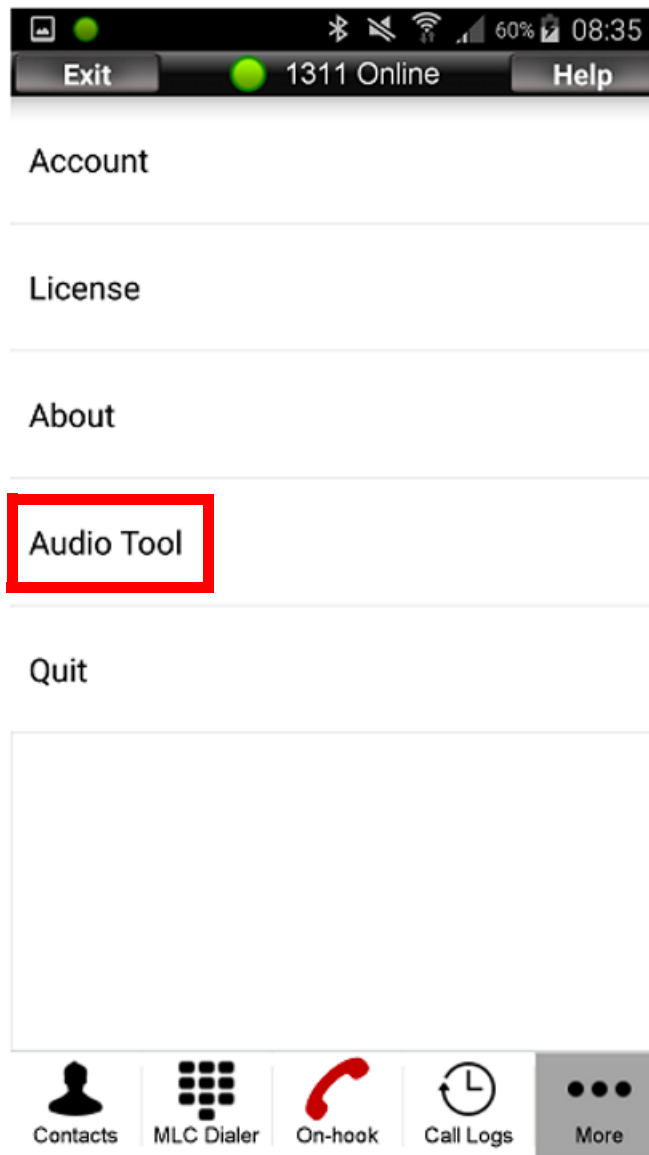
Android Device™

Figure 6-1 Android Device—More... tab



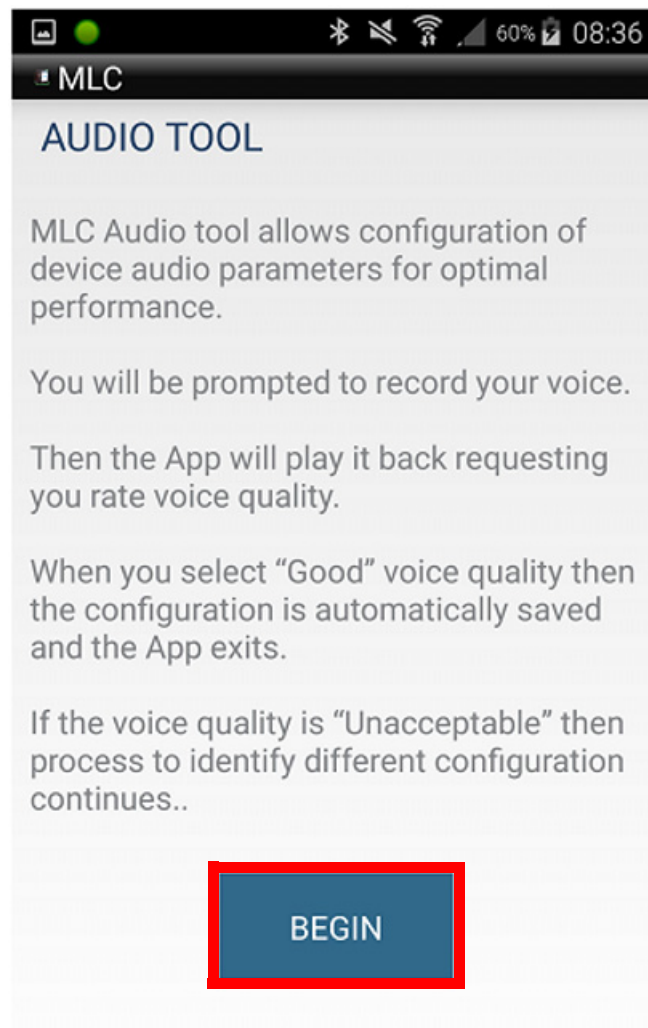
Step 1 Press the **More...** tab.

Figure 6-2 Android Device—Audio Tool tab



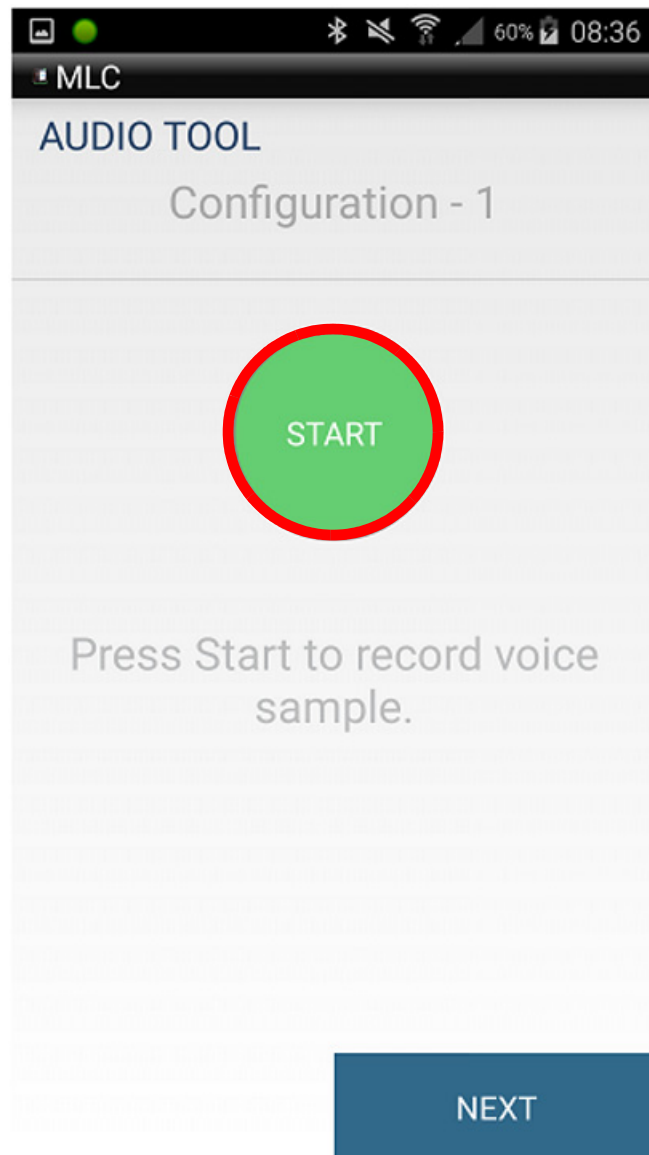
Step 2 Press the **Audio Tool** tab.

Figure 6-3 Press Begin on the Audio Tool Screen



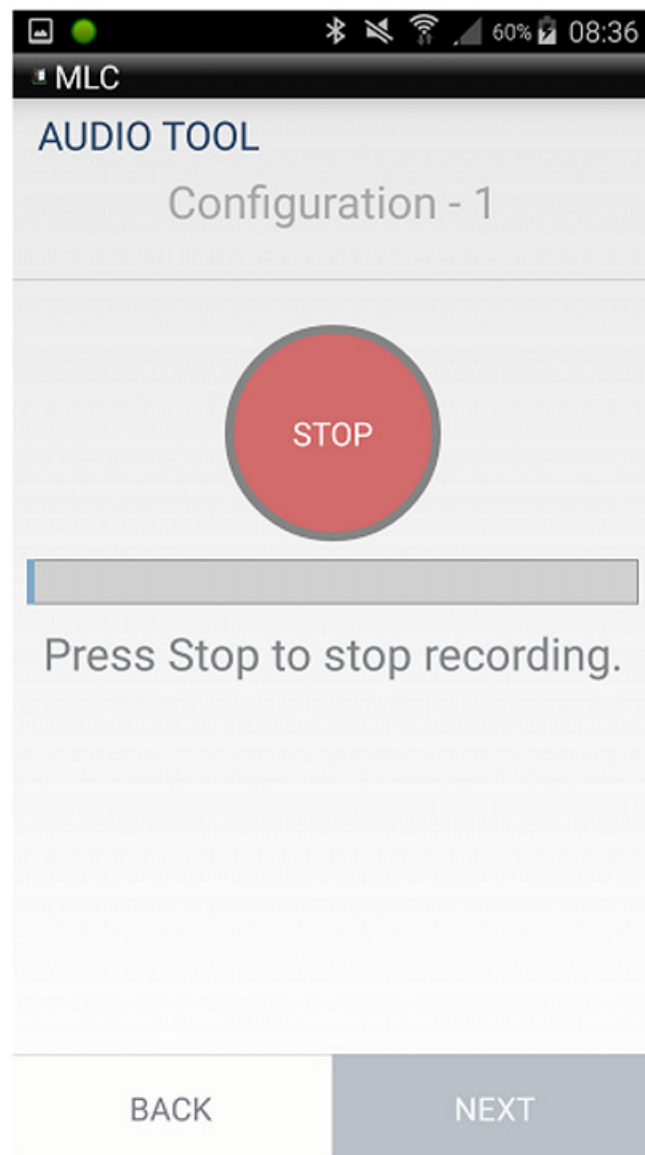
Step 3 Tap **Begin** to enter the tool.

Figure 6-4 Start Audio Training



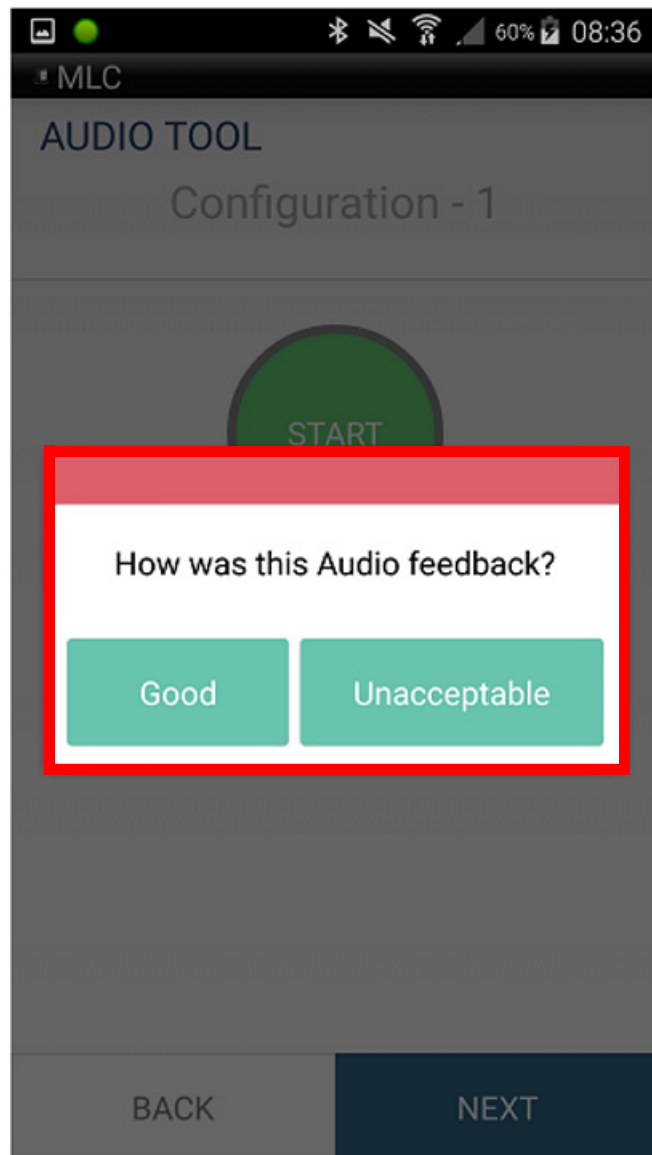
Step 4 Tap **Start** to start the Audio training.

Figure 6-5 Recording Audio



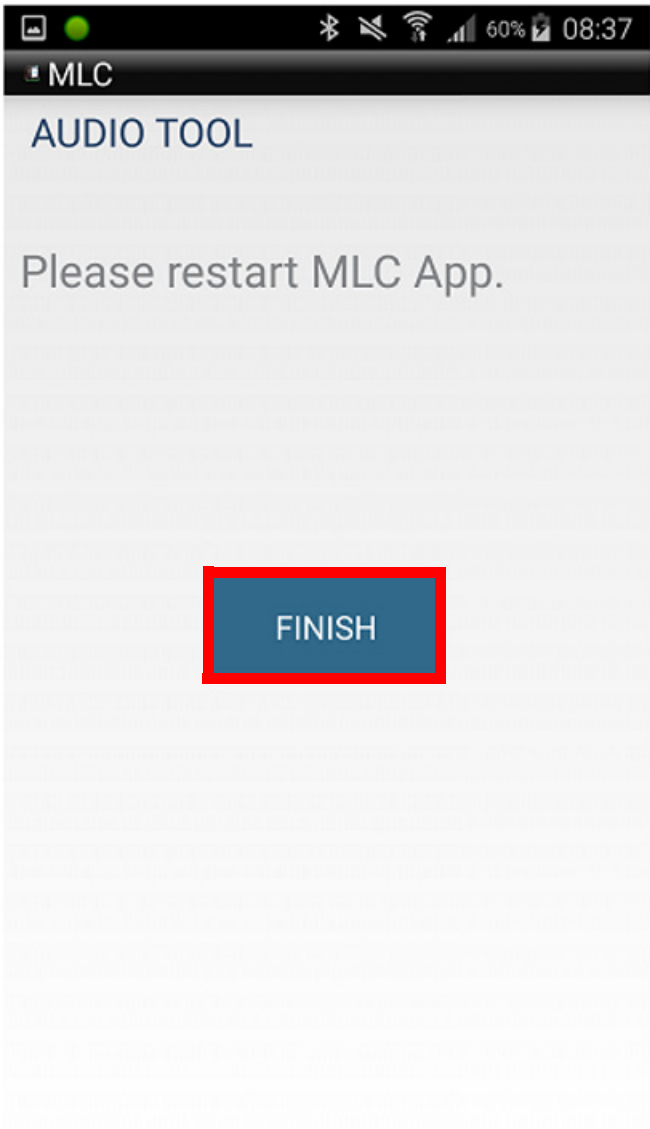
- Step 5** Once the recording is started, talk into the mic and listen for the audio through the speaker.
- When you have determined the audio is either acceptable or not, press the **Stop** button.

Figure 6-6 Determine if Audio is Acceptable or Unacceptable



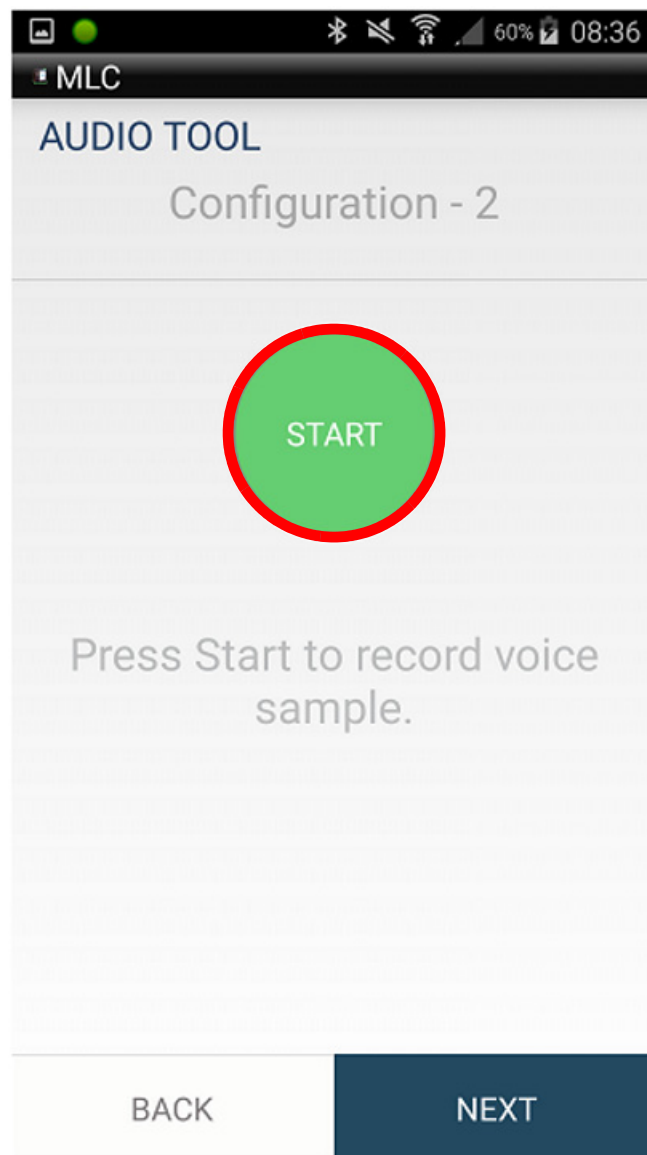
Step 6 If the recording is acceptable, press the **Good** tab. If it is not, press the **Unacceptable** tab.

Figure 6-7 Press the Finish Button to Accept Recorded Audio



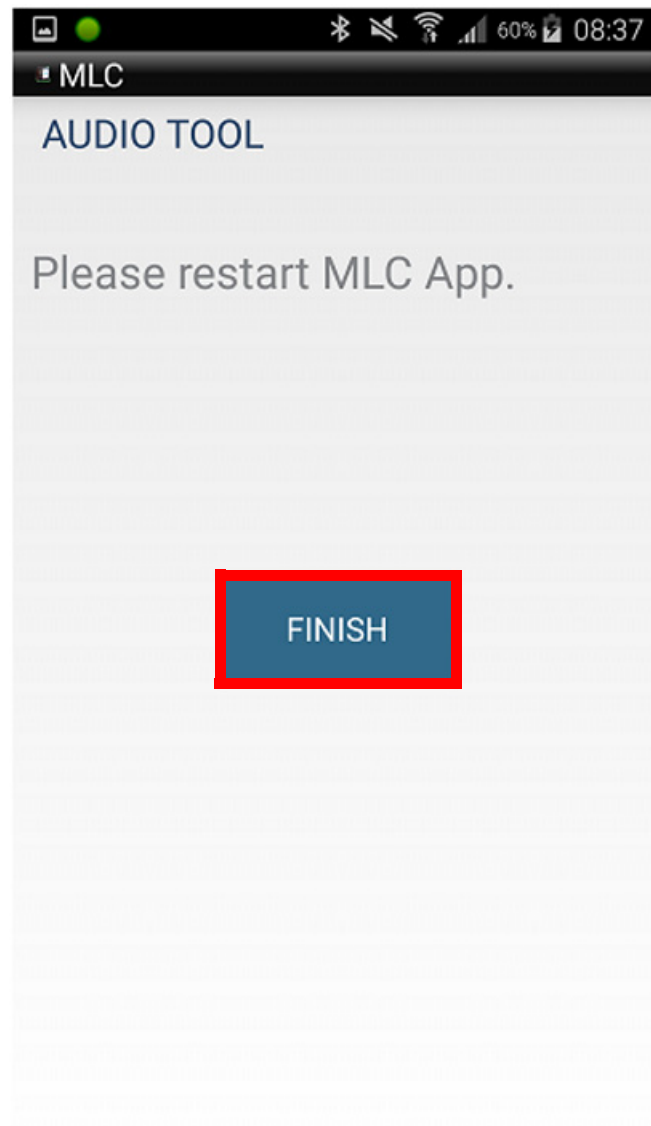
Step 7 If you choose **Good**, then press the **Finish** button.

Figure 6-8 If Audio Recording is Unacceptable



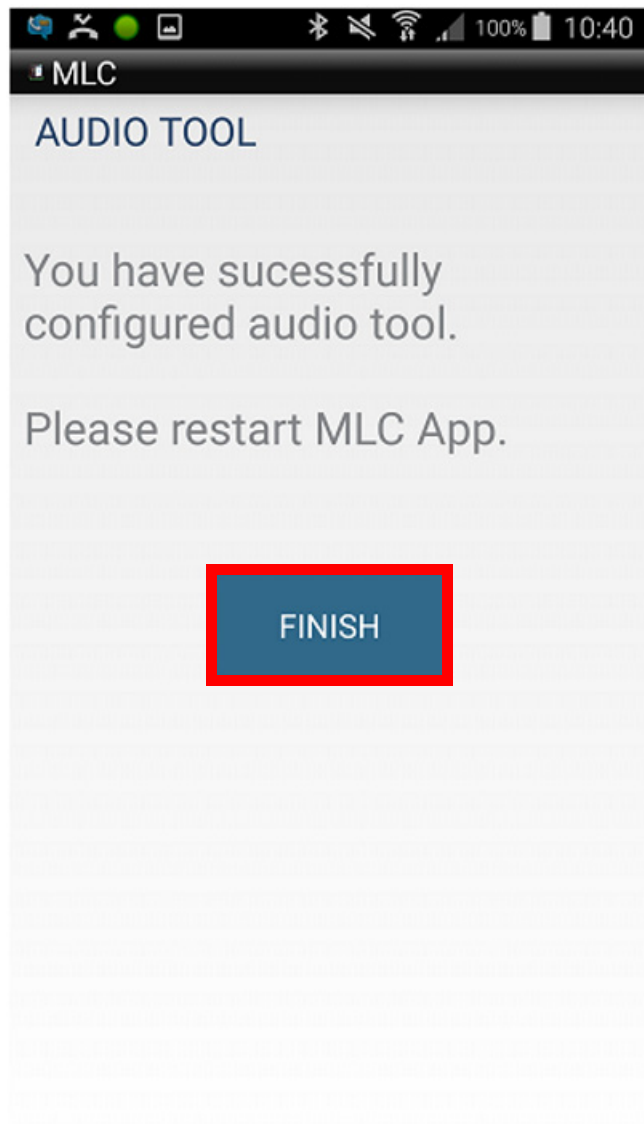
Step 8 If you choose **Unacceptable**, you will automatically go to the next configuration option. Repeat steps 4, 5 and 6 until there is an acceptable audio setting. There are 12 configuration options and if a suitable Audio setting is not obtained it will default to best settings in the device.

Figure 6-9 Restarting the MLC App



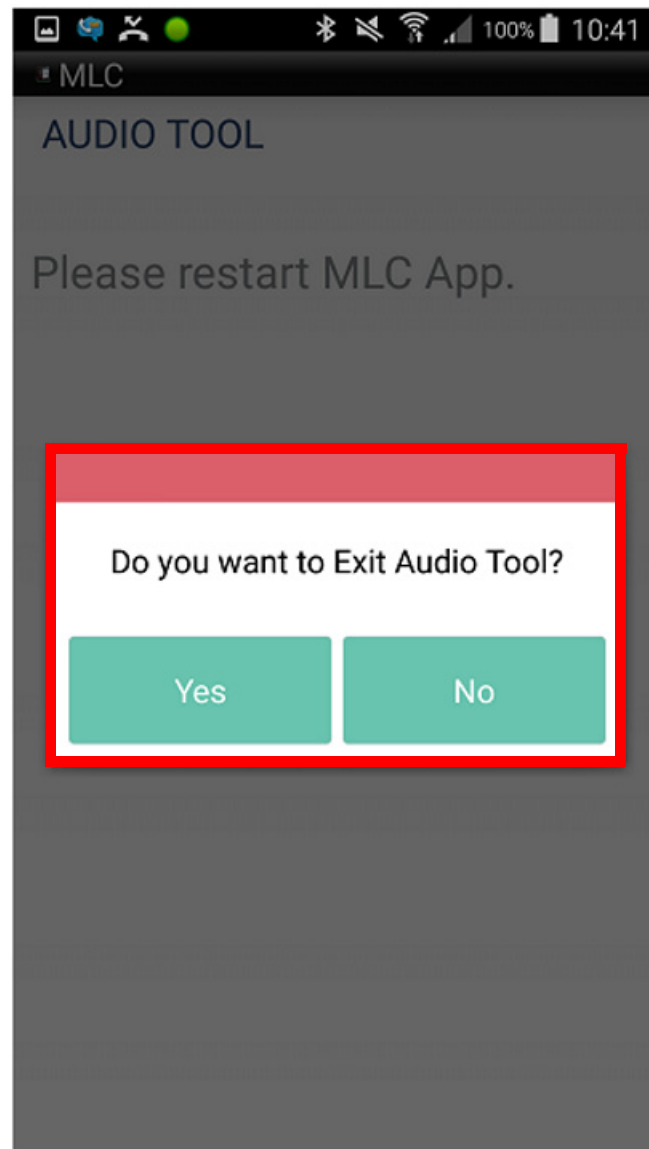
- Step 9** If a suitable Audio setting is not found, you will be prompted to restart the MLC App and it will select the best settings.

Figure 6-10 Restarting the MLC App



Step 10 If you chose **Good** on any of the Audio configurations, you are prompted to press **Finish** and restart the MLC App.

Figure 6-11 Exiting the Audio Tool



- Step 11** To exit the Audio Tool without saving changes, press the Device back arrow. You are then prompted to exit.
- Step 12** Once you return to the account window, a popup will prompt you to save the settings.
- Step 13** Tap **Yes** to save and exit.



7

More (User Accounts, Activation and About)



Advanced user only, contact your IT department or Authorized NEC Dealer before making changes.

User SIP Accounts

Accounts - Add, Delete and Edit SIP account settings

- Add New Account
- Select Accounts
- Select the + sign to add a new account

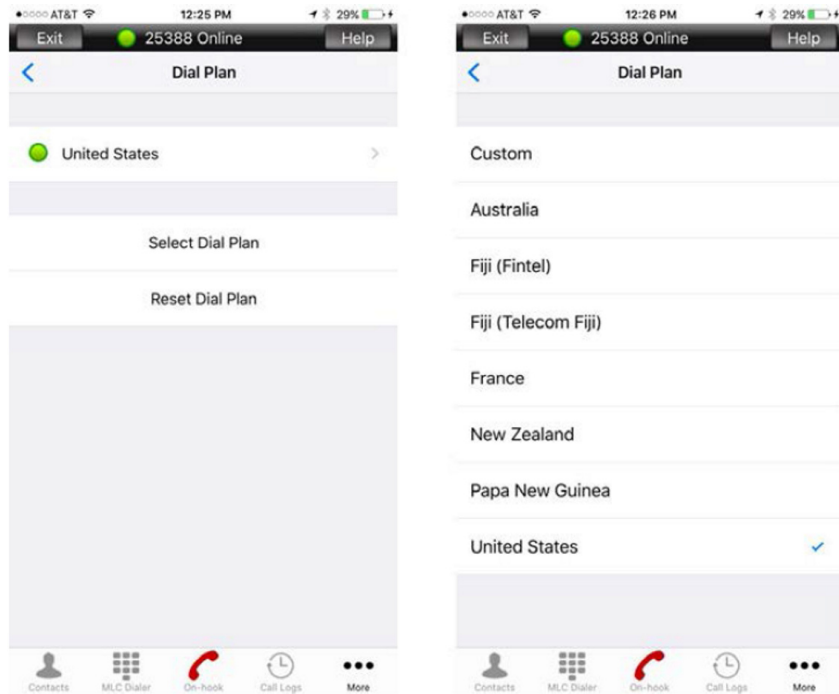
SIP Account Settings

- Account Name: **"Enter the Account Name"**
- User Name: **"Enter Extension Number"**
- Authentication Name: **"Enter Extension Number"**
- Display Name: **"Enter Extension Number"**
- Password: **"Enter Extension Login Password"**
- Server: **"Enter IP Address of VoIP or LAN 1 Port"**
 - (i.e. 172.24.142.55)
- Enable Proxy: **"Yes"**
- Proxy: **"Enter IP Address of VoIP or LAN 1 Port and iSIP/nSIP Port"**
 - (i.e. 172.24.142.55:5080)
 - SV9100 & SV9300 Default iSIP Port is 5080
 - SV9500 Default nSIP Port is 5060
- UC Server: **"Enter UC Server URL or IP Address"**
- UC User Name: **"Enter UC User Name"**
- UC Password: **"Select UC User Password"**
- Ringtone: **"Select desired Ringtone"**
- Dial Plan: **"Select desired Dial Plan"**

Advanced Settings (Password: 6633222)

- Dial Plan (Select, Edit and Reset the Custom and Country Dial Plans)
 - Select Dial Plan.

Figure 7-1 Dial Plan



- United States default outgoing prefix is 9
- Edit Dial Plan (if required).
- User Operation
 - Operation Mode: **"Mobile"**
 - Mute Programmable Key: **"Assign Mute Key Number"**
 - SV9100 - Default Not Required for SV9100
 - SV9300 & SV9500 - Mute Key must be assigned to a Line/ Feature Key
- Call Preference: Android Only – Native Dialer Settings
 - **Always Prompt:** Dialer selection popup appears before sending digit. Select MLC to send call with MLC. Select Cellular to send call over cellular service.
 - **MLC:** When MLC is active, all calls made with native dialer will be sent using MLC.
 - **Cellular:** All calls made with the native dialer are sent over the cellular service.
- Audio



Setting must match UNIVERGE SV8100/SV9100, SV8300/SV9300, SV8500/SV9500 system settings. Contact your IT department or authorized NEC dealer for support.

- Codecs: **"Select and Prioritized the Codec list"**
 - First Priority is the top option and the Last Priority is the bottom option
 - Codecs can be disabled or enabled
- Packetization Interval (ms): **"Assign the RTP Payload Size"**
- Playback Buffer: **"Default: 60ms"**
- Capture Buffer: **"Default: 40ms"**
- JB prefetch Delay: **"Default: 60ms"**
- JB Max Delay: **"Default: 160ms"**
- Network



Setting must match UNIVERGE SV8100/SV9100, SV8300/SV9300, SV8500/SV9500 system settings. Contact your IT department or authorized NEC dealer for support.

- SIP DSCP (Hex): C0/30
- RTP DSCP (Hex): A0/28
- Miscellaneous
 - Log Level: **"Default: Warning"**



Contact your IT department or authorized NEC dealer for support.

Edit Account

- Select Account from More Options
- Select Account to edit
- See SIP account setting above for option details.

Set Default Account (Default account will be the active account)

- Select Account from More Options
- Select and hold account for 2sec. for popup menu to appear
- Select 'Set as Default'

Delete Account (Default account cannot be deleted)

- Select Account from More Options
- Select and hold account for 2sec. for popup menu to appear
- Select 'Delete'

For additional information or support on this NEC Corporation of America product, contact your NEC Corporation of America representative.

Activation



The MLC has 3 options for activation

- **Trial:** Seven day trial period. After seven days you must activate the MLC to continue to use.
- **Activation:** Enter the activation code received from your IT department or contact your dealer for the activation code
- **Dismiss:** Dismisses the activation and closes the MLC application
 - When the application is restarted the activation menu will display again.



NOTE

Each account in the MLC Client requires an activation code. When you configure two accounts on the same device, two licenses are required for that device. Always configure the default account first. Then, add additional accounts if needed.

About (MLC Version Info)

Enter the **More** menu and select **About**. The MLC version information will be displayed.

8

MLC BYOD Configuration – SV9100 and MLC Application

In this chapter the MLC BYOD related configuration which should be done in the SV9100 and MLC application is explained.

Configuration Required on the SV9100

Step 1 Configure IP Address of SV9100 PBX and NAT IP Address of Router.

Figure 8-1 GCD-CP10 Network Setup

System Data

Grid View Apply Cancel Default

10-12: GCD-CP10 Network Setup

01 - IP Address	0.0.0.0
02 - Subnet Mask	255.255.255.0
03 - Default Gateway	192.168.0.1
04 - Time Zone	(GMT -05:00) Eastern Time (US and Canada)
05 - NIC Setting	Automatic detection
07 - NAPT Router IP Address	14.142.225.234
08 - ICMP Redirect	<input type="checkbox"/>
09 - IPL IP Address	192.168.0.50
10 - IPL Subnet Mask	255.255.255.192
11 - IPL NIC Setting	Automatic detection
13 - DNS Primary Address	8.8.8.8
14 - DNS Secondary Address	0.0.0.0

Define Public IP Address of Router interface of WAN side.

Define IPL IP Address and IPL subnet mask (Local IP Address of SV9100).



If NAT is enabled, signaling port (5080, 5081) must be forwarded to the IP Address assigned in Program 10-12-09.

Step 2 Enable NAT and select Register Mode.

Figure 8-2 DT800/DT700 Server Information Setup

System Data

10-46: DT800/DT700 Server Information Setup

01 - Register Mode: Plug and Play

04 - Server Name: sipphd

06 - Registrar Port: 5080

07 - Encryption Mode:

08 - Encoding Type: Type 1

09 - One Time Password:

10 - 1st DT800/DT700 to register: 1

11 - Multicast IP Address: 224.0.0.10

12 - Multicast Port: 30000

13 - Subscrib Session Port: 5081

14 - NAT Mode:

If the Multiline Telephone application will be using authentication, this program must be set to Automatic.

Plug and Play mode:
When the phone boots up, it reports the ext. assigned in the phone or chooses the next available extension in the system. No password is required.

Automatic mode:
If set to Automatic, the SIP user name and password must be entered in the actual IP phone. These settings must match 84-22/ 15-05-27, for the phone to come on-line.

Manual mode:
When the phone boots up it prompts a user to enter a user ID and password before logging in. It checks the user ID/password against 84-22/15-05-27. If there is no match, the phone does not come on-line.

Turns On/Off the MLC NAT mode of the system.

Step 3 Check DSP resources for IP phones.

Figure 8-3 IPL DSP Resource Selection

System Data

10-19: IPL DSP Resource Selection

Slot: GCD-CP 10 + GPZ-IPLD - System 01 * - Chassis 1 - Slot 01 (1) | DSP Resource (1~256): 1

DSP Resource	Type	DSP Resource	Type
001	IP Extension	011	Common use for both IP extensions and trunks
002	Common use for both IP extensions and trunks	012	Common use for both IP extensions and trunks
003	Common use for both IP extensions and trunks	013	Common use for both IP extensions and trunks
004	Common use for both IP extensions and trunks	014	Common use for both IP extensions and trunks
005	Common use for both IP extensions and trunks	015	Common use for both IP extensions and trunks
006	Common use for both IP extensions and trunks	016	Common use for both IP extensions and trunks
007	Common use for both IP extensions and trunks		
008	Common use for both IP extensions and trunks		

Make sure that DSP Resources are selected for IP Terminals.

Step 4 Check licenses for DSP Resource.

Figure 8-4 Blade License Setup

System Data

10-54: Blade License Setup

Slot: GCD-CP10 + GP7.IPLE - System 01* - Chassis 1 - Slot 01 (1) License (1~32): 1

License	Code	Quantity	License	Code	Quantity
01	5103	25	11		0
02		0	12		0
03		0	13		0
04		0	14		0
05		0	15		0
06		0	16		0
07		0			
08		0			

Make sure that license code "5103" and related quantity is defined here.

Step 5 Configure extension for MLC client.

Figure 8-5 P Phone Basic Setup

System Data

15-05: IP Phone Basic Setup

Extension: 125: IP - STA 125 - 106.67.37.112 - Port 025

01 - Terminal Type: DT800/DT700

02 - Terminal MAC Address: F6-48-28-89-4A-80

04 - Nickname:

07 - Using IP Address: 106.67.37.112

09 - Call Procedure Port: 0

11 - DT800/DT700 C/CTR Port: 44555

15 - Codec Type: Type 1

16 - Authentication Password:

18 - IP duplication allow mode: Enable

27 - Personal ID Index: 0

28 - Additional Information:

"IP Duplication Allow Mode" should be enabled for all MLC using same NAT.

If the SIP MLC is using Manual/Automatic Registration, assign each phone a unique personal ID index. Then go to PRG 84-22 to assign the user name and password.



If IP Extensions are not visible in PRG 15-05, add IP extensions from **PCPro>Filter Options>IP phone List** and continue the mentioned programming.

Step 6 If Register Mode is “Automatic & Manual” configure **User ID** and **Password**.

Figure 8-6 DT800/DT700 Logon Information

System Data Grid View Apply Cancel Default Copy

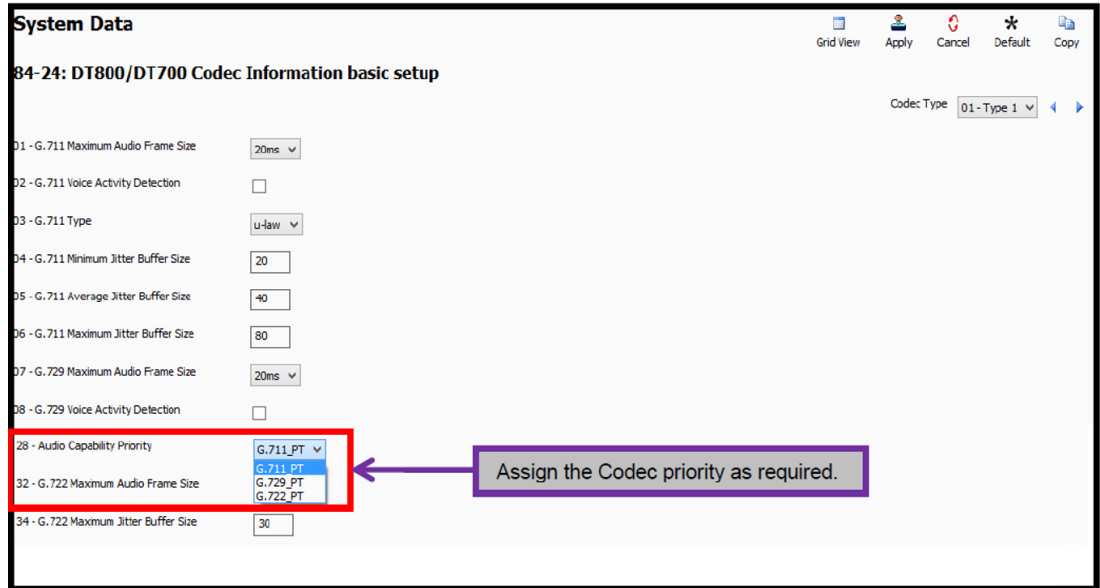
84-22: DT800/DT700 Logon Information Personal ID Index (1~960) 🔍 ⏪ ⏩

Personal ID Index	User Id	Password	User ID Required	Log Off	Nick Name
001	<input type="text" value="125"/>	<input type="password" value="..."/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text"/>
002	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text"/>
003	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text"/>
004	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text"/>
			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text"/>
			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text"/>
007	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text"/>
008	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text"/>

Configure “User ID” and “Password” for defined personal ID index in PRG 15-05-27, when Registration mode is Manual/Auto Registration in PRG 10-46-01.

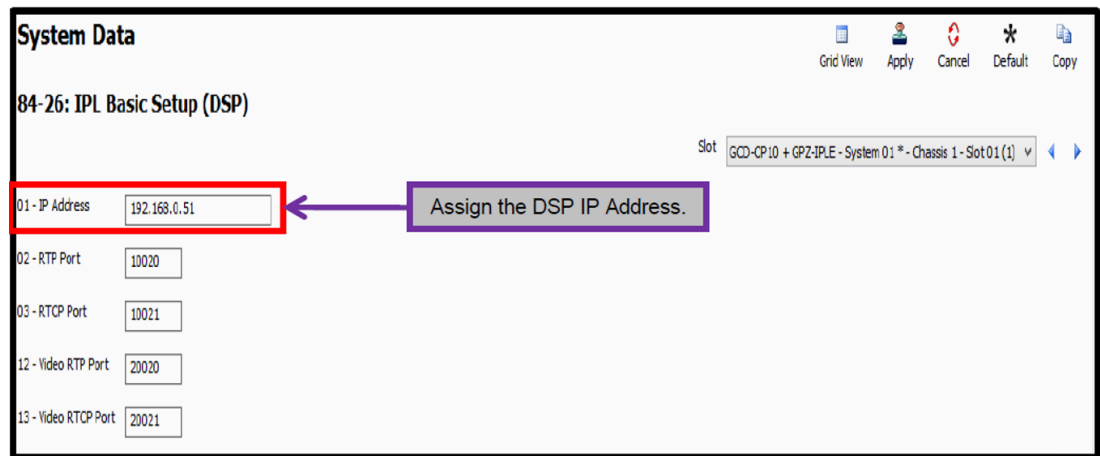
Step 7 Configure **Codec priorities** for MLC client.

Figure 8-7 DT800/DT700 Codec Information Basic Setup



Step 8 Configure **DSP IP Address** and **RTP Port**.

Figure 8-8 IPL Basic Setup (DSP)

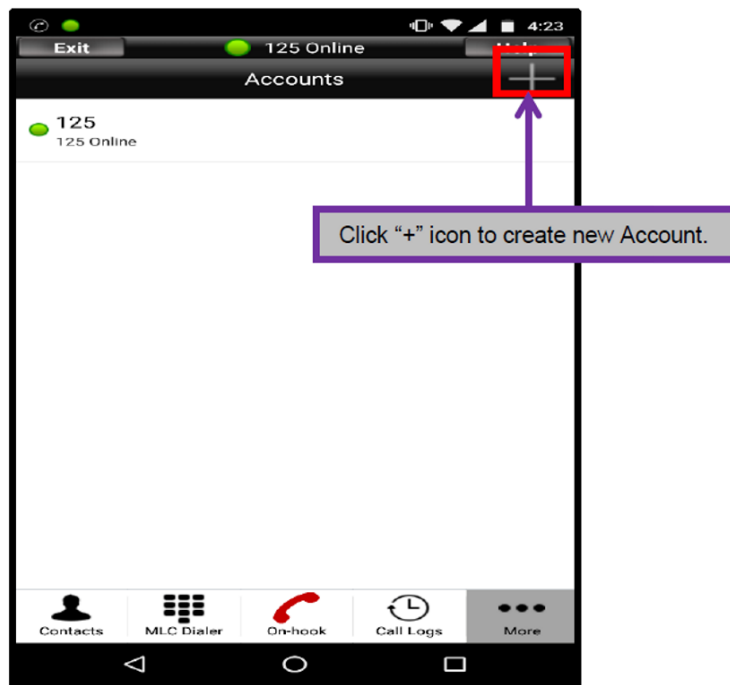


If NAT is enabled, RTP ports range (10020~10531) must be forwarded to the IP Address assigned in PRG 84-26-01.

Configuration Required on MLC Client

- Step 1** Open MLC Client Application and go to **More>Account**. Press the + icon to create a new account.

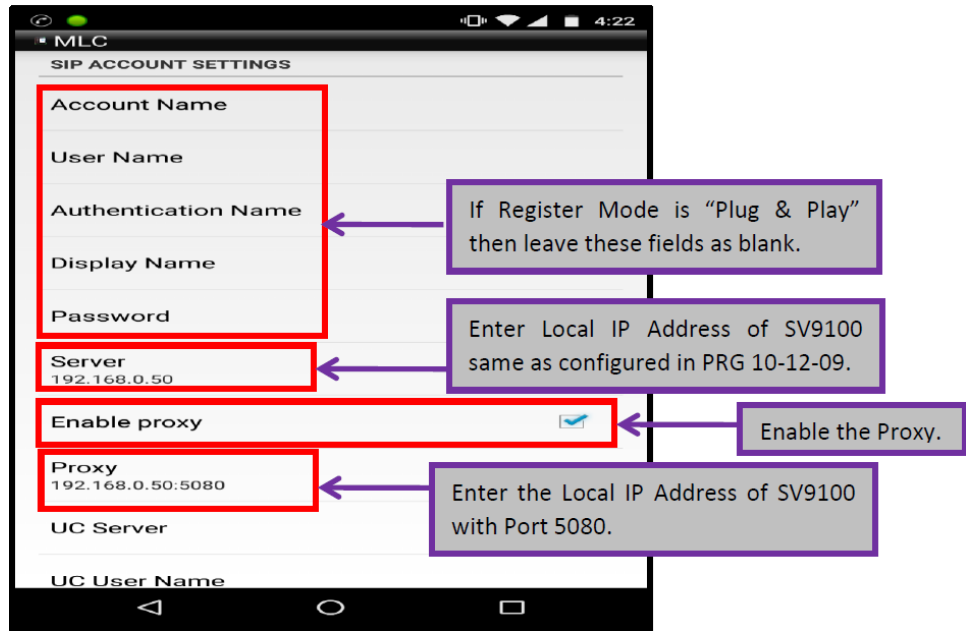
Figure 8-9 Accounts Screen



Configure MLC Client Account Setting

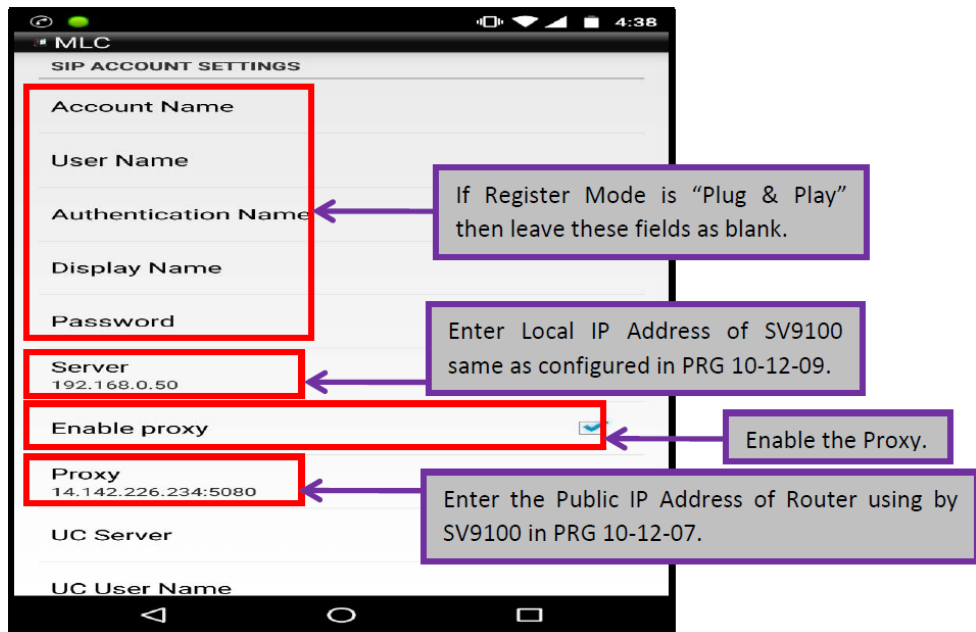
- **With Local Network:** If Register Mode in PRG 10-46-01 is “Plug and Play”.

Figure 8-10 Register Mode is Plug and Play



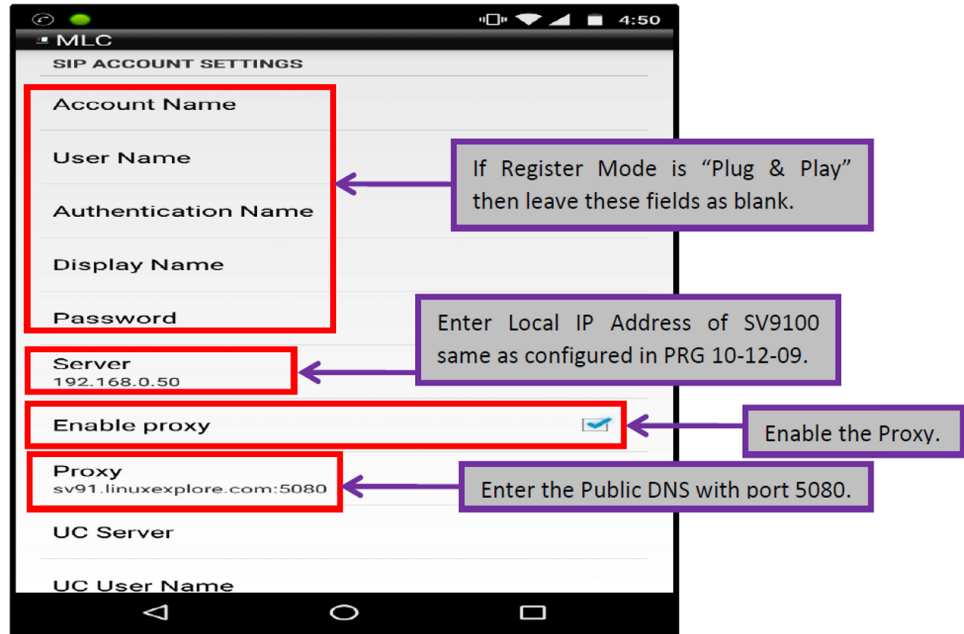
- **With NAT:** If Register Mode in PRG 10-46-01 is “Plug and Play” using NAT.

Figure 8-11 Plug and Play Using NAT



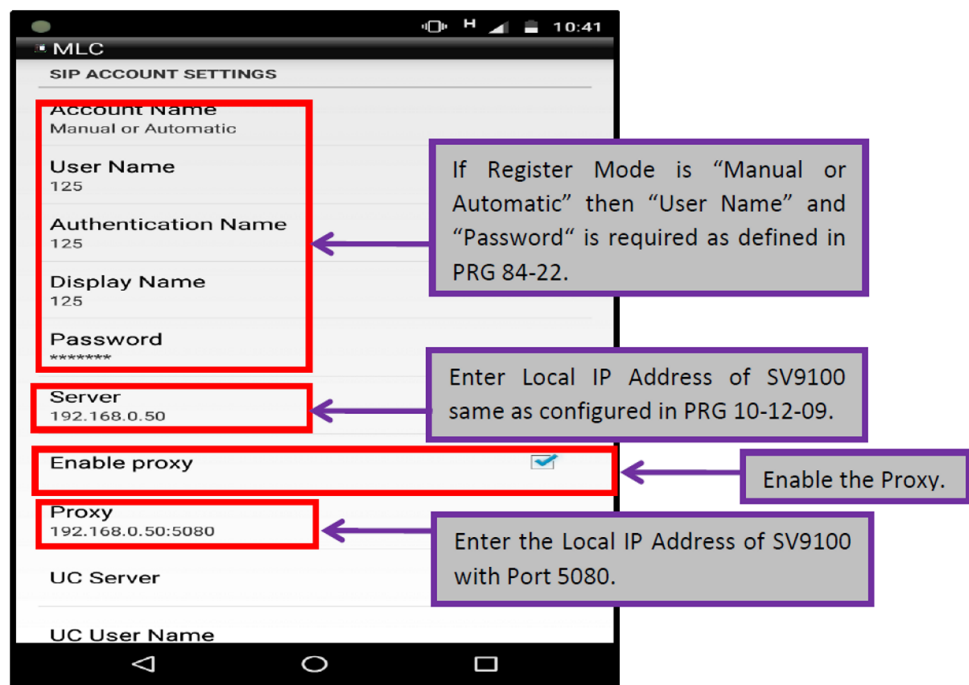
- **With NAT and DNS:** If Register Mode in PRG 10-46-01 is “Plug and Play” using NAT and DNS.

Figure 8-12 Plug and Play Using NAT and DNS



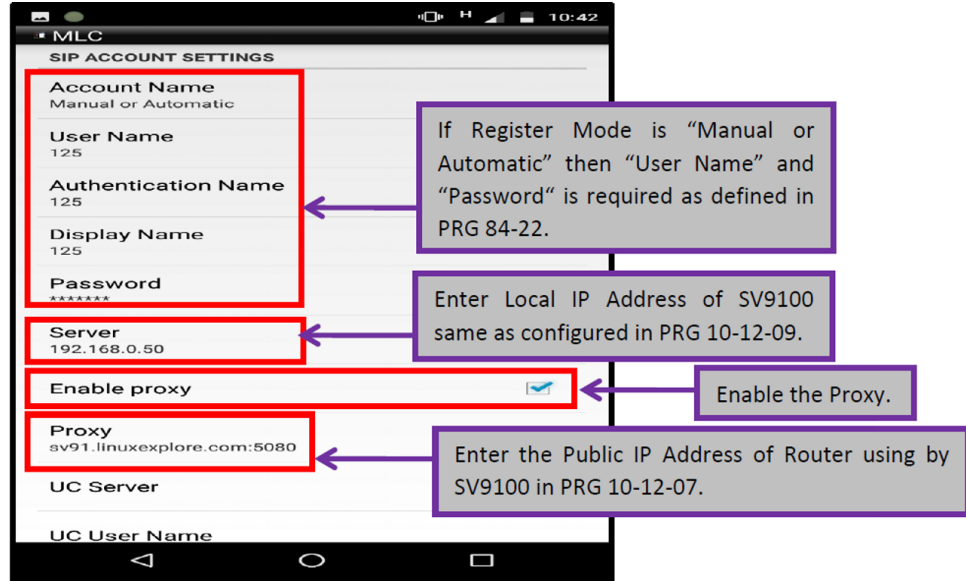
- **With Local Network:** If Register Mode in PRG 10-46-01 is “Manual or Auto Register Mode”.

Figure 8-13 Manual or Auto Register Mode – Local Network



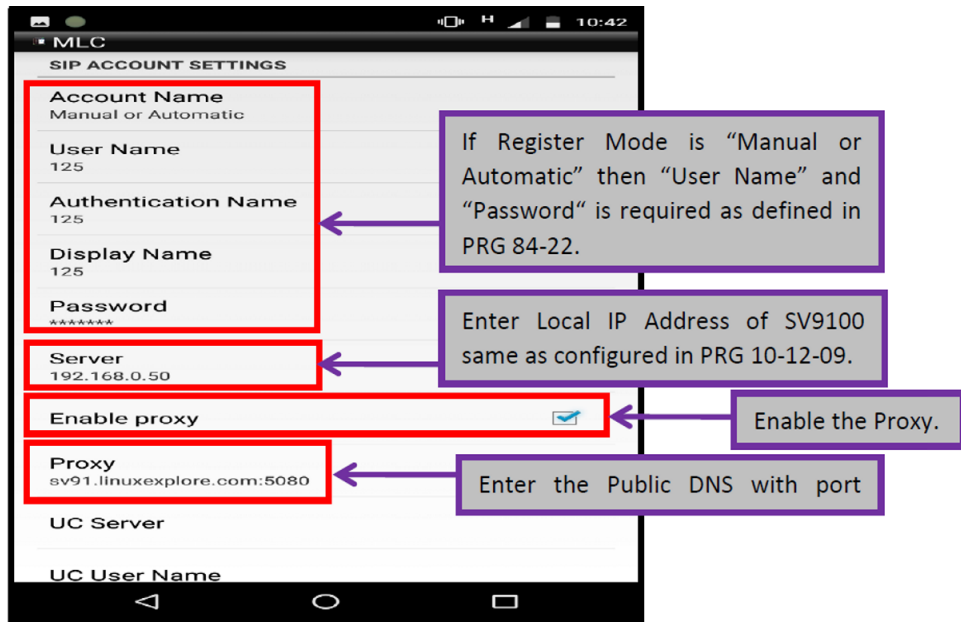
- **With NAT:** If Register Mode in PRG 10-46-01 is “Manual or Auto Register Mode”.

Figure 8-14 Manual or Auto Register Mode – NAT



- **With NAT and DNS:** If Register Mode in PRG 10-46-01 is “Manual or Auto Register Mode” using NAT and DNS.

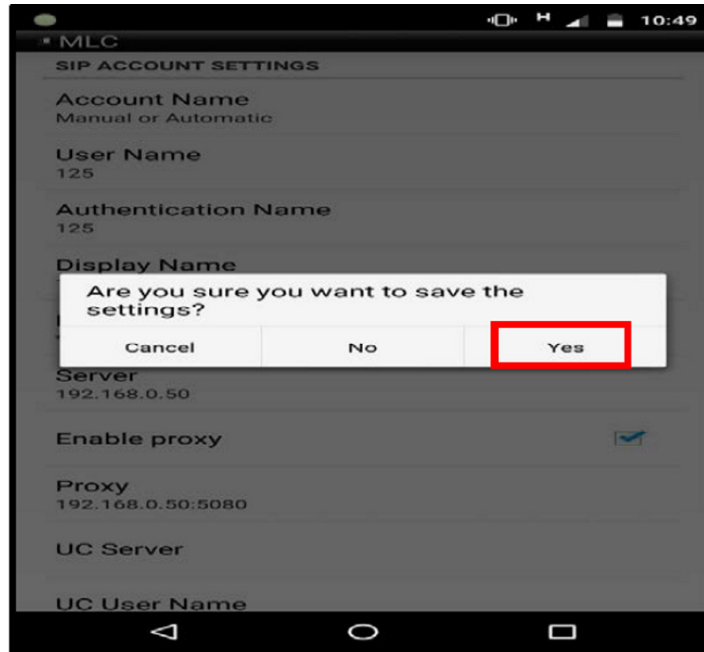
Figure 8-15 Manual or Auto Register Mode – NAT and DNS



Activate MLC Account using Appropriate Site Tag/Hardware Key Code

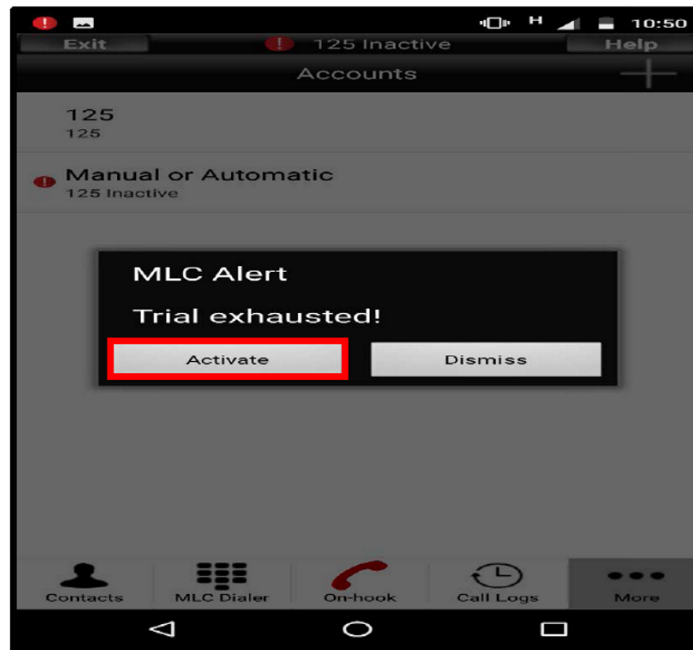
- Step 1** After account settings are complete and the back button is pressed a pop-up “Are you sure you want to save the settings?” is displayed.

Figure 8-16 Save Settings Pop-up



- Step 2** Click **Yes**, the account is set as default and the following is displayed.

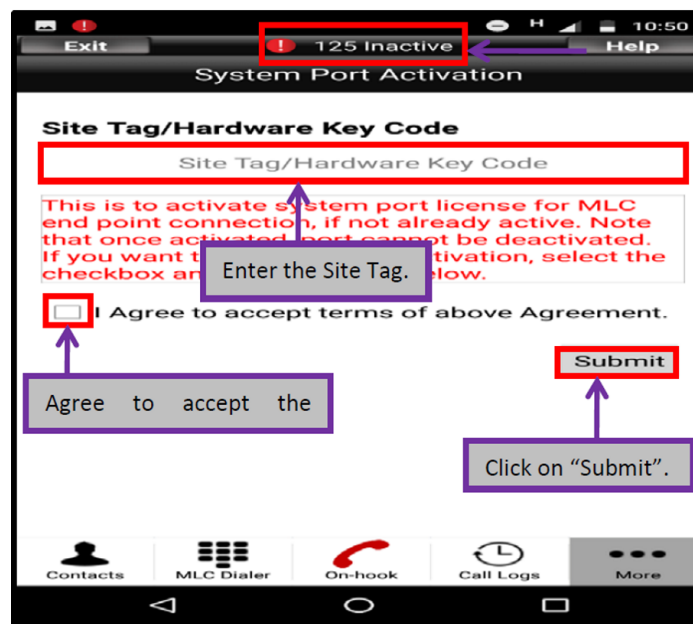
Figure 8-17 Activate Pop-up



Step 3 Click **Activate**, the following screen is displayed.

Figure 8-18 System Port Activation Screen

The Extension is in "Inactive" because account is not activated using "Site Tag/Hardware key code".

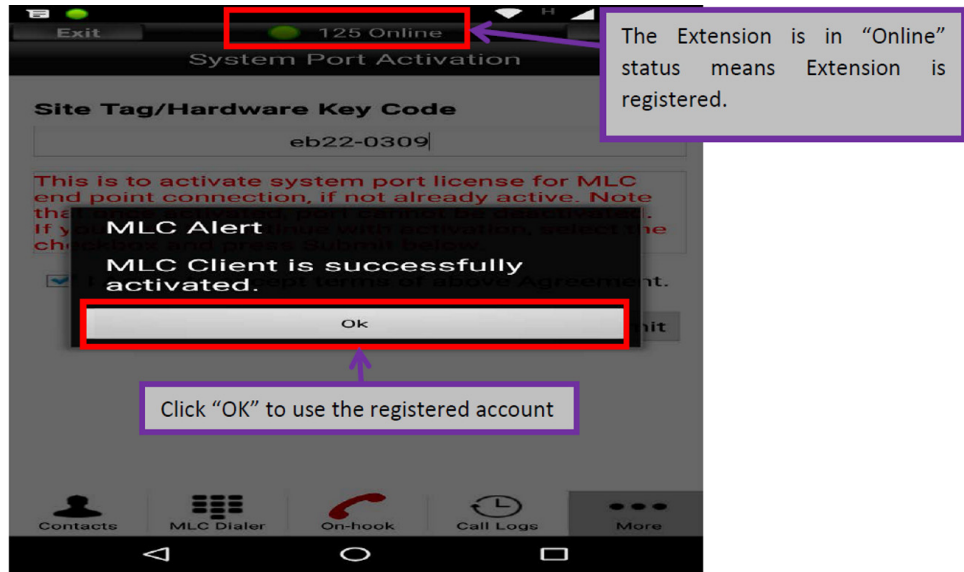




To activate the account the public network is required.

When successfully activated, the extension is registered and online.

Figure 8-19 MLC Client Successfully Activated



***For additional information or support on this NEC Enterprise
Communication Technologies, Inc. product, contact your
NEC representative.***

NEC Enterprise Communication Technologies, Inc.

Multiline Client (MLC) Mobile User's Guide

NDA-31749, Issue 3