Multiline Client (MLC) Mobile User's Guide

for Android and Apple Devices

NEC Enterprise Communication Technologies, Inc.

March 2018
NDA-31749, Issue 3.0

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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

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

Chapter 1 *Introduction*	This chapter outlines how to use the guide, including the organization and chapter layout for the Multiline Client Application.
Chapter 2 *Installing Multiline Client*	This chapter describes the process to install the Multiline Client.
Chapter 3 *Multiline Client Application Screen Layouts*	This chapter provides information on using the Multiline Client screen layout.
Chapter 4 *Multiline Client Operating Procedures*	This chapter provides information on Multiline Client operating procedures.
Chapter 5 *Multiline Client Application Status*	This chapter provides information on how to read Multiline Client status.
Chapter 6 *Audio Tool (Android Only)*	This chapter provides information on how to configure the Audio Tool on the Android device.
Chapter 7 *More (User Accounts, Activation and About)*	This chapter provides information on account configuration, licensing and application version.
Chapter 8 *MLC BYOD Configuration – SV9100 and MLC Application*	This chapter provides information on configuring the SV9100 for the MLC Client and how to configure the MLC Client.
Chapter 9 *Additional Device Settings*	This chapter displays additional settings required for Android and iOS devices.

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.

If the connection fails contact your administrator to establish network connectivity

Device Requirements

- Android - Kit Kat 4.4

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

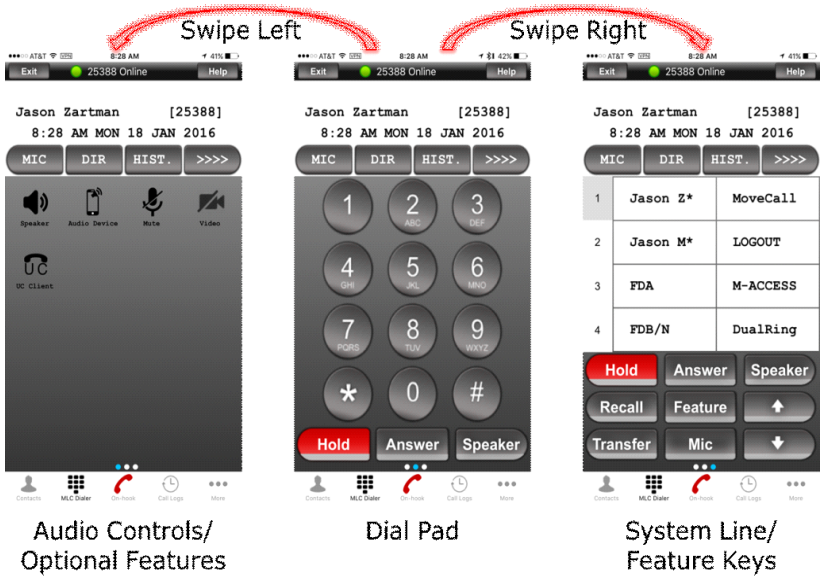
This chapter provides information on the screen layout, the menu items for easy navigation, and function innovations.

MLC Dialer

The Multiline Client Dialer splits into three screens.

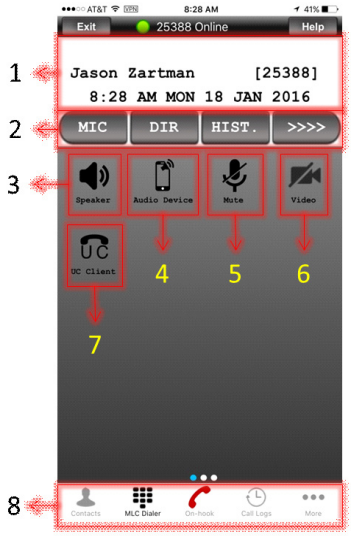
- Audio Controls/Optional Features
- Dial Pad
- System Line/Feature Keys

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. (Not supported in this release).
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.

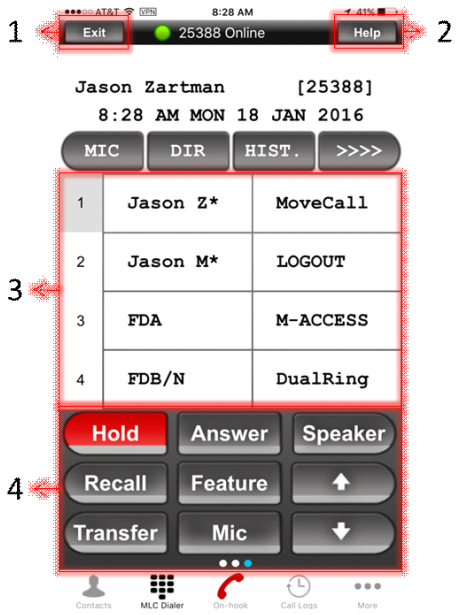
Figure 3-3 *Dial Pad Screen (B)*

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 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 feature, such 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 user's must use the hard keys on the device for volume control.

NOTE

With MLC Android Version 2.0.23 or higher, and MLC Mobile iOS Version 2.0.19.2 or higher, the hard keys on the device must be used 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. (Not supported)
   - **UC Clien**t - 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 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 user's must use the hard keys on the device for volume control.

NOTE

With MLC Android Version 2.0.23 or higher, and iOS Version 2.0.19.2 or higher, the hard keys on the device must be used 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 *Multline 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 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.

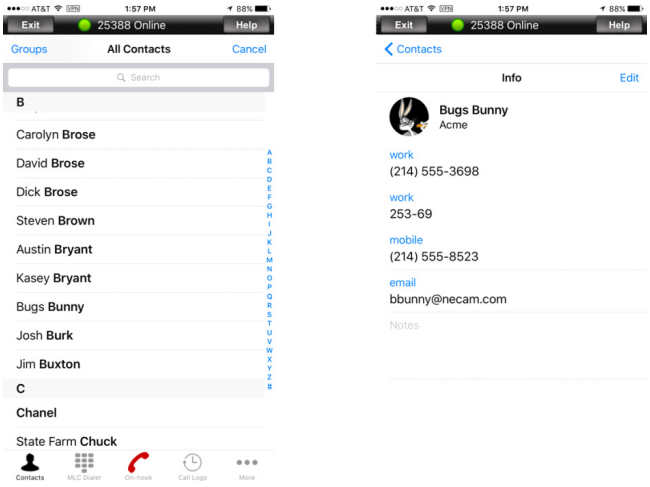
- **Feature** - Used to activate any features as terminal setup functions, etc. and to program One-Touch Speed Dial Keys.
- **Transfer** - Allows the station user to transfer established calls to another station, without attendant assistance.
- **Mic** - Controls microphone during hands-free speakerphone 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

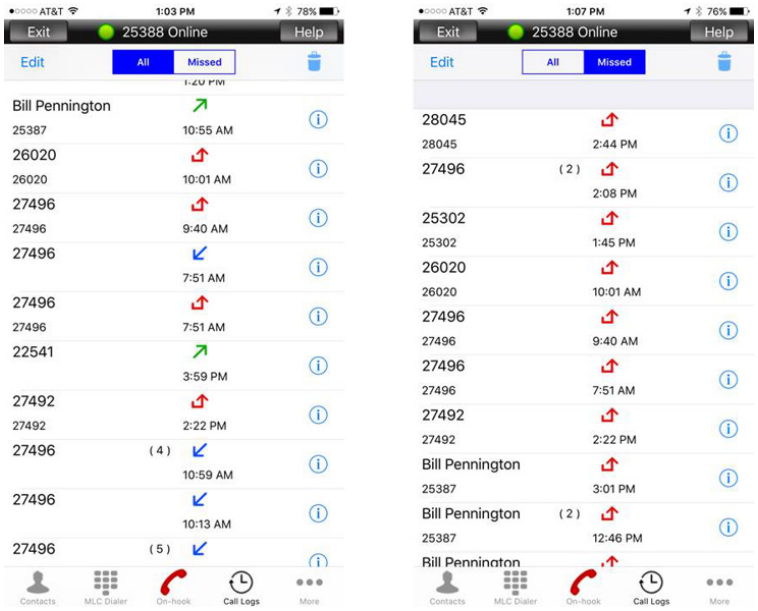
- Editing Contacts is not supported. Edit existing contacts through the devices native contacts.

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.

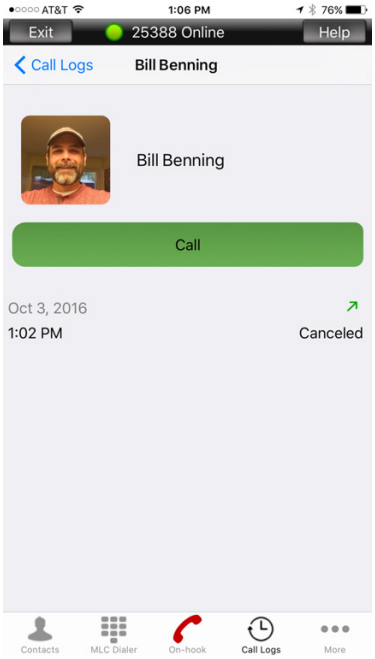
Figure 3-8 *Call Logs screen*



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.

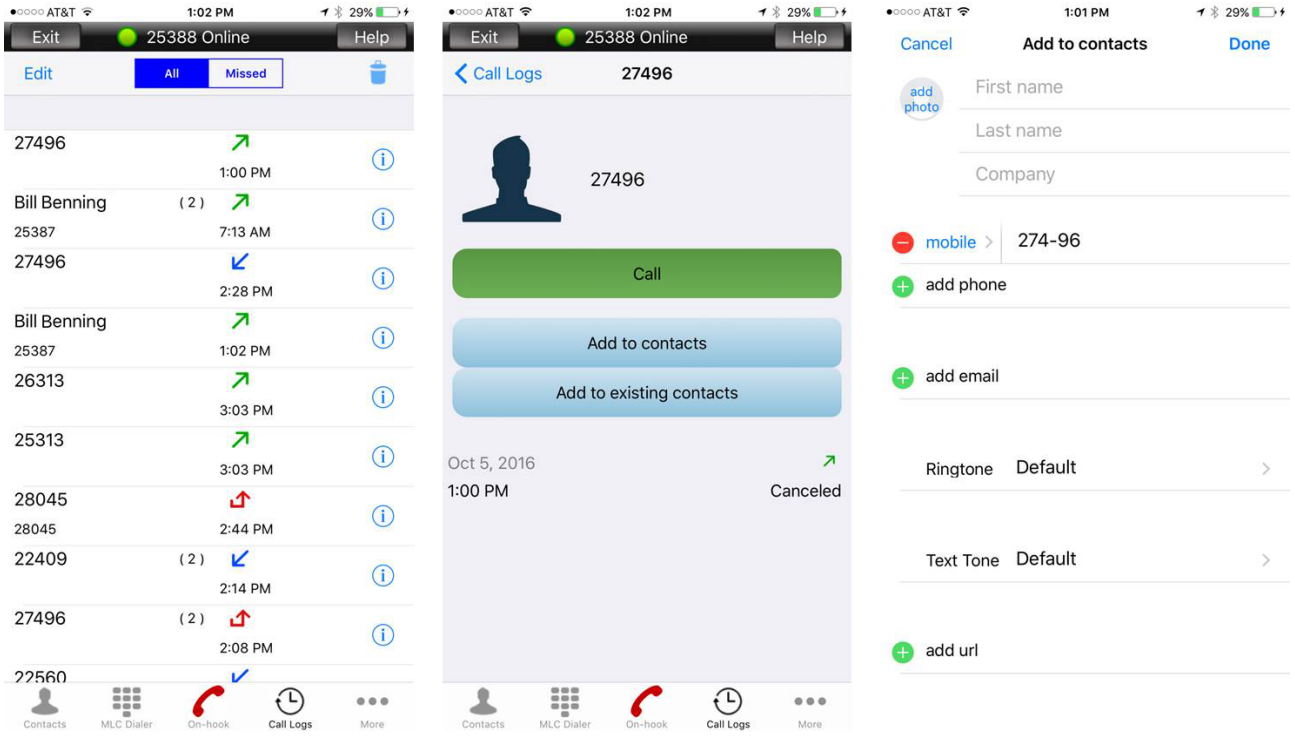
There are three different icons showing the different call log types:

- 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

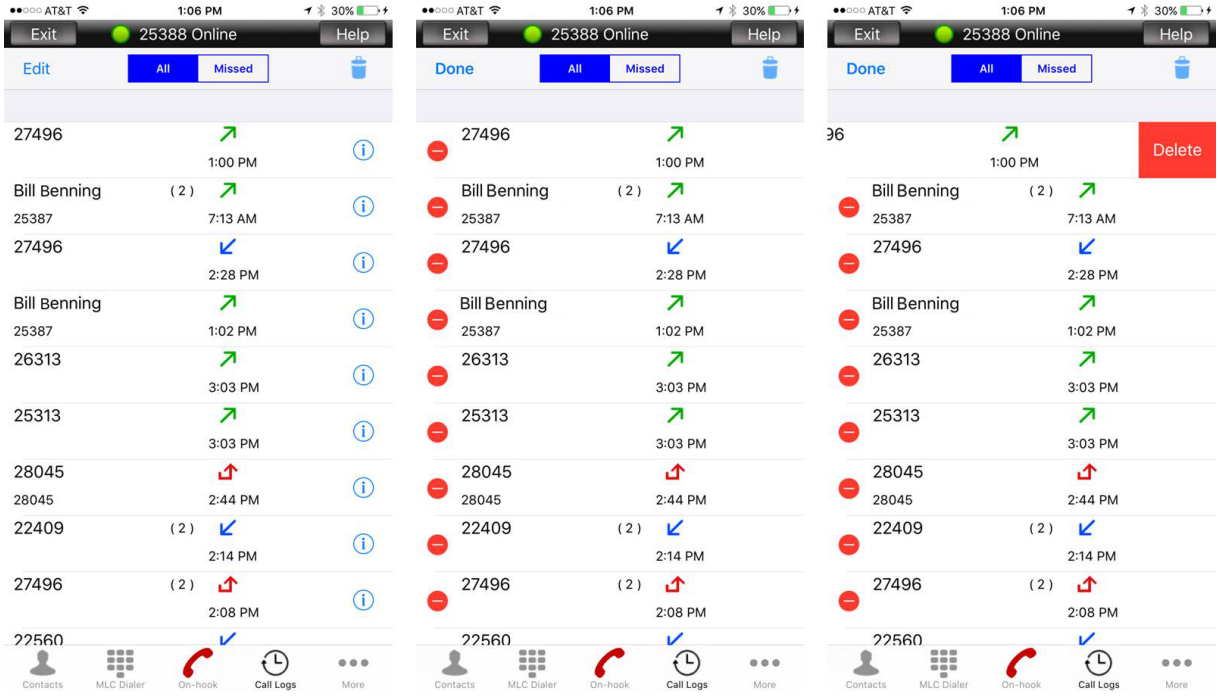


- Selecting the info icon of an unsaved number displays additional call information and options.
- It also displays the type of call, time/date and the duration of the call.
- You can also return the call by clicking Call.
- A dial plan is required to add outside access code (i.e. 9). Refer to Advanced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

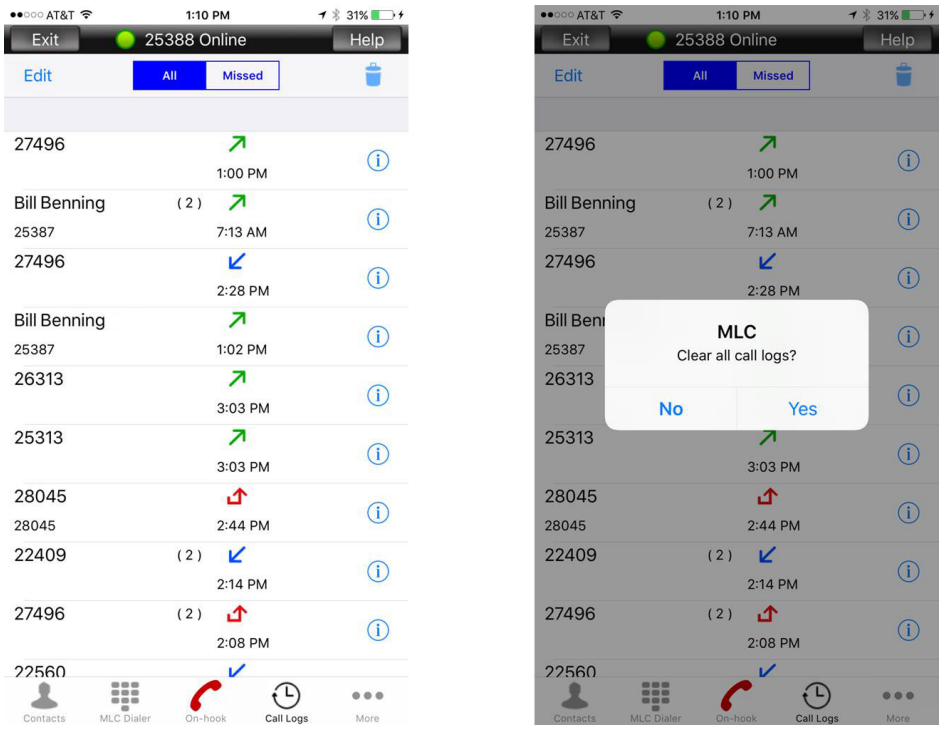
NOTE

With MLC Mobile Android Version 2.0.23 or higher, and MLC Mobile iOS Version 2.0.19.2 or higher, creating and saving logs to Contacts is not supported.

Deleting Individual and All Call Logs



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

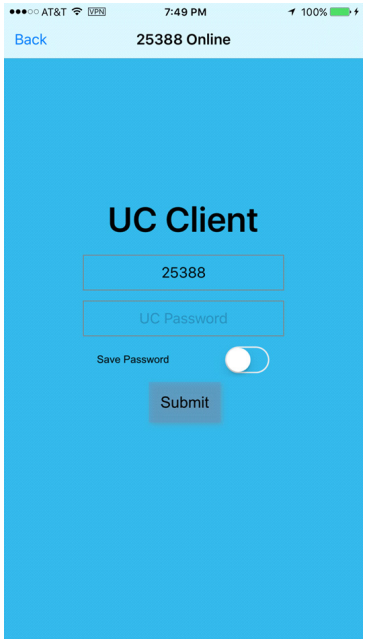


- Delete all calls from the call logs by selecting the trash can then **Yes**.

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.

NOTE

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.

NOTE

With MLC Android Version 2.0.23 or higher, and iOS Version 2.0.19.2 or higher, when receiving an incoming cell call while talking on the MLC, the MLC call will automatically go on hold.

Make Outgoing Call

With Phone Internal Speaker, Bluetooth or Wired Headset

- SV9100/SV9300/SV9500 Users

1. Dial desired number using the MLC Dialer number pad.
2. Press the On-Hook button to send dialed digits.

Or,

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/SV9500 Users

1. Dial desired number using the MLC Dialer number pad.
2. Press the Speaker button Speaker to send dialed digits.

Or,

3. Press the Speaker button Speaker to receive dial tone.
4. Dial desired number using the MLC Dialer number pad.

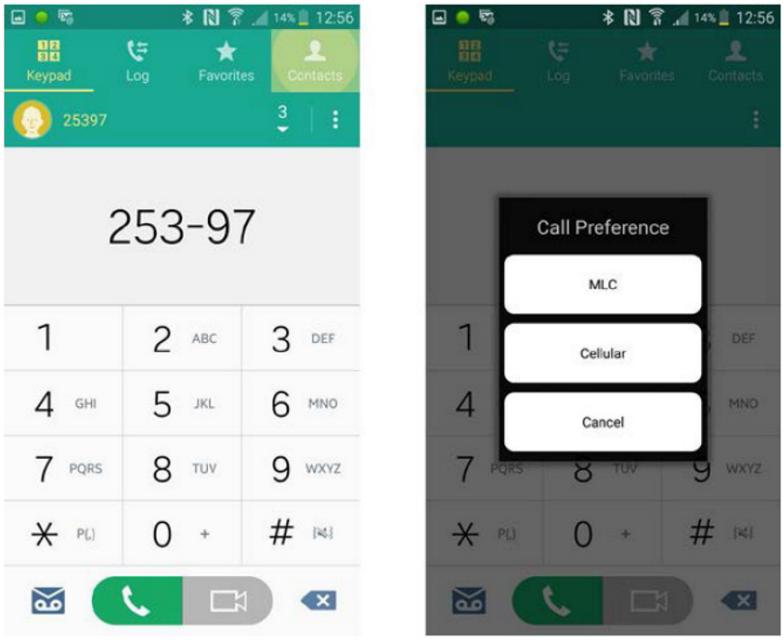
Android Only Native Dialer (Cell Phone Dial Pad)

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 Speaker 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.

Stopping the MLC Service

If tapping the home button and swiping up to close the application.

This does not turn the application off and inbound calls can still be received.

- To close the application within the MLC application, choose the **More** option then select **Quit**.

5

Multiline Client Application Status

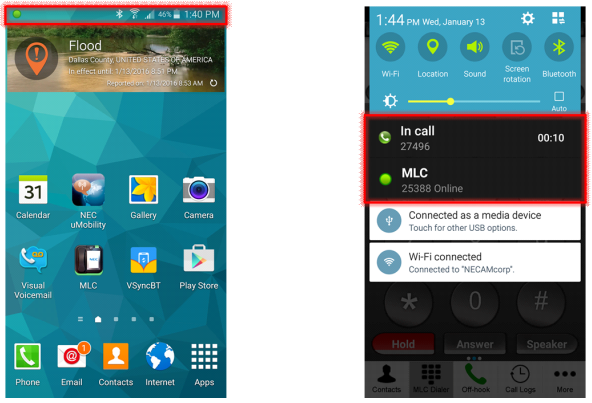
This chapter explains user online status notifications.

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)*


25388 Online
MLC
Jason Z*
Jason Z*
FDA
FDB/N
MoveCall
LOGOUT
M-ACCESS
Audio Device
Mute
Video
UC Client
Exit
NEC
Help
Jason Zartman [25388]
1:48 PM MON 4 JAN 2016
MIC DIR HIST. >>>>
Recall
Feature
Transfer
Mic
Hold
Answer
Speaker


Exit
NEC
Help
Audio Device
Mute
Video
UC Client
Hold
Answer
Speaker
Recall
Feature
Transfer
Mic

Audio Tool (Android Only)

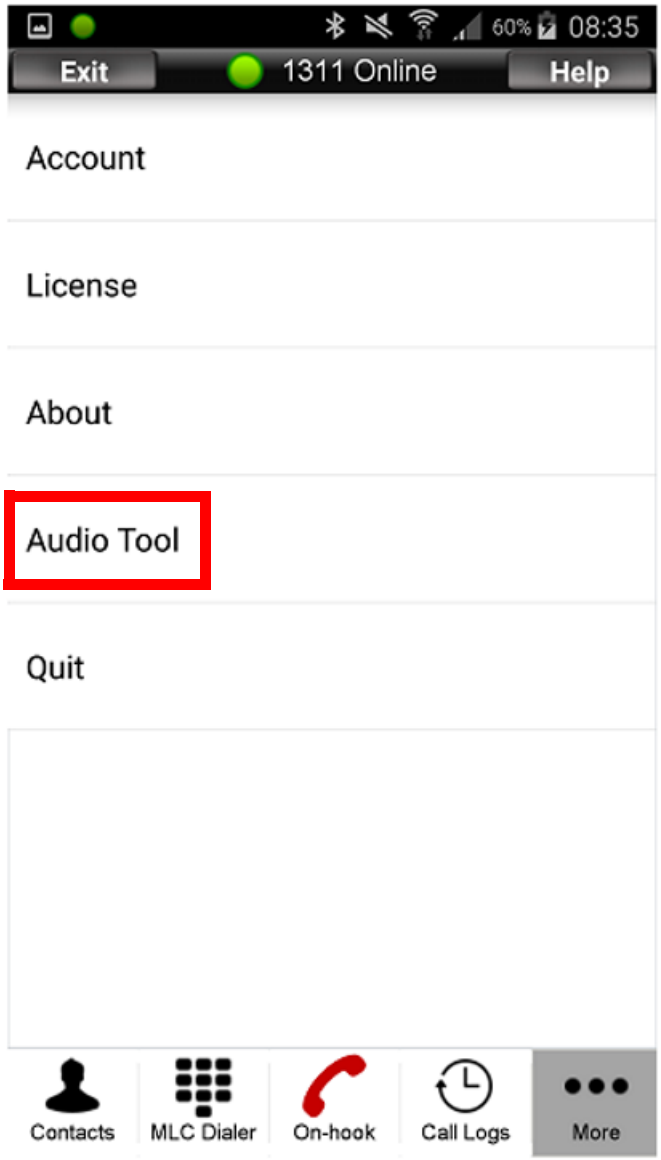
Due to the many types of Android devices, it has become necessary to provide a way to train the device for best Audio settings. This is accomplished with the addition of the Audio tool that is located under the **More** tab.

Android Device™

Figure 6-1 *Android Device—More... tab*

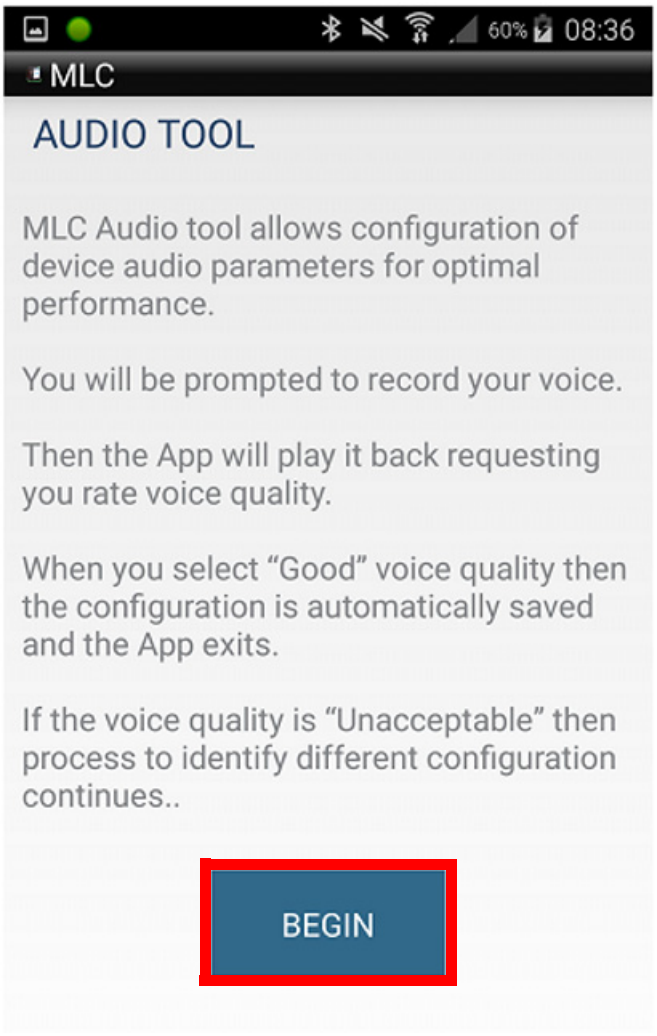
Step 1 Press the **More**... tab.

Figure 6-2 *Android Device—Audio Tool tab*



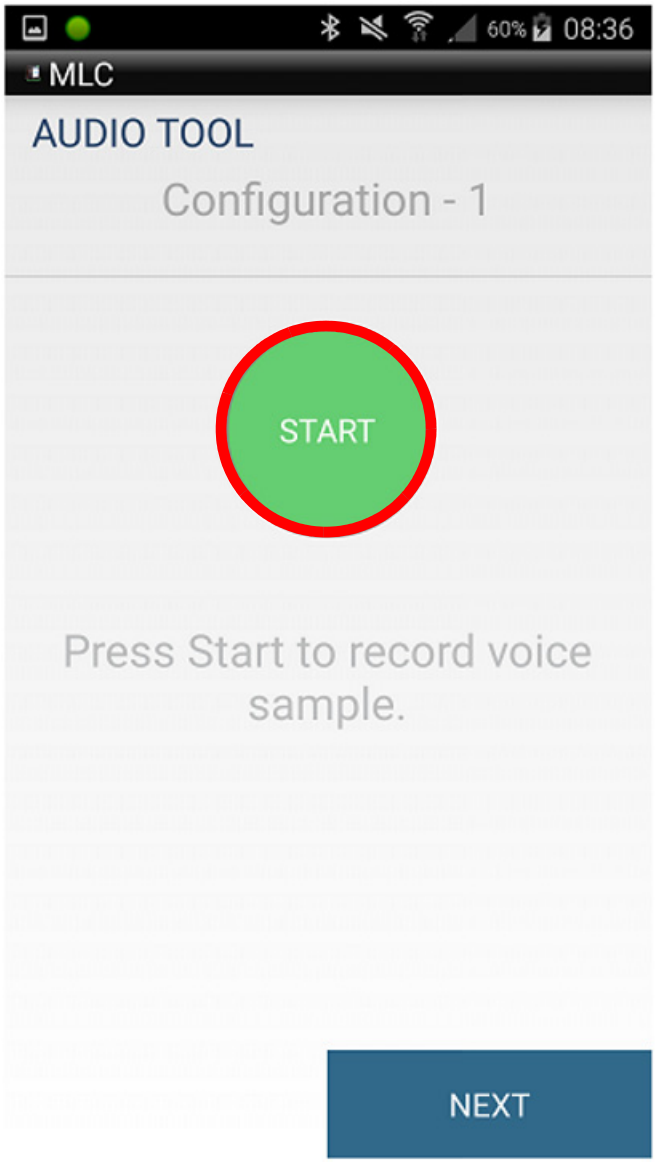
Step 2 Press the **Audio Tool** tab.

Figure 6-3 *Press Begin on the Audio Tool Screen*



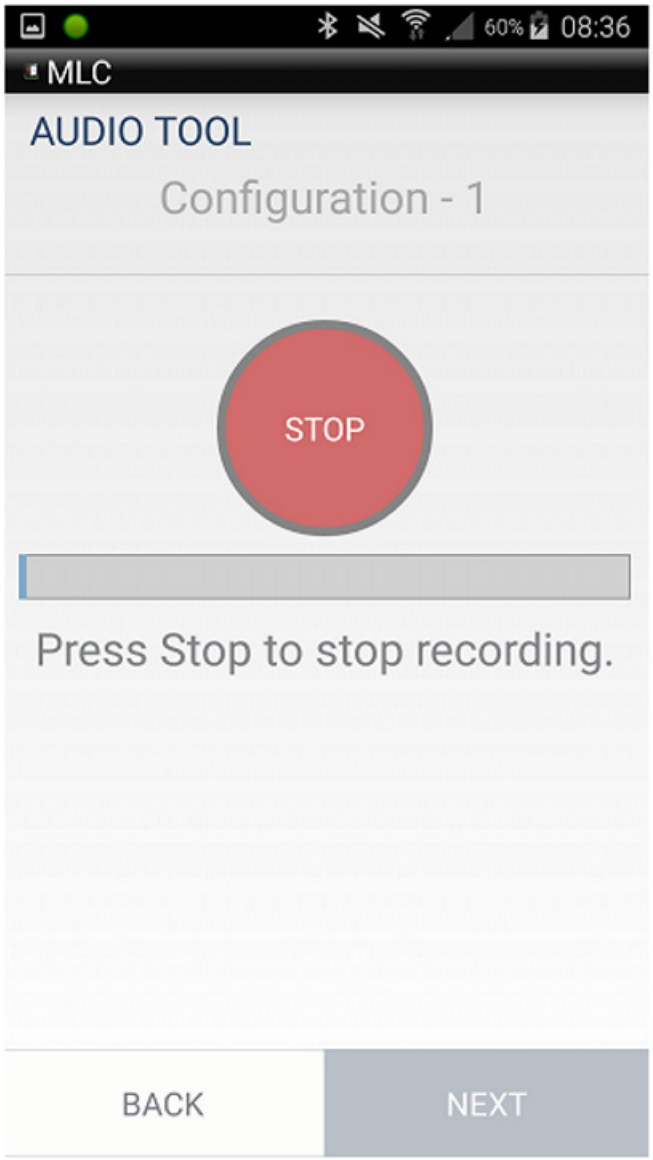
Step 3 Tap **Begin** to enter the tool.

Figure 6-4 *Start Audio Training*



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

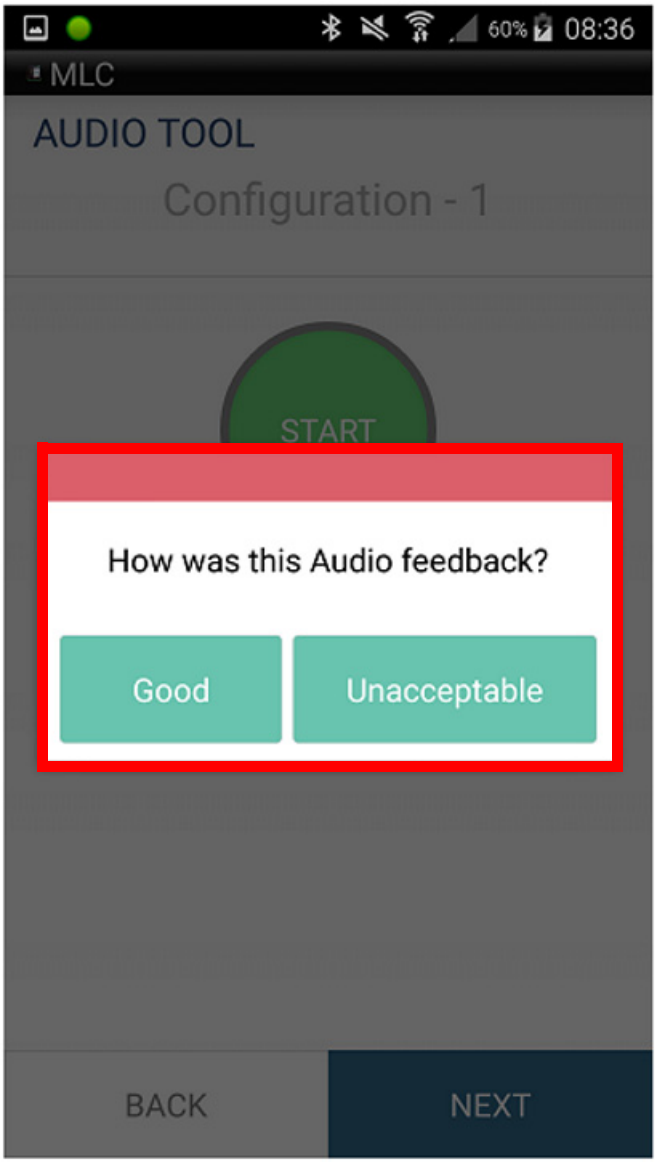
Figure 6-5 *Recording Audio*



Step 5 Once the recording is started, talk into the mic and listen for the audio through the speaker.

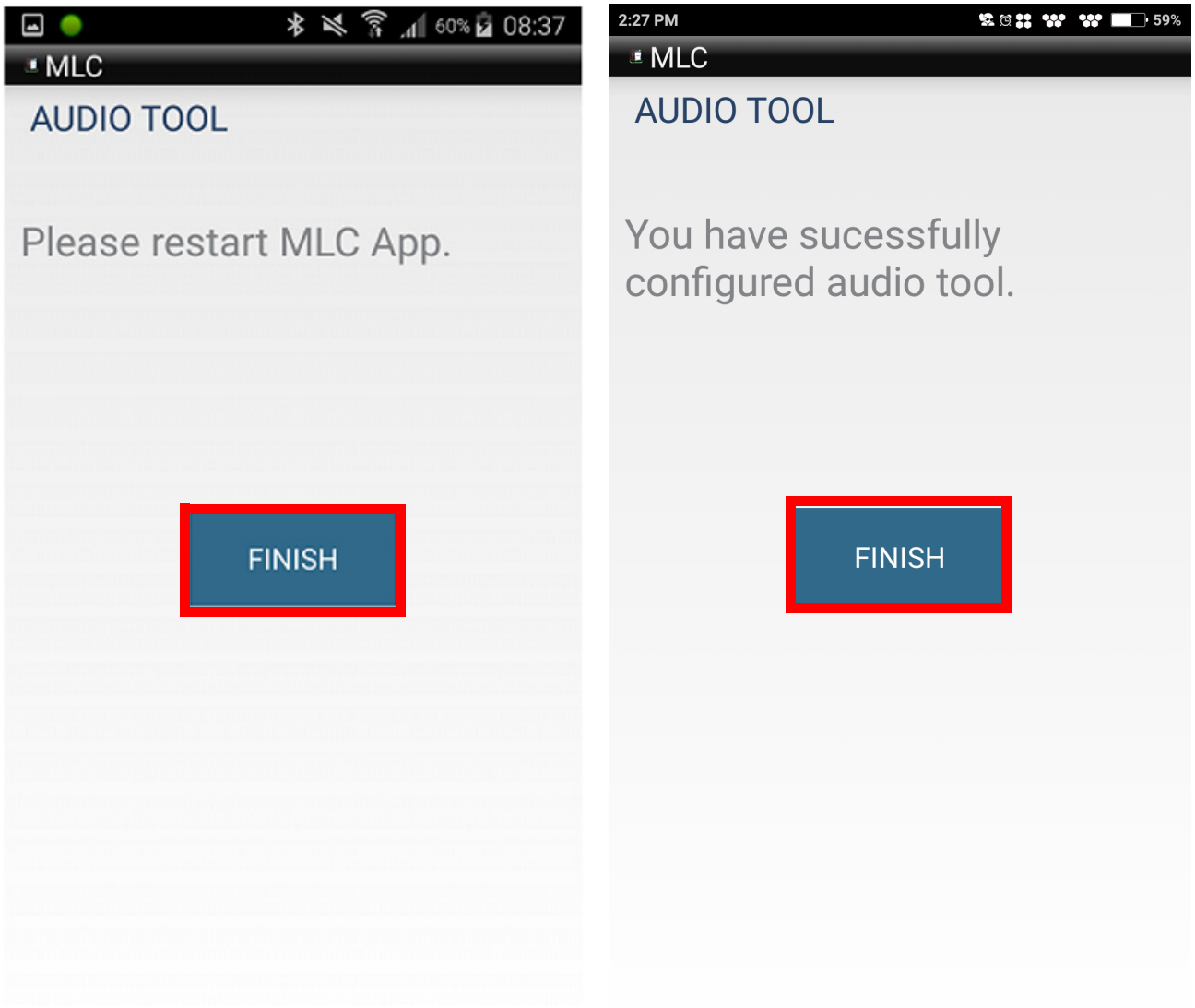
When you have determined the audio is either acceptable or not, press the **Stop** button.

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.

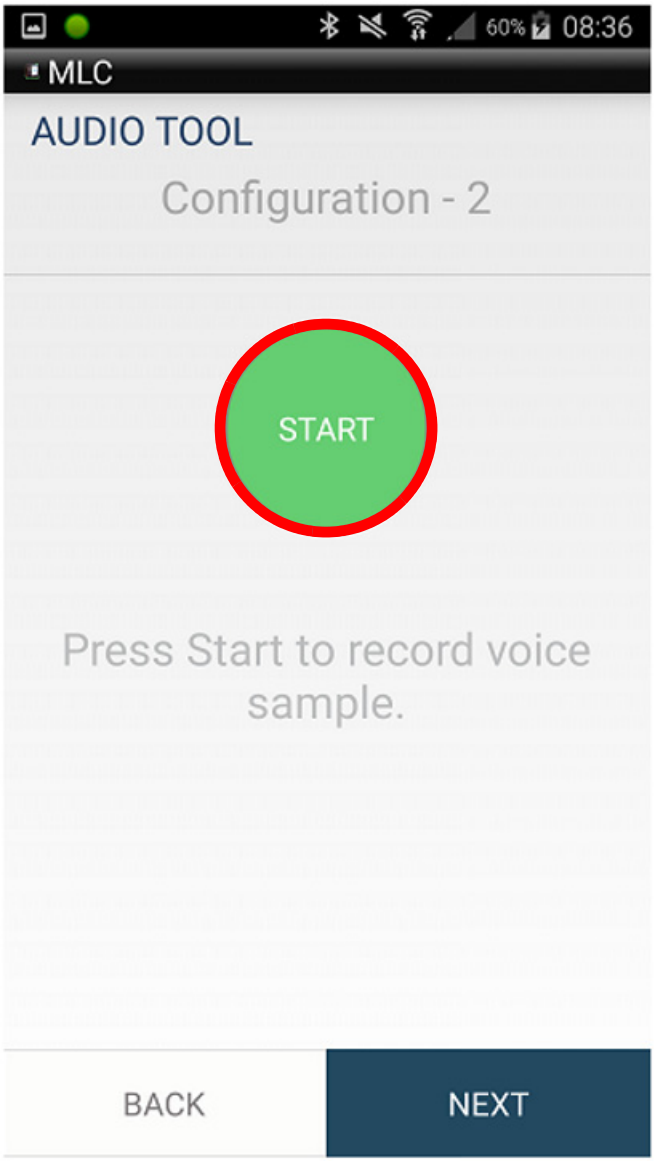
Figure 6-7 *Press the Finish Button to Accept Recorded Audio*



Version 2.0.23 or higher

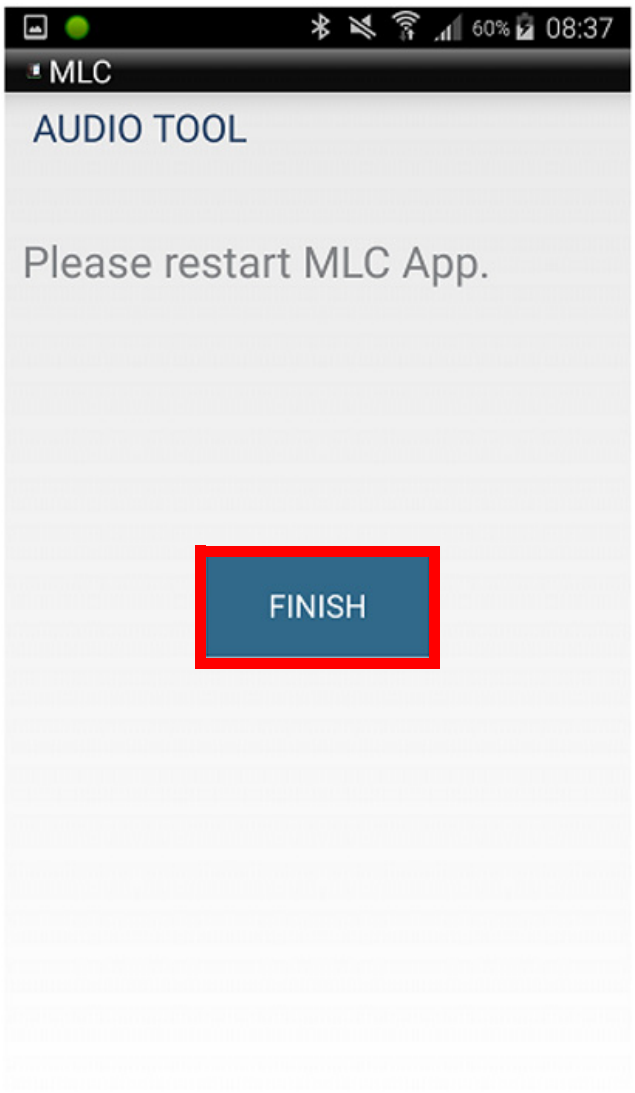
Step 7 If you choose **Good**, then press the **Finish** button.

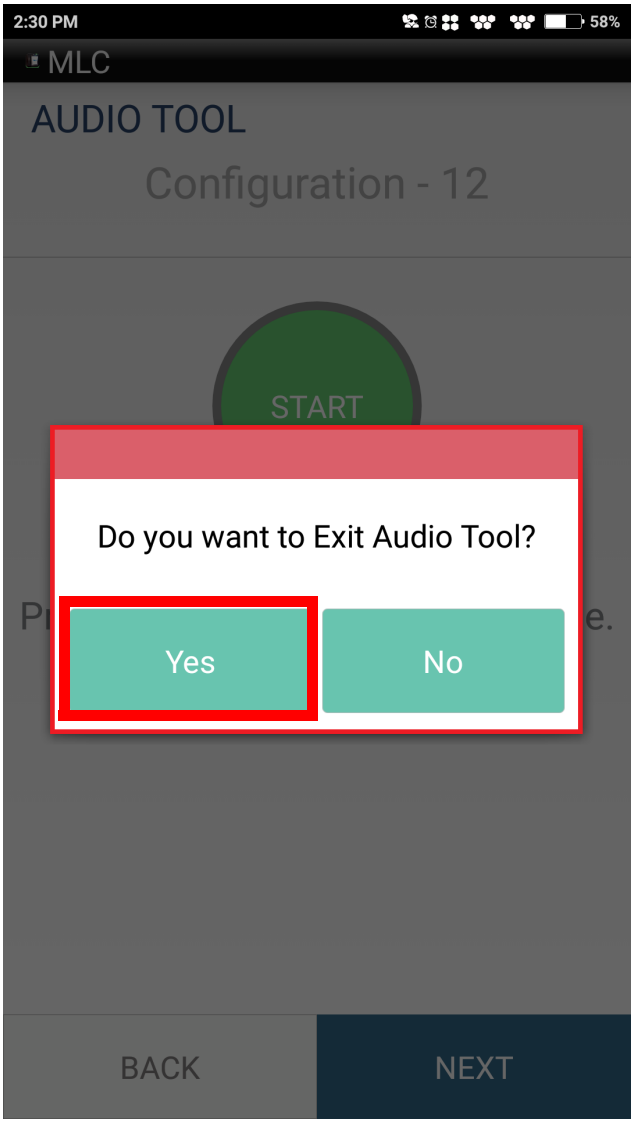
Figure 6-8 *If Audio Recording is Unacceptable*



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*





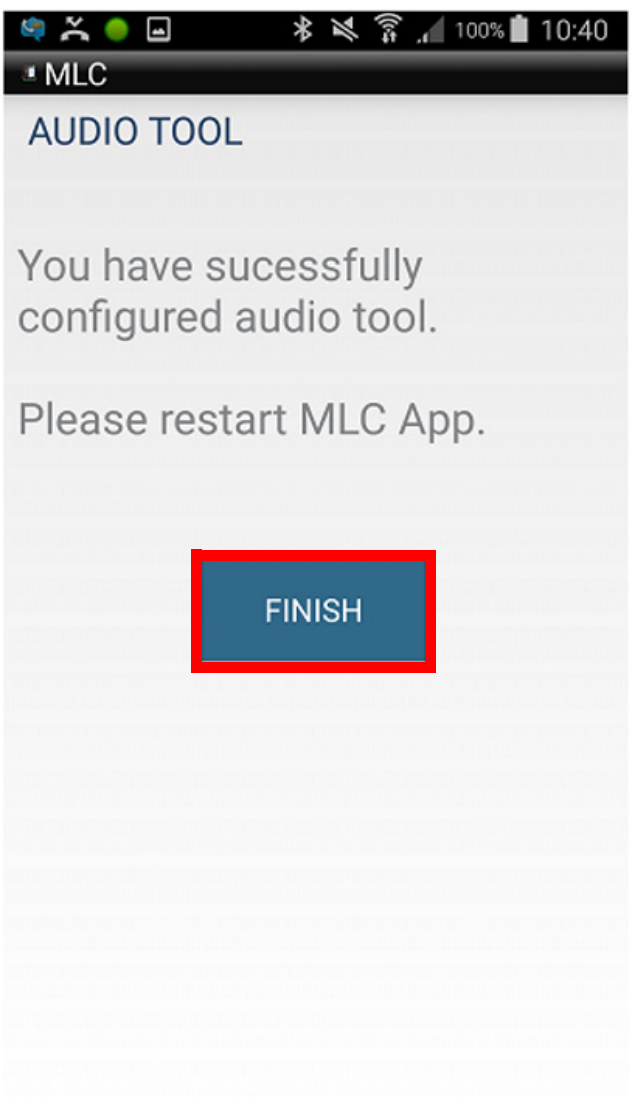
Version 2.0.23 or higher

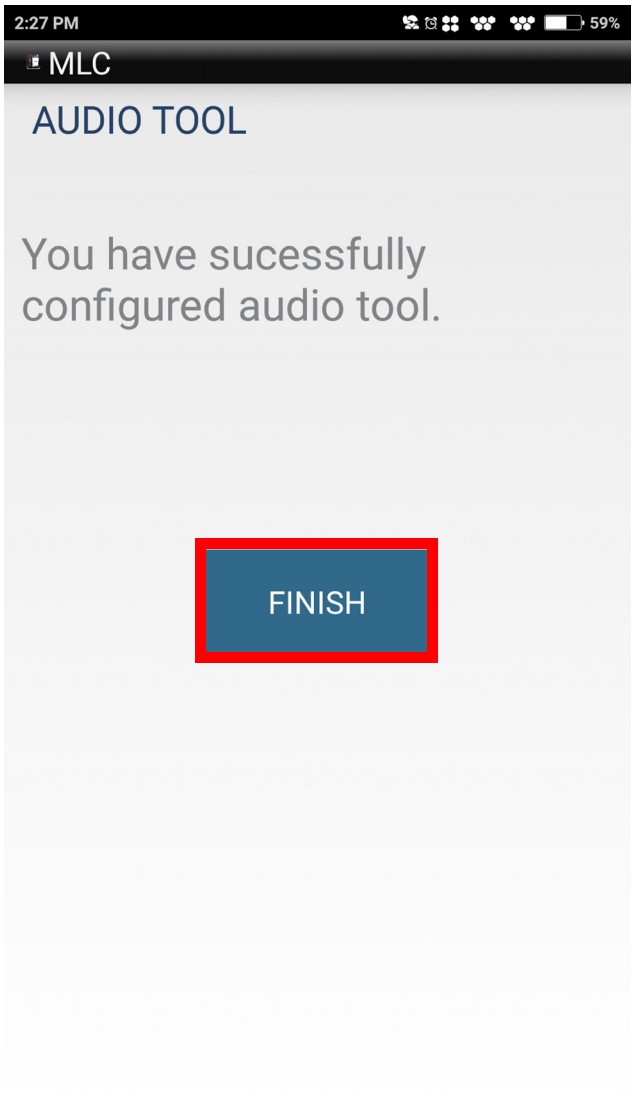
Step 9 If a suitable Audio setting is not found, you will be prompted to restart the MLC App and it will select the best settings.

Or,

With Version 2.0.23 or higher, you just need to exit the Audio Tool and it will select the best settings.

Figure 6-10 *Restarting the MLC App*





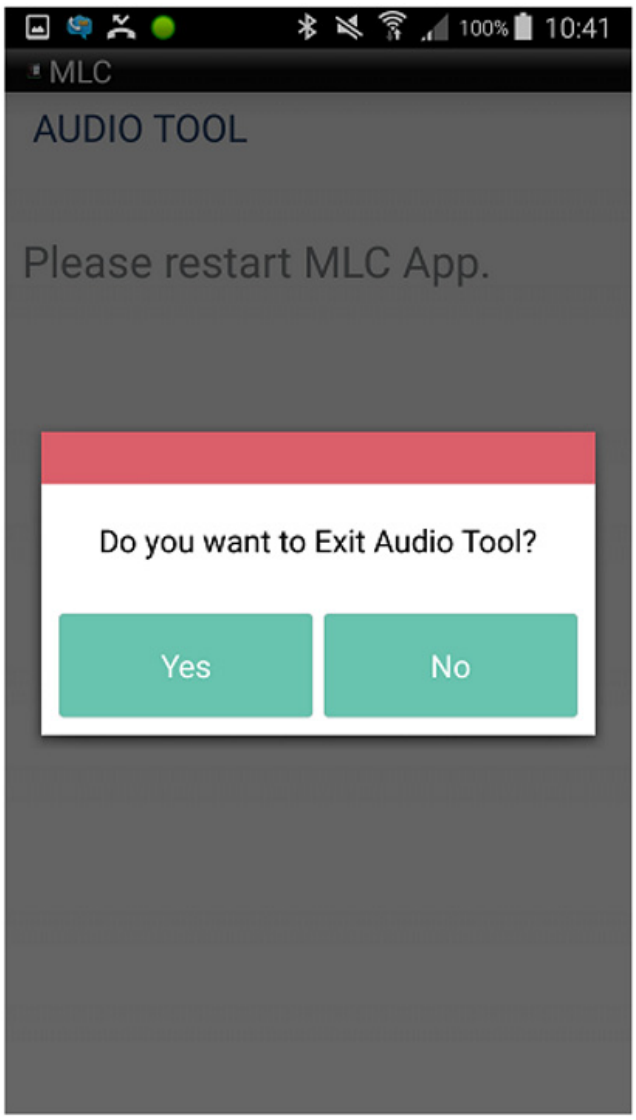
Version 2.0.23 or higher

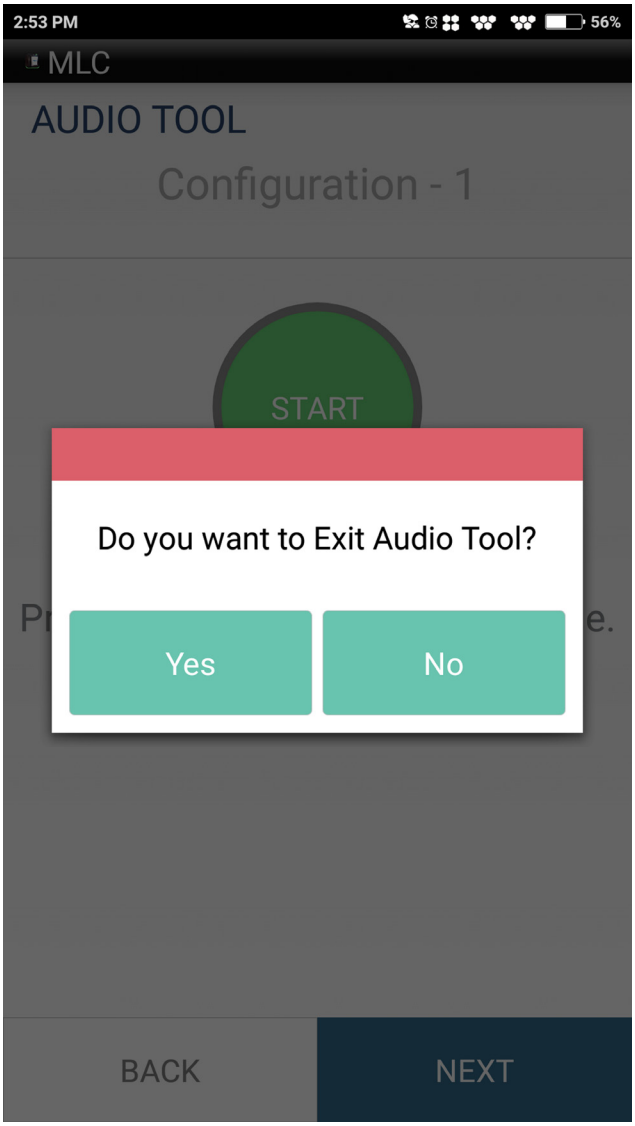
Step 10 If you chose **Good** on any of the Audio configurations, you are prompted to press **Finish** and restart the MLC App.

Or,

With Version 2.0.23 or higher, If you chose **Good** on any of the Audio configurations, you are prompted to press **Finish**.

Figure 6-11 *Exiting the Audio Tool*





Version 2.0.23 or higher

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.

Or,

With 2.0.23 or higher, no popup will be displayed to save the setting.

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
  - With MLC Android (Version 2.0.23 or higher) and iOS (Version 2.0.19.2 or higher), the following parameter is displayed
    - Keep Alive Wi-Fi (default = 30 and range 0 to 65535)
    - Keep Alive Mobile Data (default = 30 and range 0 to 65535)
- Turn Settings
  - Enable Turn: "**Default: Enabled**"
  - Turn Server: "**bizturn.bizrtc.com: 23078**"

• MLC on public Wi-Fi/cell network RTP flows through the Turn Server.

• MLC on Local/Private Network, RTP flows directly between MLC and PBX.

- Miscellaneous
  - Log Level: "**Default: Warning**"
  - With MLC iOS (Version 2.0.19.2), the following parameter is displayed
    - Battery Optimization: ON (iOS only)
    - Run in Background: ON (iOS only)

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)

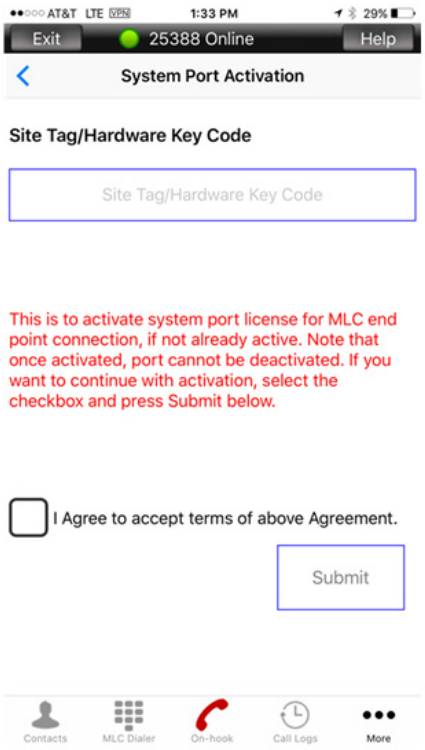
- Select Account from More Options
- Select and hold account for 2sec. for popup menu to appear
- Select 'Set as Default'

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.

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

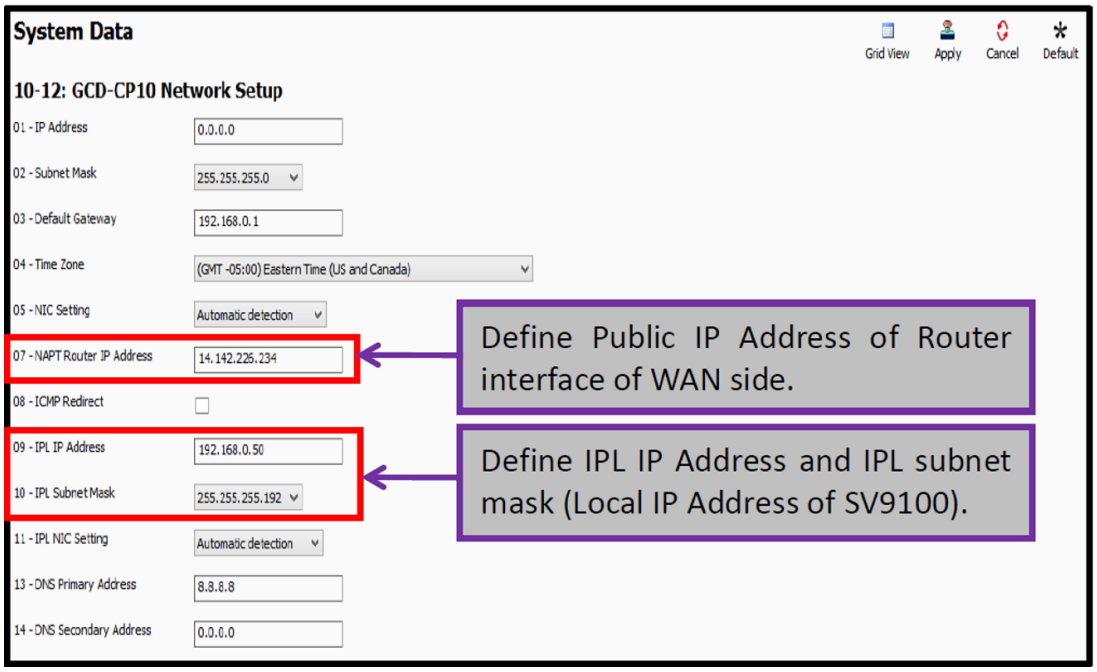
MLC BYOD Configuration – SV9100 and MLC Application

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*

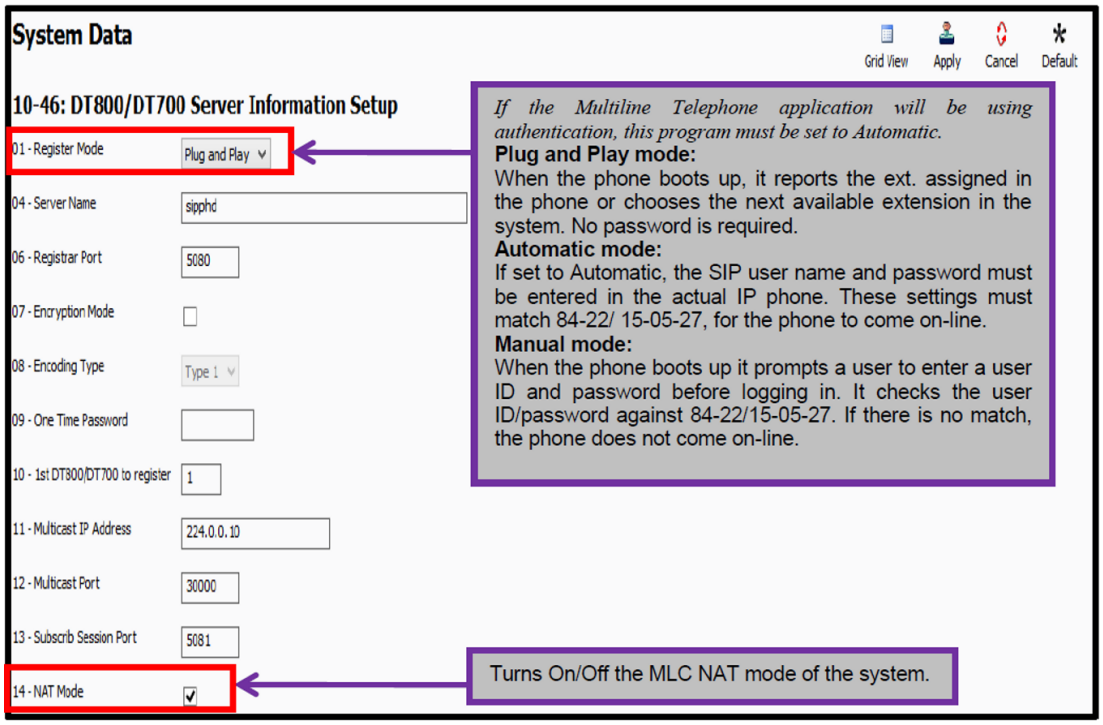


NOTE

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

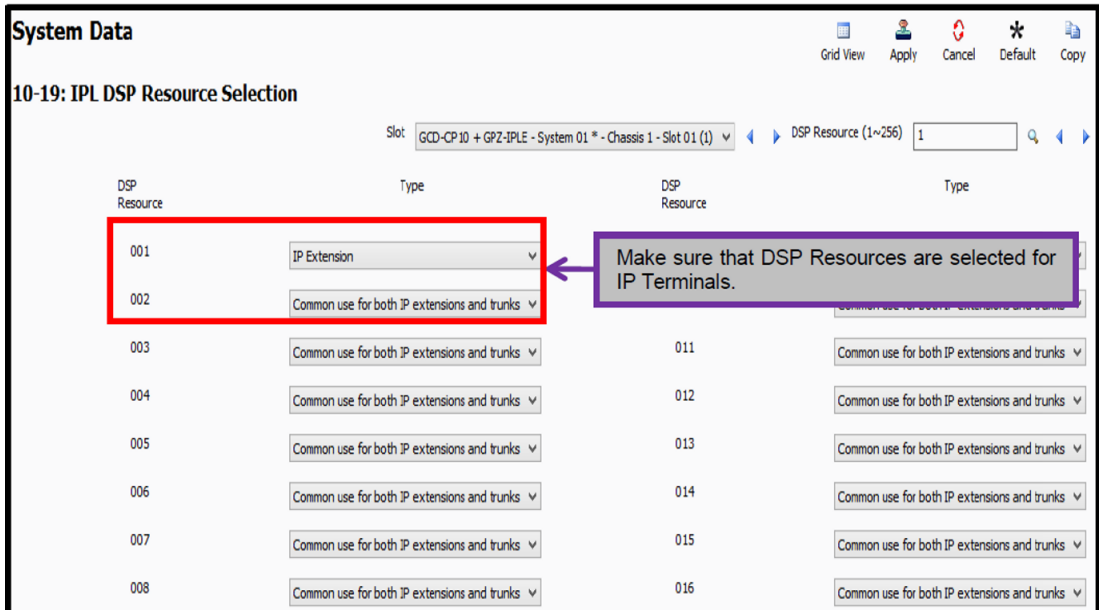
Step 2 Enable **NAT** and select **Register Mode**.

Figure 8-2 *DT800/DT700 Server Information Setup*



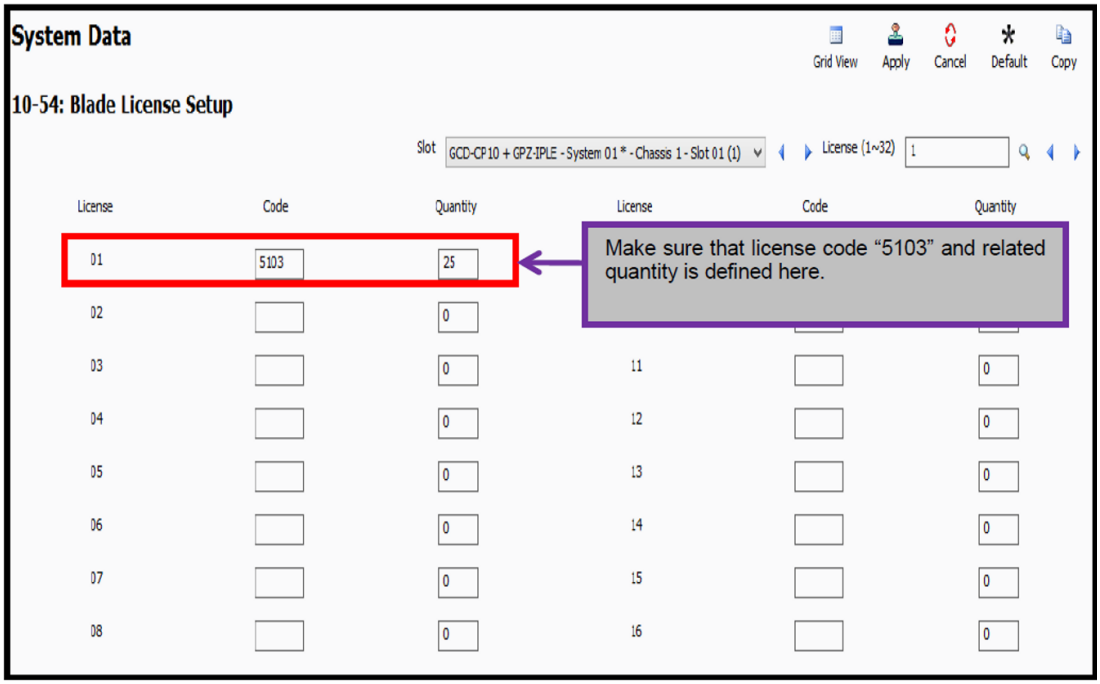
Step 3 Check **DSP resources** for IP phones.

Figure 8-3 *IPL DSP Resource Selection*



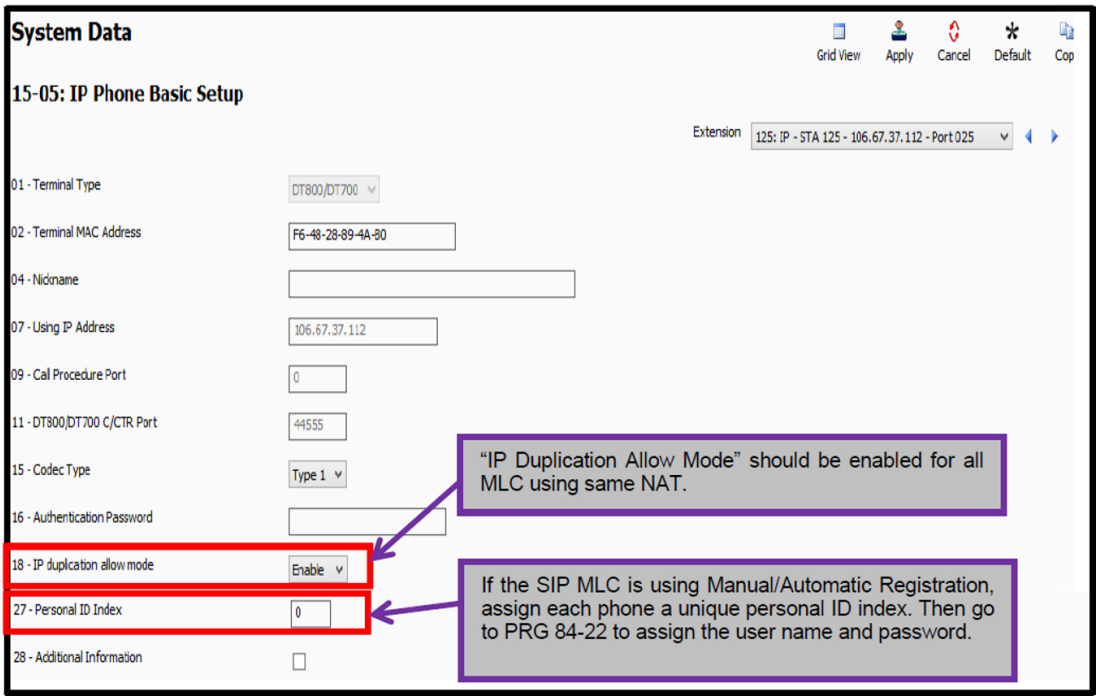
Step 4 Check licenses for DSP Resource.

Figure 8-4 *Blade License Setup*



Step 5 Configure extension for MLC client.

Figure 8-5 *P Phone Basic Setup*

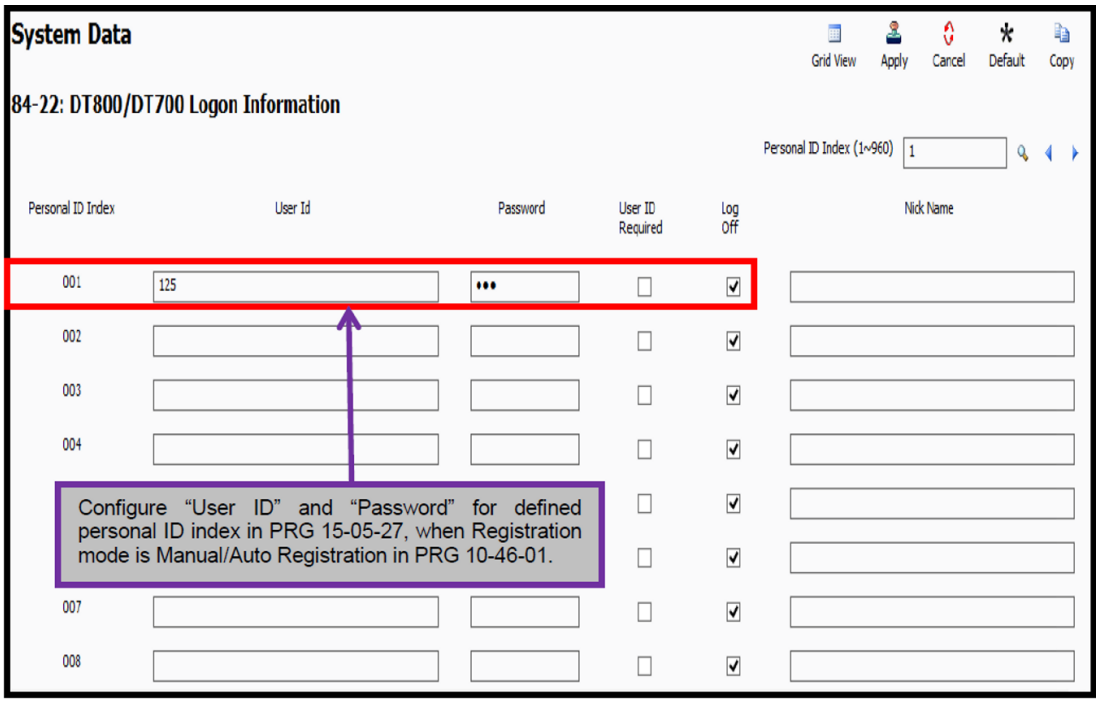


NOTE

*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.*

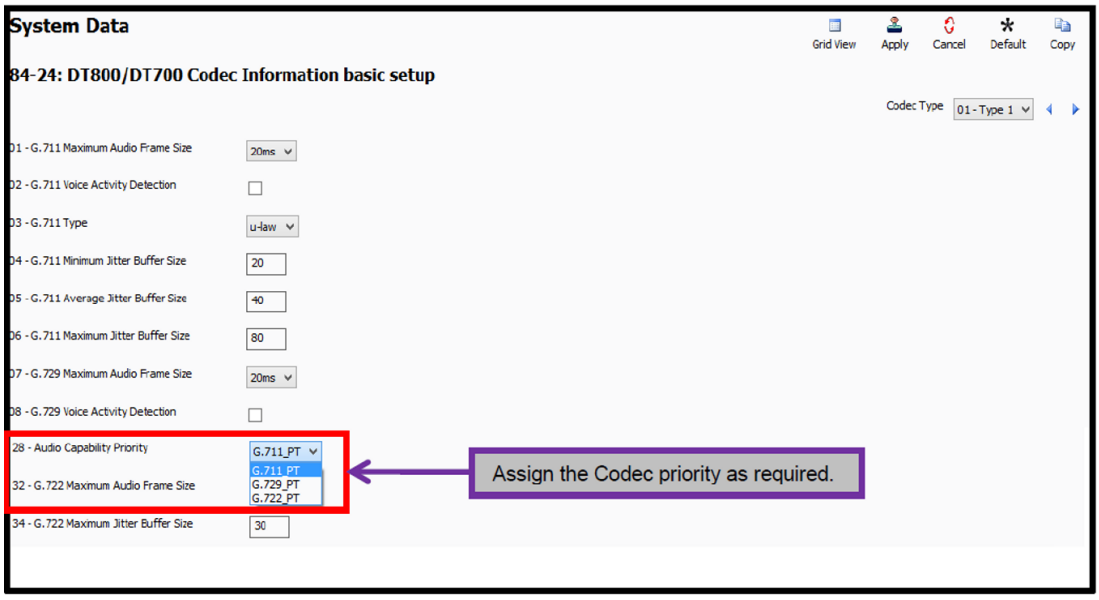
Step 6 If Register Mode is “Automatic & Manual” configure **User ID** and **Password**.

Figure 8-6 *DT800/DT700 Logon Information*



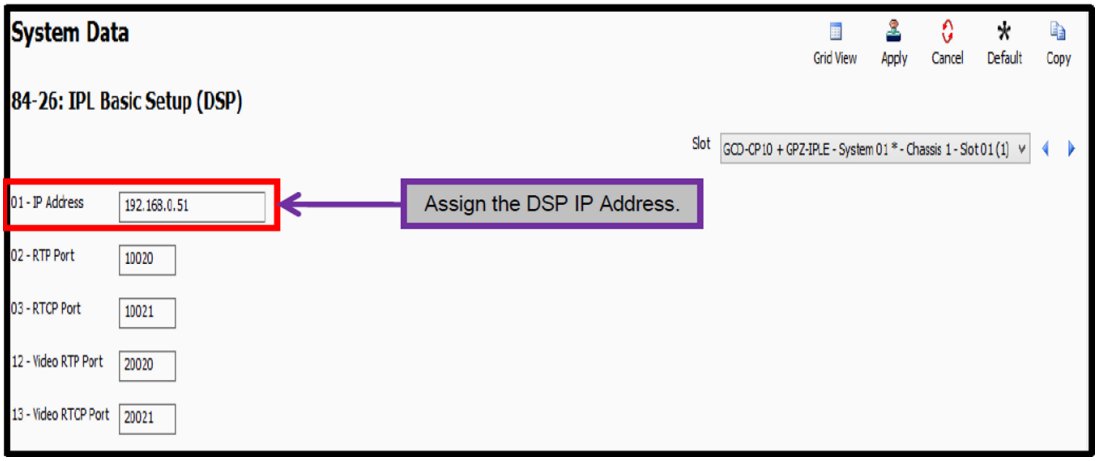
Step 7 Configure **Codec priorities** for MLC client.

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)*



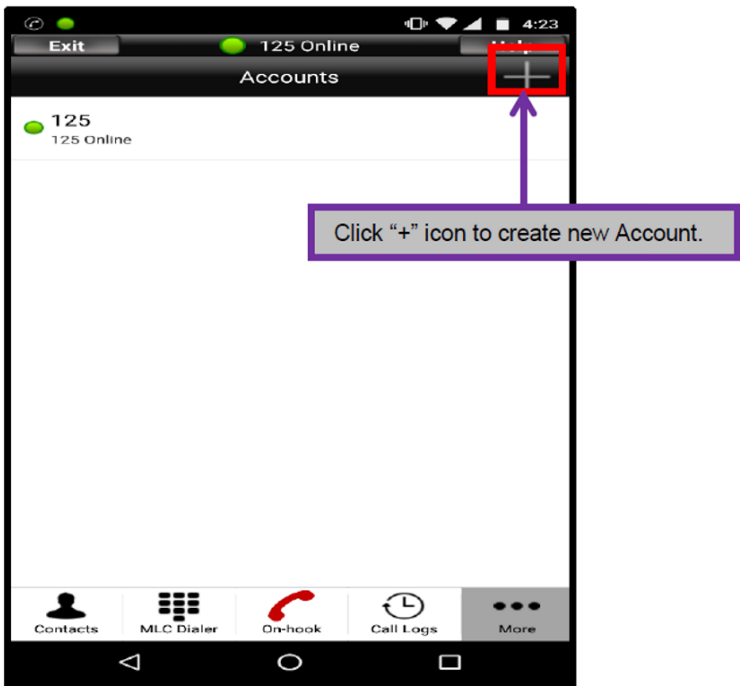
NOTE

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.

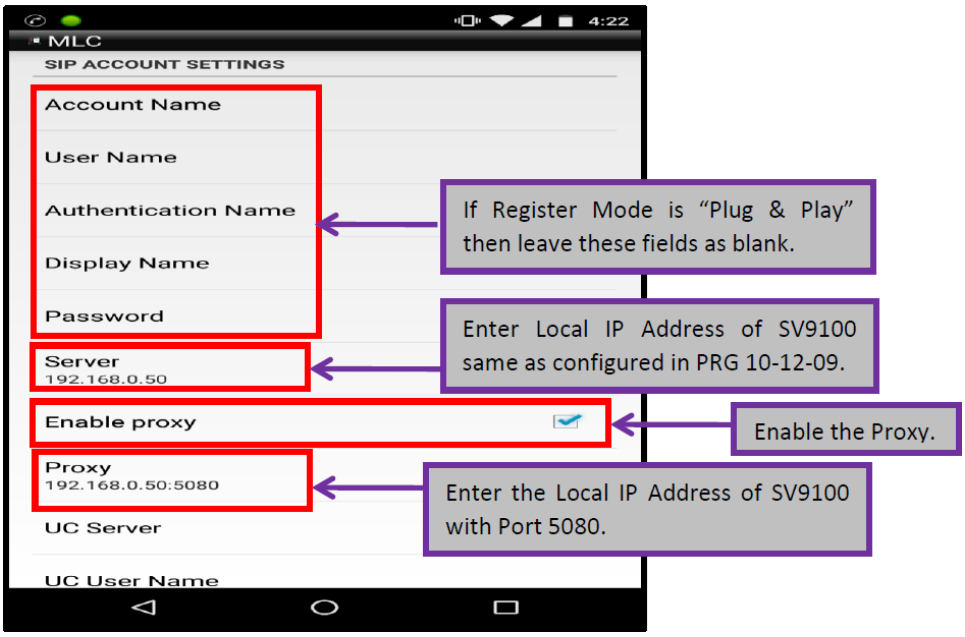
Figure 8-9 *Accounts Screen*



Configure MLC Client Account Setting

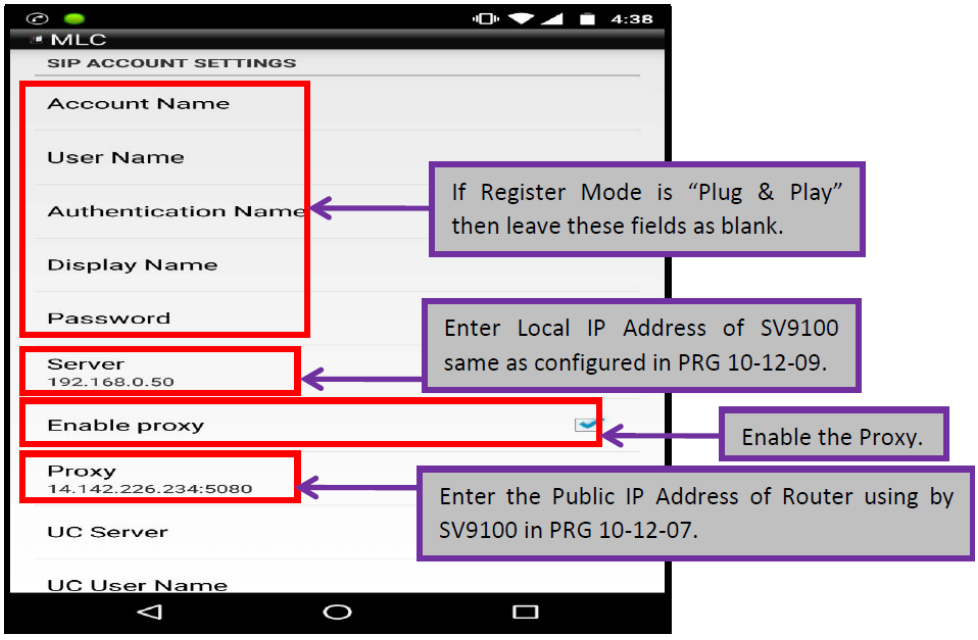
- **With Local Network:** If Register Mode in PRG 10-46-01 is "Plug and Play".

Figure 8-10 *Register Mode is Plug and Play*



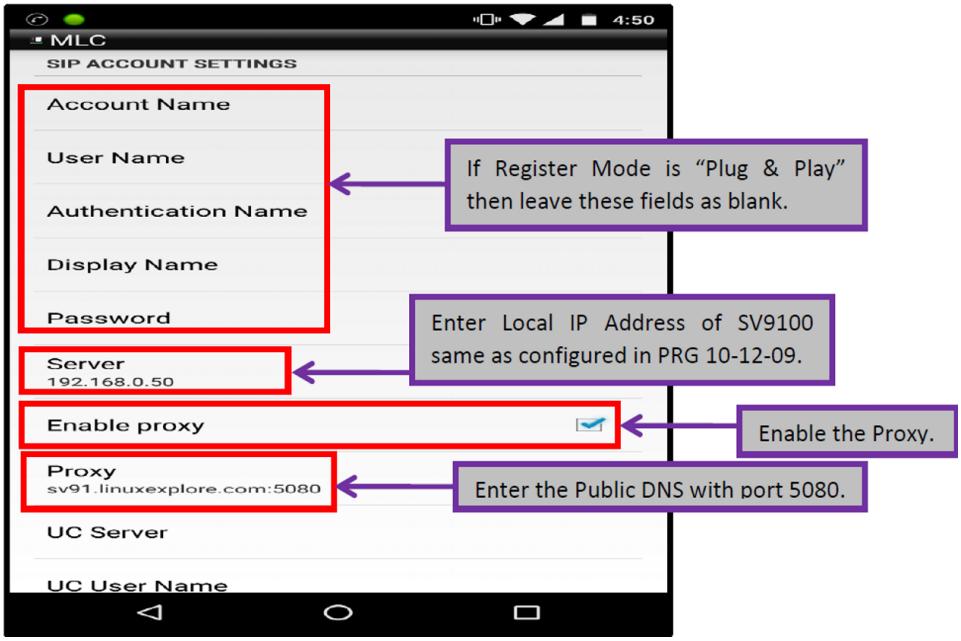
- **With NAT:** If Register Mode in PRG 10-46-01 is "Plug and Play" using NAT.

Figure 8-11 *Plug and Play Using NAT*



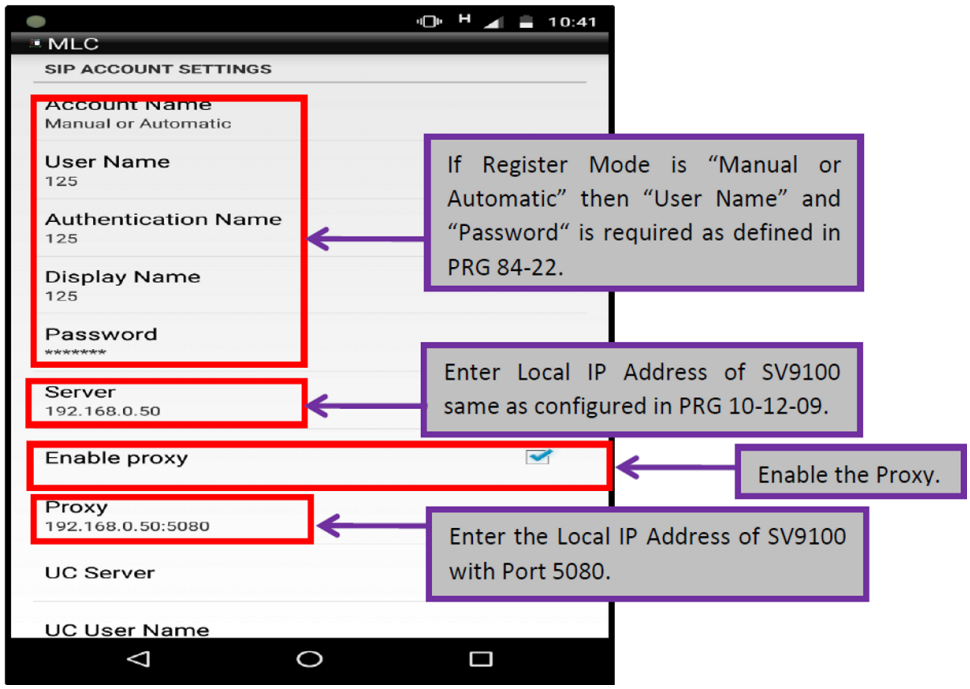
- **With NAT and DNS:** If Register Mode in PRG 10-46-01 is "Plug and Play" using NAT and DNS.

Figure 8-12 *Plug and Play Using NAT and DNS*



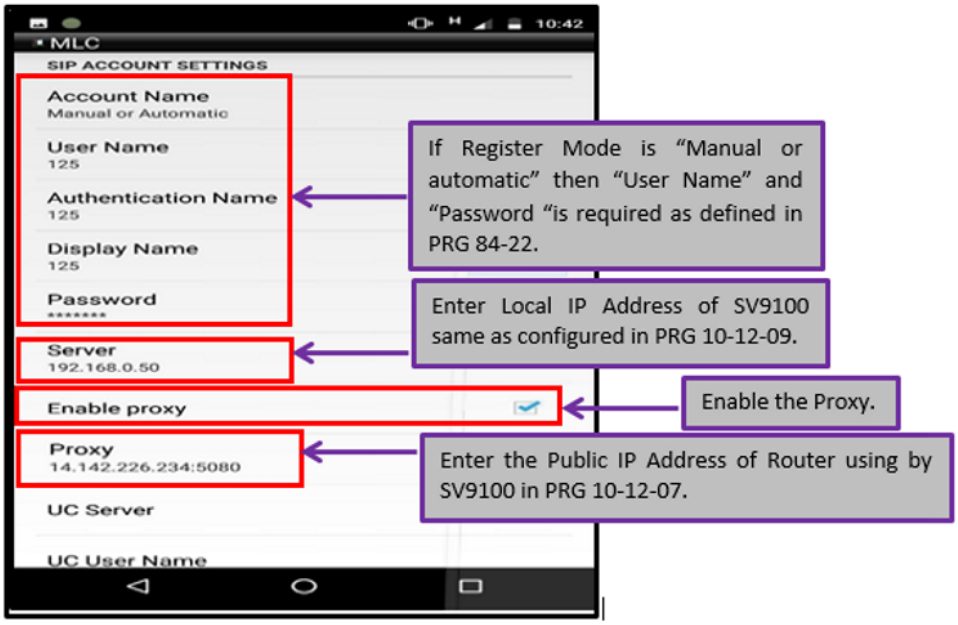
- **With Local Network:** If Register Mode in PRG 10-46-01 is "Manual or Auto Register Mode".

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



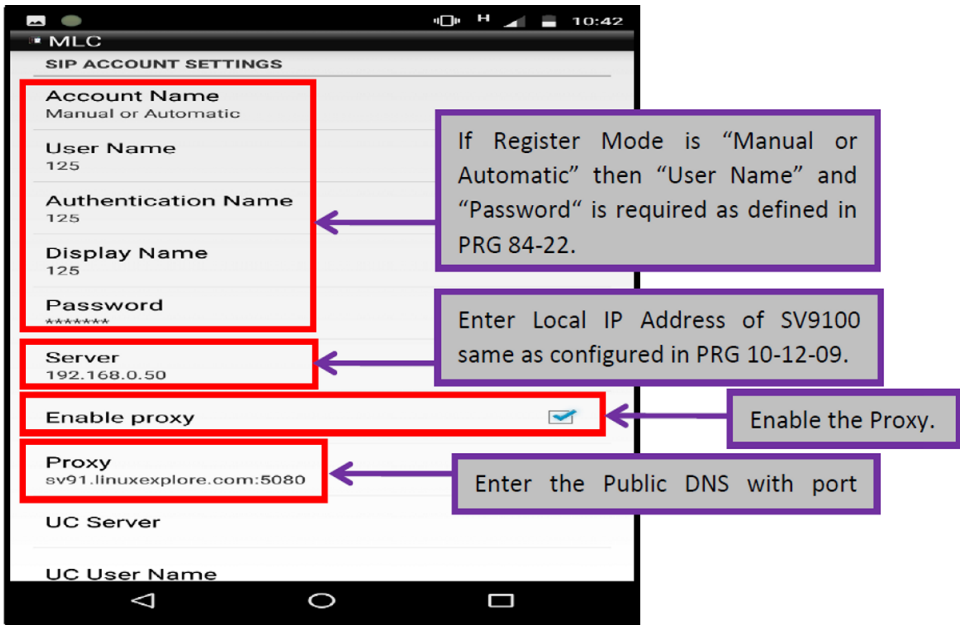
- **With NAT:** If Register Mode in PRG 10-46-01 is "Manual or Auto Register Mode".

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.

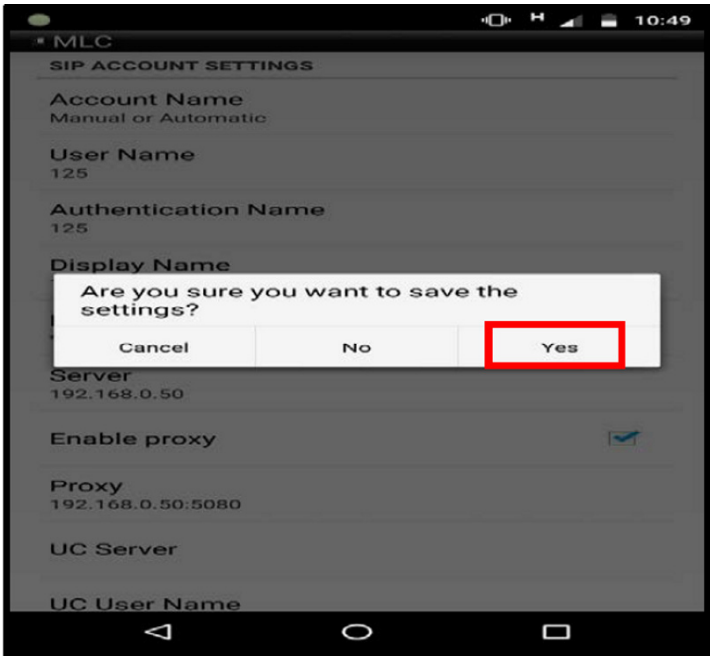
Figure 8-15 *Manual or Auto Register Mode – NAT and DNS*



Activate MLC Account using Appropriate Site Tag/Hardware Key Code

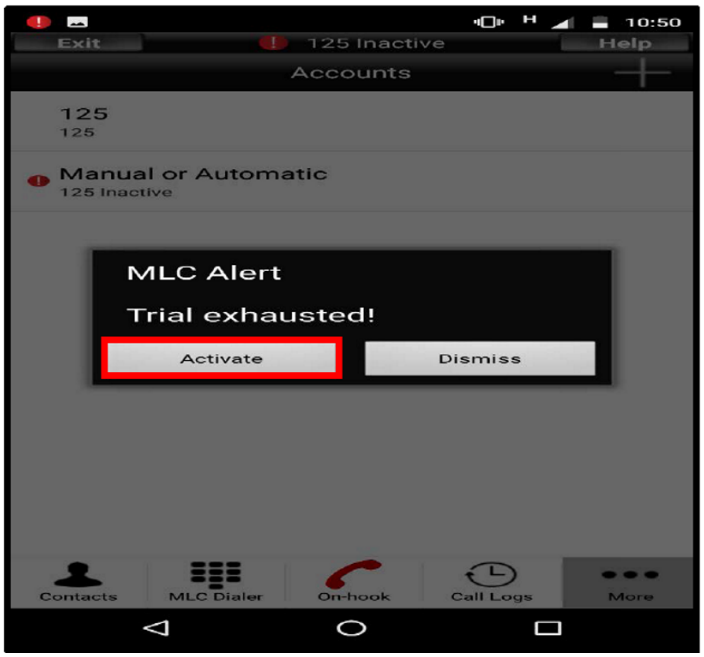
Step 1 After account settings are complete and the back button is pressed a pop-up “Are you sure you want to save the settings?” is displayed.

Figure 8-16 *Save Settings Pop-up*



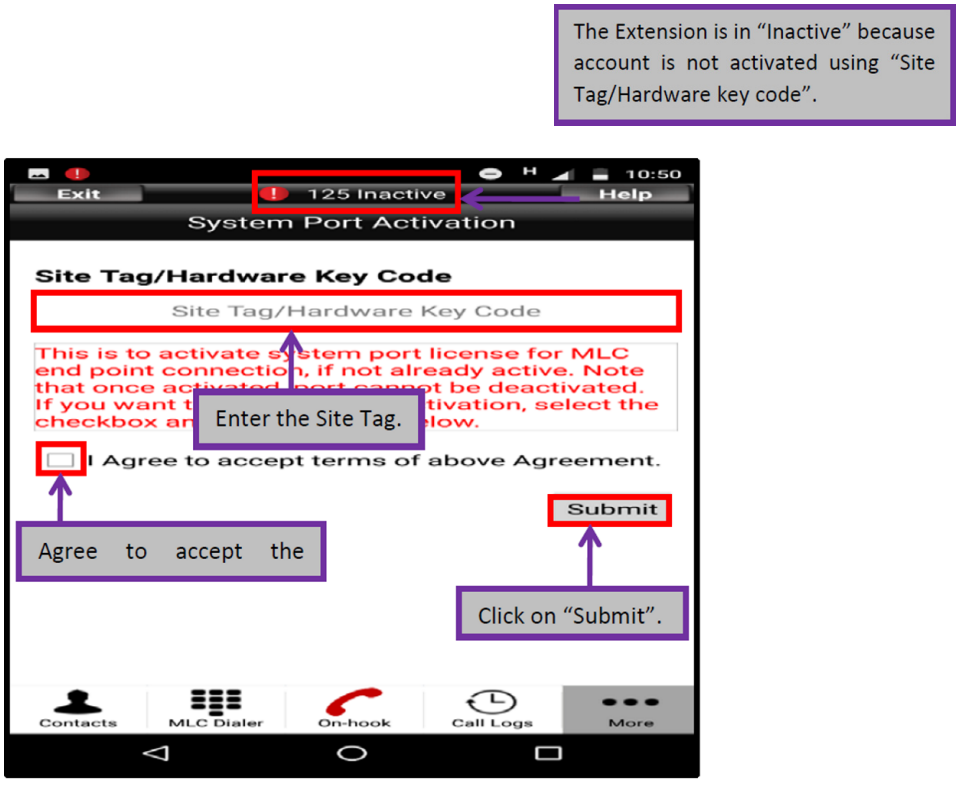
Step 2 Click **Yes**, the account is set as default and the following is displayed.

Figure 8-17 *Activate Pop-up*



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

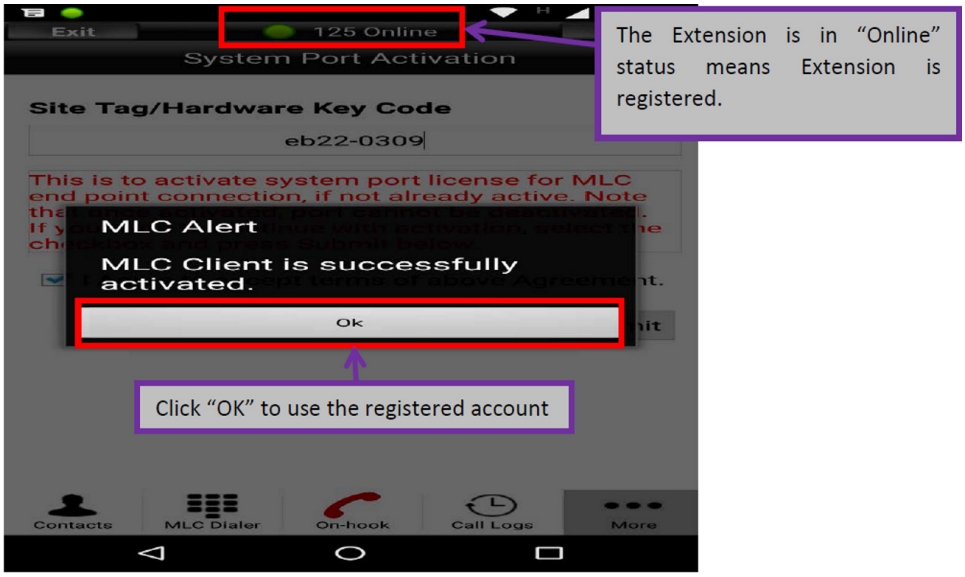
Figure 8-18 *System Port Activation Screen*



NOTE *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*



MLC BYOD Scenarios with Examples

Scenario 1: Local Wi-Fi

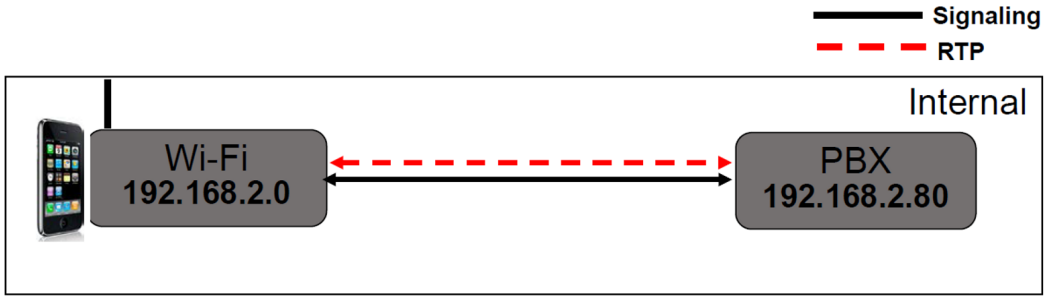
Description:

MLC user in local network will need the SV9100 IP address to register.

Setup Detail:

SV9100 Private address – 192.168.2.80

Figure 8-20 *Example of Local Wi-Fi*



MLC Account Setting:

Server – 192.168.2.80

Proxy – 192.168.2.80:5080 (Proxy is checked)

Scenario 2: Public Wi-Fi

Description:

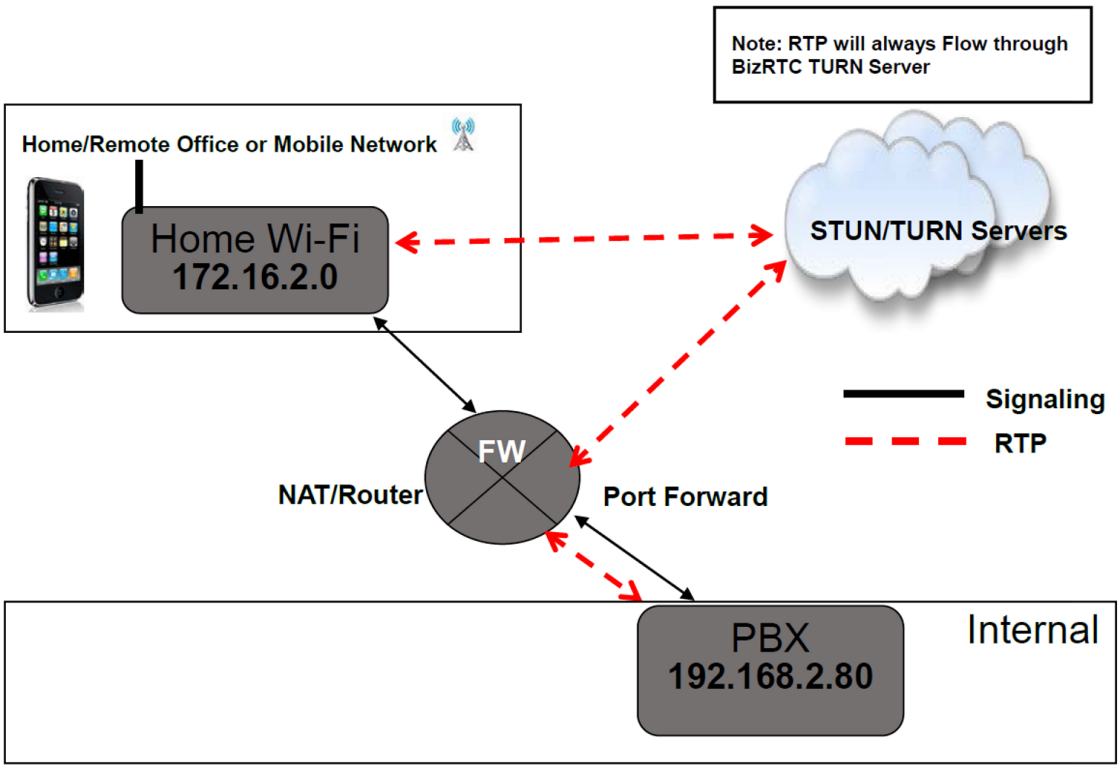
MLC user will need the Public IP Address to reach the SV9100 server.

Setup Detail:

SV9100 Private address – 192.168.2.80

NAPT Router IP Address – 14.142.226.234

Figure 8-21 *Example of Public Wi-Fi*



SV9100 Configuration:

NAPT Router IP Address – 14.142.226.234 (Company Public address)

IPL IP Address – 192.168.2.80 (SV9100 Private address)

MLC Account Setting (Public Wi-Fi):

Server – 192.168.2.80

Proxy – 14.142.226.234:5080 (Proxy is checked)

Scenario 3: Customer Has a Public Registered Domain

Description:

MLC can be used with only one account if the customer has a registered public domain. Outside the office, the public DNS server will resolve domain name to NAT IP address of the SV9100 (Public). Inside the office, the Local DNS server will resolve same domain name to Private IP Address of the SV9100.

Setup Detail:

SV9100 Private address – 192.168.2.80

Domain Name – **sv91.linuxexplore.com**

NAPT Router IP Address – 14.142.226.234 (Company Public address)

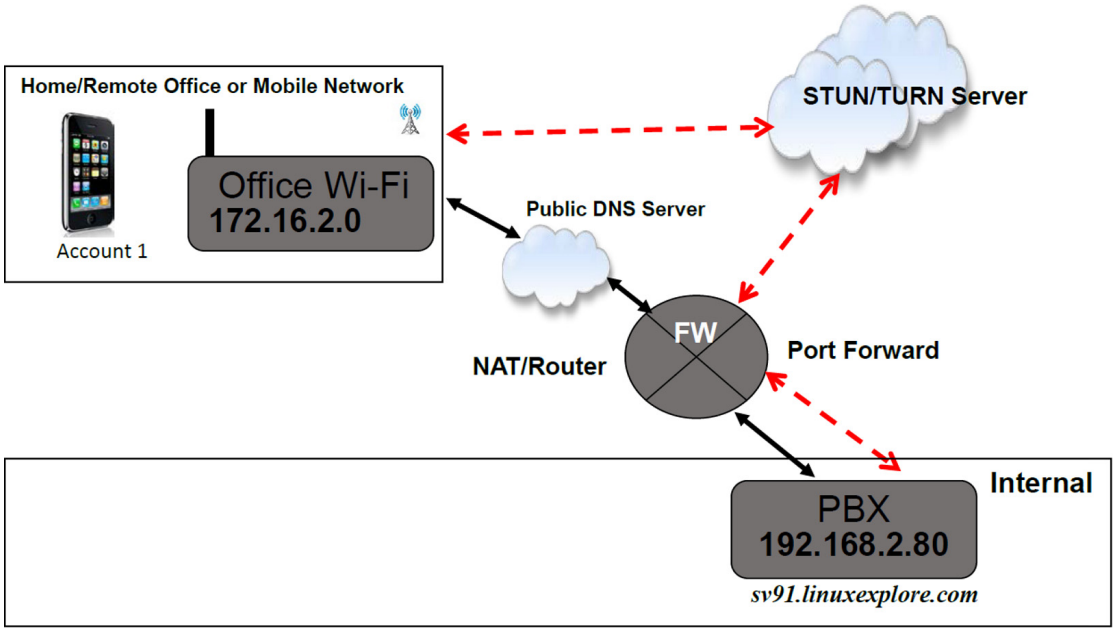
Public DNS server – ex (8.8.8.8)

DNS local server – 192.168.2.243

MLC on Public Network (Using Account 1):

- XYZ company has public domain of **sv91.linuxexplore.com**.
- When MLC on outside company/Public network, then DHCP server populates DNS server as Public DNS server.
- On public DNS servers (ex: 8.8.8.8) this domain resolves to the customer's public IP Address of 14.142.226.234.
- Then using Port forwarding setting done on router, request goes directly to the SV9100.
- RTP in these scenario will flow through BizRTC STUN/TURN Server only.

Figure 8-22 *Example of MLC on Public Network*

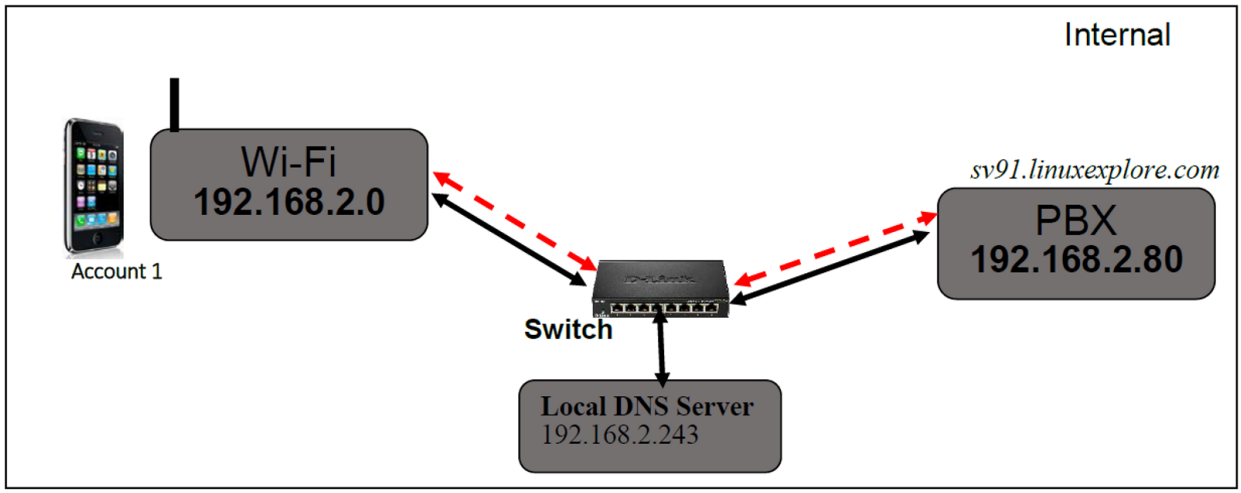


MLC on Local Network (Using Same Account 1):

To use one account for both outside the company (cell or public Wi-Fi) and inside the company (local Wi-Fi) you will need to use the Domain name. Also, the customer must have a Public registered domain.

- When MLC on Customer/Local Wi-Fi, DHCP server populates DNS server IP as local DNS server IP i.e. 192.168.2.243.
- Local DNS server (192.168.2.243) configured locally on the customer's network resolve **sv91.linuxexplore.com** as the private IP address of the customer's SV9100 PBX IP i.e.

Figure 8-23 *Example of MLC on Local Network*



MLC Account Setting (Account 1):

Server – 192.168.2.80

Proxy – **sv91.linuxexplore.com**:5080 (Proxy is checked)

Scenario 4: Customer Does Not Have a Public Registered Domain

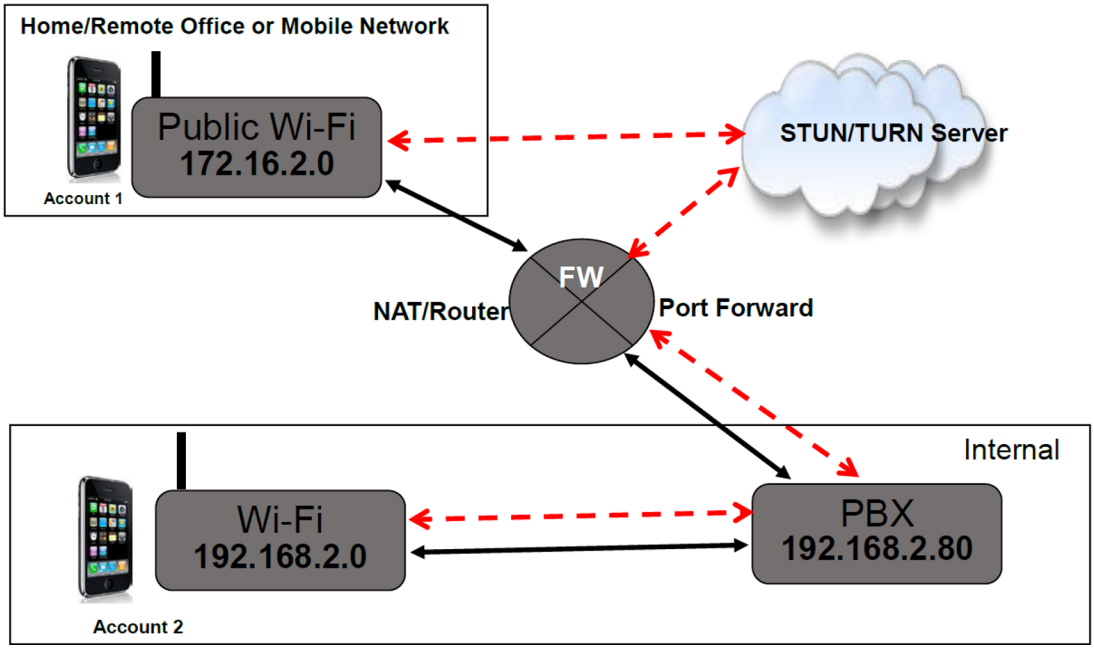
Description:

Customer without a registered public domain will be required to configure two MLC accounts. One for outside the office network and another for inside the office network. The user will have to switch accounts while moving from a local to public network or vice versa.

Without Registered Public Domain:

If the customer does not have a Public registered domain you will need to configure/use 2 accounts in the MLC.

Figure 8-24 *Without a Registered Public Domain*



SV9100 Configuration:

NAPT Router IP Address – 14.142.226.234 (Company Public Address)

IPL IP Address – 192.168.2.80 SV9100 (Private address)

MLC Account Setting:

- MLC Setting Outside the company (cell or public Wi-Fi)
  In MLC account 1
  Server – 192.168.2.80
  Proxy – 14.142.226.234:5080 (Proxy is checked)

- MLC Setting Inside the company (local Wi-Fi)

  In MLC account 2

  Server – 192.168.2.80

  Proxy – 192.168.2.80:5080 (Proxy is checked)

There will also be a setting to disable the TURN server (disable for local account).

Additional Device Settings

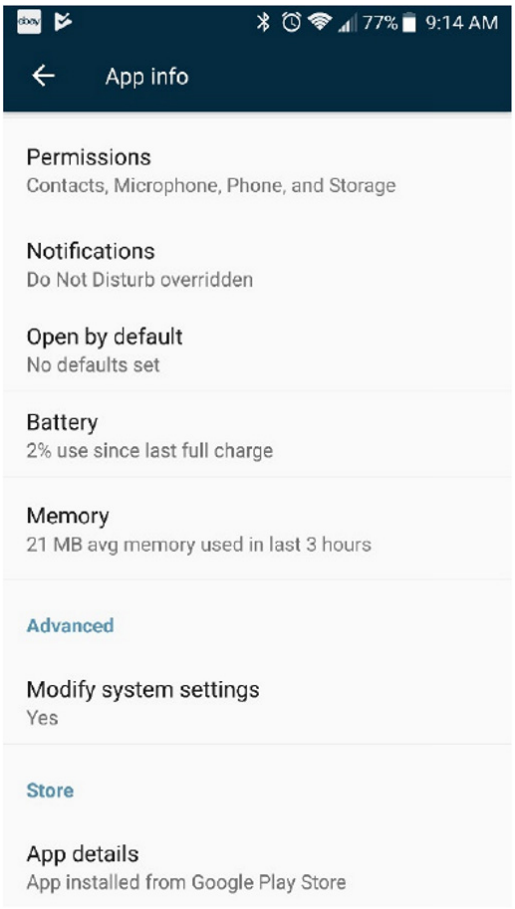
This chapter displays additional settings required for Android and iOS devices.

Android Device

Disable Battery Optimization

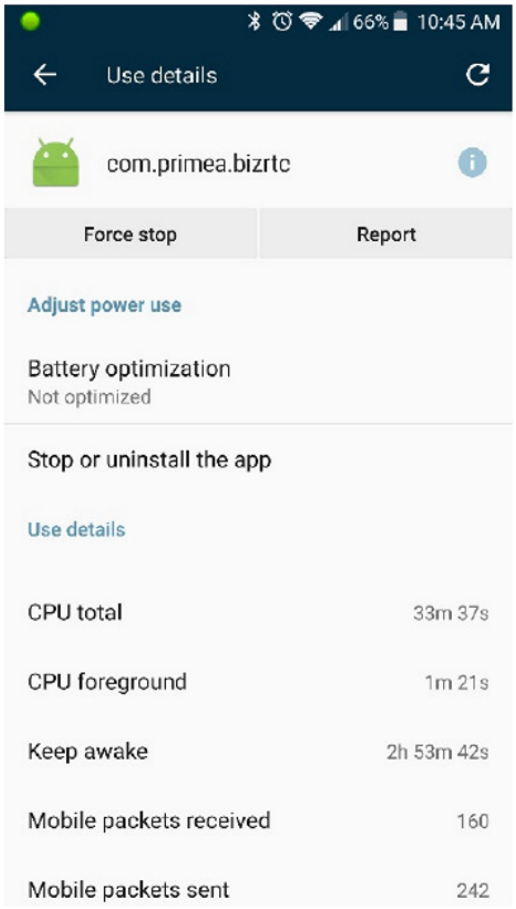
Step 1 Select **Settings>Applications>MLC**.

Figure 9-1 *Android Device—App Info Screen*



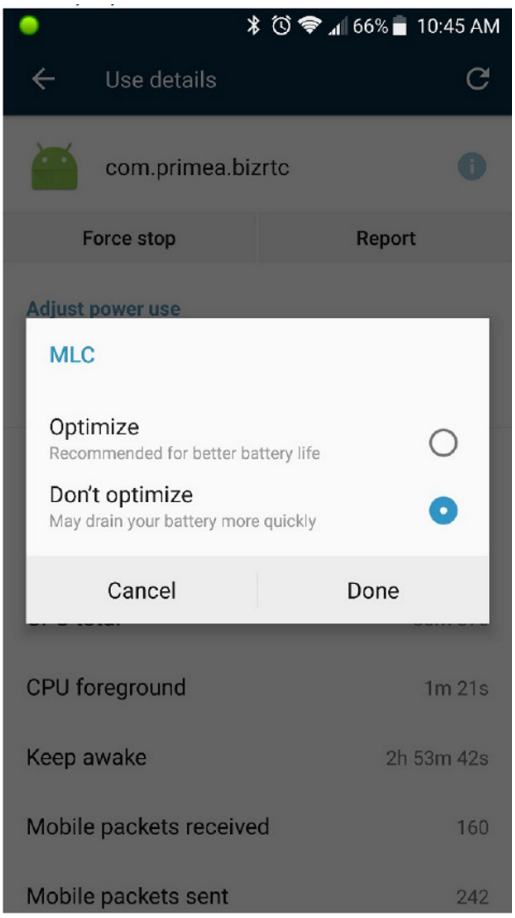
Step 2 Select **Battery**.

Figure 9-2 *Android Device—Use details Screen*



Step 3 From the MLC pop-up, select **Don't Optimize** to disable battery optimization.

Figure 9-3 *Android Device—MLC Pop-up Screen*



NOTE

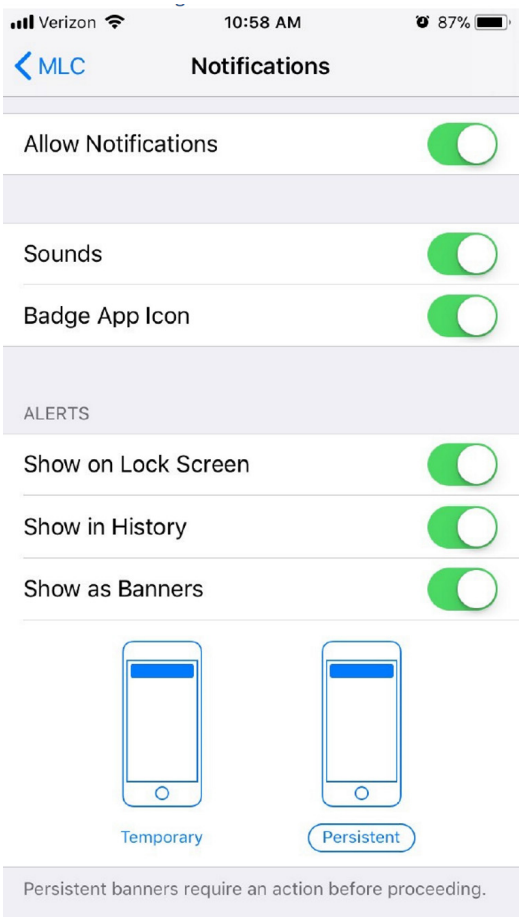
- *Even if the application is closed, the green activity circle remains on in the upper left corner of the home screen.*
- *I f the application is closed and the user calls the DID assigned to the MLC application, the application will open and ring when a call is received.*

iPhone Device

Change MLC Notification to Persistent on iPhone

Step 1 Select **Settings>MLC>Notifications**.

Figure 9-4 *iPhone Device—Notifications Screen*



Step 2 Exit **Settings**.

NOTE

Even if the application is closed, the banner will notify the user when a call is received. Tapping the banner notification will open the MLC application, allowing the user to answer the call.

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

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Multiline Client (MLC) Mobile User's Guide

NDA-31749, Issue 3