

UNIVERGE[®] SV9100

Dialer Setup Guide (Multiline Telephone)

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Getting Started

Chapter 1

SECTION 1 INTRODUCTION

This manual was written for a network administrator or a handset user of the Multiline Telephone application. The network administrator can more efficiently control the operation of the product using this manual. Therefore, the network administrator using this manual should be equipped with full knowledge and experience in such areas as the network hardware and the LAN (Local Area Network) establishment & operation.

The Multiline Telephone application is an IP phone that can be used with a NEC phone system to make and receive calls. Power over Ethernet (PoE) is used to power the phone, reducing the need for power cables. In addition, headsets for those users who frequently make calls can also be supported, therefore making them more comfortable when making calls for hours.

SECTION 2 PHONE SETUP

In addition to typical phone features, the UT880 NMLT Multiline Telephone Application has a wide variety of features. Correct setup values should be entered in order to properly access to the NEC phone system, and make the most of such diverse features.

For this, the UT880 provides OS application for setting up the phone. All features can be set with the Multiline Telephone application. The UT880 only provides OS-based touch screen panel and does not provide Web user interface.

2.1 Connection

2.1.1 Connection to the Network

Before installing UT880, the safety items specified in the beginning of this manual should be carefully read and understood. Then, a proper installation place shall be selected.

1. Connect the Ethernet cable to the LAN port. (When a UT880 is to be used with a PC, the PC's Ethernet cable should be connected to the handset's LAN connection port while the PC is connected to the handset's PC connection port). The LAN and PC connector is a RJ-45 type, and the Ethernet cable is a UTP cable (Category 5).
2. Connect the two ends of the Ethernet cable to the PC and the PC connection port.
3. The UT880 is PoE enabled device, so no power adapter is needed.

When the UT880 has completed booting it will get an IP address from a DHCP server.

- ➡ *The UT880 factory default is set to use DHCP, so if there is a designated DHCP server on the user's network, the IP address will be automatically assigned. However, if there is no DHCP, an available static IP should be requested and assigned by a network administrator.*

2.1.2 Get the Phone IP Address

UT880 will only work properly if its IP address is set up as per corresponding network environment. Factory default is set as DHCP (Dynamic Host Configuration Protocol).

- Dynamic IP
- Static IP

A **Static IP Address** is a fixed Internet address that is assigned to a specific user by a network administrator.

A **Dynamic Address** is an Internet address that is randomly assigned whenever a DHCP server is used. By the way, the DHCP server centrally controls and assigns IP addresses.

2.1.3 Using DHCP

To use Dynamic IP Addressing via DHCP, refer to the following procedure:

1. Press the **Settings**  icon on **APPS**.
2. Choose **Ethernet Settings**.
3. Select **Ethernet configuration**.
4. Select **DHCP** on **Connection Type** and click **Save**.

2.1.4 Using Static IP

The following procedure is to change the IP Address of the UT880 or change the obtaining IP address method from DHCP to Static IP in accordance to the network environment.

1. Press the **Settings**  icon on **APPS**.
2. Choose **Ethernet Settings**.
3. Select **Ethernet configuration**.
4. Select **Static IP** on **Connection Type** menu.
5. Enter **IP Address, Netmask, DNS, Default Router** and press **Save**.

SECTION 3 SPECIFICATIONS

The following are specifications of the UT880.

Main Item	Sub Item	Specification
System	CPU	ARM Cortex-A9 Dual MicroProcessor with 512KB L2 Cache
	Flash Memory	4GB NAND Flash
	SDRAM	1 GB DDR2 SDRAM
	CODEC	G.711u/a, G.729, G.722, H.264
Voice Interface	Handset	Supported
	Headset	Supported
	Speaker Phone	Supported
Network	LAN	10/100/1000Base-T with Auto MDIX
	PC	10/100/1000Base-T with Auto MDIX
	Bluetooth	BT V2.1+EDR

Main Item	Sub Item	Specification
Display and Keypad	LCD	7" TFT LCD (1024*600)
	LED	Message indicator support (3EA)
	Keypad	Full Touch
Addition Functions	USB	USB 2.0 Host (1EA) / USB 3.0 Device (1EA)
	SD Card	Micro SD support
	Camera	1.3M FF
Environmental	Power	PoE
	Dimension (W x H x D)	192.0mm (W) x 225.0mm (L) x 150.0mm (H) with stand
	Weight	1Kg
	Operating Temp (°C)/ Humidity (%)	-5°C ~ 50°C 10 ~ 90%

SECTION 4 TROUBLESHOOTING

Symptom	How to Solve
White lines are on the screen	This can happen if you turn on the device after you have not used it for a long time. This is not related to the product life time and performance, thus please leave power on for a while, then the lines will disappear.
Phone gets hot	This can happen when talking on the phone for an extended period. More power is used which produces heat. To help reduce heating, the user should take action by hanging up for a short time.
No sound	Be sure the phone is not in Mute mode.
Pickup icon is not working	This can happen when your number is registered in a same pickup group. You need to contact either network administrator or your service provider.
Noise during a call	IP Phones voice quality is affected by network conditions. Depending on network congestion, voice quality can be degraded.
No registration	Check server setup, or OS. If there is a network issue, please contact your network administrator. If it is a network related issue, this may be a service provider's issue, then contact your service provider to resolve the problem.
Ring tone is too quiet	Check the ring tone volume with the Volume icon.



UT880 NMLT Multiline Telephone Application

Chapter 2

SECTION 1 CONFIGURING MULTILINE TELEPHONE APPLICATION ACCOUNT INFORMATION ON THE UT880

These instructions assume that the proper licensing has been applied to the SV9100 to support multiline stations.

The following licenses and components are required to support each UT880 Multiline phone:

- GCD-CP10 with GPZ-IPLE Daughter Board installed
- System Version R1 License (0411)
- System Port License (0300)
- VoIP Resource License (5103)
- IP Terminal License (5111)

The settings below are needed, with the exception of optional authentication, on the SV9100 to support Multiline stations. If the SV9100 has already been configured to support Multiline stations, then skip to [Section 2 Multiline Telephone Application Automatic Configuration on page 2-5](#).

Set 10-12-01 to 0.0.0.0.

Set 10-12-03 to the default gateway provided by the network administrator.

Set 10-12-04 to the local time zone.

01 - IP Address	<input type="text" value="0.0.0.0"/>
02 - Subnet Mask	<input type="text" value="255.255.255.0"/>
03 - Default Gateway	<input type="text" value="192.168.3.1"/>
04 - Time Zone	<input type="text" value="(GMT -06:00) Central Time (US and Canada)"/>

Set PRG 10-12-09 to the static IP Address for the SV9100 provided by the network administrator.



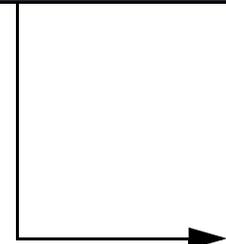
09 - IPL IP Address	<input type="text" value="192.168.3.50"/>
10 - IPL Subnet Mask	<input type="text" value="255.255.255.0"/>

If using authentication, set PRG 10-46-01 to Automatic.



01 - Register Mode	<input type="text" value="Automatic"/>
--------------------	--

If needed, go to PRG 11-02-01 to set the desired extension numbers to be used for the Multiline Telephone Application extensions.



Station Port	Extension
100	<input type="text" value="3101"/>
101	<input type="text" value="3102"/>
102	<input type="text" value="3103"/>

Set all analog trunks in PRG 14-02-03 to 0 (Wait Caller ID).



23 - Caller ID Receiving Method	<input type="text" value="Wait Caller ID"/>
---------------------------------	---

If using authentication, set PRG 15-05-27 to the Personal ID Index number to be used for each Multiline Telephone Application extension.

27 - Personal ID Index

Use PRG 15-20-01 to set line key descriptions.

The Multiline Telephone Application behaves like a DESI-Less telephone where the line key description can be changed. For some features the line key description must be entered for anything to display for that key.

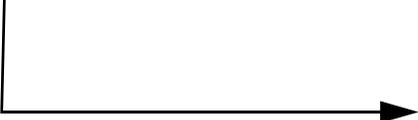
Function Key	Name	Function Key	Name
01	<input type="text" value="CO 001"/>	09	<input type="text"/>
02	<input type="text" value="CO 002"/>	10	<input type="text"/>
03	<input type="text" value="CO 003"/>	11	<input type="text"/>
04	<input type="text" value="CO 004"/>	12	<input type="text"/>
05	<input type="text" value="CO 005"/>	13	<input type="text"/>
06	<input type="text" value="CO 006"/>	14	<input type="text"/>
07	<input type="text" value="CO 007"/>	15	<input type="text"/>
08	<input type="text" value="CO 008"/>	16	<input type="text"/>

If using authentication, set PRG 84-22-01 to the login username and 84-22-02 to the login password.



Personal ID Index	User Id	Password
020	122	••••
021		

Set PRG 84-26-01 to the static IP address for the DSP provided by the network administrator.



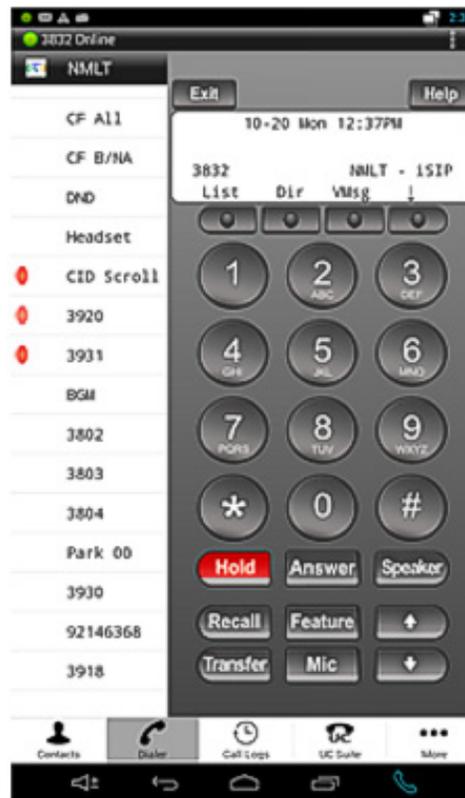
01 - IP Address	192.168.3.51
-----------------	--------------

SECTION 2 MULTILINE TELEPHONE APPLICATION AUTOMATIC CONFIGURATION

The Multiline Telephone application Dialer Application (App) may be automatically configured for you during install. When pre-configured, the App shows online status of your user, depending on the following conditions:

- Device has network connectivity.
- Device has network access to the PBX.
- The PBX is configured to allow use by the device.

Figure 2-1 Multiline Telephone application showing “Online” Status for the extension



If the device is not configured automatically then you have two options. One is to configure the PBX information based on the information provided by your IT support team, and let the PBX configure the App similar to any other *Dterm*® phone.

To open the screen with Accounts information. Once the accounts screen is open, click on the “+” to add an account, or click on an existing account to open the items shown in [Figure 2-2](#). Each field is described in detail in [Table 2-1 Account Provisioning Parameters in the UT880 Dialer Phone App](#).

Figure 2-2 Manual Configuration of the PBX Server and Proxy

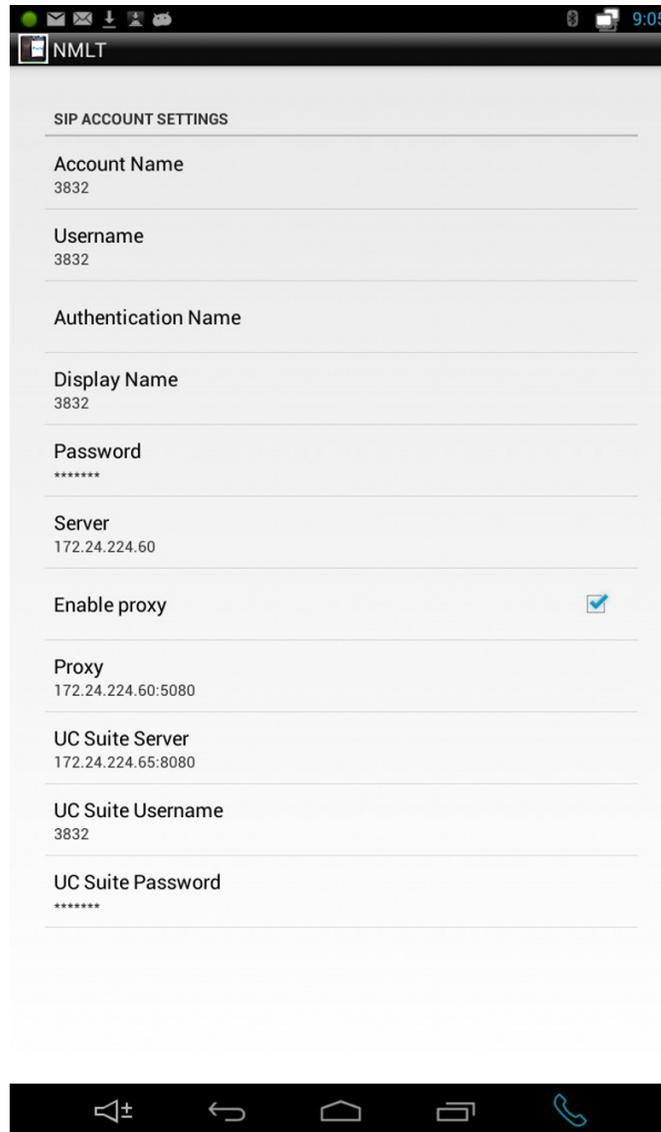


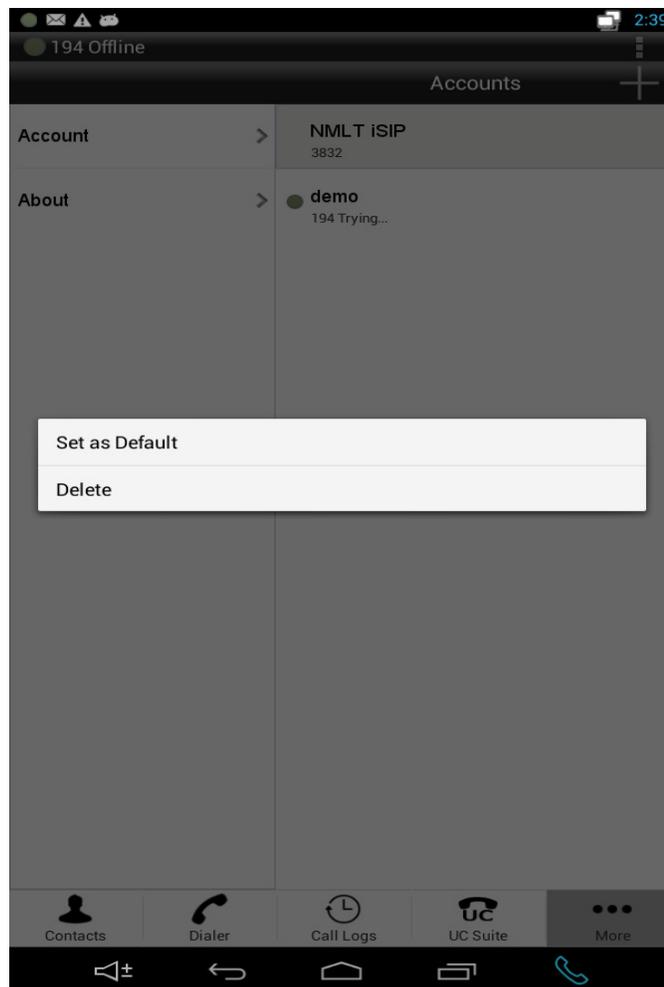
Table 2-1 Account Provisioning Parameters in the UT880 Dialer Phone App

Field Name	Description	Default Value/Note
Account Name	Name of the profile or account. This cannot be left blank.	This is a required field.
User Name	SIP user name assigned by the administrator after provisioning in the phone system that is used for HTTP digest or equivalent authentication.	
Display Name	Name that is displayed in the application.	
Password	This field must match with the information provisioned in the phone system.	
Server	Universal resource identifier (URI) or IP address of the phone system and corresponding domain.	This is a required field.
Enable Proxy	A selection switch if there is a proxy server serving the SIP agent like the Multiline Telephone application.	This is a required field.
Proxy	Phone system URI and port number for SIP connectivity.	This is a required field.
UC Suite Server	UC Server URI or IP address.	
UC Suite Username	UC application user name.	Configured in Program 20-59-01
UC Suite Password	UC application password.	Configured in Program 20-59-02

If you have more than one account profile provisioned, then only one profile or account can be active at any given time. To change the active profile press and hold the account. A menu will appear as shown in [Figure 2-3 Account Management - Set as Default and Delete](#), which shows **Set as Default** option. Selecting this sets the account selected to be the default, and activates it while deactivating the other accounts/profiles.

Similarly, selection of **Delete** option will delete the account. It is recommended that advanced setting not be changed without help from a qualified support person.

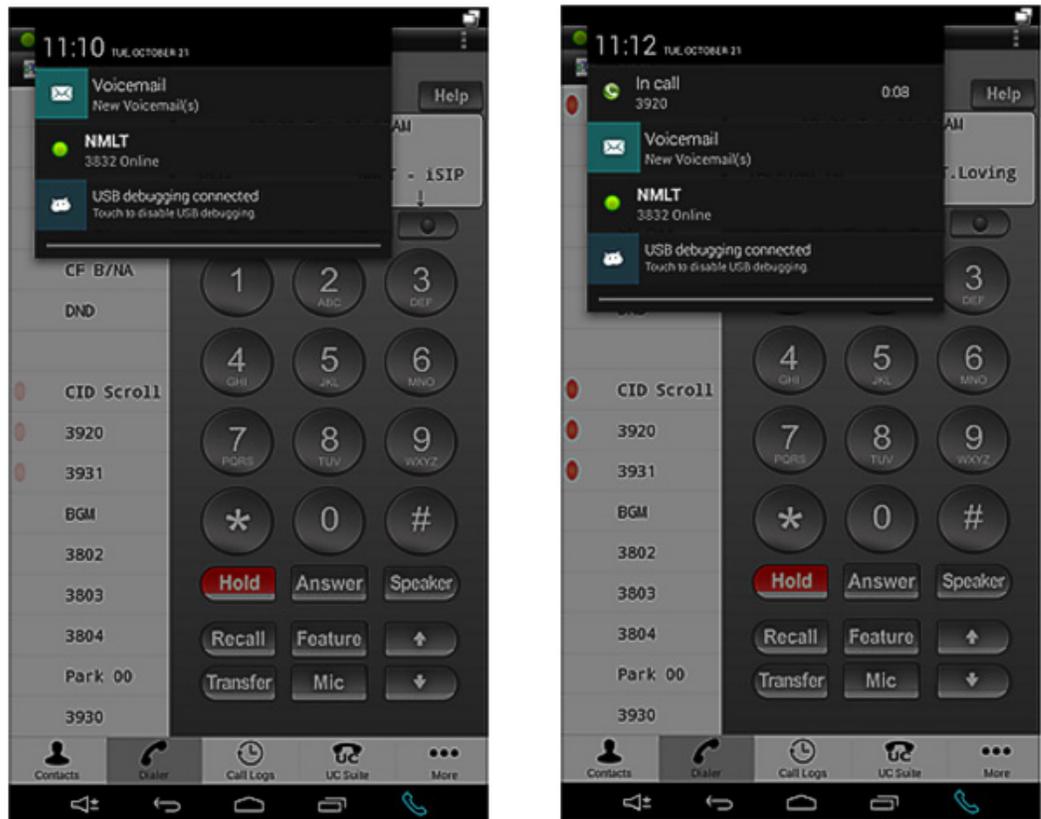
Figure 2-3 Account Management - Set as Default and Delete



2.1 The Multiline Telephone Application Status

The Multiline Telephone application Status is a drop down status notification providing quick viewing of the application status including “online” or “offline” state, Call information during active call and voicemail indication, if there is a pending message. Typically, the area is hidden and the user can select it by clicking on the “NMLT” button on the top left hand corner.

Figure 2-4 Multiline Telephone Application Status Notification Area



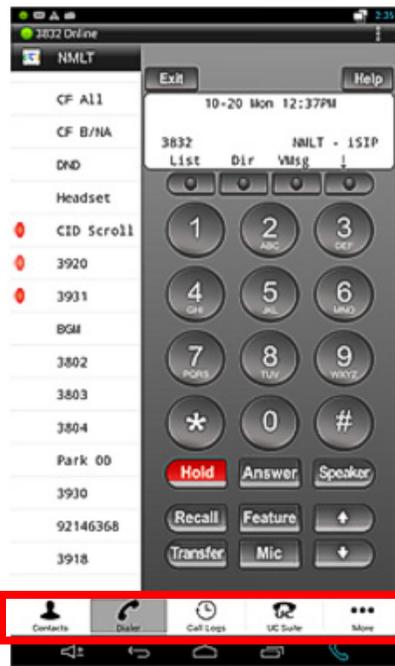
Note that the notification also shows the call counter during the active call for both extension and trunk calls as shown.

If the device is connected for debugging purpose, then the last item “USB debugging connected” appears. This is useful for retrieving the debug logs, if required.

2.2 Multiline Telephone Application Menu

To start using the App, it is important to understand the screen layout and the Menu items for easy navigation and function assistance.

Figure 2-5 Multiline Telephone Application Menu



← This line provides a quick view of the App and its status, e.g. **Online** or **Offline**. This line remains visible for all screens of the app.

The remainder of the screen items are specific to the Multiline Telephone application used and are described in its feature specification.

The MIC and Speaker keys are selected **On**, as indicated by a red LED below the key. The Answer, Recall, etc. keys are normally set to **Off**.

← This is the Menu bar of the app and remains visible on all screens of the app.

Figure 2-6 Multiline Telephone Application Menu



← The volume of the device is controlled by the PBX and the user can set the volume level with the up and down keys after selecting the voice key when the App is running. The change in volume will be set in the PBX as well as on the device. The device volume display reflects the current value set from the App.

← The Menu items (left to right) are:

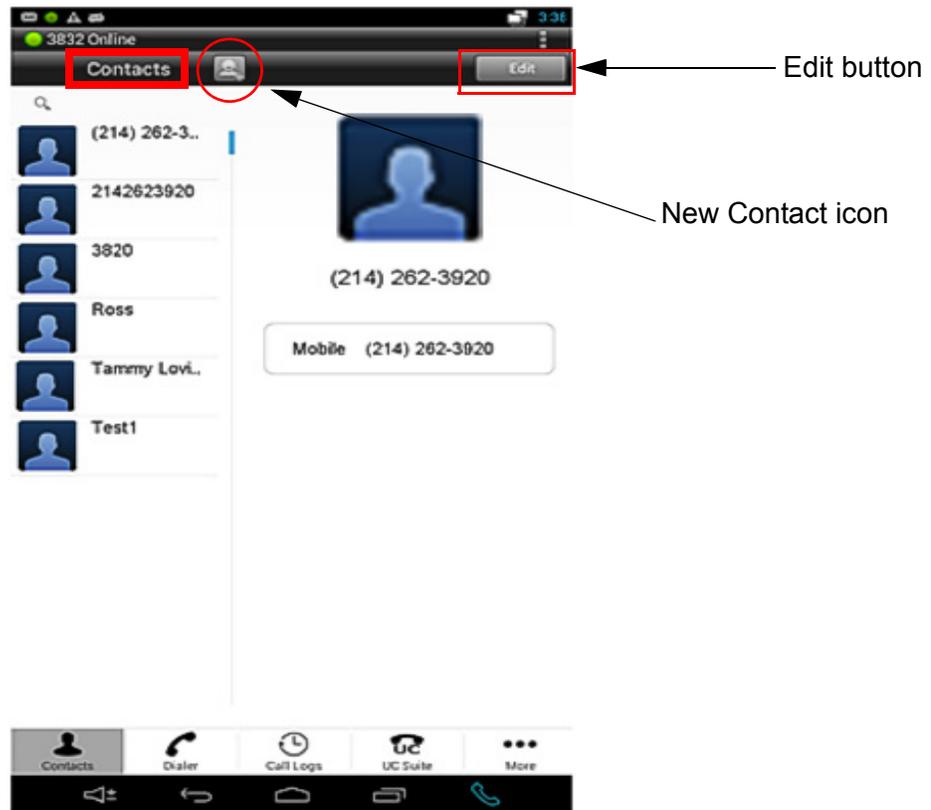
- Contacts - Integrated with the OS contacts application.
- Dialer - Multiline Telephone application specific dialer and display screen, along function, j-key and other key feature support.
- Call Logs - For incoming and outgoing calls to extensions.
- UC Suite Access
- More - Other options for additional information.

2.3 Contacts

The device contact allows the end user to use the native OS contacts application from within the UT880 NMLT Multiline Telephone application. Clicking the **Contacts** button opens the contact application within the App as shown. Refer to [Figure 2-7 Opening Contacts from the UT880 NMLT Multiline Telephone Application](#).

The “Edit” button is used to edit the contact individually. Similarly, new contacts can be added by clicking the “Add new” contact icon highlighted by the oval in [Figure 2-7 Opening Contacts from the UT880 NMLT Multiline Telephone Application](#).

Figure 2-7 Opening Contacts from the UT880 NMLT Multiline Telephone Application

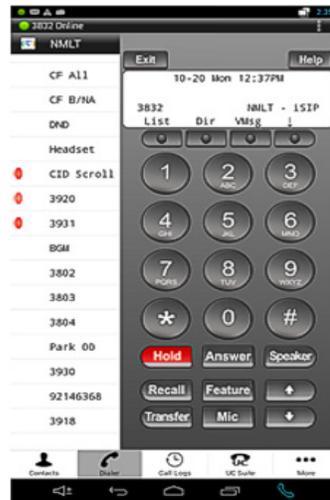


When the App starts, the contacts are imported into the App and contacts can be either manipulated by invoking contact application independently from the OS, or from within the App. The contact operation is described in detail in the corresponding OS release.

2.4 Dialer

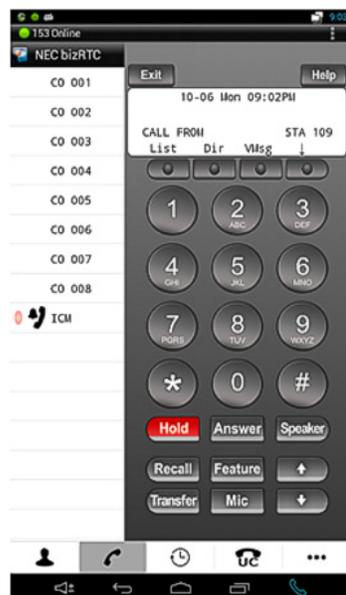
When the App comes to the forefront it opens the Dialer page. If the user is online, then the end user of the Multiline Telephone application can dial out by following the process similar to the *Dterm*. Once registered, the Multiline Telephone application can also receive calls and use features and functions currently supported by the App.

Figure 2-8 The Multiline Telephone Application Screen



The semantics similar to the *Dterm* are implemented in the UT880 NMLT Multiline Telephone application. For example, the LED function is replicated in the App. Refer to [Figure 2-9 Dialer LED Function Emulation](#).

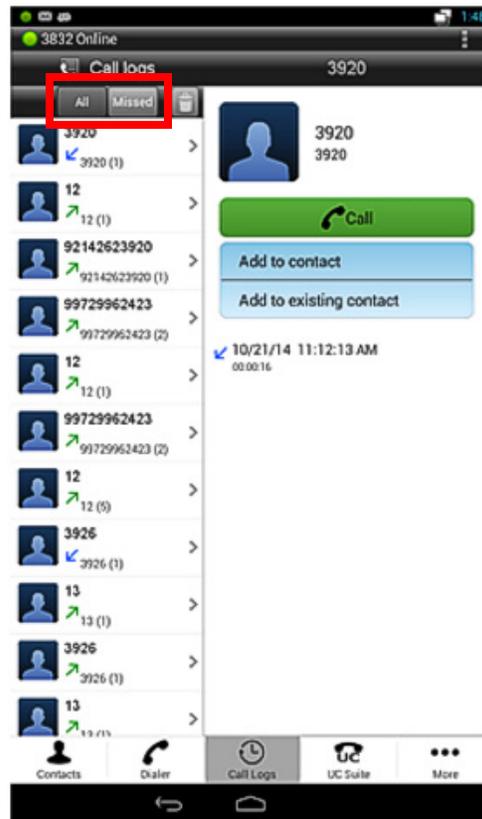
Figure 2-9 Dialer LED Function Emulation



2.5 Call Logs

Similar to the Contacts, Call Logs is an added functionality of the OS. The call logs for both extension calls and external calls are captured in the call logs. Selecting the **Call Logs** menu item opens up the call logs as shown in [Figure 2-10 Call Logs In the Multiline Telephone Application](#).

Figure 2-10 Call Logs In the Multiline Telephone Application



The user can select either All calls, or only the Missed calls to be displayed in the call logs.

The calls have three different icons showing three different call log types:

- Incoming calls
- Outgoing calls
- Missed calls

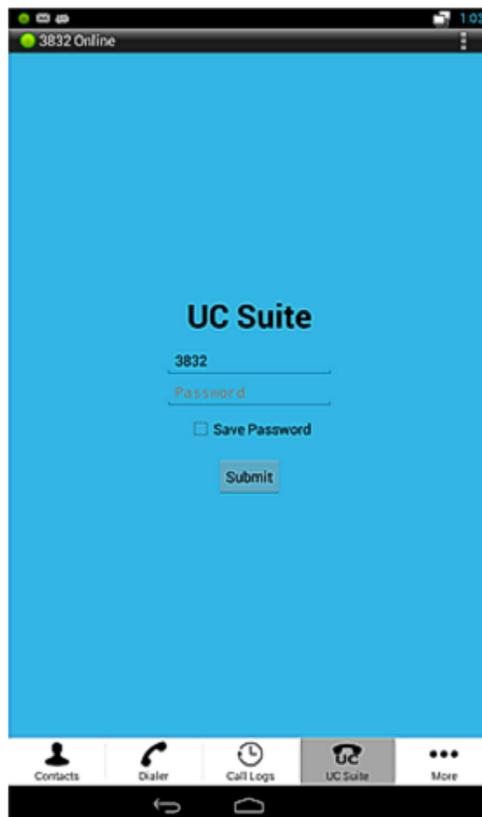
The call logs indicated the user information and number of call records for the user in the bracket. It also displays the type of log, the time and the duration of the call.

The Multiline Telephone application also allows the user to call out from the call logs directly through the dialer.

2.6 UC Suite

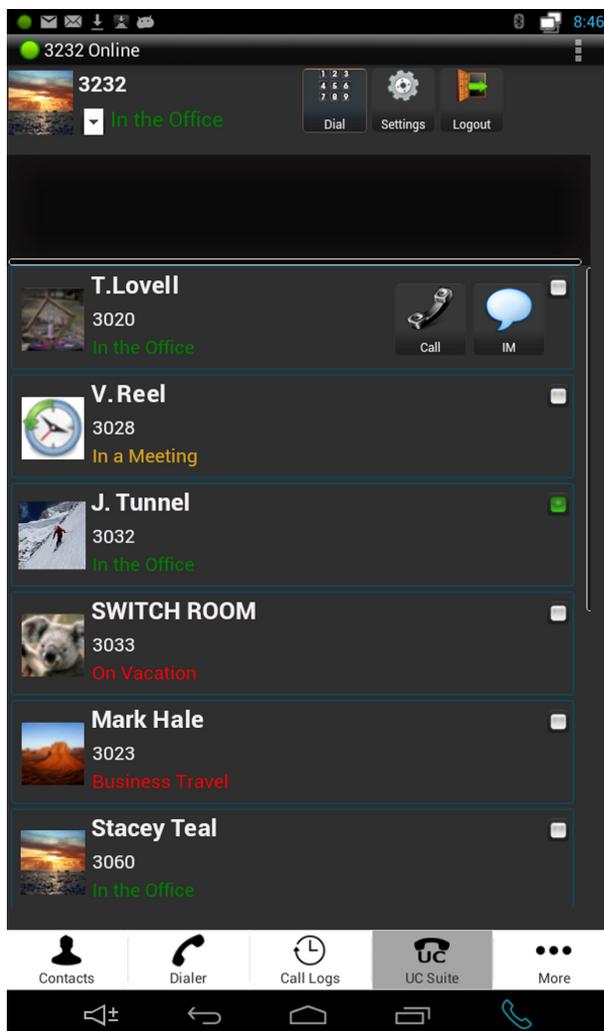
Selecting the UC Suite icon calls up the UC application available on your PBX platform. Refer to [Figure 2-11 UC Suite Application](#).

Figure 2-11 UC Suite Application



If the password is registered, the end user is automatically logged into the UC Suite. When the UC Suite successfully logs in, the UC Suite page (refer to [Figure 2-12 UC Suite Dial Screen on page 2-15](#)) is displayed. Refer to UC Suite documentation for further information.

Figure 2-12 UC Suite Dial Screen



2.7 Feature Options (... More)

The Feature Options currently allow access to the Account information.

Figure 2-13 Feature Options Menu and Software Information Screen



The Options Menu icon allows the end user to terminate the application by clicking **Quit** from the drop down menu. Refer to the left screen in [Figure 2-13 Feature Options Menu and Software Information Screen](#). Currently, the Feature Options Menu allows viewing information about the software release and other related information. Refer to the right screen in [Figure 2-13 Feature Options Menu and Software Information Screen](#).

Upgrading the UT880

Chapter 3

SECTION 1 UPGRADING THE UT880 NMLT MULTILINE TELEPHONE APPLICATION

The Multiline Telephone application requires a separate upgrade from the UT880 firmware. To perform an upgrade of the Multiline Telephone application requires a USB or Micro SD drive and the upgrade file downloaded from the NEC support web site.



NOTE

For the upgrade file to work the extension must be .apk. Windows will sometimes change the extension to .zip because it sees an .apk extension as an archive file. Make sure the extension is .apk when copied to the Micro SD drive or the upgrade will not work.

1.1 Using a SD Drive

1. Download Multiline Telephone application file to the support PC.
2. Insert Micro SD drive in the support PC.
3. Copy upgrade file to the Micro SD drive.
4. Remove Micro SD drive from the support PC.
5. Insert the Micro SD drive into the UT880. There is a small slot for this drive located underneath the phone on the front side.
6. Go to **desk top** of the UT800.
7. Choose the **Applications**  icon at the bottom-center of the desktop.
8. Start **Open Manager**.
9. Choose the **Home (House)** icon at the top of the screen. This should take you to the Micro SD drive.
10. Choose upgrade **.apk** file. When prompted, agree to the service conditions and choose to install.

1.2 Using an USB Drive

1. Download Multiline Telephone application file to the support PC.
2. Insert USB drive in the support PC.

3. Copy upgrade file to the USB drive.
4. Remove the USB drive from support PC.
5. Insert the USB drive into UT880. There is a USB slot for this drive located underneath the phone.
6. Go to **desk top** of the UT800.
7. Choose the **Applications**  icon at the bottom-center of the desktop.
8. Start **Open Manager**.
9. Press the **Left Arrow** icon at top of screen until you are at the **root** or */*.
10. Press **Storage** then **USB0**, this should take you to the USB Drive.
11. Choose upgrade **.apk** file. When prompted, agree to the service conditions and choose to install.

SECTION 2 UPDATING THE UT880 SYSTEM FIRMWARE

UT880 firmware update can only be downloaded via the Internet from the settings page of the phone so UT880 access to the Internet is required.

To update the firmware:

1. Go to **desk top** of the UT800.
2. Choose the **Applications**  icon at the bottom-center of the desktop.
3. Choose **Settings**, then select **About Tablet**.
4. Choose **System updates** then **Check now**. If an update is available you will be prompted to download the update. If no update is required the phone will state your system is up to date and no further action is required.
5. Once the download has finished you will be prompted to install the update.
6. The update will take several minutes to finish during which it will reboot. None of the Multiline Telephone application settings are lost during this process.

SECTION 3 DEFAULTING THE UT880 FROM THE DESKTOP

If for some reason the UT880 needs to be set back to factory defaults you can use an option in the settings menu to return the phone to a default condition. Any applications that were installed and application settings will be lost after performing this procedure.

You may be required to reinstall the NMLT iSIP application after defaulting the phone. Make sure you have a Micro SD or USB drive and the software **.apk** file which is downloaded from the NEC support web site.

For the upgrade file to work the extension must be **.apk**. Windows will sometimes change the extension to zip because it sees an **.apk** extension as an archive file. Make sure the extension is **.apk** when copied to the Micro SD drive or the upgrade **will not** work.

To default the phone do the following:

1. Go to the desk top of the UT880.
2. Choose the **Applications**  icon at the bottom-center of the desk top.
3. Choose **Settings**, then select **Data Reset**.
4. Choose **Factory Data Rest** and follow the prompts to default the phone.
5. The process will take several minutes to finish during which it will reboot. All of the NMLT settings will be lost during this process.
6. Proceed to the section [Section 1 Upgrading the UT880 NMLT Multiline Telephone Application on page 3-1](#) to install the NMLT application.

SECTION 4 DEFAULTING THE UT880 DURING BOOTUP

If for some reason the UT880 needs to be set back to factory defaults, but you are unable to login into the phone and get to the desk top, you can use the hook switch to return the phone to the default condition. Note, any applications that were installed and application settings will be lost after performing this procedure.

The hook switch will be used to move between and select options. To move between options, press and hold the hook switch for one second, then release. Once you are on the desired option, letting the cursor remain on that option for 10 seconds will select it.

1. Unplug the LAN connection to power down the phone.
2. Remove the handset from the cradle.
3. Plug the LAN connection back into the phone.

4. As the phone starts to boot, press the hook switch repeatedly. A menu will appear.
5. Using the hook switch, move to the option, wipe **data/factory reset**, let the cursor remain there for 10 seconds to select.
6. Using the hook switch, move to option **Yes -- delete all user data**.
7. Select **Reboot system now**.
8. The phone will reboot and apply all factory default settings.

SV9100 Dialer Setup Guide (Multiline Telephone)

NEC Corporation of America

Issue 1.0