# iPECS Communicator for iOS

## Installation and Operation Guide

iPECS is an Ericsson-LG Brand

Please read this manual carefully before operating your set. Retain it for future reference.

# Revision History

| Issue | Date | Description of Changes |
|---|---|---|
| 1.0 | Sep, 2012 | Initial Release |
| 1.1 | Jan,2013 | General update |
| 1.2 | Mar, 2012 | 3.4 Transfer a call: The description is changed that screened transfer is not supported. |
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# 1. Introduction

**iPECS Communicator** is an iOS Smartphone multimedia communication application for iPECS platforms. As an iPECS client device, **iPECS Communicator** has access to the features of the iPECS host. **iPECS Communicator** clients employ WiFi or mobile data services available through the Smartphone to 'connect with' the iPECS system for business communication services such as transfer and conference. The client is presented to the user in a simple to understand and use GUI on the Smartphone screen. The client incorporates contact and call log databases (lists) that integrate with the call control functions of the client,

**iPECS Communicator** can be used by connecting to the host platform including iPECS-CM, iPECS-LIK and iPECS-MG. There are differences in the **iPECS Communicator** functions depending on which host system is used, and the function screen may be different as a result. Basic features of the iPECS host available to **iPECS Communicator** include:

- Call Forward
- Conference, 3-way
- Hold
- Transfer
- Voice Mail

## 1.1 iPECS Communicator Client Screen

**iPECS Communicator**'s main screen displays various function modules to enable simple and effective use. Each of the modules is depicted in the diagram below. For reference purposes, Appendix A presents a list of icons for the Status bar.

# 2. Installation

Installation of **iPECS Communicator** is a 3-step process as outlined below.

- Verify compatibility, section 2.1
- Download the **iPECS Communicator** iOS application, section 2.2
- Configure the client and register with the iPECS host, section 2.3

## 2.1 Hardware requirements

The minimum and recommended Smartphone requirements to operate **iPECS Communicator** are as follows. The application has been operated with LGE and other Smartphone brands. For a list of compatible models, contact your LG-Ericsson representative.

Minimum Requirements

- Operating system: iOS 5.01
- CPU: armv7 (iPhone 3GS and above, iPad all versions, iPod 3 and above)

Recommended Requirements

- Operating system: iOS 5.1 and higher
- CPU: armv7 (iPhone4 and above, iPad2 and above)

## 2.2 iPECS Client Download

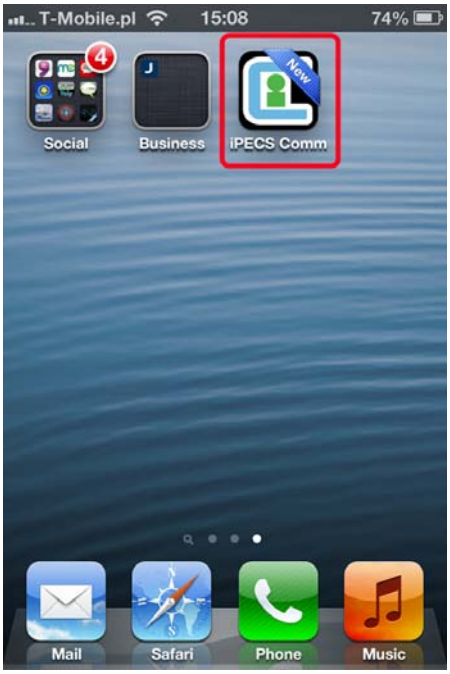
The **iPECS Communicator** application is downloaded directly to the Smartphone from the Apple Application Store, generally displayed on the Smartphone as the 'App Store'. Once downloaded, the client application will be available for execution on the phone.

To download the client:

1. Open the App Store application on the Smartphone.
2. When the store opens, type **iPECS Communicator** in the search box and select ''Search''.
3. In the Search results screen, touch **iPECS Communicator**.

4. In the Apps description screen touch Free and Install Button.

5. When the installation is complete, verify the **iPECS Communicator** icon appears in the Smartphone Desktop; Touching the icon opens **iPECS Communicator.**



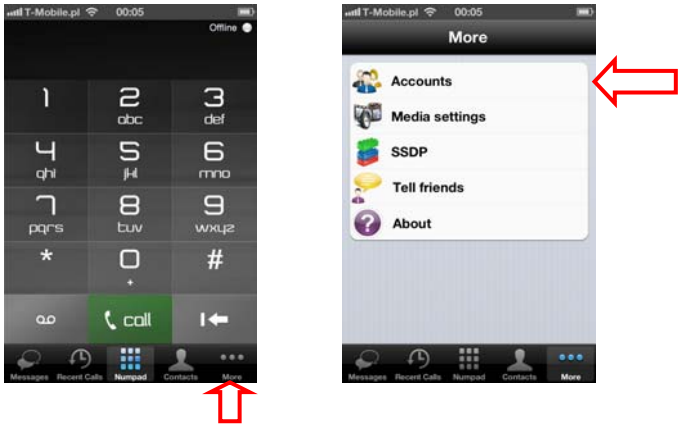
## 2.3 Client Account Configuration and Registration

**iPECS Communicator** must be configured to register with the host iPECS platform. This will require assistance from the iPECS system administrator. For proper registration, SIP Account information matching the iPECS system configuration must be entered including:

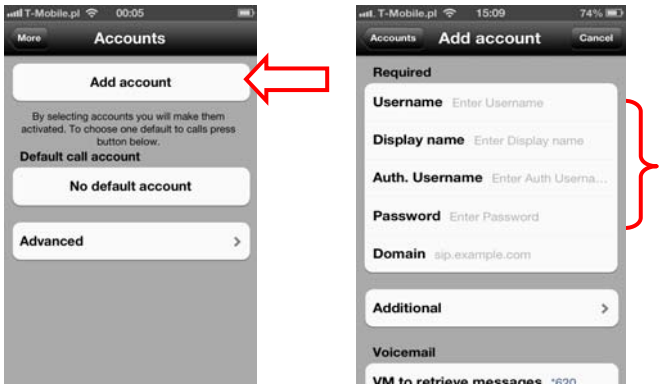
- iPECS Host IP address
- iPECS host port
- Display Name
- Name (User ID)
- Authentication name
- Authentication password
- Transport Protocol (UDP/TCP)

To set, modify or view the SIP Account data,

1. In the Smartphone's basic screen, touch the "More" button.
2. Select the "Accounts" in the **iPECS Communicator** More menu.

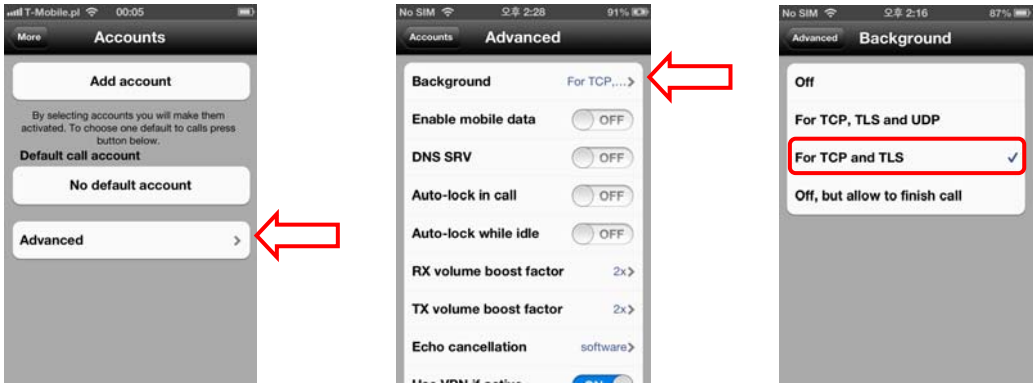



3. In the Accounts menu, select "Add Account". In the Add Account screen, enter values for the Server address (Domain), User Id (Username) and other Account parameters to match the iPECS host system. Advanced account settings are available under "Additional" submenu.

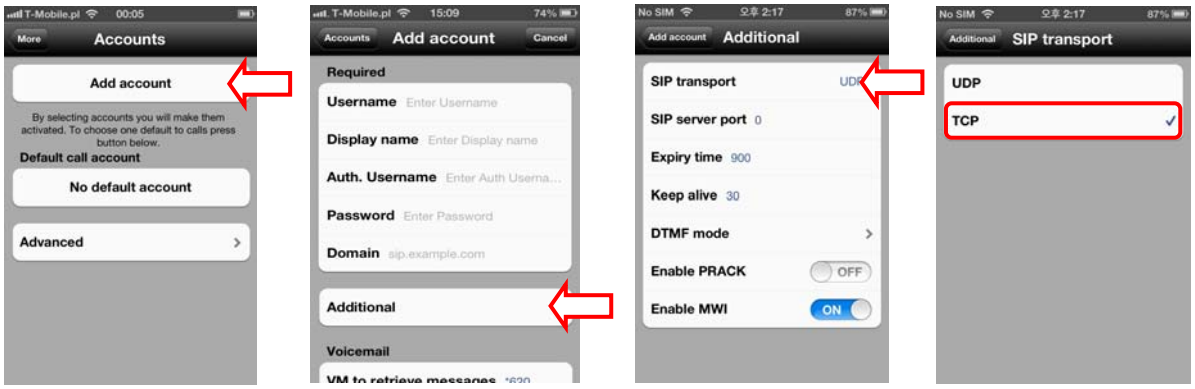


To use TCP mode for lower battery consumption in background mode

1. In the Accounts menu, select “Advanced” in the **iPECS Communicator** Accounts menu.
2. Select “Background” in Advanced menu. In the Background screen, select “for TCP and TLS” option menu.

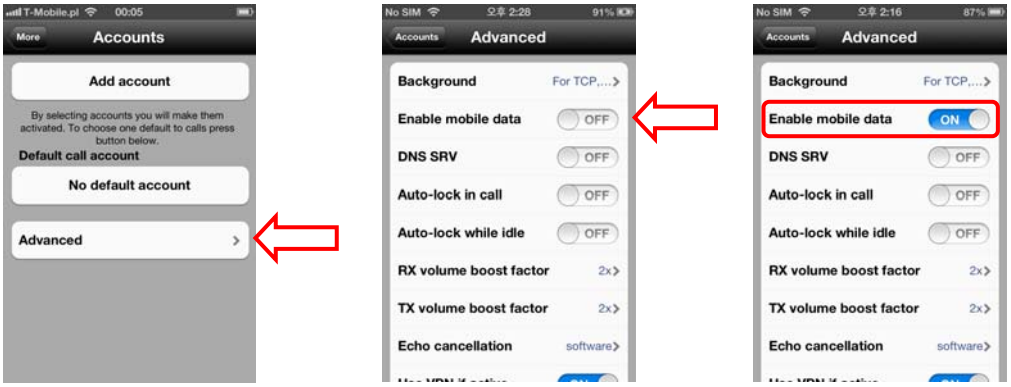


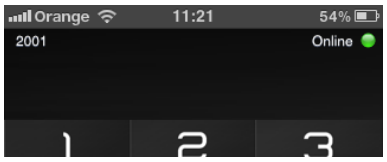

3. Back to the “Accounts” screen, touch the “Add account” button.
4. In the Accounts menu, select the “Additional” submenu.
5. Select “SIP transport” and TCP option menu in SIP transport menu.




To use 3G/LTE mobile network when WiFi is not available

1. In the Accounts menu, select “Advanced” in the **iPECS Communicator** Accounts menu.
2. Slide “Enable mobile data” button from left to right






After completing entry of the Account information, touch twice “Done” button to accept settings and go back to “More” menu. Touch Numpad button to go to main Dialpad view.

**iPECS Communicator** will register with the iPECS host; a registration status message is displayed on top right.

The registration icon indicates status by using color as below.

Green: Online – Idle

Grey: Offline – Login failed

Notes:

- As a default, **iPECS Communicator** employs the Smartphone’s WiFi radio to communicate with the host iPECS system. If no WiFi network is available and 3G/4G mobile data service is enabled, the client attempts to employ the mobile data service to register and connect to the host iPECS system. Otherwise, the connection and registration will fail.
- For working in background mode it’s recommended to use TCP transport (same effect as for UDP and lower battery consumption).

# 3. Basic phone functions

With **iPECS Communicator**, calls can be placed, received and transferred employing the resources of the host iPECS platform.

## 3.1 Place a Call

**iPECS Communicator** can place internal calls to other users and external calls over CO lines and trunks of the iPECS host. Calls can be placed by dialing the number with the dial pad, selecting a number from the Call Log or Contacts lists.

After dialing or selecting a number from a list, the Call button places the call. The call screen, shown below, displays the call information and various call controls (Hold, Transfer, Mic, Speaker, etc.) described in later sections.

Notes:

- If a WiFi network is not available to place the call and mobile data use is allowed, **iPECS Communicator** will attempt to place the call over the mobile data network.

## 3.2 Answer a Call

When a call arrives, the call screen displays the incoming caller information and the phone will notify you according to the Smartphone configuration and the client Notification setting. The call is answered by selecting the green Audio button at the bottom of the client and the active call screen displays.

Notes:

- The name of the calling party may not be available until the call is connected; the display will indicate the name when received from the host iPECS system or the name matches a Contact.

## 3.3 Place a Call On Hold

You can place an active call in a waiting state where the held party will receive music on hold and you will be free to place another call or other for other activity.

To place a call on hold, simply touch the “hold” button on the call information.

To access a held call, touch the “hold” button again.

## 3.4 Transfer a Call

You can send an active call to another user of the iPECS host. You can transfer the call without announcing it to the receiver.

To transfer the active call,

1. Touch and slide buttons to second screen.
2. Press the Transfer button.

3. Select from contacts or dial the user to receive the call.
4. Press the Transfer button.
5. Call will be automatically disconnected and transferred to the receiver to answer.

Notes:

- It supports only blind transfer.

## 3.5 Conference Calls

With **iPECS Communicator,** you can join several calls in a three party conference. To conference two calls,

1. Place or receive the first call.
2. Select the “add call” button, type number and select the “Call” button. The first call is placed on hold automatically.
3. Place the second call as normal.
4. When connected, slide to second screen of buttons and select the “merge” button.

During the conference, you can spit calls or end a call or end all calls.

## 3.6 Receive a Call while Busy

While on a call with **iPECS Communicator**, you can receive and answer calls from the cellular service provider. In this case, the Caller Id is displayed and you can accept or reject the call. If the call is accepted, the existing **iPECS Communicator** call is placed on hold.

When the cellular call is received, the Incoming call selection screen appears. You can select the green button to accept the call or the red button to reject the call.

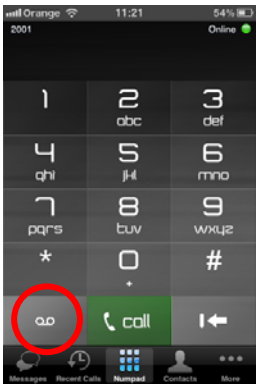
Note:

- When an iPECS call is received during a cellular call, the Smartphone will not recognize or notify you of the incoming call.

# 4. Other Phone Functions

## 4.1 Voice Mail

When a Voice Mail number is configured, **iPECS Communicator** displays the number Messages Waiting icon when notified of new voice messages.

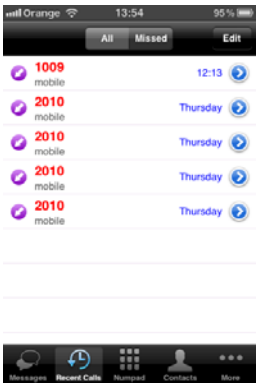



To access your voice mail:

1. Select voice messages button to place a call to Voicemail IVR
2. You are connected to your voice mail through the iPECS host.

## 4.2 Recent Calls Log

When a call is placed or received, **iPECS Communicator** generates a call record that is stored in the Recent Calls Log. Records are generated for missed, dialed and received calls. The user can view the Call Logs, and select and place a call to the number associated with the record.




To view the Recent Calls Log, select the “Recent Calls” button. The user can select the type of call records to view by selecting the record type desired (all, missed). Selecting a record allows the user to place a call to the party.

Note:

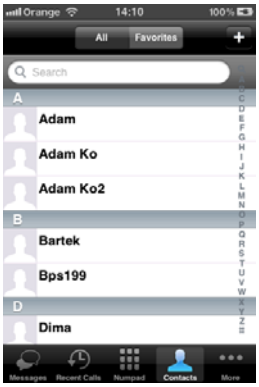
- The record displays the name received with the Caller Id, the display name or the name assigned in the Contacts. As a call is connected, the service provider may provide the Display name, which is then displayed.

## 4.3 Contacts

The **iPECS Communicator** client incorporates a Contact database where you can store information including phone numbers for frequently call contacts. Each Contact record in the database includes:

- Contact name,
- Home, work ,mobile and other phone numbers,
- E-mail address and
- Notes.

To view and manage your Contact list, Select the “Contacts” button. This will display the Contact list. The user can select the type of call records to view by selecting the filter type desired (All, Favorites) and add new contact by selecting “+” button on top right.

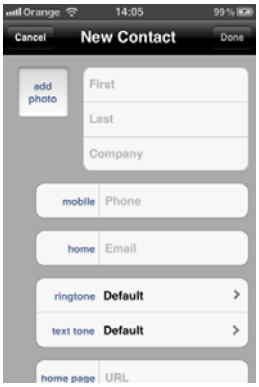



To search the Contact, select the Contacts function icon, and start typing in search box on top.

Contact records can be added, modified. The Contact database can be searched for a specific contact record and, when found the user can request a call or send Text Message to the contact.

To add a contact from the menu,

1. Select the Add tool (“+” button) on top right.
2. Enter values for the various fields in the Add contact screen.
3. Touch “Done” button, to store the contact.



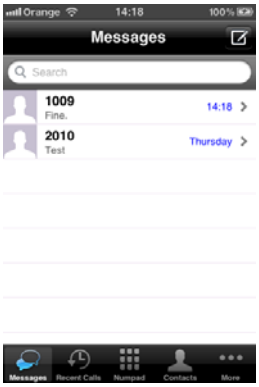

You can also access the Contact screen by selecting a Contact. In addition, you can edit a contact’s record by touching the “Edit” button.

## 4.4 Short Message Service (SMS)

Short Message Service (SMS) enables system users to exchange text messages. An SMS is prepared and sent to another user. When an SMS is received, you are notified with an audible alert or vibration alert and the new SMS status icon. Each SMS is stored in an SMS mailbox.

### 4.4.1 Receiving an SMS

When alerted to a new SMS mail,




1. Select the “Messages” button, the message list displays messages threads list.
2. Select the thread for display.

Note:

- At the bottom of the SMS screen are field to reply to the sender.
- To delete message touch “Menu” button, and select “Edit”. Then select messages to delete and touch “Delete” button.
- To delete all thread slide on it from left to right and touch “Delete” button that appears.

### 4.4.2 Sending an SMS

To send an SMS to others,

1. Select the “Messages” button.
2. On top right of the screen, touch “New Message” button.
3. In the “New Message“ screen, touch the “To:” input box and enter the station number for each recipient or touch + button to select from contacts.
4. Touch the message box and enter your message.
5. Touch “Send” button.

Notes:

- A message can contain no more than 80-bytes with the iPECS system.

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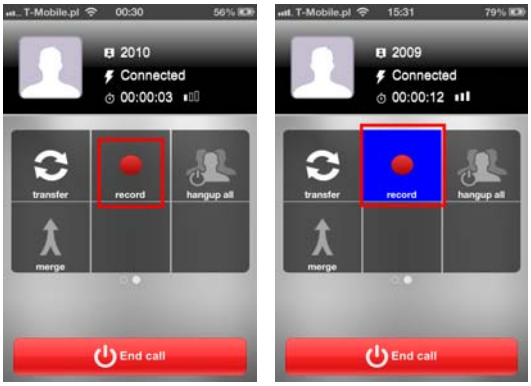
## 4.5 Call Recording

**iPECS Communicator** can record the audio for iPECS calls to the **iPECS Communicator** memory. The recording is stored in the iPECS-Communicator shared documents directory and it is available from iTunes to download as WAV file. The file is named with the year, month, day, minute and second the recording was started.



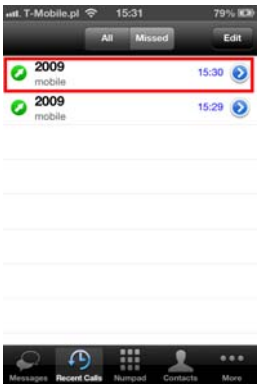

To record the active call,

1. Touch and slide buttons to second screen.
2. Press the record button.

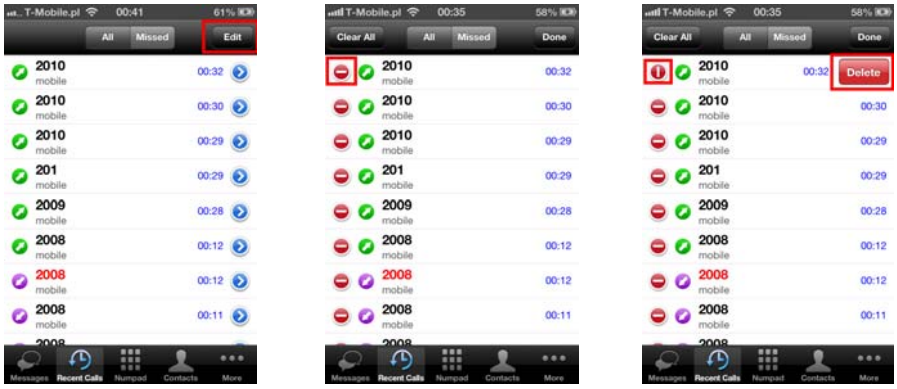
To record calls, select the record button in the **iPECS Communicator** active call screen.

The record button will highlight in blue while recording is in-progress. Both callers will be informed that call is being recorded by a quick voice note.

To stop recording, select the record button again or terminate the call, recording stops and the record button will turn off. To listen to recorded call, go to calls history, choose a proper call, then “recorded” icon – player will appear.

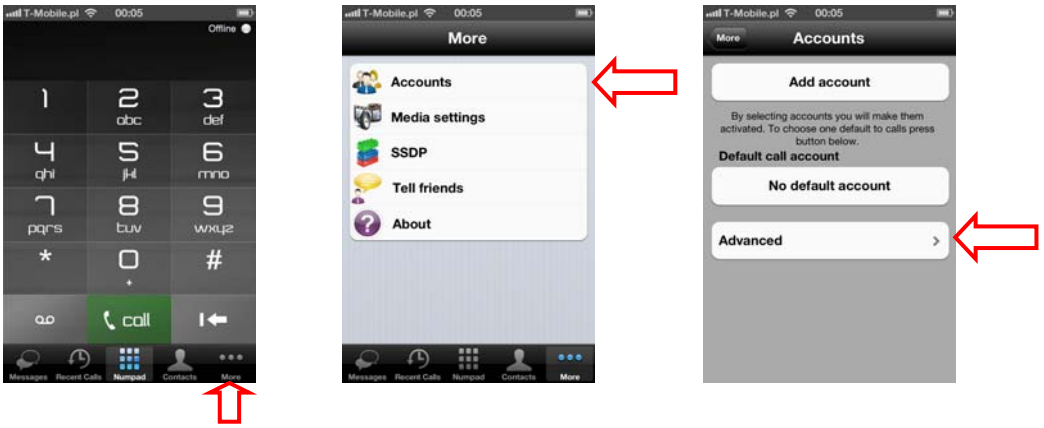


To remove recorded calls (for example: when device memory is full), simply go to calls history, choose edit in bottom right corner of the screen and remove recorded call by clicking on the remove icon, which has appeared near the chosen call, then confirm with the 'Delete' button.



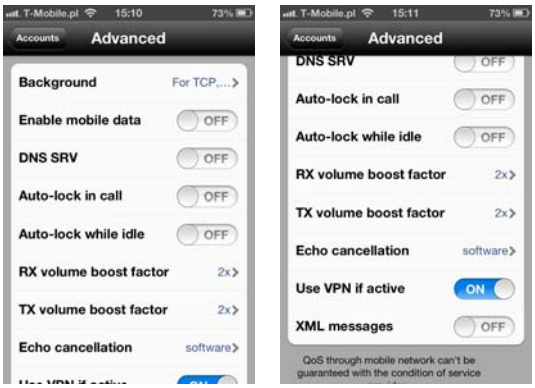
# 5. Advanced Client Settings

Advanced client settings are configured through the iPECS Communicator Settings menu. The Advanced setting menu is accessed in “Accounts” via the “More” menu of the Smartphone screen.




## 5.1 Advanced settings

Advanced settings allow configuration of various characteristics for the **iPECS Communicator** characteristics including Background mode Settings, DNS SRV, Auto-lock, Echo cancellation, etc. can be configured in the Options menu.




### 5.1.1 Background

As a default, **iPECS Communicator** is set to run in background mode in all available and supported transport types (including the most power-consuming UDP mode). If your server is supporting TCP we recommend to choose this transport type in ‘Additional’ account settings and choose second option from below possibilities:

- -For TCP, TLS and UDP
- -For TCP and TLS
- -Off, but allow to finish a call.

In case you do not need to run iPECS in background, you can always turn off background mode and save your battery.

### 5.1.2 Enable mobile data

As a default, **iPECS Communicator** employs an available WiFi network to register and connect to the resources of the host iPECS platform. If enabled, **iPECS Communicator** can register and connect to the host employing the cellular carrier mobile data network. To allow operation of **iPECS Communicator** over the mobile data network, check Enable mobile data.

You must have a mobile data subscription with a service provider and the service must be available. Using mobile data services for **iPECS Communicator**, you may incur service usage charges.

Note that the QOS when using mobile data cannot be guaranteed.

### 5.1.3 DNS SRV

**DNS SRV** is used to get hostname and port number of SIP server from DNS. Enable this option only when required by account configuration.

### 5.1.4 Auto-lock

This option allows to avoid Auto-lock Smartphone when **iPECS Communicator** is used.

You can set this for idle state and in call state.

### 5.1.5 RX/TX volume boost factor

**iPECS Communicator** provides a default volume adjustment for receive audio gain to the Smartphone earpiece and headset, as well as transmit audio gain for the Smartphone microphone and headset Mic. One of three levels can be selected for the default audio levels.

### 5.1.6 Echo cancellation

Enable this option to remove echo from a voice communication in order to improve voice quality.

We recommend to use Software option.

### 5.1.7 Use VPN if active

Enabling this option will allow dialer to improve NAT mechanisms when using VPN connection.

### 5.1.8 XML messages

Enable/disable support for XML format in sms messages depending on system type.

## 5.2 Media settings

### 5.2.1 Codecs settings for WiFi

This options allows to select availability and order of codecs for Wifi connections.

### 5.2.2 Codecs settings for Cell network

This options allows to select availability and order of codecs for Cell network connections.

## 5.3 SSDP and Trunk Access settings

Trunk Access Code

In order to provide a consistent dialing pattern between **iPECS Communicator** and normal Smartphone cellular calls, the iPECS host Trunk Access Code can be inserted automatically when dialing an external iPECS call. The Trunk Access Code is inserted as the first digit when seven or more digits are dialed.

To configure the Trunk Access

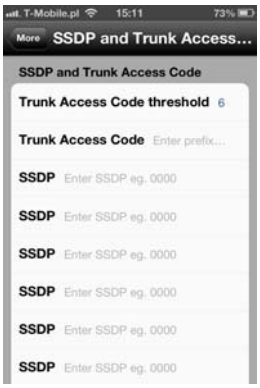
1. Select SSDP from the More screen.
2. Select Trunk Access Code from the SSDP and Trunk Access Code screen.
3. Enter the iPECS host Trunk Access Code.
4. Touch Done to store the data.

Station Start Digit Pattern (SSDP)

When the Trunk Access code is configured and seven or more digits are used in the Station Numbering Plan of the iPECS host, the client can be configured not to insert the access code when the digit pattern matches the start digits of a Station number. For this, the client must be configured with the first digits of stations with more than a six-digit number, the Station Start Digit Pattern. The '#' digit may be entered as a wild card digit and any digit dialed will be accepted as a match for the '#'. Note multiple SSDPs can be configured when the iPECS host station numbers vary in length. Only the SSDP for station numbers of seven or more digits need be entered.

To configure the SSDP,

1. Select SSDP from the More screen.
2. Select one of the SSDP entries.
3. Enter the first digits of the Station numbering plan (maximum 4 digits).
4. Touch Done to store the data.



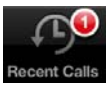
# Appendix A - Status and Notifications Icons

Below is a description of the icons shown in the **iPECS Communicator**.

Registration icon,
green indicates registered with iPECS host

Registration icon,
grey indicates not registered

SMS,
one or more SMS messages have been received




Missed Call,
an incoming call was not answered

Voice Message,
one or more new Voice messages have been received

New notification is available.
Start iPECS Communicator for more details.

# Appendix B - Troubleshooting

### 1. The call does not end using the End button

While on a call the End button does not terminate the call. If the connection to the iPECS host is lost during a call due to loss of the wireless connection or other network problem, the End button will not terminate the call. To terminate the call, select the Home button, when restart Communicator.

### 2. While on the phone there is a high level of echo

In certain network situations where delay is high or when using the speakerphone, echo can become excessive. In this case, try modifying the Echo cancellation settings of the client. Use of a headset may be helpful when the cause of the Echo is the speakerphone or Smartphone.

### 3. The iPECS host does not respond when the VM is called

Calls to the VM employ DTMF to signal the user authorization code and other information to the VM. The DTMF Type configured for the client must match the configuration in the iPECS Host.

### 4. Phone shows green registration icon but cannot place or receive

When the WiFi Access point or **iPECS Communicator** configuration change after registration or if a call ends due to a network failure, the **iPECS Communicator** may no longer be in communication with the iPECS host. In this case, the registration icon may indicate registered for the duration of the register timer, usually 1-hour. To correct the problem, unregister and register the client again.

### 5. Call loses audio during a call

Audio may drop due to network issues.

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