Bria *Android Edition*
User Guide

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This manual corresponds to Bria *Android Edition* version 1.0.2

Rev 2

Contents

1 About Bria *Android Edition*

Bria *Android Edition* is a SIP-based phone for an Android phone. With Bria *Android Edition* (Bria), you can use the Wi-Fi internet connection on your Android phone to make and receive calls without using cellular data. In addition, you can use the cellular data connection for phone calls when you are not in a Wi-Fi zone.

Standard Telephone Features

Bria *Android Edition* has all the standard telephone features, including:

- Call display and Voicemail indicator.
- Speakerphone, Mute and Hold.
- Call history – list of received, missed and dialed calls.
- Call transfer.
- Three-way audio conference.
- Ringtones and contact avatars.
- Support for DTMF: the ability to enter numbers to use an auto attendant.

Advanced Features

- Audio codecs G.711, iLBC and GSM, with an option to purchase codec G.729.
- NAT traversal (STUN and ICE).
- Secure call signaling (TLS).
- Audio encryption (SRTP).
- Quality of Service (QoS).
- DNS SRV record lookups.
- Application diagnostics (logging and log files uploading).

Supported Devices

- HTC Evo™ 4G
- Droid™ Incredible by HTC
- HTC Desire™
- Nexus One™

- Samsung Epic™ 4G Android Smartphone (SPH-D700)
- Samsung Galaxy S Fascinate™ 3G+ (SCH-i500)
- Samsung Galaxy S Vibrant™ (GT-i9000)
- Samsung Galaxy S Captivate™ (SGH-i896)

- DROID™ by Motorola
- DROID™ 2 by Motorola
- DROID™ X by Motorola
- Motorola Charm™

Accessories

The following accessories are supported:

- Headset with microphone: Bria *Android Edition* uses the ear-piece and microphone on the headset.
- Headphones (no microphone): Bria *Android Edition* uses the ear-piece on the headphone and the built-in microphone on the Android phone.

2 Configuring Bria *Android Edition*

We strongly recommend that you perform your initial setup from within a “known” network, such as in your enterprise or university campus WiFi zone or within range of your home network (if you have one) and not in a network such as an internet cafe.

2.1 Getting Ready

Obtain Account Information from your VoIP Service Provider

- Your username, password and domain.
- Your voicemail number, if your service provider provides this service.

Set up your Wi-Fi and 3G Connection

Make sure Wi-Fi is set up, 3G is enabled and data is enabled in your device.

2.2 Setting up

Troubleshooting Registration

If you cannot log in, ask your VoIP service provider if they want Bria to use STUN (to discover your public IP address). If they do not want you to use STUN, go to More > Settings > Advanced Settings > Network Traversal Strategy and choose the Server Managed profile.

For complete settings information, see page 18.

Troubleshooting Audio on a Phone Call

1. Go to More > Settings > Advanced Settings and change the Global IP setting. If this doesn’t help, go back to original setting.
2. If you still have a problem and you are using the Server Managed profile, speak to your VoIP service provider.

   If you are using another profile, go to More > Settings > Advanced Settings > Network Traversal Strategy and take the appropriate action:

   - If you are using the Default Configuration, switch to the Application Managed profile (to turn on ICE).
   - If this does not solve the problem, contact your VoIP service provider to find out how they support ICE.

For complete settings information, see page 18.

3 Using Bria

3.1 Starting and Quitting Bria

Start Bria. After a few seconds, the Bria Phone screen appears.

To quit the Bria application:

1. Display the Phone screen, Call Log, Contacts screen or the first More screen.
2. Tap the Menu button on the Android phone and choose Exit.

3.2 Interaction between Bria and Native Phone

Placing Calls

- You can place a Bria call so long as you are not already on a native call or not already on two Bria calls.
- You can place a native call regardless of the state of Bria.

Incoming Calls

- An incoming Bria call rings on your phone unless you are on a native call or you are already on two Bria calls. In both these cases, the new incoming call will go to Bria voicemail instead.
- Incoming native calls: Being on a Bria call has no impact on your native phone: native calls will come in in the usual way. Therefore, you should be prepared to accept or decline a native call.

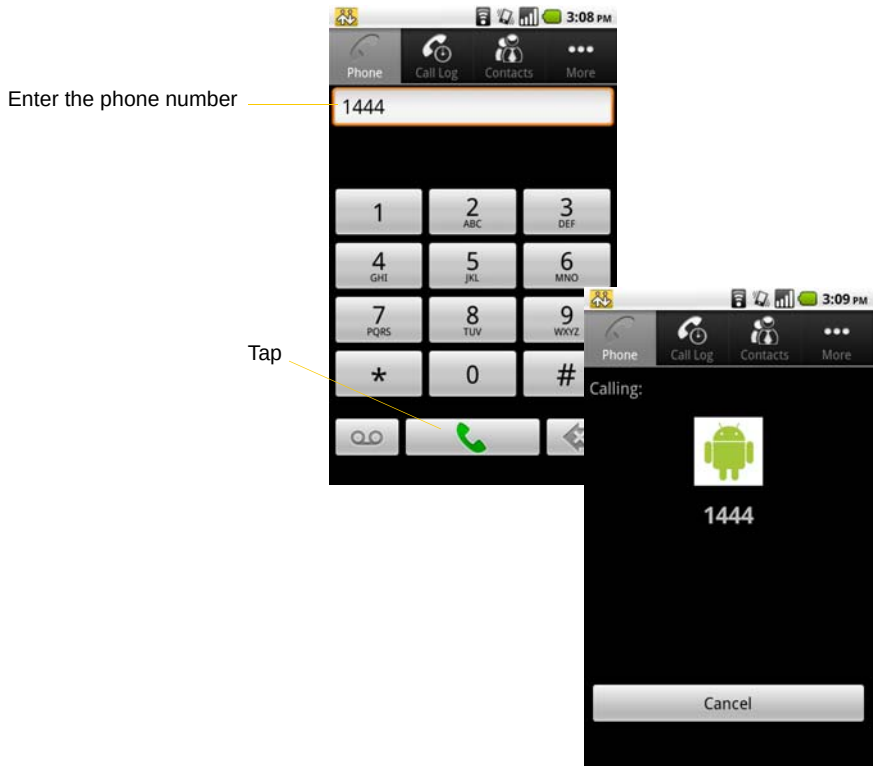
Established Calls

- If you accept an incoming native call, any live Bria call goes on hold. You will not be able to take the Bria call off hold until you end the native call.
- You can have up to two Bria calls established at the same time and switch between them.

3.3 Placing a Bria Call

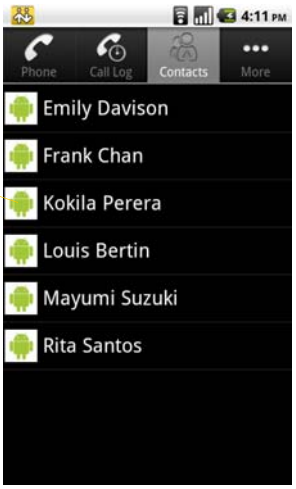
You can place a Bria call unless you are already on a native call or already on two Bria calls.

Using the Dial Pad



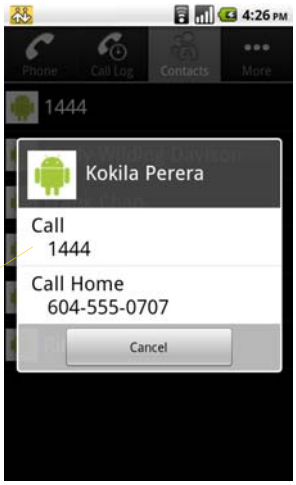
From the Bria Contact List

Tap the Contacts tab at the top of the screen



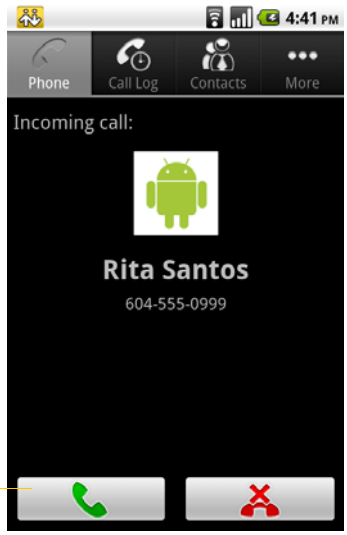
Search for the contact and tap it

If phone numbers from your contact list need to be modified (for example, to remove extra characters such as +), you can set up a dial plan. See page 27.



Tap the desired phone number

3.4 Handling Incoming Calls



f you are on a native call or already on two Bria calls, the incoming call does not ring on your phone: it goes to Bria voicemail instead.

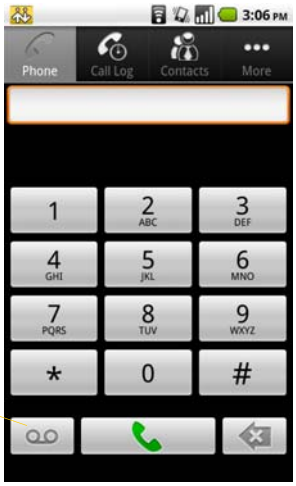
Tap to accept or decline the call

3.5 Accessing Voicemail

If your VoIP service provider provides a voicemail service, then incoming calls go to voicemail if:

- Bria is not running.
- You are currently on a native call.
- You already have two Bria calls established.

The voicemail indicator



Tap the voicemail icon; the voicemail number appears in the entry field. Place the call in the regular way.

(If no number appears, you have not set it up in settings; see page 18.)

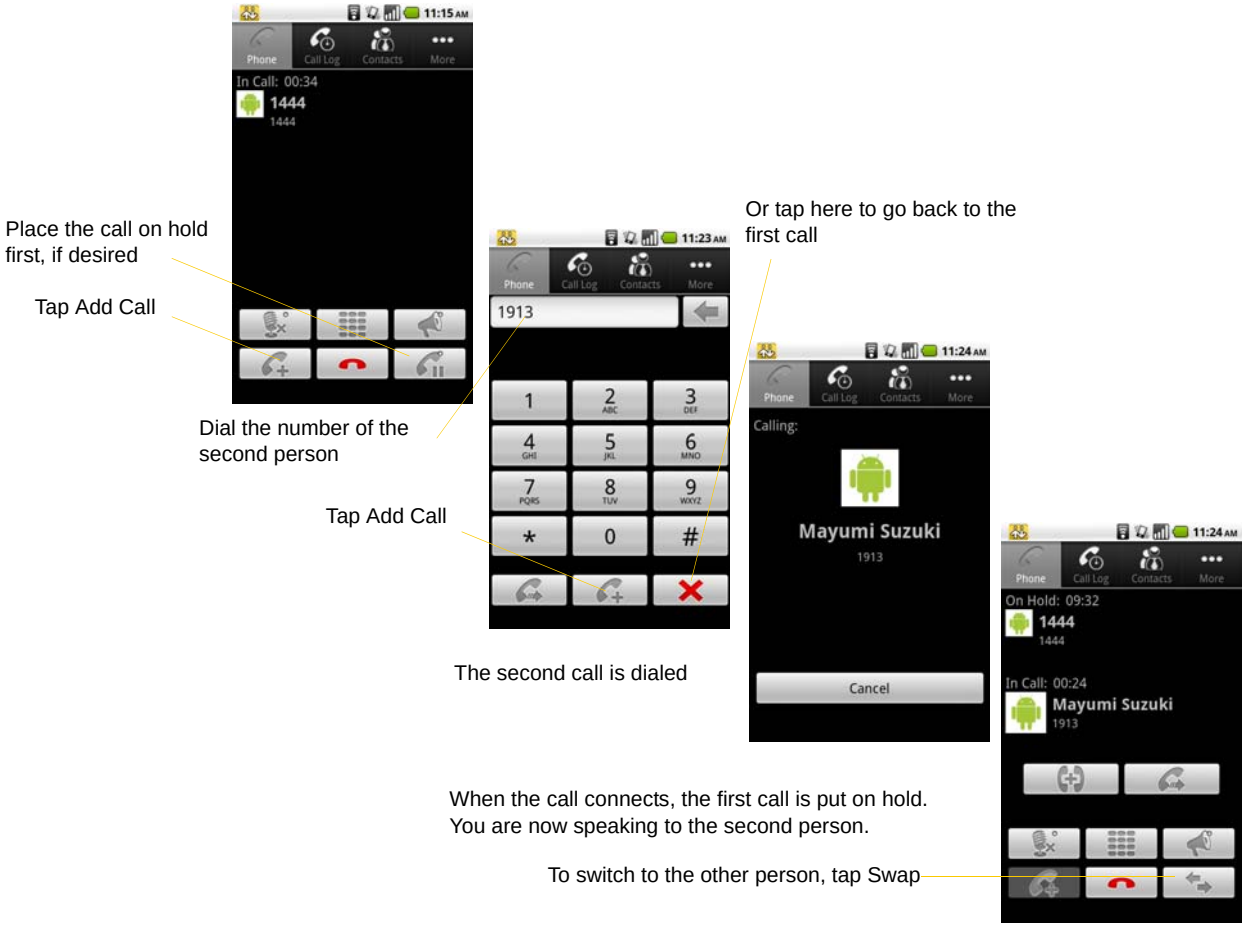
Clearing the Voicemail Indicator

After you have checked your voicemail, you can clear the voicemail indicator to stop the notification. (If you clear the indicator while you still have unchecked messages, the indicator will appear again!)

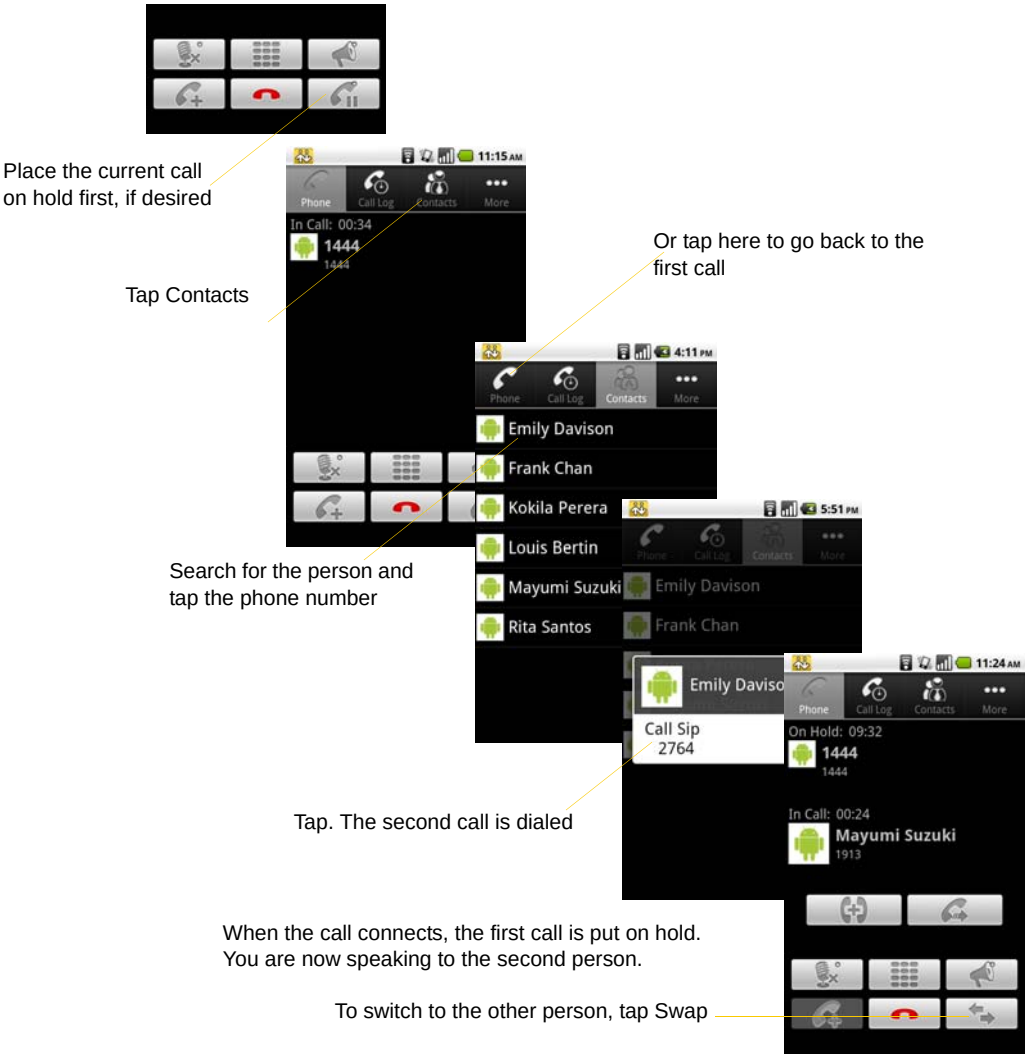
3.6 Placing a Second Bria Call

When you are already on one Bria call, you can place a second Bria call. But you cannot place a native call.

Using the Dialpad



From the Contact List



3.7 Handling Established Calls

Handling Two Bria Calls

To switch to the other person, tap Swap

Handling a Bria Call and a Native Call

If you accept an incoming native call, any live Bria call goes on hold.

Use the Android navigation bar to switch between calls

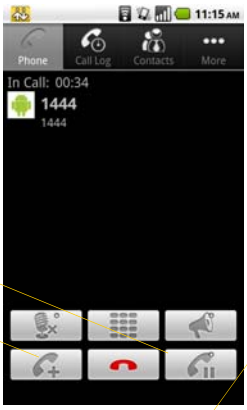
You will not be able to take the Bria call off hold until you end the native call.

You cannot start another Bria call until you end the native call.

3.8 Unattended (Basic) Transfer

You can transfer the current Bria call to a second person without first talking to the second person.

Using the Dialpad



Place the call on hold, if desired

Tap Add Call

Dial the number of the person to transfer to

Tap Transfer

A call is placed to the transferee

This message appears when the transferee answers

Or if the transferee declines the incoming call, the first call is returned to you

3.9 Attended Transfer

You can speak to the second person first then transfer the first person to them.

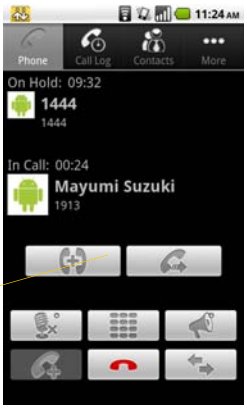
Establish two calls (page 9)

Tap Transfer

3.10 Conference Call

When you have two Bria calls established, you can merge the calls into a three-way conference call.

Establish two calls (page 9)



Tap Merge

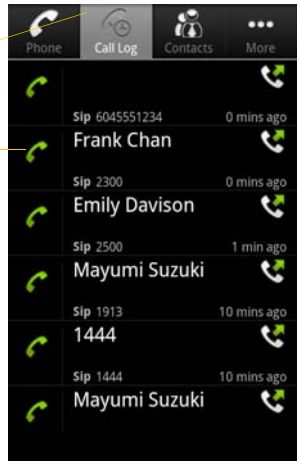
The two calls are merged into a conference between you and the two other people

Tapping End Call ends the conference and hangs up on both calls

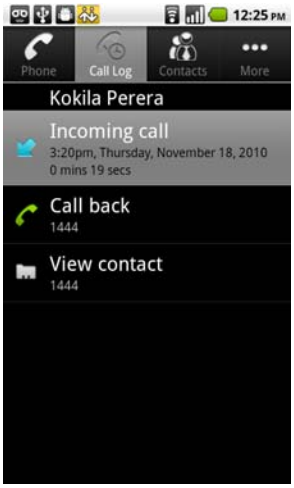
3.11 Call Log

Tap the Call Log icon at the top of the screen

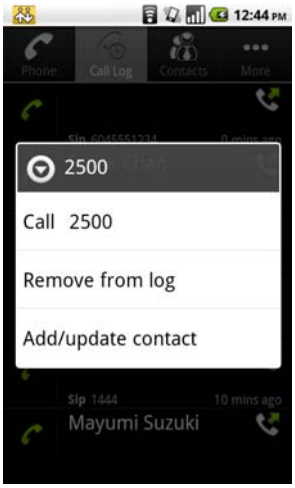
Tap to phone this person



Tapping quickly displays this menu

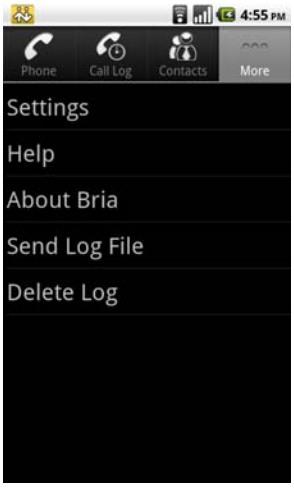


Holding on a name displays this menu

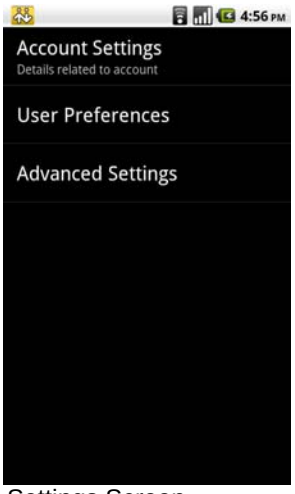


4 Settings

Tap More at the top of the screen.



More screen

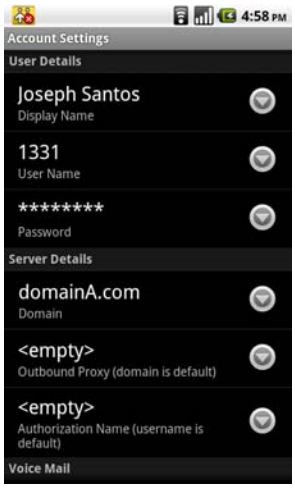


Settings Screen

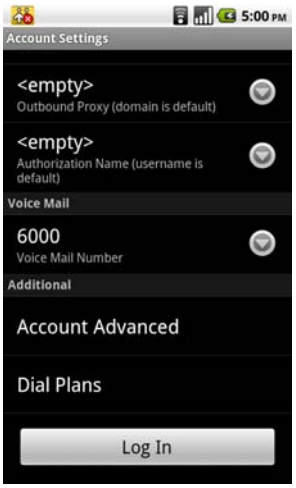
- Settings: See the following pages.
- Premium Features: See page 25.
- Send Log File: Tap to upload the current log to CounterPath. See page 22 for information on turning on logging.
- Delete Log: Tap to delete the log file, for example, if you want to start a new log rather than append to the current log file.

4.1 Account Settings

All the information for the fields on this screen must be supplied by your VoIP service provider.



Top Half of the Screen



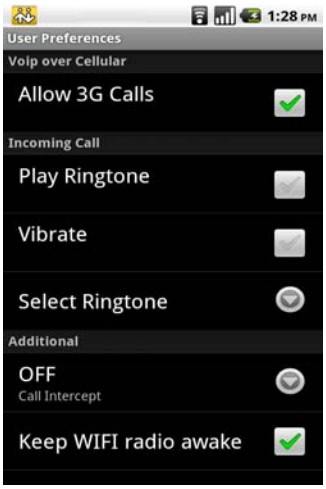
Bottom Half of the Screen

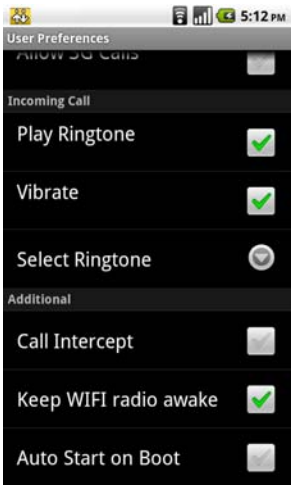
Field	Description
Display Name	Your name. Other people may see this as the caller ID (or they may see just your phone number).
User Name	Typically the account number (phone number) for the account. Provided by your VoIP service provider. For example, if your account is 6045551212@myVoipProvider.com, the username is “6045551212”
Password	Provided by your VoIP service provider.
Domain	Provided by your VoIP service provider. For example, if your account is 6045551212@myVoipProvider.com, the domain is “myVoipProvider.com”
Outbound Proxy	If your VoIP service provider has an outbound proxy and requires that you provide that address to Bria, enter the domain name or the IP address obtained from your provider.
Authorization Name	May not be required. But if it is required, it will be provided by your VoIP service provider.
Voice Mail Number	The number to dial to connect to voicemail and check messages. Provided by your VoIP service provider. If there is a number in this field, tapping the VM icon on the phone will connect to voicemail, page 8.
Account Advanced	See below.
Dial Plans	See page 27.

Account Advanced

Field	Description
Global IP	• On (checked): Bria will publish its public IP address at the signaling level. The public address may not work with some NATs or firewalls. • Off: Bria will publish its private IPs at the signaling level. Typically, you turn this field off only if instructed to do so by your VoIP service provider or system administrator.
Single Register	Applies only if Global IP is on. • On (checked): Bria will register using a single register request. • OFF (default): Bria will register using an unregister and a register. Only turn on if advised by your VoIP service provider.
SIP Transport	Tap to display the choices. Contact your VoIP service provider to identify the types of transport that are supported. • UDP and TCP do not support signal encryption. • TLS does support signal encryption. You may need to install a certificate on your Android phone; speak to your VoIP service provider.
Encrypt Audio	You can encrypt a phone call at the media (audio) level: • Never: Audio is not encrypted. • If Possible: On a given call, audio will be encrypted if the other person supports and is also using audio encryption. If not, audio will not be encrypted. • Always: Audio will always be encrypted. The call will fail if the other person cannot accept encrypted calls.
SIP Registration Refresh – Interval in Seconds	The timer interval between Bria's attempts to register in order to refresh the account registration. Range 30-900. This value is placed in the "Expires" header field of the SIP REGISTER message. Change this value only if advised to do so by your VoIP service provider.

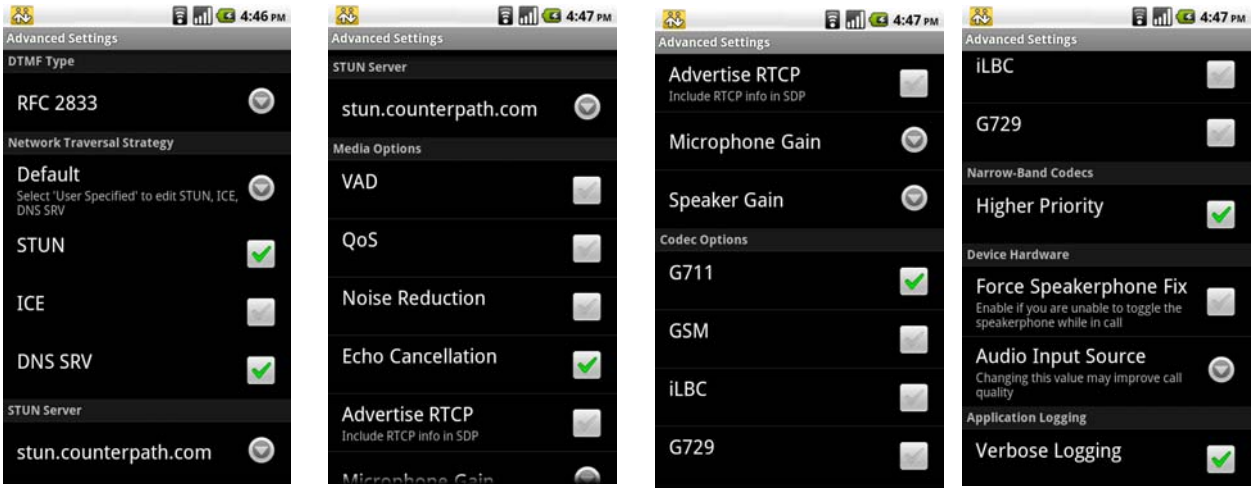
4.2 User Preferences





Field	Description
Allow 3G Calls	• On (checked): When a Wi-Fi connection is not available, Bria will attempt to place calls using the cellular data channel. Data charges with your mobile carrier will apply. • Off: When a Wi-Fi connection is not available, you will not be able to place or receive calls.
Play Ringtone	On to hear the ringtone.
Vibrate	On to vibrate when you receive a call.
Select Ringtone	Set to the desired ringtone.
Call Intercept	• On: When you make a call using the native Android phone, the call will be intercepted by Bria and placed using Bria. • Off: Calls made from the native phone are placed using the native phone. Calls made from the Bria screens are placed using Bria. • Prompt: Each time you make a call using the native Android phone, you will be asked whether you want to place the call via Bria or the native phone.
Keep WIFI radio awake	Controls whether the WiFi radio stays on when the screen goes dark (phone gets auto locked). • On (checked): The Wi-Fi radio stays on, so that when the screen goes dark (1) you stay logged on via Wi-Fi (as long as you are in your Wi-Fi network) and (2) incoming calls will use Wi-Fi instead of cellular data. Radio On uses more battery power. Perhaps choose On if you have a limited data plan. • Off: The Wi-Fi radio is turned off, so that when the screen goes dark (1) Bria will re-log in via the cellular data channel and (2) incoming calls will use the cellular data channel. (Unless 3G is not enabled on your phone and/or in Bria, in which case Bria logs out and you will not receive calls as long as the phone is dark.) Radio Off uses less battery power. Perhaps choose Off if you have an unlimited data plan.
Auto Start on Boot	On to automatically start and log into Bria when you start your Android device. Even if Bria was logged out when you powered off the phone, Bria will start and log in when the phone starts.

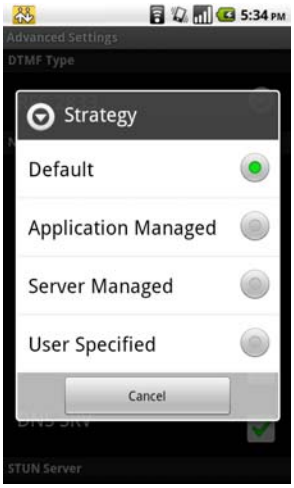
4.3 Advanced Settings



Field	Description
DTMF Type	The method used for DTMF, sent when you press a number key when dealing with an auto attendant (such as “press 1 for customer service”). Enter the value specified by your VoIP service provider: DTMF 2833 or SIP Info. With both these methods, inband DTMF is always sent as a fallback. If DTMF tones are not being recognized, trying the other method may resolve the issue. If DTMF is still not working, contact your VoIP service provider for information about DTMF and IVR.
Network Traversal Strategy	Tap to display the choices; see page 22.
STUN server	See “Network Traversal Strategy”, below.
Media Options - VAD	• On (default): audio is not transmitted when no one is speaking. Turning this feature on may reduce bandwidth usage. • Off: audio is transmitted when no one is speaking.
Media Options - QoS	If desired, ask your VoIP service provider if QoS is supported. QoS (Quality of Service) can allow your phone calls to be given a higher priority on the network. Turning QoS on has no effect if your provider does not support it.
Noise Reduction	When on, Bria attempts to reduce background noise. Typically on when you are not using a headset, typically off when you are using a headset.
Echo Cancellation	Try turning on this setting if you or the person you are talking to is hearing an echo. If the other person still hears an echo, turn this setting back to Off.
Advertise RTCP	If you get a 400 Bad Request error when placing a call, turn off this setting and enable ICE (via the Network Traversal Strategy setting; see next page).
Microphone Gain	Changing this setting may improve audio quality if your voice is loud and distorted for the person you are talking. There are five options; the default is Normal (100%).
Speaker Gain	Changing this setting may improve audio quality if your voice is loud and distorted for the person you are talking. There are five options; the default is Normal (100%).
Codec Options	See page 24.
Narrow-Band Codecs	See page 24.
Force Speakerphone Fix	If the speakerphone is always turned on in Bria, turn on this setting and see if that forces the speakerphone to turn off. If the speakerphone is still on, turn this setting off again.

Field	Description
Audio Input Source	This setting controls how the device processes the audio input from Bria. If the person you are talking to is receiving poor audio, try changing the audio source: • Default: Bria automatically selects the audio device. On a Motorola device, Bria selects Microphone. On other devices, Bria selects Voice Call Input. • Microphone • Voice Call Input.
Verbose Logging	Leave this setting off unless customer support instructs you to turn it on in order to troubleshoot a problem you are having on your computer. See page 26.

Network Traversal Strategy



Speak to your VoIP service provider about the strategy to use. Or leave the default and just change the STUN Server field.

Select a profile to set a specific combination of STUN, ICE, and DNS SRV:

- Default Configuration: STUN On, ICE Off, DNS SRV On.

  Bria will use the specified STUN server to discover the public address of your device. It will present that public address for SIP signaling and when negotiating media routing.

- Application Managed: STUN On, ICE On, DNS SRV On.

  Bria will use the specified STUN server to discover the public address of your device. It will present your public address for SIP signaling and both your public and private addresses when negotiating media routing.

- Server Managed: STUN Off, ICE Off, DNS SRV On.
  Bria will present your device's private address for SIP signaling and when negotiating media routing. Choose this option if your VoIP service provider advises you that it has implemented a network-hosted NAT traversal (or far-end NAT traversal) technology such as a session border controller (SBC), media proxy or RTP relay.
- User Specified: Set the settings as desired.

Field	Description
STUN	• On (checked): Bria will use a STUN server to discover your public IP address. • Off: Bria does not discover your public IP address. Therefore, only the private IP address will be used. Typically in this case, Global IP should be turned off.
ICE	ICE is involved only in media routing (it is not involved in SIP signaling). • On (checked): Bria will use ICE to discover addresses for media packets. ICE provides a good guarantee of two-way audio. However, to use ICE successfully, both endpoints in a call must use ICE and specifically must use draft 19 of the ICE standard. • Off: Try turning ICE off if you are not using Bria behind a firewall or NAT.
DNS SRV	• On (checked): Bria will use DNS SRV to discover the network addresses for your VoIP service provider's VoIP-related services such as a STUN server, if any. • Off: Bria will not use DNS SRV for discovery. Only turn this setting off if your system administrator advises you to do so.

Field	Description
STUN Server	Used only if STUN is on. The default is stun.counterpath.com but we recommend that you change this to an address provided by your VoIP service provider. CounterPath cannot guarantee the availability of their STUN server.

Audio Codecs Selection

Codecs are programs in Bria involved in transmitting audio; each codec has different characteristics and therefore each works better in some situations than in others.

Novice and Non-technical Users

We recommend you enable all codecs and let Bria select the best codec to use in a given situation.

Technically Savvy Users

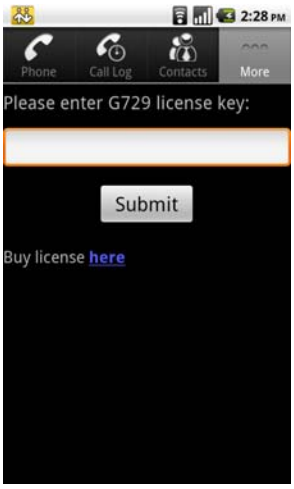
You may choose to enable one, some or all codecs. If only one codec is enabled, all calls will be made with that codec. If more than one is enabled, Bria negotiates the codec to use (from among the enabled codecs) with the other person. If no codecs are enabled, Bria uses G.711.

Data usage for the codecs, from high to low usage, is: G.711, GSM, iLBC, G.729.

When G.711 is used, data usage will be higher and audio quality will generally be better. When the lower bandwidth codecs are used, data usage may be lower but audio quality may be affected. The optional G.729 codec will provide you the best performance (audio quality and bandwidth usage/cost) when using cellular (3G) for phone calls.

If you turn on the Higher Priority field, then when a narrowband codec is available, it will be given a higher priority in the media negotiation with the other person, which may result in that codec being used. If you leave this field off, a narrowband codec will not be given a higher priority in the negotiation.

4.4 Premium Features



G.729 Audio Codec

G.729 is a narrowband codec that is intended for low bandwidth use. It is particularly recommended if you will be making calls over 3G because it provides better audio quality on your cellular data connection.

To purchase this codec:

1. Tap the link to go to the “Mobile - G.729 Upgrade” page on the CounterPath website. Follow the prompts to purchase the license.
2. Once you have purchased the codec license, the license key for the codec will be sent to you by e-mail. Go to More > Premium Features. Enter the license key and tap Submit. The G.729 codec will then be enabled (in Advanced Settings).

A Troubleshooting

More Information

- You can view Frequently Asked Questions at https://support.counterpath.com/default.asp?W546.
- You can visit the Bria *Android Edition* forum at forums.counterpath.com > Bria Android Edition.

Using Bria Diagnostics

When you have a problem with Bria, customer support may ask you to turn on diagnostics in order to capture information.

1. Go to More > Settings > Advanced Settings and turn on Verbose Logging.
2. Reproduce the problem.
3. When done, go to More and tap Send Log File. Once the file has been sent, you will see a Sending Log Success notification; this notification includes a reference number.
4. Send an email to support@counterpath.com with the details of your issue, the reference number, and the domain and username you are using.

If sending the file fails, check your Wi-Fi and/or cellular data connectivity.

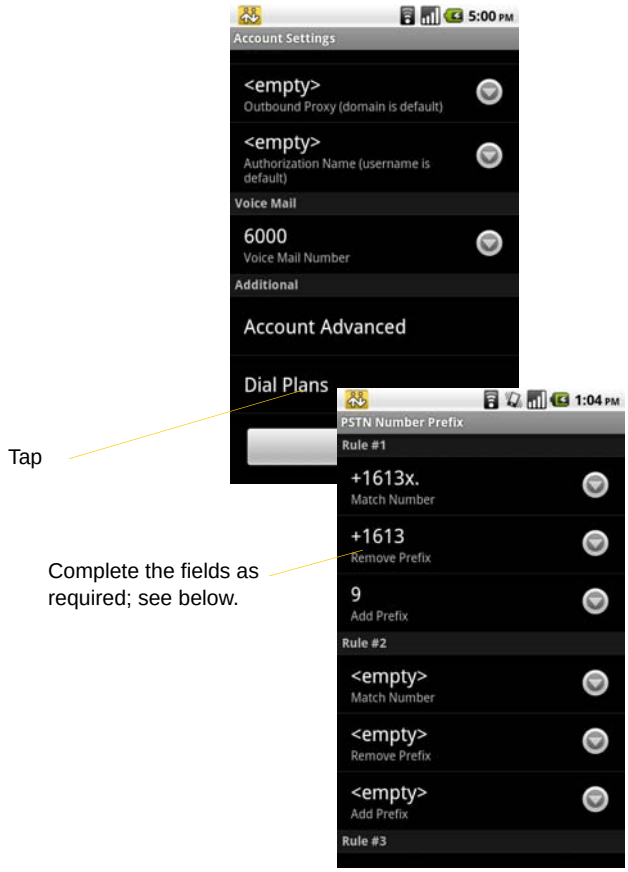
B Dial Plans

You can create a dial plan in order to modify a phone number used in a phone call (the “input”), in order to ensure the call is placed successfully. For example, you could create dial plan to change any number that starts with “+1613” to just “613”.

Setting up Dial Plans

You can create up to three dial plans. Bria goes through the dial plans in the order in which they appear on the screen.

Go to Settings > Accounts > tap the account. Scroll down.



Designing the Dial Plan

A dial plan has two parts:

- A pattern (the match number) that the phone number (the input) must match.
- The modification to make if the input matches that pattern: removing a prefix, adding a prefix, or removing one prefix and adding another one.

Example 1

```
Match number: +1613x.          Remove Prefix: +1613        Add Prefix: 9
```

If the input starts with “+1613”, then remove the “+1613” then add “9” and dial the number. So +16135550012 is dialed as 95550012.

Example 2

```
Match number: [2-9]xxxxxxxxx    Add Prefix: 1
```

If the input is a 10-digit number starting with a number other than 1, then add “1” and dial the number. So 6045550012 is dialed as 16045550012.

The Pattern

The pattern can be made up of any combination of the following:

Element	Description
0 to 9	Any digit
x	A single wildcard
* # +	These keyboard symbols
[ ]	A collection that can include a range. For example [6-9] means 6 7 8 9. Or [136-9] means 1 3 6 7 8 9.
.	Repeat the last element 0 or more times. For example, with the pattern “12.” the following input will match: 1 (The “2” is repeated zero times) 12 122 1222 and so on

The Modification

The modification can be made up of digits, wildcards or symbols.

C Glossary

Bria call	A call made using the Bria screen. Compare to “native call”.
DTMF	Dual-tone multi frequency. DTMF is the system that is used in interactive voice-response menu systems such as the menu system for accessing voicemail messages. The DTMF system allows the user to interact with the menu by pressing keys on a dial pad or keyboard.
ICE	Interactive Connectivity Establishment. A method for traversing a firewall.
IP address	A unique number that identifies a computer. Computers on a network use the IP address communicate with each other.
IVR	Interactive Voice Response. IVRs use DTMF.
Media	The audio portion of a call. Compare to “Signaling”.
Native call	A call made using the phone service that comes with the Android phone.
Native phone service	The cellular phone service that comes with the Android phone.
Signaling	The information in a call that deals with establishing and controlling the connection, and managing the network. The non-signaling portion of the call is the Media.
SIP	Session Initiation Protocol. The signaling protocol followed by Bria Professional for handling phone calls.
SIP account	An account that provides the user the ability to make VoIP phone calls. The account encapsulates the rules and functions the user can access.
STUN	Simple Traversal of UDP through a firewall or NAT.
WiFi call	A call made over the WiFi internet. To make a WiFi call, you must be in a WiFi zone.
3G call	A call made over the 3G cellular network. If you start (or receive) a call with an Android phone when you are not in a WiFi zone, the call will be a 3G call.