



silent circle

Silent Phone Handbook



Enterprise Privacy Platform

DEVICES

BLACKPHONE

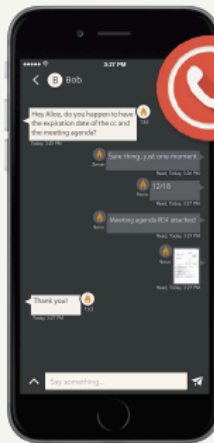
Blackphone is the world's first smartphone built from the ground up to be private by design. Now bigger, faster, safer.

POWERED BY SILENT OS

Silent OS is our Android-based operating system, enhanced to address mobile privacy concerns facing enterprises today. Free of bloatware, hooks to carriers, and leaky data, Silent OS puts privacy in your hands without the usual compromises. Spaces enable work and personal lives to coexist on a single phone.



SOFTWARE



SILENT PHONE

Secure calls, texts, and file transfer are now possible with any iOS or Android device. With Silent Phone Plus, encrypted voice to video chat, conference calling, and voice memo capability ensure your business keeps moving with the utmost efficiency.

SILENT WORLD

Extend the reach of private communication, even when you're calling someone who doesn't have Silent Phone. Silent World calls have enhanced security over conventional calls since the leg of the call from your device is encrypted, keeping you safe from local eavesdropping threats.

SERVICES

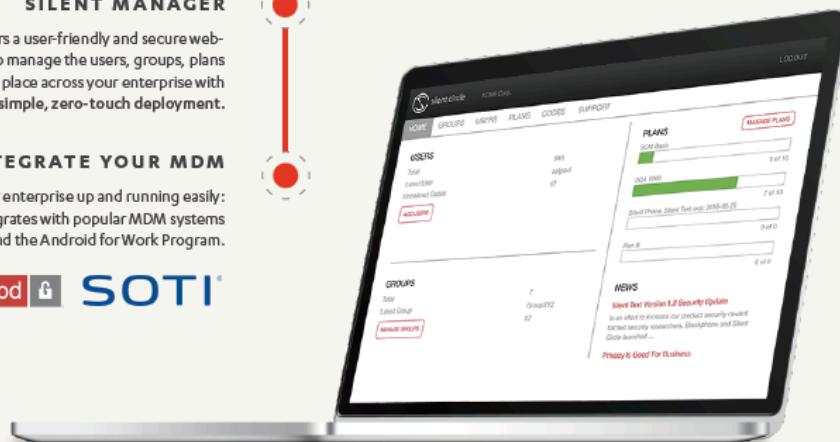
SILENT MANAGER

Silent Circle offers a user-friendly and secure web-based service to manage the users, groups, plans and devices in place across your enterprise with simple, zero-touch deployment.

INTEGRATE YOUR MDM

Get your enterprise up and running easily: Blackphone integrates with popular MDM systems and the Android for Work Program.

CITRIX **Good** **SOTI**



Silent Phone



Silent Phone provides secure encrypted calling, video, text messaging and file exchange which is consolidated into one app to streamline the customer experience. It is available to iOS and Android devices making it easy to deploy to everyone in your enterprise with no additional IT infrastructure. Silent Phone uses Silent Circle's cloud-based private calling network and works over any TCP/IP network connection using a Wi-Fi or cellular/mobile connection.



UNLIMITED PEER TO PEER CALLING

Unlimited talk, text, video and conference calls between Silent Phone members



SECURE MESSAGING & FILE TRANSFERS

Completely secure messaging
Send and receive large files up to 100MB per message



AVAILABLE ON IOS AND ANDROID:

Silent Phone is device agnostic and is available on iOS, Android, and Silent OS



EASY DEPLOYMENT & MANAGEMENT

Simple deployment with no hardware, maintenance, or training required
Manage from the web, active directory, or existing MDM

Silent Phone - Android

Silent Phone Settings

The settings include the following:

Account Info

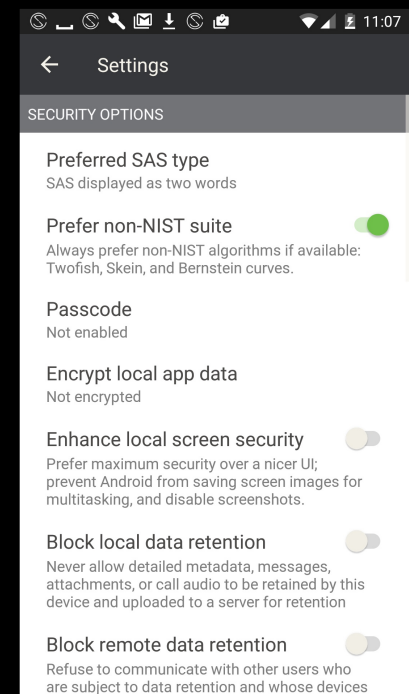
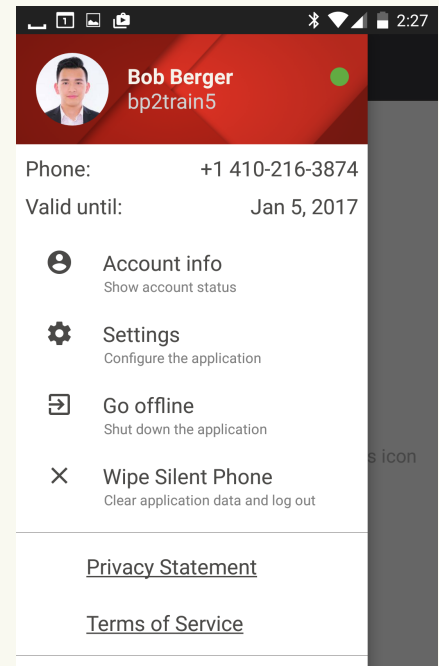
- Displays the amount of minutes remaining on your plan.

Settings

Security Options

- Preferred SAS type: By default, the short authentication string is displayed as two words. The SAS can also be displayed as 4 characters.
- Prefer Non-NIST suite: By default calls use the non-NIST suite for silent phone and chat. Selecting NIST uses the AES cipher for encrypting data. Selecting Non NIST replaces AES with Twofish, Skein, or Bernstein ciphers.
- Passcode: Set a passcode to lock silent text from prying eyes. Optional settings to wipe Silent Phone data after 10 failed attempts.
- Encrypt local app data: Create an extra level of security by encrypting the local database for Silent Phone with a passcode or PIN.
- Enhance local screen security: Prefers maximum security over nicer UI, prevents Android from saving screen images and disables screenshots.
- Block local data retention: Do not allow your device to retain data for storage purposes. On by default for non-enterprise users.
- Block remote data retention: This setting allows you to block communications with anyone who is subject to data retention policies.
- Device management: Displays a list of provisioned devices and allows members to remove old devices.

Call Options



- Ringtone: choose from different ringtones to play when receiving a SP call. This allows members to differentiate a Silent Phone call from a native dialer call
- Dial assist: Allows members to automatically format numbers with a specified country code
- Dropout tone: Indicates slow network by playing a low tone
- Enable Firewall Traversal: On by default as a failover mechanism when your internet provider or wifi router is blocking UDP ports. Uses TCP 443 instead of UDP to connect to the media relay.

Messaging Options

- Play sound for new message
- Notification tone
- Notification light
- Vibrate pattern
- Warn when exporting: Warn when exporting message attachments

Other Options

- Start Silent Phone on boot: Start Silent Phone during the device's startup.
- Show all errors: Minor software errors that don't affect your experience are hidden by default.
- Enable debug mode: Stores certain details on device that can help when reporting issues.
- Application theme: Choose from a light or dark application theme.

Silent Phone Build

- Shows version of app being run

Go Offline

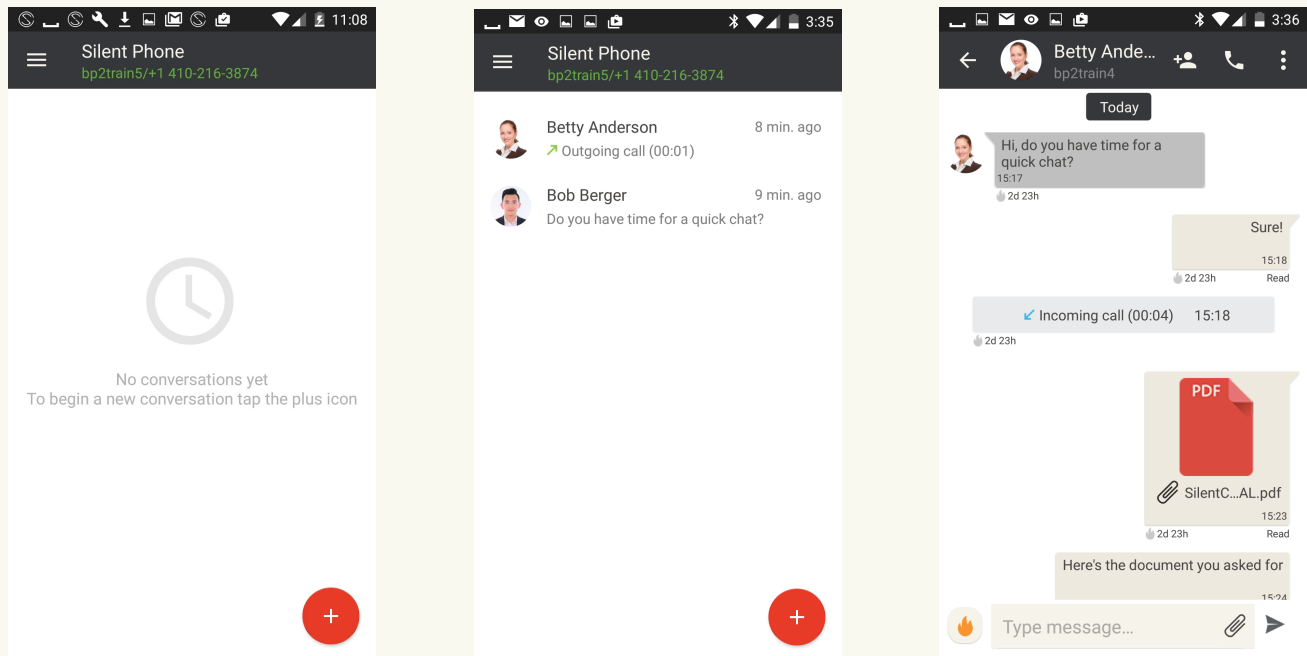
- Shuts down the Silent Phone application and disconnects from Silent Circle Servers

Wipe Silent Phone

- Clears application data and logs member out of application

Conversation View

Conversation view allows members to view all messages and calls from one member to another in a single view.



Starting an Encrypted Conversation

To start an encrypted conversation, tap on the “+” icon at the bottom of the screen. Enter the person’s username or phone number and select call or write.

Sending a Message

To send an encrypted message, tap on the “write to” option. Then type your message in the message box and send by tapping the arrow.

Message Settings

Chat settings can be accessed by tapping the three dots in the top right corner of the chat screen.

- **Share location:** Share location with chat partner. To use this option, enable location under device settings
- **Clear conversation:** Clear all messages within a conversation
- **Status of devices:** shows status of your partner’s device

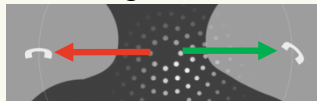
Message Features

- **Attachments:** Attachments can be sent by tapping the paperclip (or plus icon in iOS) icon in the message box. Members can take photos and video, send files and photos, record audio, and share contacts.
- **Burn:** By tapping the fire icon next to the message box, members can set a *scheduled burn* time from 1 minute to 90 days. After this time, the messages disappear. To complete an *immediate burn*, touch and hold the message to be burned and tap the fire icon at the top of the screen. This will remove the message from both the sender and receiver's device.

Making a Call

There are two options for making a call. From the home screen, enter the username or number you wish to call and press the call option. Alternatively, a call can be placed by tapping the phone icon at the top of the screen within an existing conversation.

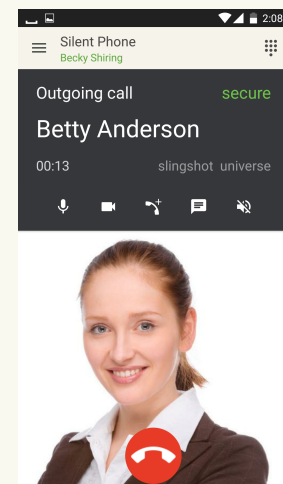
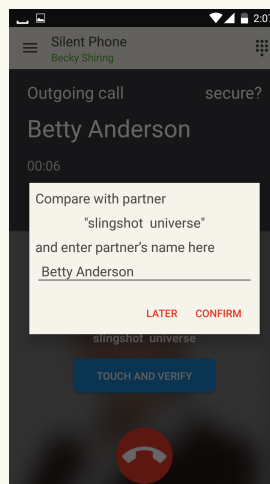
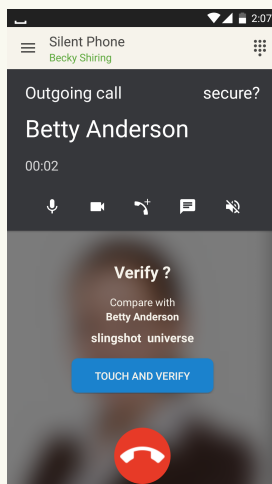
Answering a Call



To answer an incoming call, swipe the phone icon at the bottom of the screen to the right. To ignore the call, swipe the phone icon to the left. To hang up at the end of the call, press the red phone icon at the bottom of the screen.

Securing a Call

Once you call someone you will see the app locating the end user you have dialed. Once located, the key exchange will be performed. You will then be prompted with the short authentication string, also known as the SAS and “touch and verify”. Clicking on touch and verify brings up the dialogue box with the SAS and the recipient's name. To verify the short authentication string, you should compare the words that you see on your screen with the call recipient. If you both see the same words it means, there is no man in the middle attack. Click on confirm once you have confirmed the words are the same on both sides. The call is always encrypted even if you have not validated the SAS but it provides an extra layer of assurance.



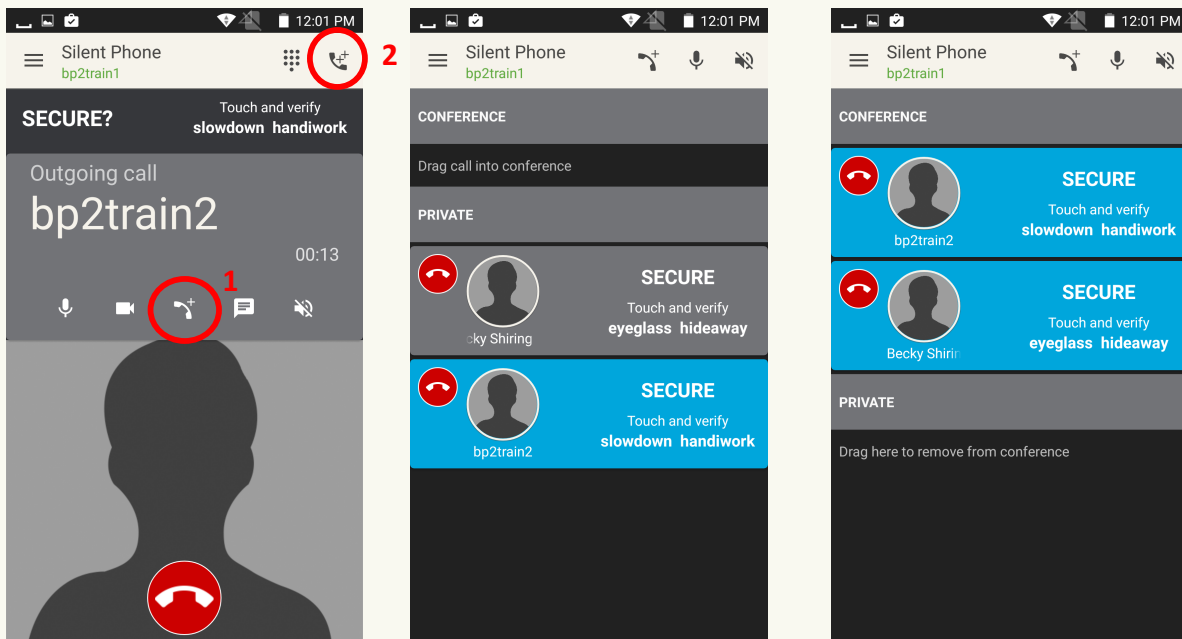
Call Controls

Call controls include mute, video, call manager, text messaging and speaker phone. To initiate a video call, during an active call tap on the video camera icon from the menu and a video call request will appear on the phone of the recipient. Once the user accepts the request, the call is connected.

Conference Calling

You can setup a conference call between multiple users by following these steps:

1. Call one of the contacts you wish to have a conference call with. While the first call is on-going, tap “Add Call” and dial the username of the other person(s) you wish to add to your conference call.
2. Using the “Call Manager” button, access your active calls. Initially all calls will be private calls meaning you can speak to one person at a time. Drag the conference call icon to transfer calls into the Conference space.
3. Once calls are in the Conference space all participants can hear each other. You can pull individual calls in and out of the conference by long press and draggin them to the conference or private space. Calls not in the conference will be automatically placed on hold until you tap on the call. You can end a call by tapping on the red phone icon.



Managing Conversations

The conversations log shows a list of both incoming and outgoing calls and messages. To view details of a specific conversation, press on a name to view messages and calls between you and that person. To delete a specific message, call instance or entire conversation, press and hold the item you wish to delete and select the burn icon at the top of the screen.

Silent World

To place a call to a non-subscriber you need to enable Silent World on your account. If you have Silent World, simply long press the 0 key to insert a '+' symbol then dial the country code followed by the phone number. Note that not all countries are supported and the complete list is here <https://www.silentcircle.com/coverage/> To make this easier, Silent Phone includes a dialing assistant for accounts with Silent World that will automatically add a country code of your choice in front of the number you are trying to reach. Dial Assist can be found in Silent Phone Settings.

Silent Phone - iOS

The Tool Bar



Contacts

Contacts

Dial Pad

Profile

Conversation View

Conversation view allows members to view all messages and calls from one member to another in a single view.

Starting an Encrypted Conversation

To start an encrypted conversation, tap on the red “+” icon at the bottom of the screen. Enter the person’s username or phone number and tap the user’s name to start a message. Then type your message in the message box and send by tapping the arrow to the right.

Message Features

Attachments: Attachments can be sent by tapping the paperclip icon in the message box. Members can take photos and video, send files and photos, record audio, and share contacts.

Burn: By tapping the fire icon next to the message box, members can set a *scheduled burn* time from 1 hour to 90 days. After this time, the messages disappear. To complete an *immediate burn*, tap the message to be burned and tap the fire icon next to the message. This will remove the message from both the sender and receiver’s device.

Message Details

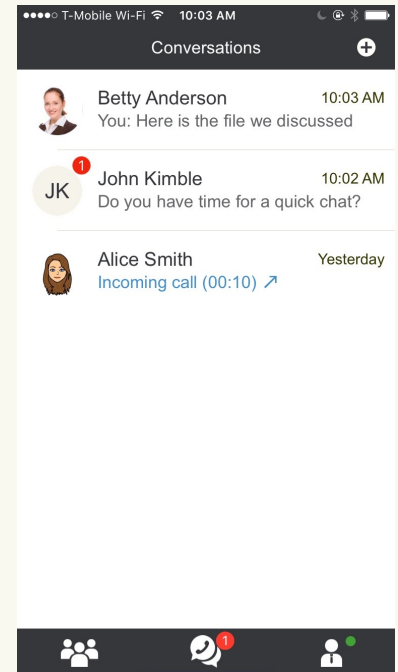
To obtain specific message details, long press the message and tap info. By long pressing on a message you can also copy, forward, or resend a message.

Sending Encrypted Files

Silent Phone allows you to send files fully encrypted through the app. To send an encrypted document, open the document from the file viewer, select open in and Silent Phone. The document viewer that you use must support the “open in” feature.

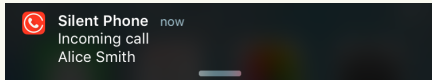
Making a Call

A call can be made one of three ways. If you would like to start a conversation with a member that is currently in your conversations log, simply swipe right on the member’s username and select the dial icon. Alternatively, you can call a member from an open message screen by pressing the phone icon in the top right corner. To start a new call, from the conversations screen, press the “+” and enter the username or number you wish to call.



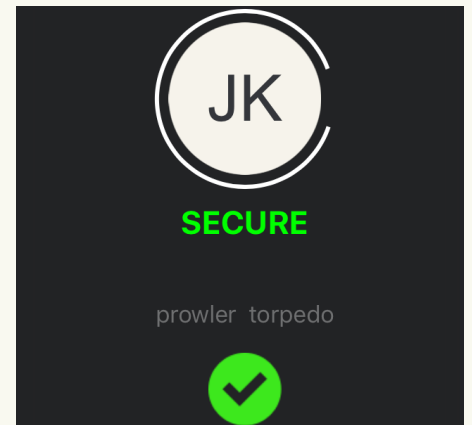
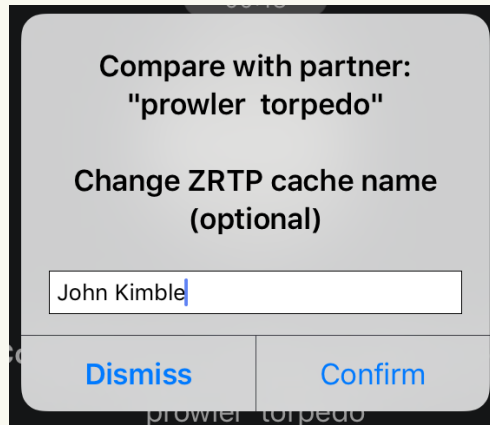
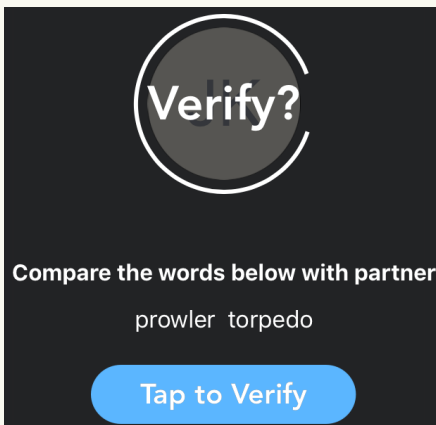
Answering a Call

To answer a call, press the notification bar at the top of the screen and then select the green button to answer the call or the red button to decline the call.



Securing a Call

Once you call someone you will see the app locating the end user you have dialed. Once located, the key exchange will be performed. You will then be prompted with the short authentication string, also known as the SAS. Clicking on tap to verify brings up the dialogue box with the SAS and the recipients name. To verify the short authentication string, you should compare the words that you see on your screen with the call recipient. If you both see the same words it means there is no man in the middle attack. Click on confirm once you have confirmed the words are the same on both sides. The call is always encrypted even if you have not validated the SAS but it provides an extra layer of assurance.



Call Controls

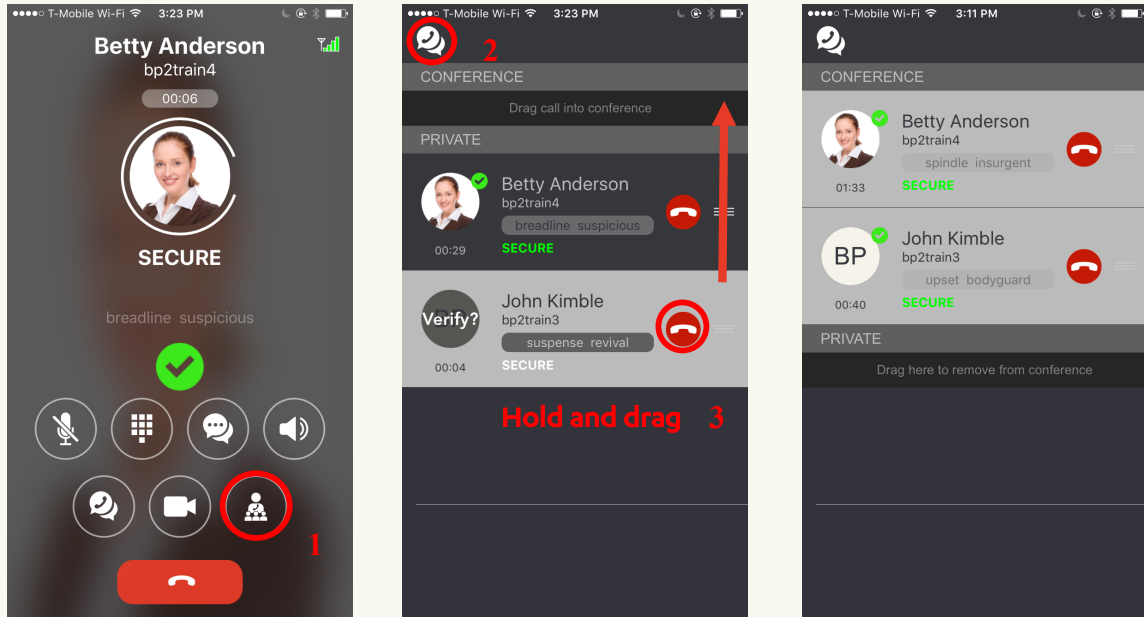
Call controls include mute, keypad, text messaging, speaker phone, add call, video and conference manager.

Conference Calling

You can setup a conference call between multiple users by following these steps:

1. Call one of the contacts you wish to have a conference call with. While the first call is ongoing, tap "Add Call" and dial the username of the other person(s) you wish to add to your conference call.
2. Using the "Call Manager" button, access your active calls. Initially all calls will be private calls meaning you can speak to one person at a time. Drag the conference call icon to transfer calls into the Conference space.

- Once calls are in the Conference space all participants can hear each other. You can pull individual calls out of the conference by tapping on the individual call icon. The other calls will be automatically placed on hold. You can end a call by tapping on the red phone icon.



Managing Conversations

To delete a specific conversation in the conversations log, swipe the conversation to the left and press the trash can icon. To delete specific messages or calls, tap on the message and press the burn icon.

CallKit Features

Silent Phone iOS integrates with CallKit. CallKit allows third party VoIP applications access to phone app so that incoming calls appear on the locked screen as would a native call. This is on by default but can be turned off by toggling off the "Native Call Screen Support" option in User Interface Settings. CallKit supports the following features:

- Answer incoming calls from the native call screen when it's locked
- Silent Phone calls appear in call history. Tap on the phone icon in iOS and see incoming, declined and answered calls in the history
- Call out using Silent Phone with phone app call history by tapping on any entry in the call log and Silent Phone launches automatically
- Launch Silent Phone by tapping on Silent phone button from phone app screen when a call is answered via the lock screen. A Silent Phone button is visible so the application can be launched right from the call screen to use the full features of Silent Phone
- Launch conversation in SP from native contacts by searching for a contact in iOS contacts.

If they have a Silent Phone entry, the application can be launched by pressing that entry

- Launch Silent Phone video call from phone app call screen
- Add a Silent Phone call to an ongoing Silent Phone call from native call screen
- Decline incoming call on phone app by tapping decline on the lock screen
- Set reminders for declined calls by tapping remind me later
- Block callers by going to the Silent Phone call log, edit a contact, and set to Block this Caller
- Place phone in do not disturb mode and block incoming Silent Phone calls

Silent World

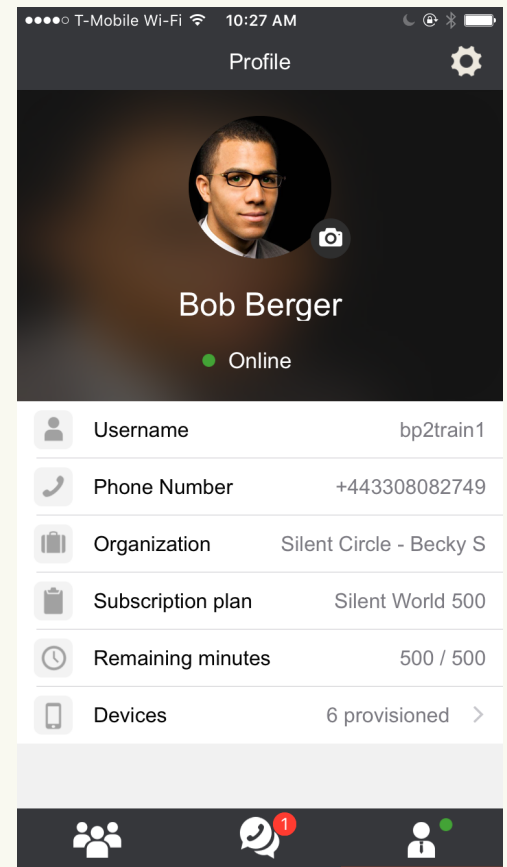
To place a call to a non-subscriber you need to enable Silent World on your account. If you have Silent World, simply long press the 0 key to insert a '+' symbol then dial the country code followed by the phone number. Note that not all countries are supported and the complete list is here <https://www.silentcircle.com/coverage/> To make this easier, Silent Phone includes a dialing assistant for accounts with Silent World that will automatically add a country code of your choice in front of the number you are trying to reach. Dial Assist can be found in Silent Phone Settings.

Profile

Profile displays a member's username, name, organization, subscription plan and minutes. In this section, members are able to upload or take a profile picture to be associated with their account. Silent Phone settings can be accessed from the profile screen. Your profile also contains an online indicator. This indicator has three states Red – not connected to Internet or Silent Circle. Blue – in between state where we are making the connections/handshakes to the servers, and green – connection to internet and SC servers if you are unsure of your connection to Silent Circle Servers, look for the green indicator dot on the profile screen or the profile icon in the lower right.

Silent Phone Settings

Settings can be accessed by clicking the settings icon in the top right corner of the profile page. Settings include the following:



Security

- **Prefer Non-NIST suite:** By default calls use the non-NIST suite for silent phone and chat. Selecting NIST uses the AES cipher for encrypting data. Selecting Non NIST replaces AES with Twofish, Skein, or Bernstein ciphers.
- **SAS word list:** By default the short authentication string is displayed as two words. The SAS can also be displayed as 4 characters.
- **Block local data retention:** Do not allow your device to retain data for storage purposes. On by default for non-enterprise users.
- **Block remote data retention:** This setting allows you to block communications with anyone who is subject to data retention policies.
- **Wipe Silent Phone:** Clears application data and logs member out of applicaiton

Passcode

- **Passcode:** Set a passcode to lock silent text from prying eyes. Optional settings to wipe Silent Phone data after 10 failed attempts.

User Interface

- **Desktop phone mode:** disables sleep while connected to external power and app is running in foreground
- **Enable Dialing Helper:** Allows members to automatically format numbers with a specified country code
- **Dialing preference:** Select the preferred country code to be used with phone numbers
- **Audio underflow tone:** Indicates slow network by playing a low tone
- **Show RX LED:** Traffic indicator light for incoming media packets
- **Show all errors:** Turning this on allows you to see all minor software errors. Used for troubleshooting purposes only.
- **Native Call Screen support:** Toggle CallKit features on or off.

Notifications

- **Background notifications:** determines whether to display message notifications when App is locked
- **Display style:** display style of background notification—notification only, sender only, or message and sender
- **Enable Native Ringtone:** Use the same ringtones as your native incoming calls.

Other Settings

- **Firewall traversal:** On by default as a failover mechanism when your internet provider or wifi router is blocking UDP ports. Uses TCP 443 instead of UDP to connect to the media relay.
- **About:** Shows app version, Terms of Service and Privacy Statement

Contacts

Members can view local iOS Contacts through Silent Phone as a convenience feature. Silent Phone allows you to add and edit contacts, but does not save or upload iPhone contacts to our servers. They are rendered in the User Interface to allow members to easily view and connect with contacts.

Adding Contacts

To add a new contact from a conversation, type the username in the conversation entry field and swipe right to expose the Add Contact icon. You can edit the contact before saving. To manually add contacts from the native contact app, simply enter `silentphone:'username'` in the URL field. Click done when finished. Silent Phone also recognizes e-mail addresses that are associated with Silent Circle users.

Adding Favorites

Open the Silent Phone app, navigate to the contact list, find the contact and open the contact by tapping on the person's name. Tap the star icon on the right. This contact will now appear as a favorite at the top of your contacts list.

Deleting Contacts

To remove a person from your favorites list, simply swipe left and tap on the star. To remove a person from your contact list, you must do so through your phone's native contact list.