ORBOT

Tor on Android: providing free software and an open network that helps defend against network traffic analysis - a form of surveillance that threatens personal freedom and privacy

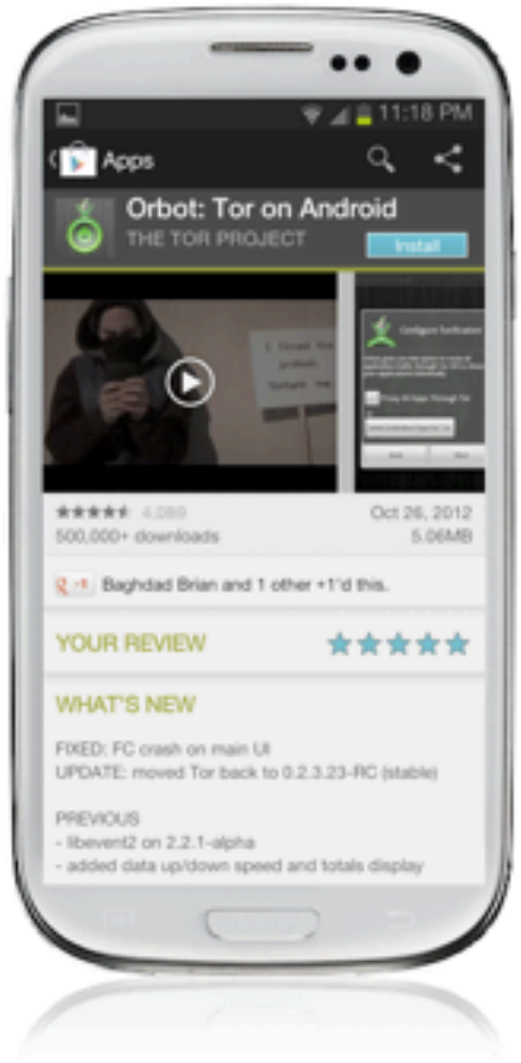
- With root access, proxy all application traffic through Tor
- Firefox on Android integration through ProxyMob Add-on
- Works on 2.5G, 3G and Wifi nets
- Supports running servers on hidden services for advanced applications
- Enables devices to be a Tor hotspot

So you want to bypass censorship on Android?

1. Open the Google Play Store. Easy. Next?
It's blocked. Help!

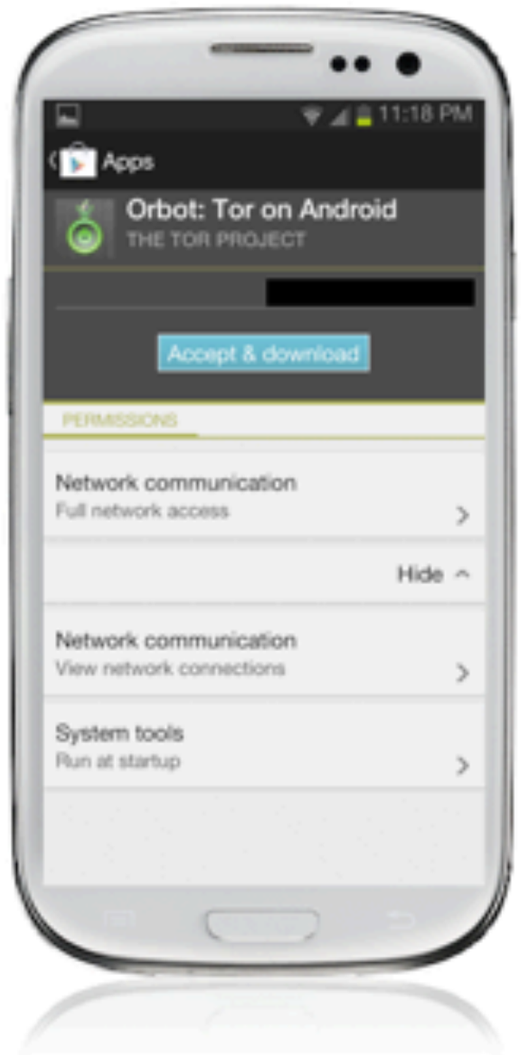
So you want to bypass censorship on Android?

2. Search for *Orbot*. Got it.



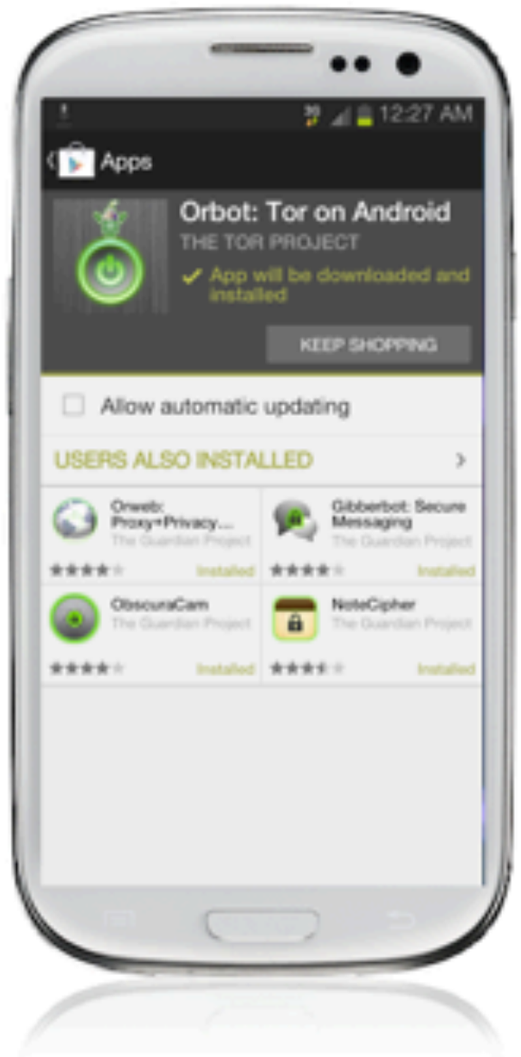
So you want to bypass censorship on Android?

3. Review the permissions. Then, maybe, accept them. OK, I trust you.



So you want to bypass censorship on Android?

4. Get our sister app, Orweb for anonymous web browsing. Hey look, it's suggested!



So you want to bypass censorship on Android?

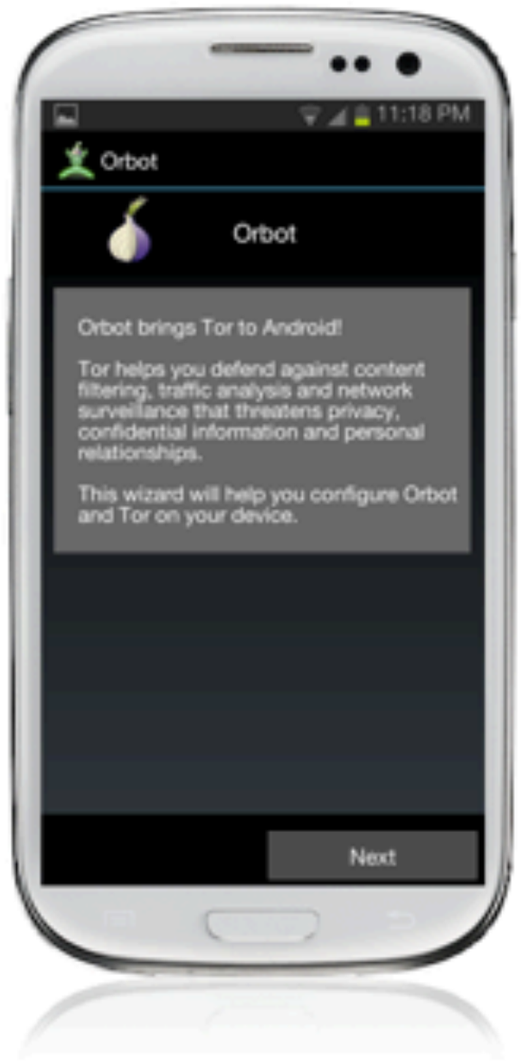
5. Open *Orbot*. Done.

So you want to bypass censorship on Android?

6. Choose your language and get started. Let's go with English.

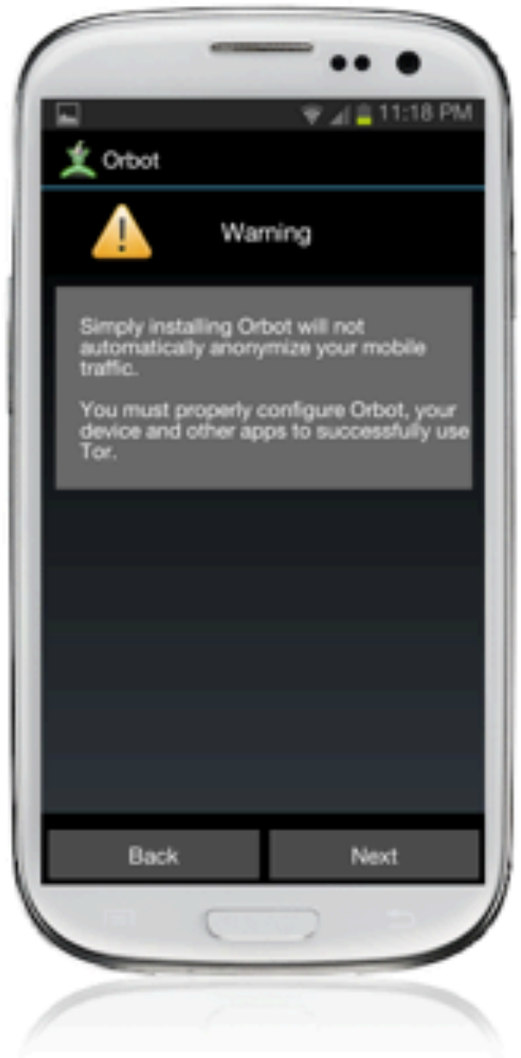
So you want to bypass censorship on Android?

We'll tell you about our project and onion routing.



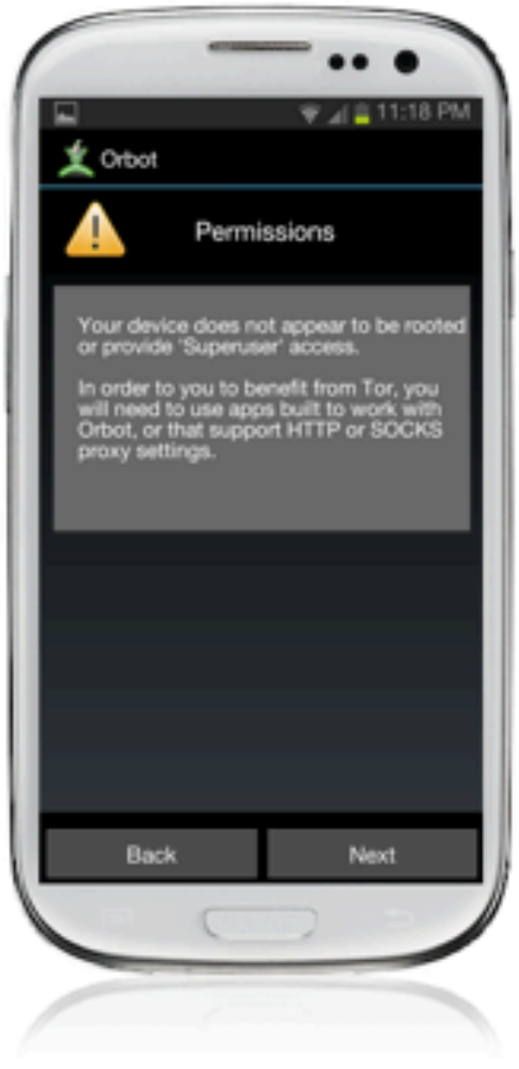
So you want to bypass censorship on Android?

Is it really secure? We break it down.



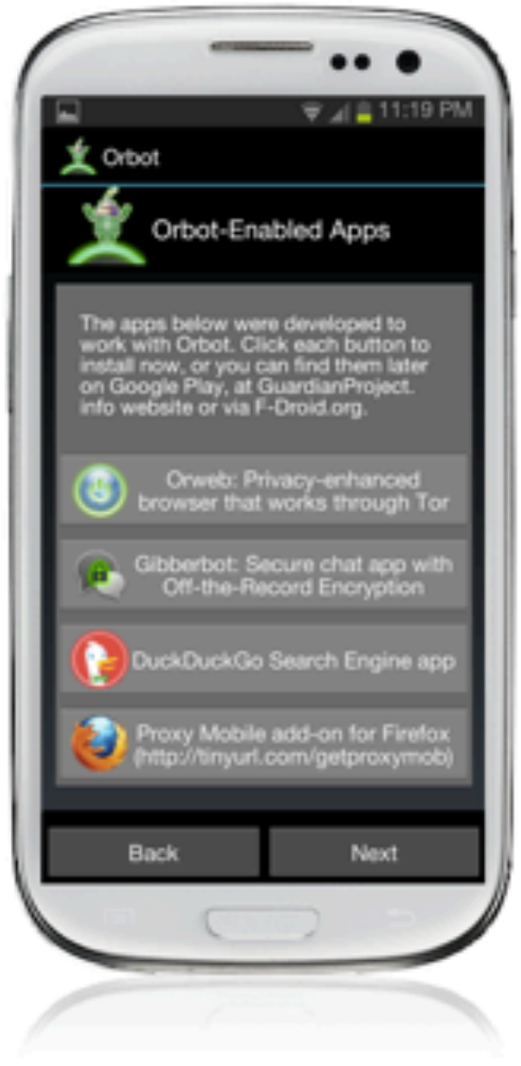
So you want to bypass censorship on Android?

If your phone is jailbroken/rooted then you choose to route all traffic over *Tor*.



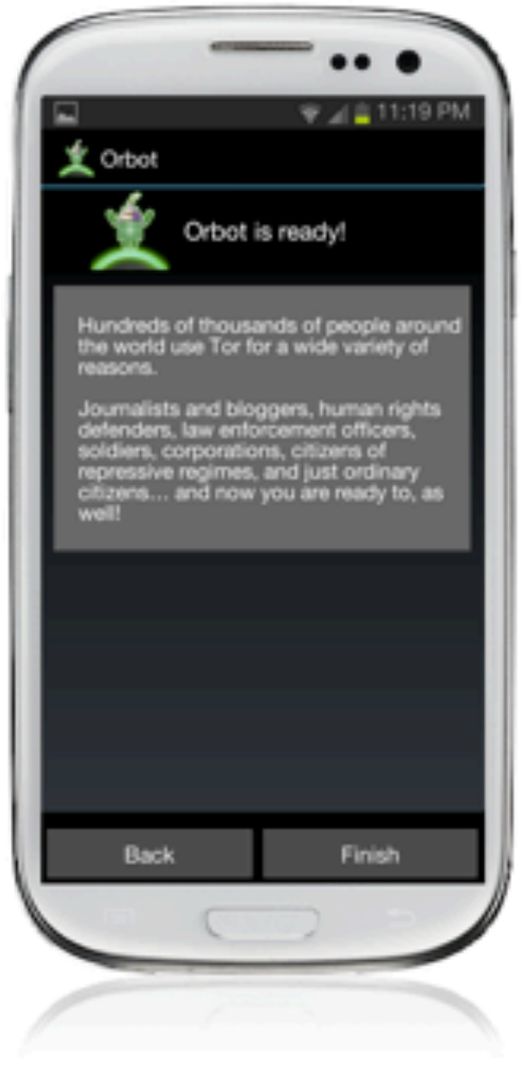
So you want to bypass censorship on Android?

Otherwise you can use these apps over Tor using the proxy feature.



So you want to bypass censorship on Android?

Security is a two way street. Make sure your friends are secure too.



So you want to bypass censorship on Android?

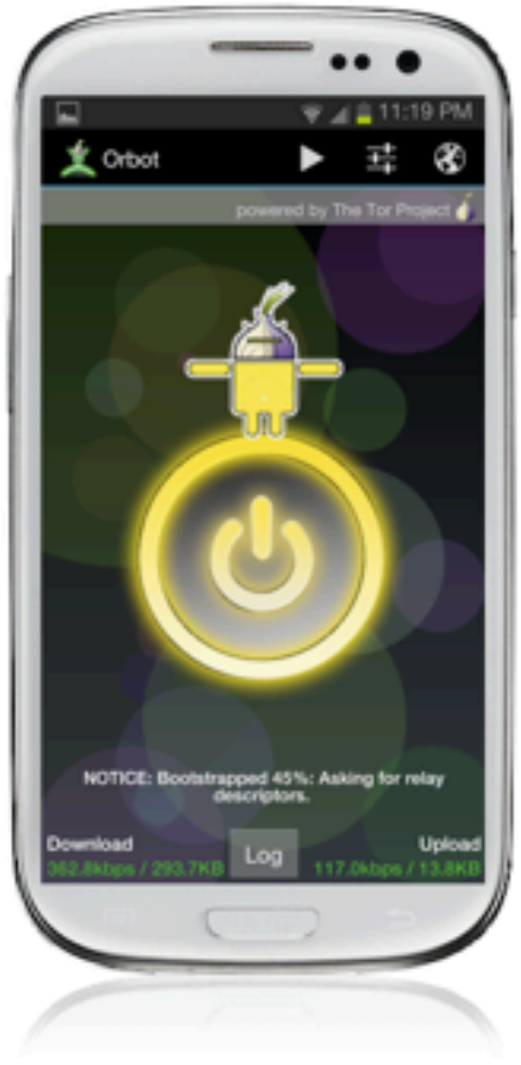
8. Now we long press the button to getting started. Pressing!

So you want to bypass censorship on Android?

Orbot starts grey

So you want to bypass censorship on Android?

Orbot turns yellow as it's starting



So you want to bypass censorship on Android?

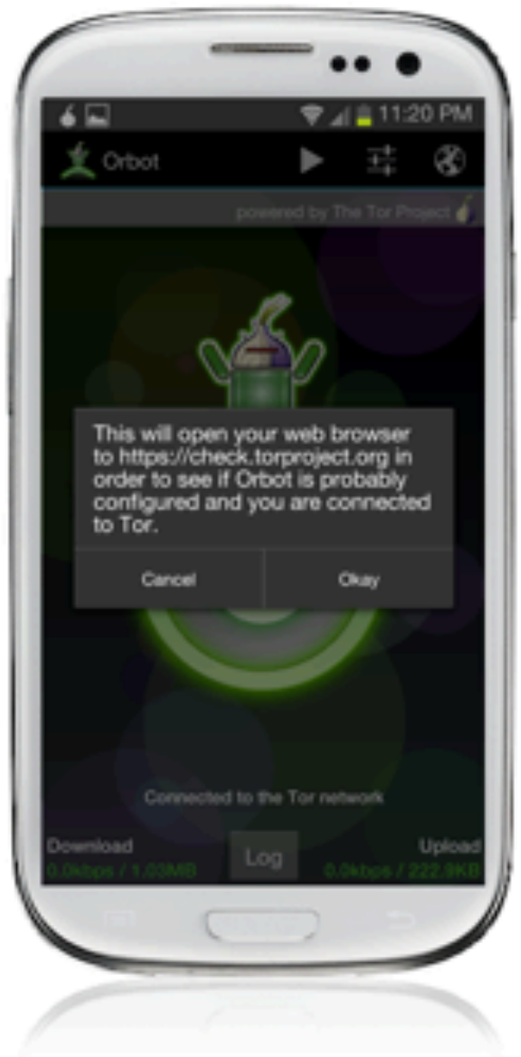
Orbot turns green when it's connected to Tor.

So you want to bypass censorship on Android?

9. Let's confirm we can now bypass the censors. Ok, how?

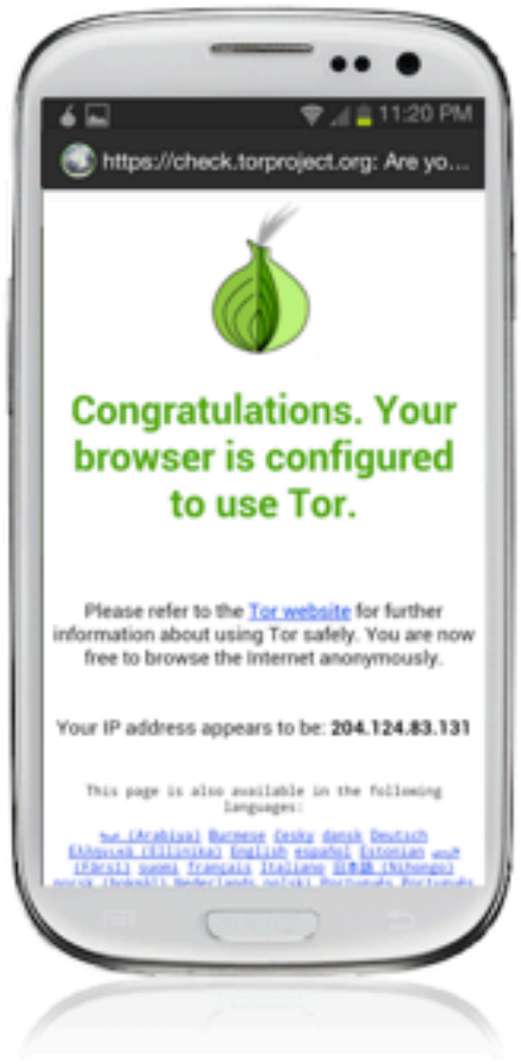
So you want to bypass censorship on Android?

10. Press the globe icon to pull up our web browser Orweb. Opening the app!



So you want to bypass censorship on Android?

11. It pulls up *check.torproject.org* to confirm we're surfing anonymously.
I see *congrats.* / I don't see *congrats.*

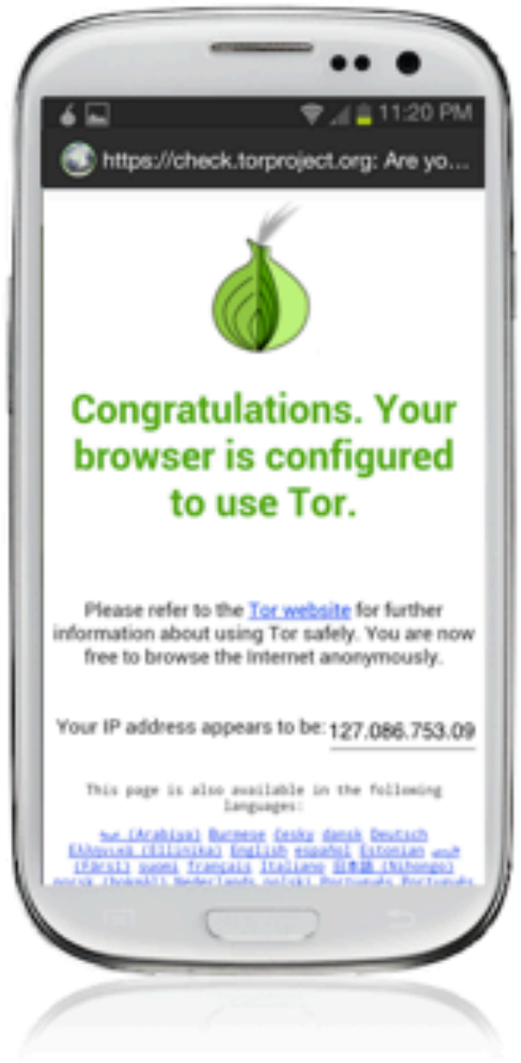


So you want to bypass censorship on Android?

Your configuration is wrong. Restart Orbot and try again.

So you want to bypass censorship on Android?

You're awesome! Play it again? · For more info, visit our site:
The Guardian Project



So you want to bypass censorship on Android?

5. Open *Orbot*. Done.

So you want to bypass censorship on Android?

There's an alternative store. Install F-droid by entering *https://f-droid.org/FDroid.apk* into the browser. Done. Next?

So you want to bypass censorship on Android?

Run the app and navigate over to Menu > Manage Repos > New Repository

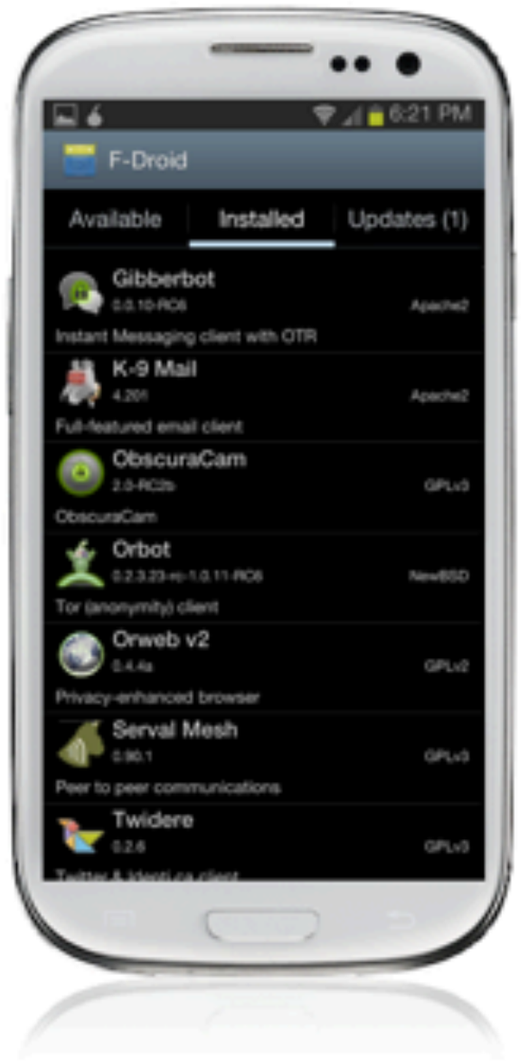
Cool. What do I enter?

So you want to bypass censorship on Android?

Enter: https://guardianproject.info/repo/ (don't forget the s!)
Done. Where are the apps?

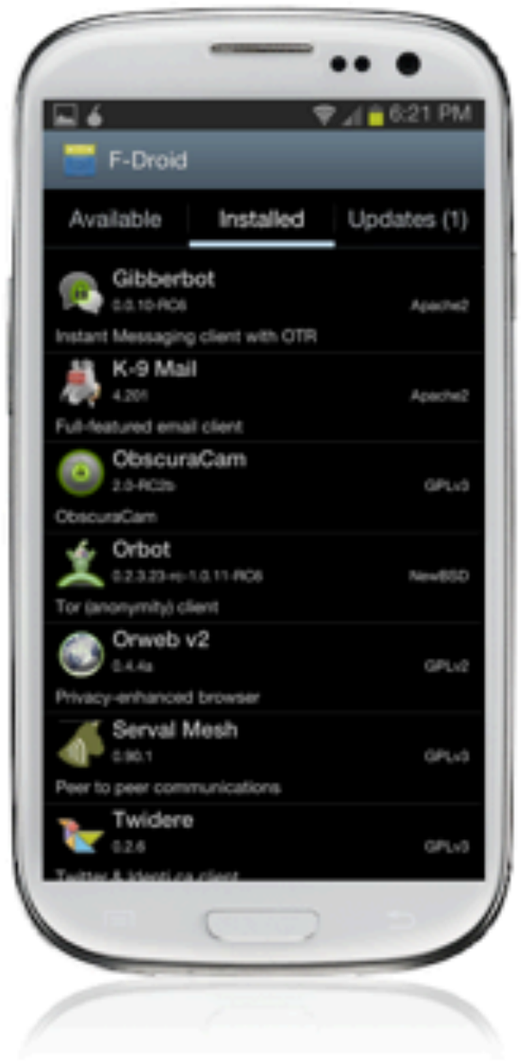
So you want to bypass censorship on Android?

Go back to the main screen and you should see the Guardian Project apps.
Click on *Orbot* to install. Got it.



So you want to bypass censorship on Android?

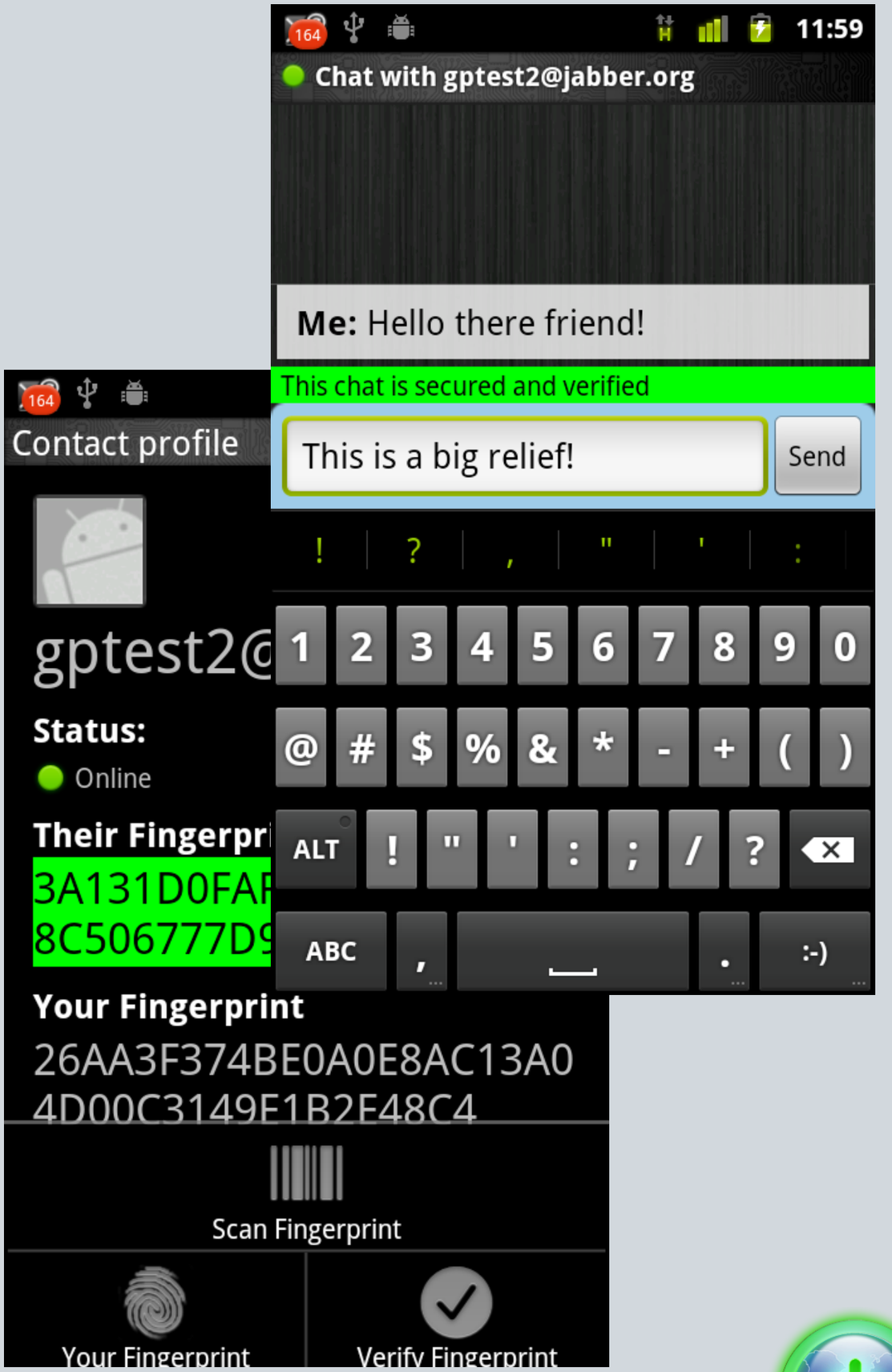
Then click on *Orweb* to install it's partner web browser.
Got it.



GIBBERBOT

A secure, no-logging instant messaging app for Android, supporting open standard chat and encryption protocols

- Uses industry standard chat encryption scheme (OTR), compatible with Pidgin, Adium, Jitsi and other desktop IM apps
- XMPP protocols enables use with GTalk, Facebook, as well as any self-hosted, secured server
- Can work with Orbot (over Tor) to circumvent firewalls and monitors

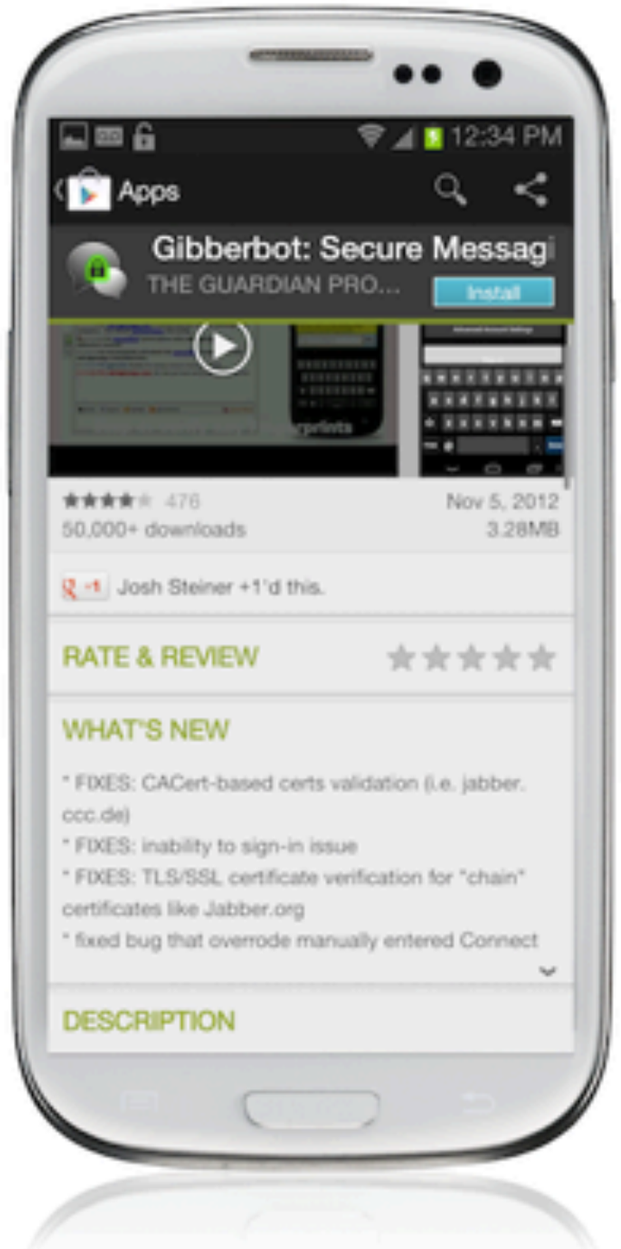


So you want to chat securely on Android?

1. Open the Google Play Store. Easy. Next?
It's blocked. Help!

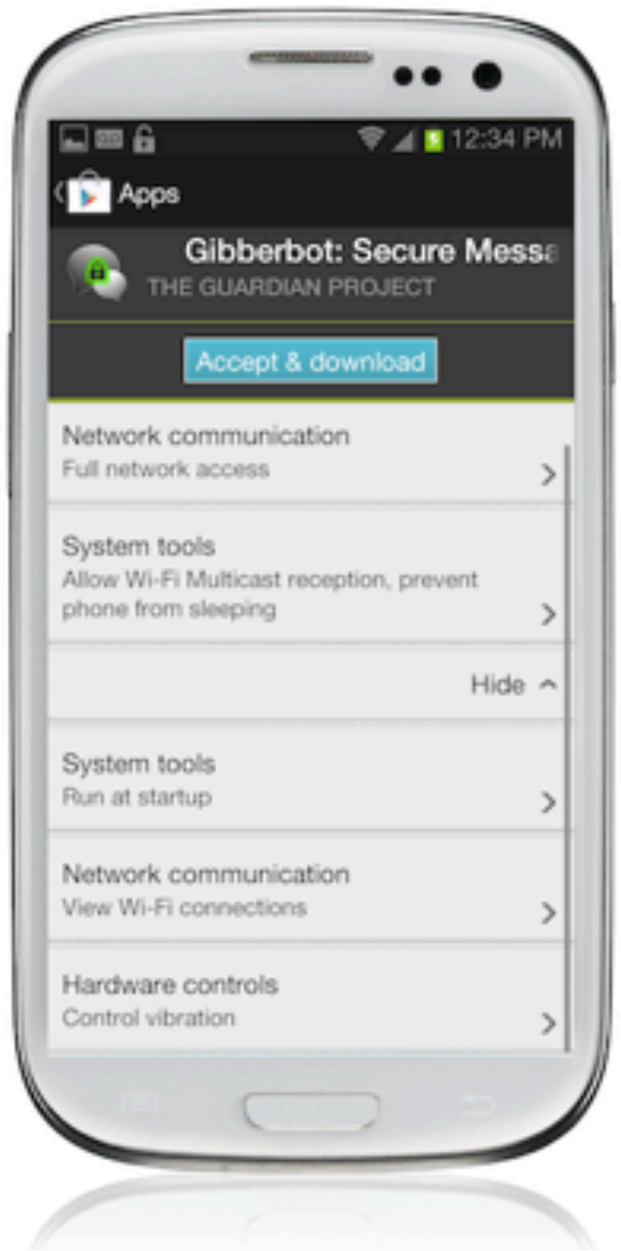
So you want to chat securely on Android?

2. Search for *Gibberbot*. Got it.



So you want to chat securely on Android?

3. Review the permissions. Then, maybe, accept them. OK, I trust you.



So you want to chat securely on Android?

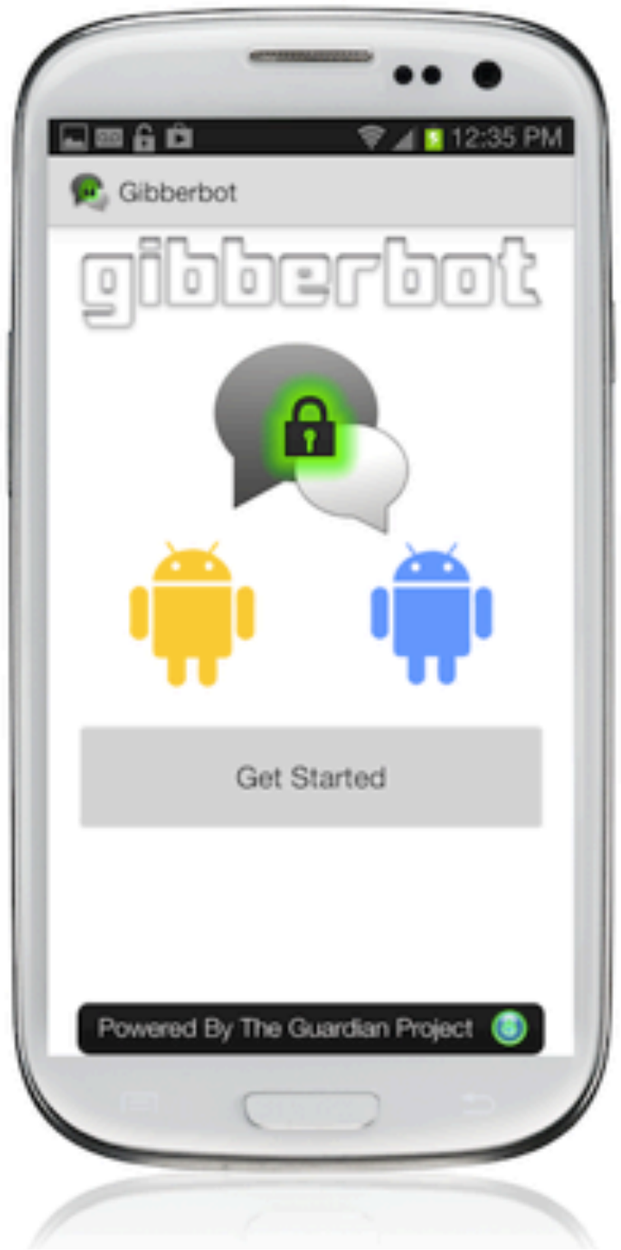
4. Open *Gibberbot*. Done.

So you want to chat securely on Android?

5. Choose your language and get started. Let's go with English.

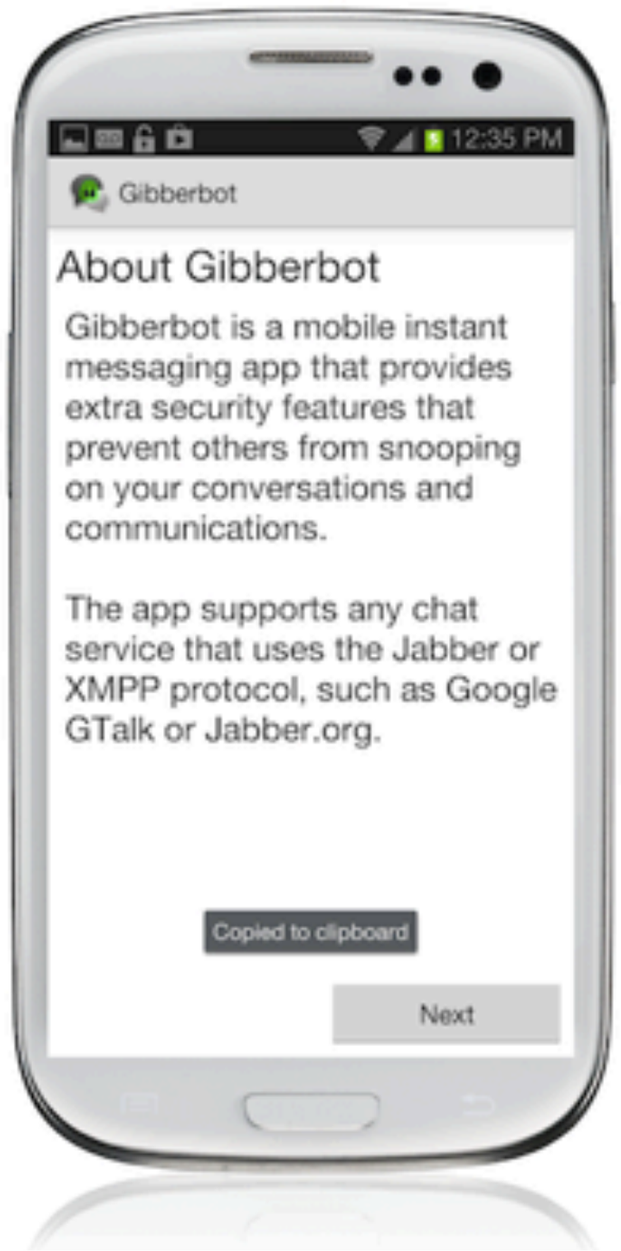
So you want to chat securely on Android?

Now we're getting started.



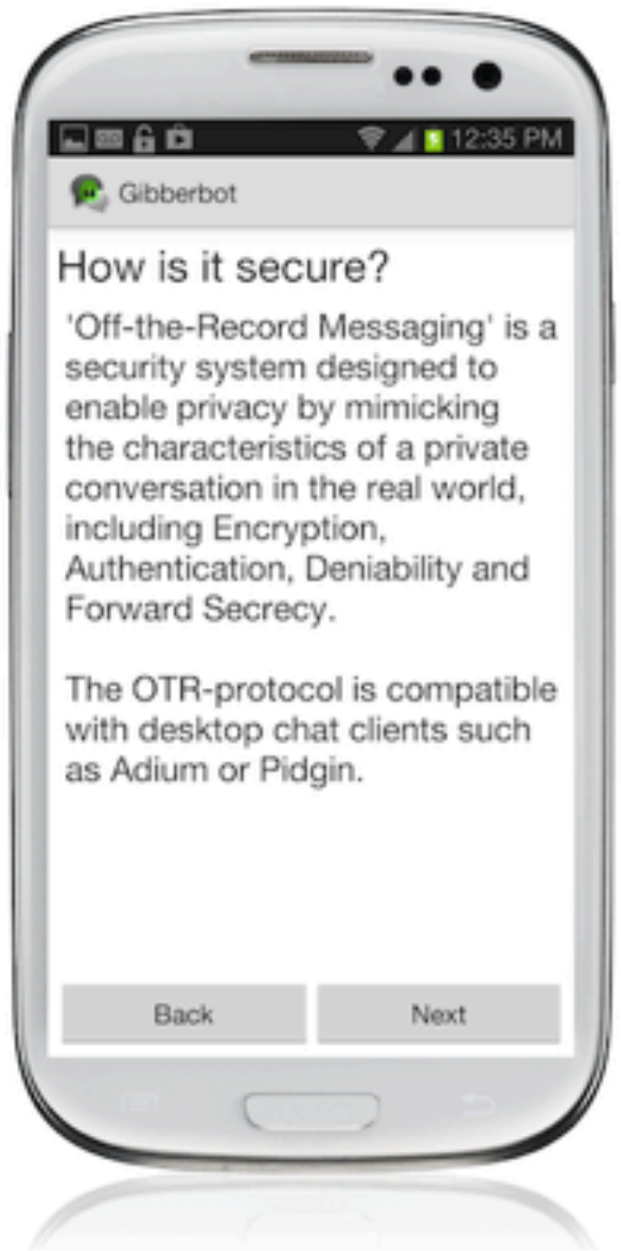
So you want to chat securely on Android?

It will tell you about our project.



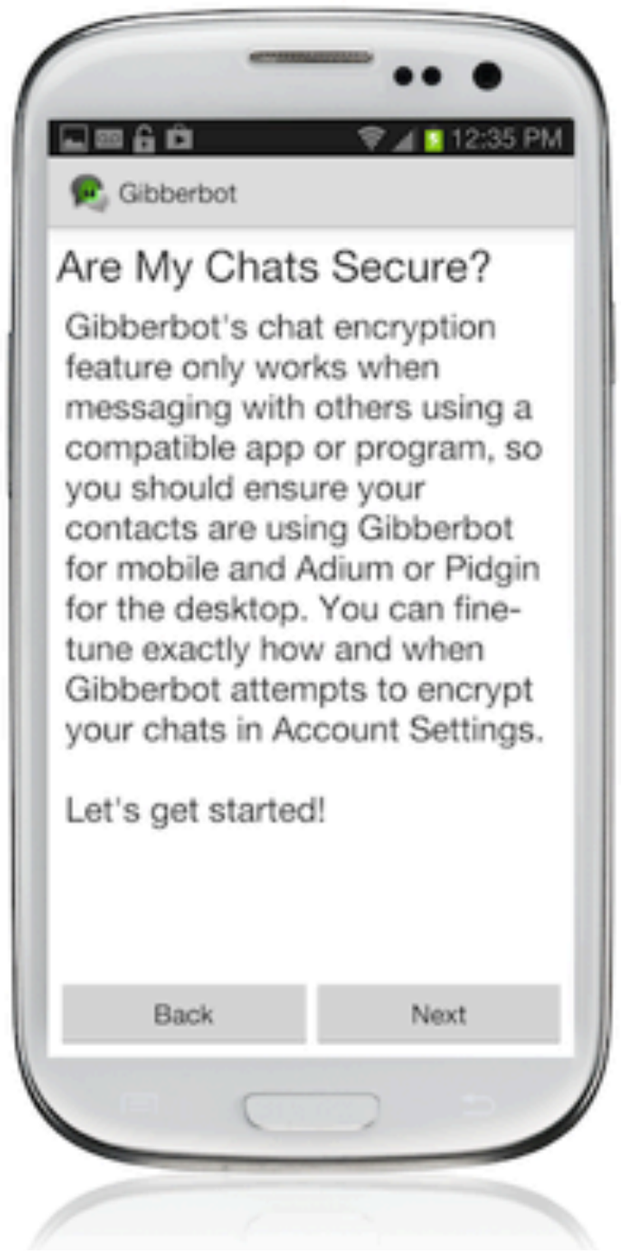
So you want to chat securely on Android?

Is it really secure? We break it down.



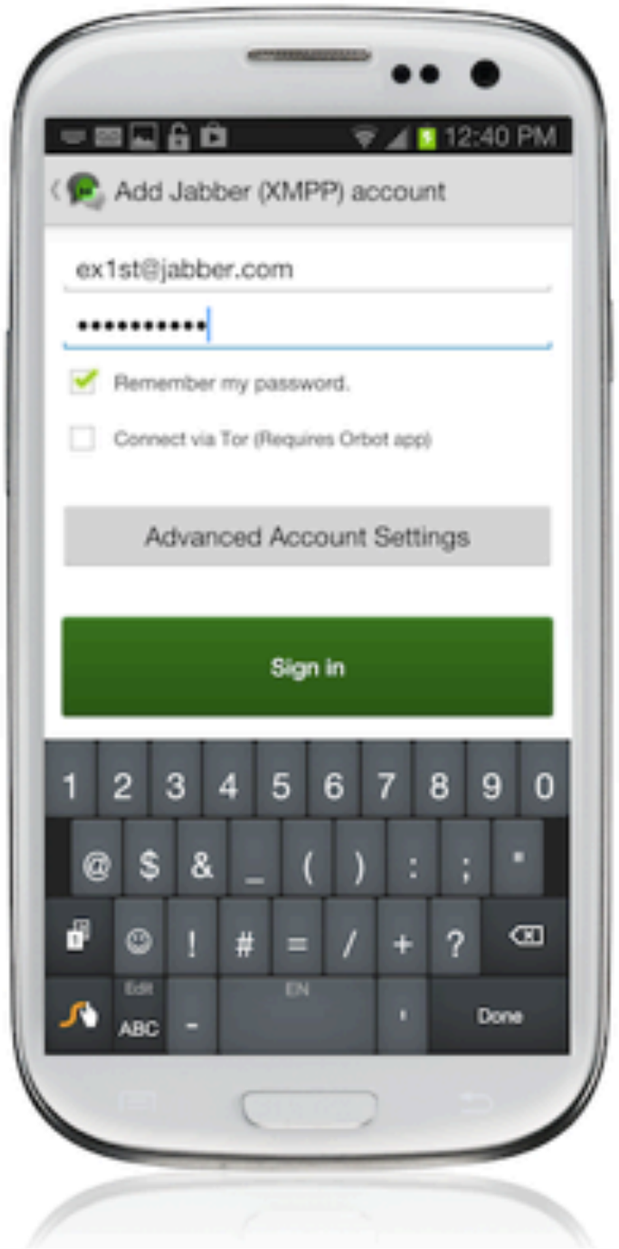
So you want to chat securely on Android?

Security is a two way street. Make sure your friends are secure too.



So you want to chat securely on Android?

6. Enter your account info: Gchat, Facebook, DukGo, & XMPP all work.
All set!

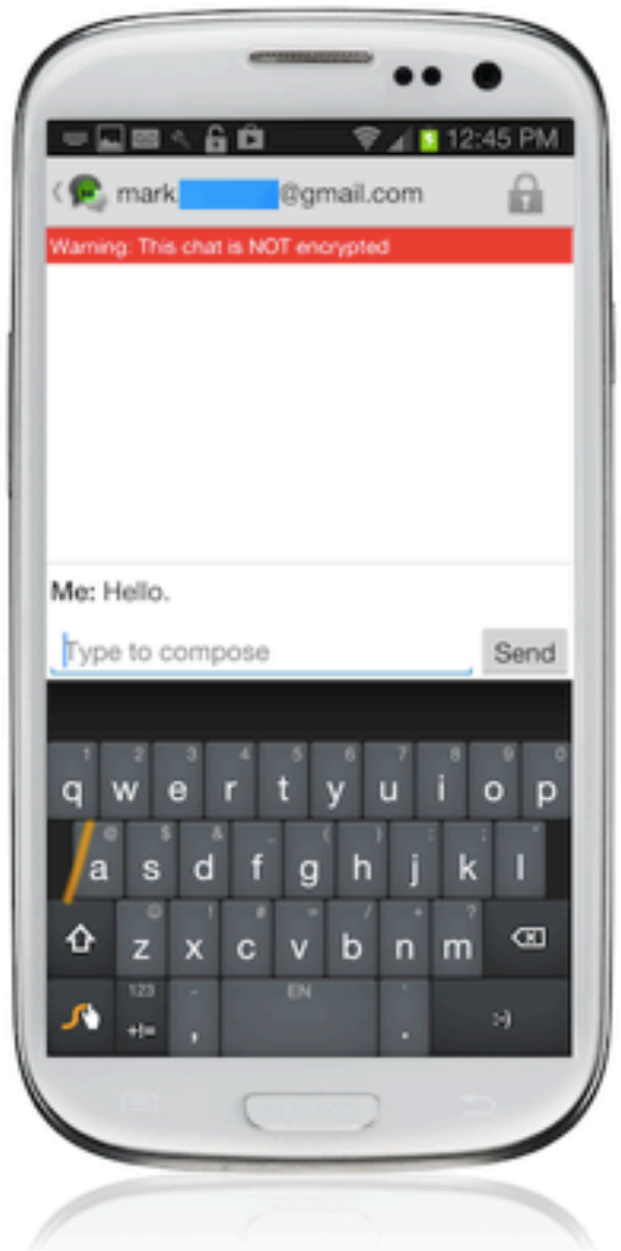


So you want to chat securely on Android?

7. We're in! There's my buddy list. Let's message my friend Mark.

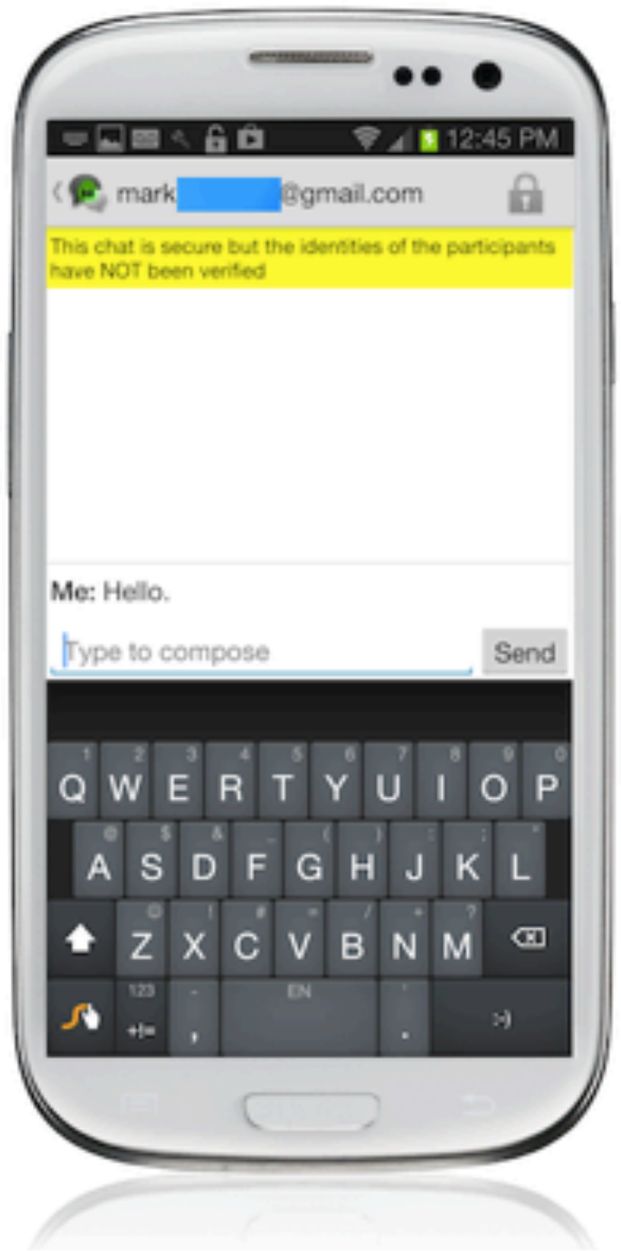
So you want to chat securely on Android?

Uh oh! It's red, so not encrypted yet. Let's wait to see if Mark turns on encryption.



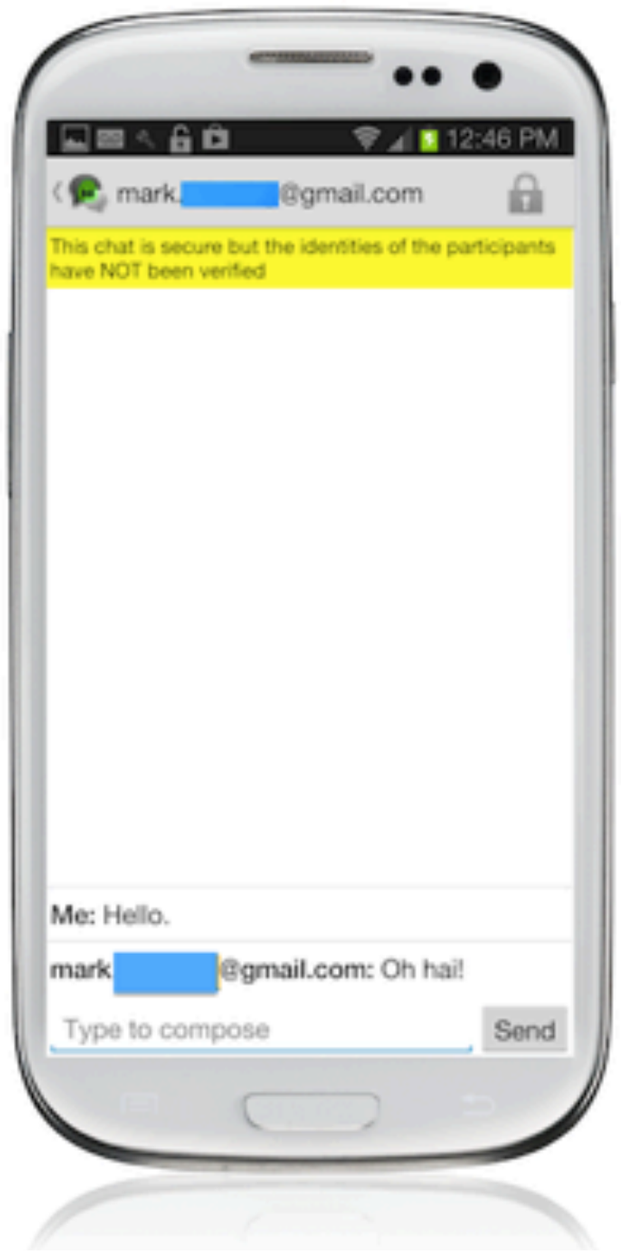
So you want to chat securely on Android?

8. The bar turned yellow ! Mark got our chat & turned on encryption.
Let's verify it's really Mark.



So you want to chat securely on Android?

9. Let's send him an unencrypted message. Send "Oh hai!"

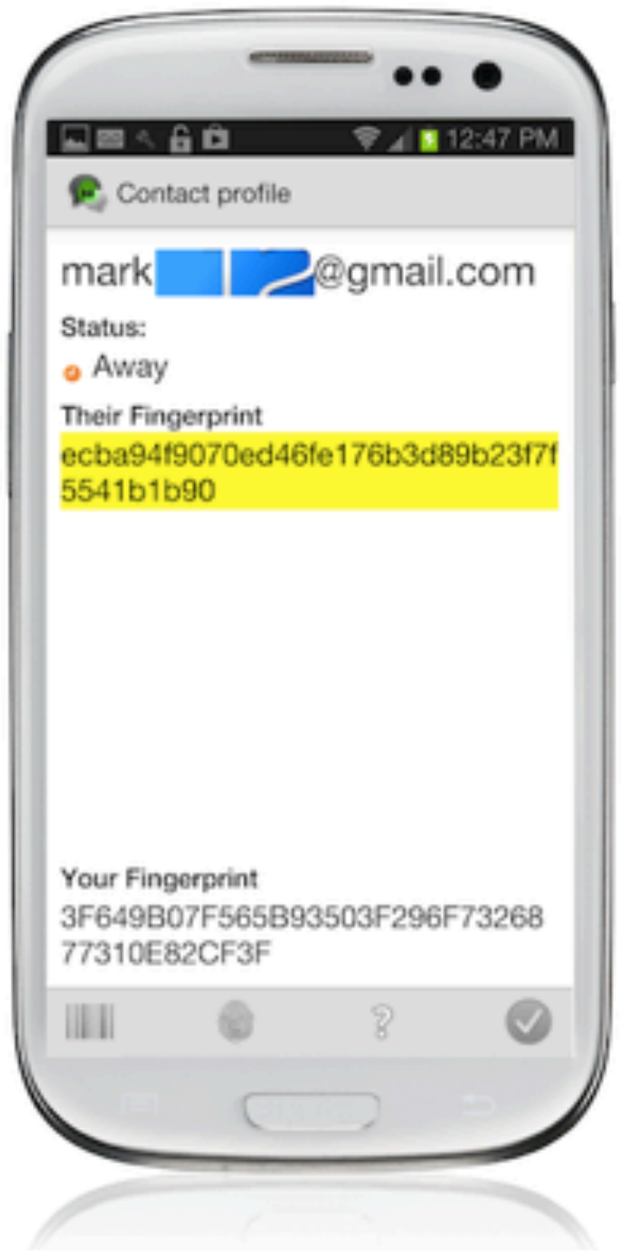


So you want to chat securely on Android?

10. Is that really Mark? Pull up the verify option. Let's click it to make sure.

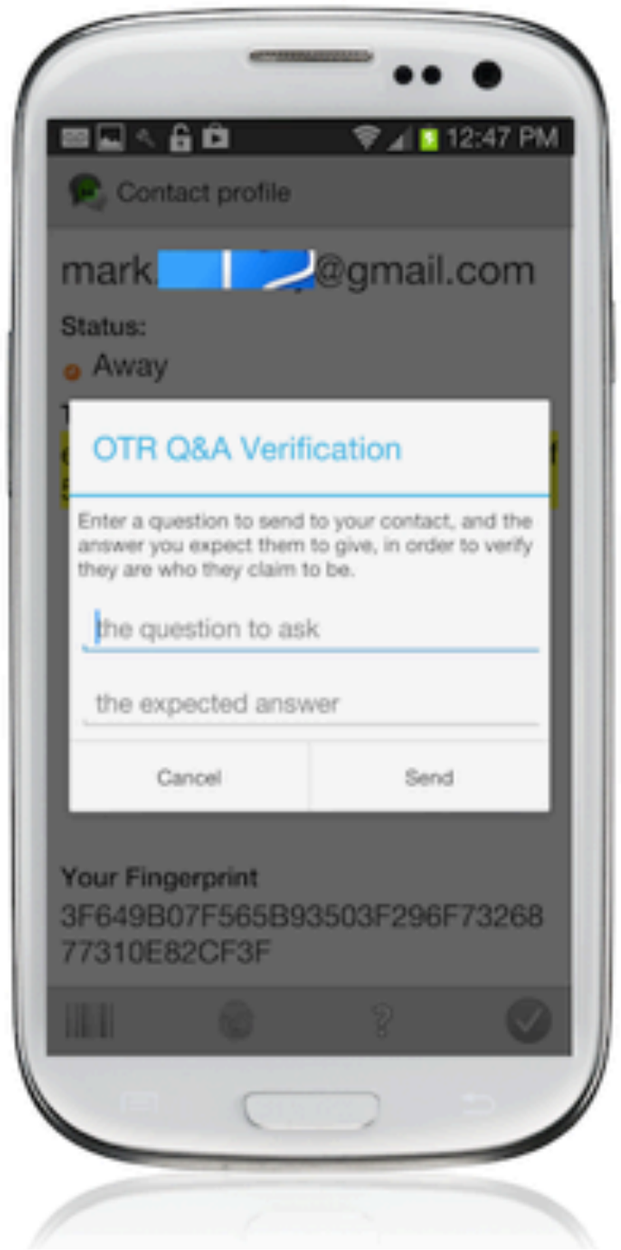
So you want to chat securely on Android?

I can see Mark's fingerprint. Now let me send him a message that only you would know the answer to.



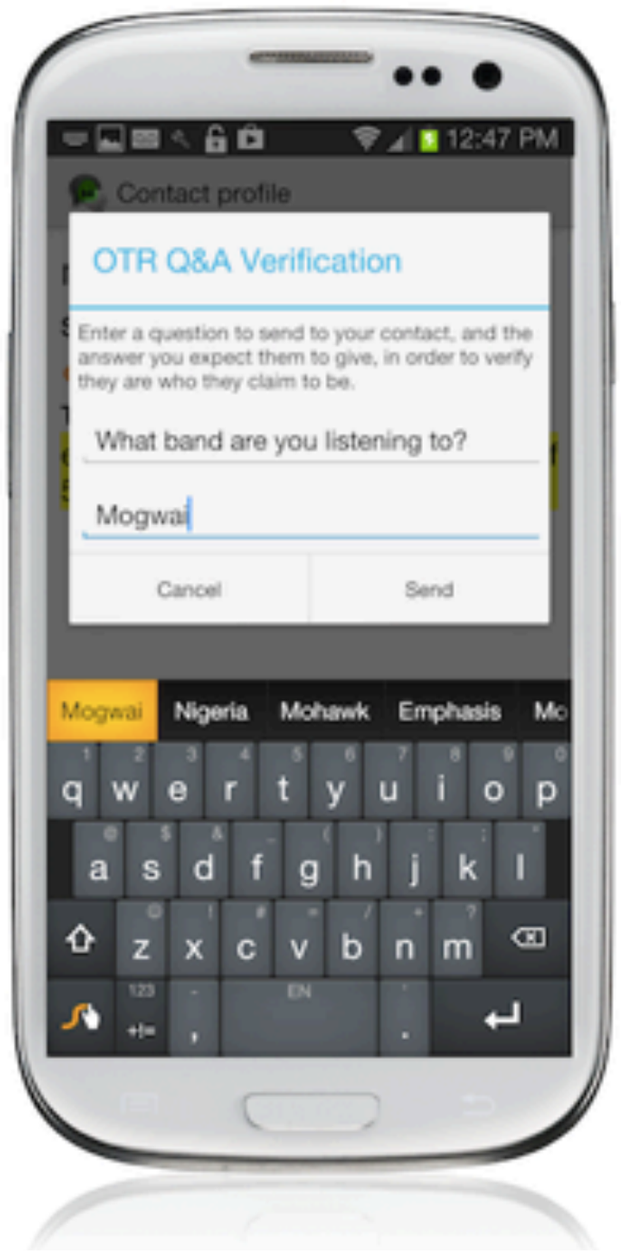
So you want to chat securely on Android?

I'm thinking of a question...



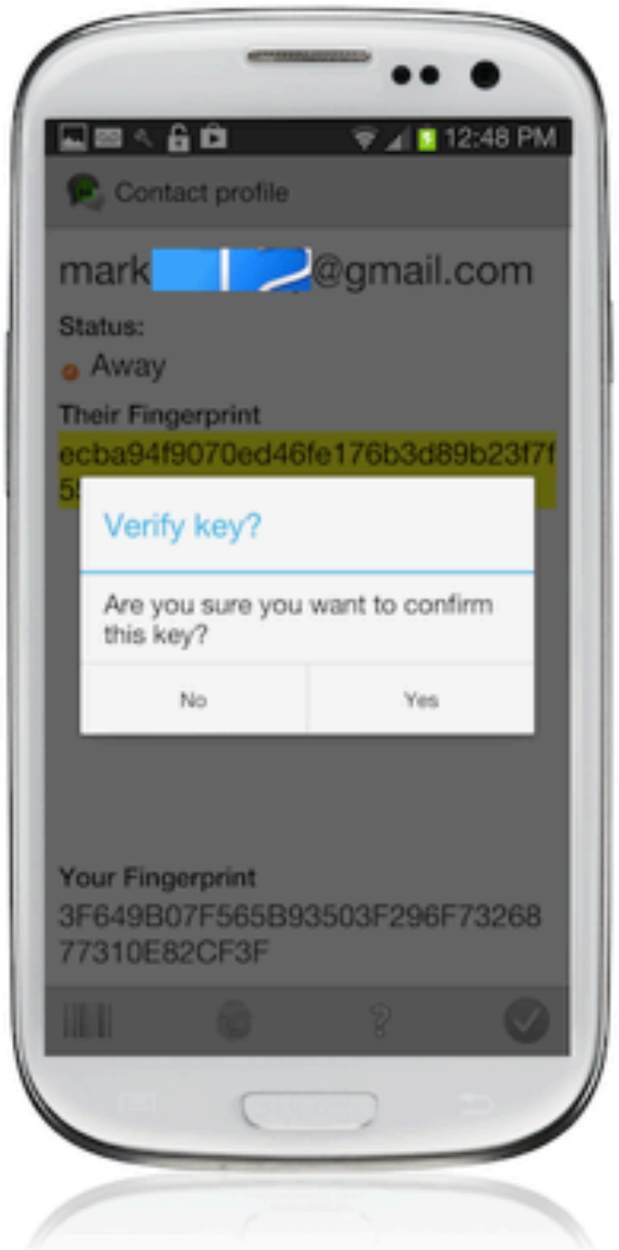
So you want to chat securely on Android?

Got it! I checked on a trusted channel: Spotify. Send the secret.



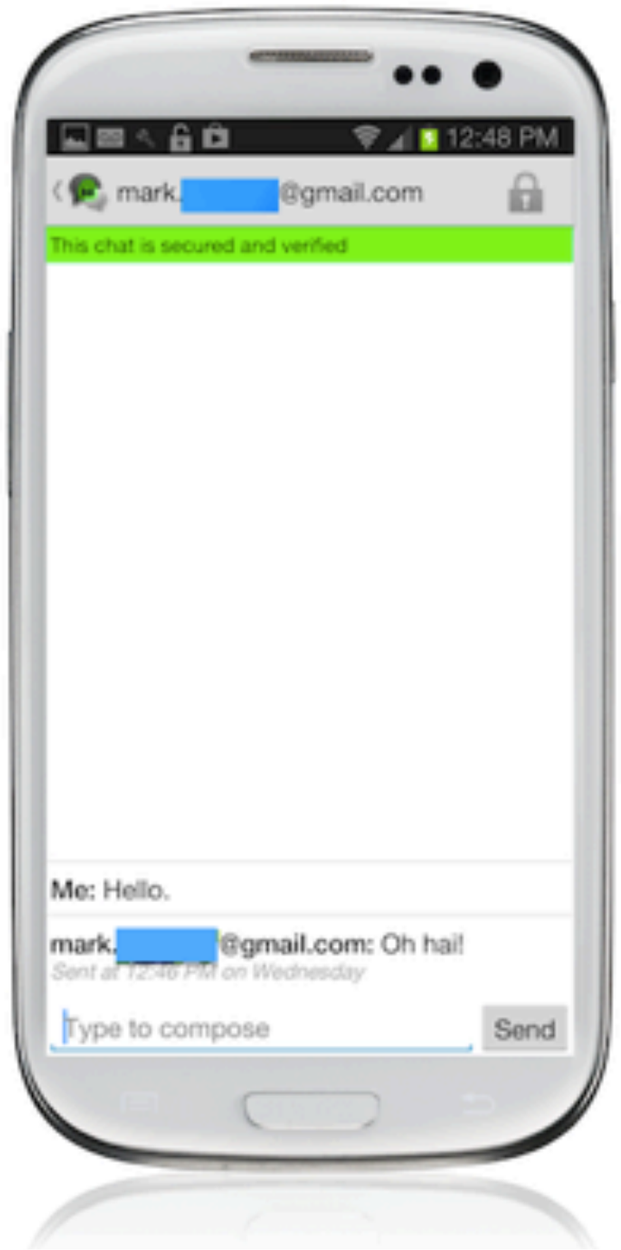
So you want to chat securely on Android?

Mark got the right answer! Well then, let's confirm it's really him.



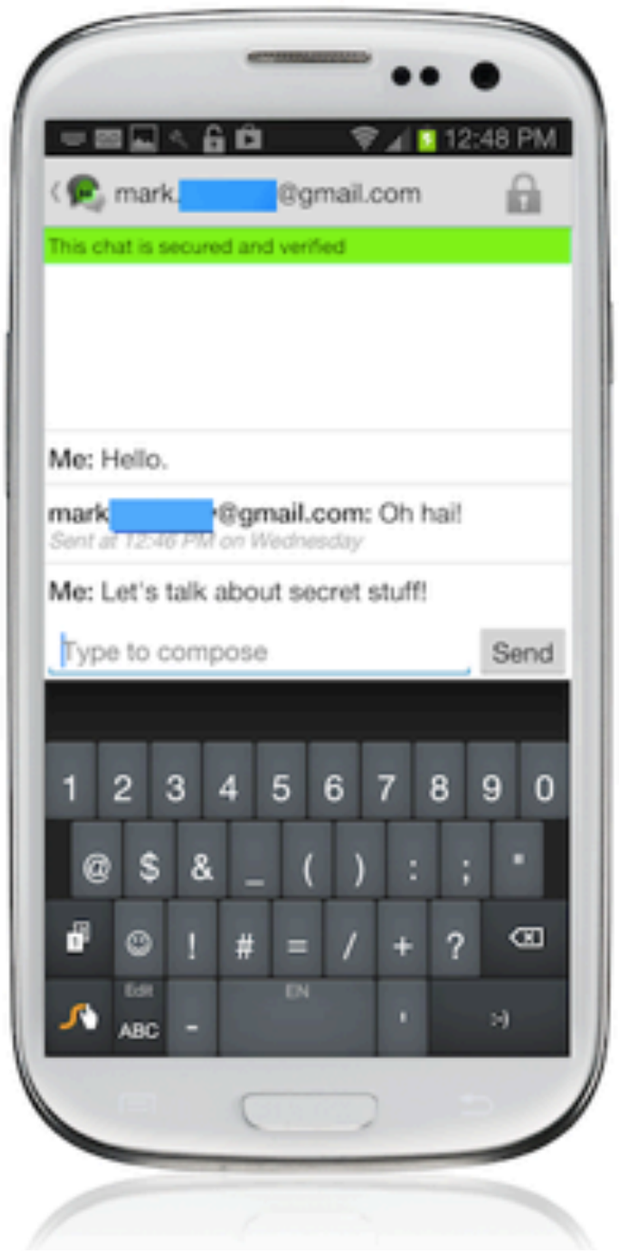
So you want to chat securely on Android?

10. The bar turned green! We're secure.
Let's send him an encrypted message.



So you want to chat securely on Android?

You're awesome! Play it again?
For more info, visit The Guardian Project



So you want to chat securely on Android?

1. Open the Google Play Store. Easy. Next?
It's blocked. Help!

So you want to chat securely on Android?

There's an alternative store. Install F-droid by entering *https://f-droid.org/FDroid.apk* into the browser. Done. Next?

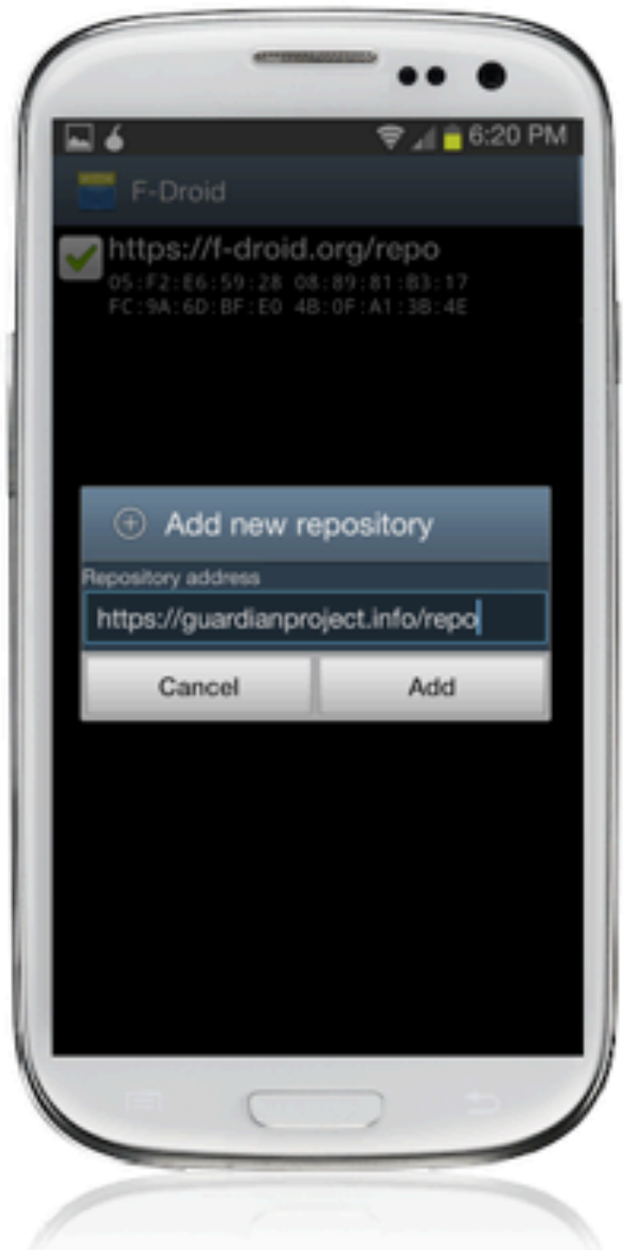
So you want to chat securely on Android?

Run the app and navigate over to Menu > Manage Repos > New Repository
Cool. What do I enter?

So you want to chat securely on Android?

Enter: https://guardianproject.info/repo/ (don't forget the s!)

Done. Where are the apps?

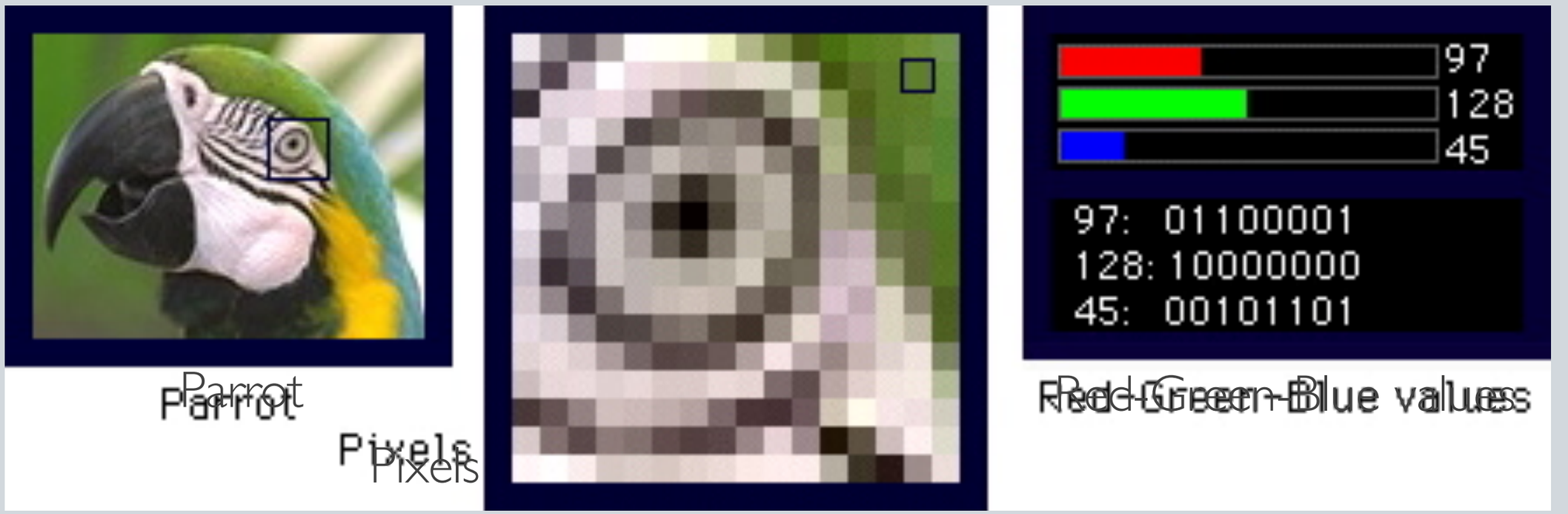


So you want to chat securely on Android?

Go back to the main screen and you should see the Guardian Project apps.
Click on *Gibberbot* to install. Got it.

MODERN PROBLEMS

What was cutting edge a couple of years ago, no longer is.



LEAST-SIGNIFICANT-BIT STEGO

Problems with making slight alterations to certain parts of an image:

1. **Distortion**: Forensic analysts are now accustomed to this trick. The footprint of an image treated this way can be obvious to a professional, so it can be found-out.
2. **Unrecoverable**: This tactic requires that the image never deviate in its size or quantization. This happens across most modern image-sharing medium, such as social networks & MMS.

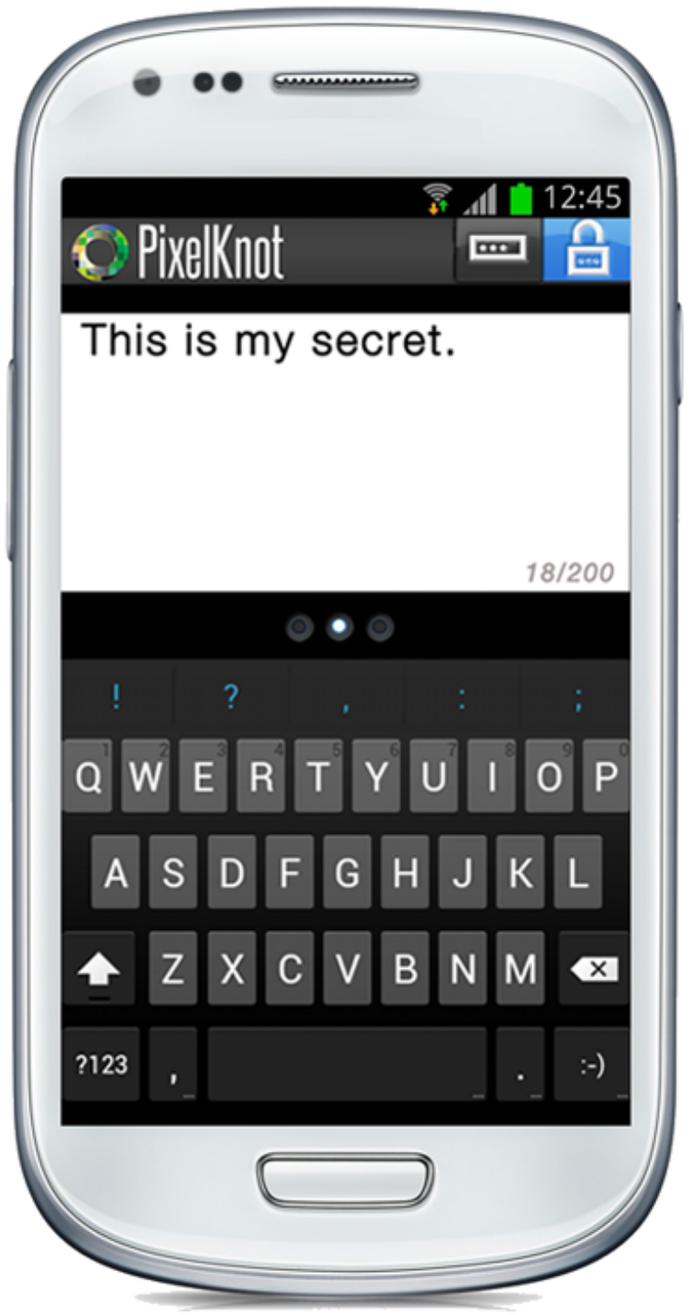
FUTURE SOLUTIONS

An app that manipulates the image at the "compressed domain," at the quantization tables of the jpeg, and embeds the secret message as a DCT coefficient in the chrominance channel of each 8x8 pixel block of the image

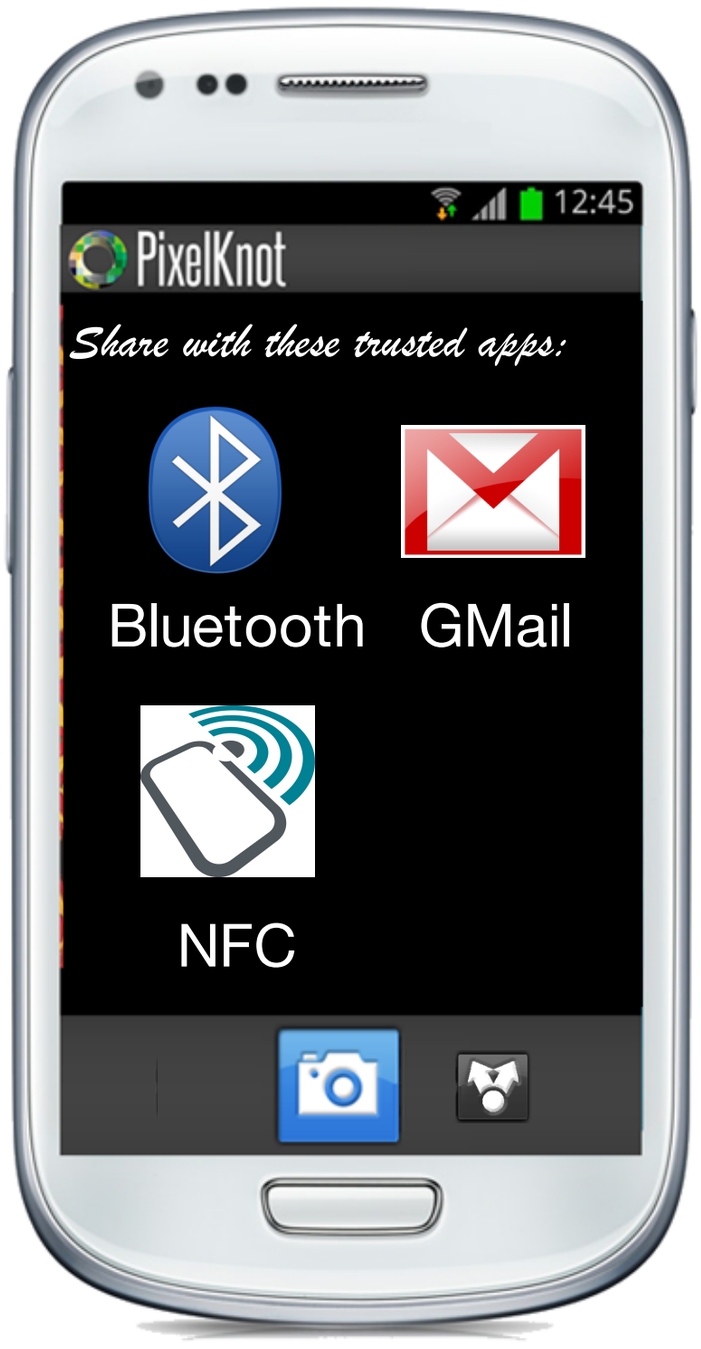
SOCIAL MEDIA INTEGRITY

The quantization stego method purportedly resists certain transformations to the image. However, this is as long as the image itself is not re-quantized by another actor, which could be the case with certain web and mobile services like Facebook. This approach already is popular in the use of watermarking copyrighted material.


12:45
PixelKnot
Select An Image

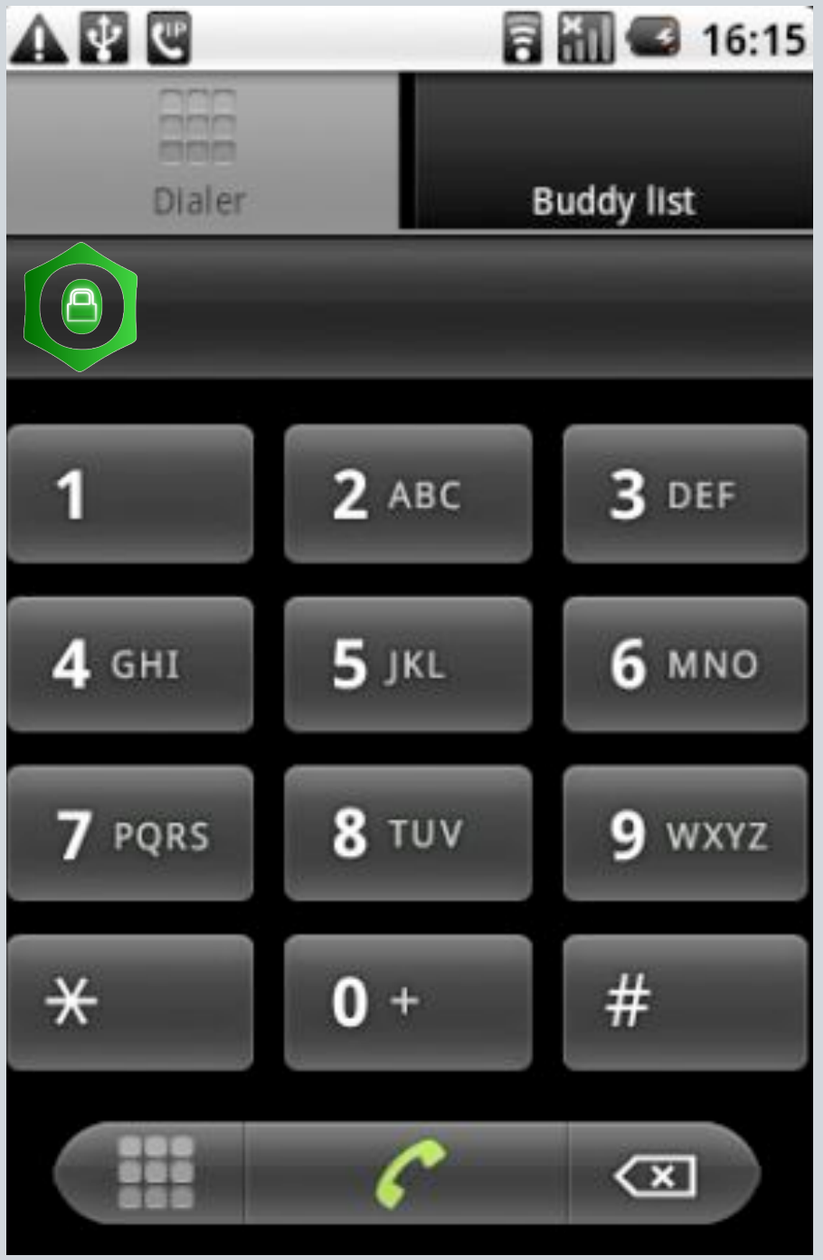

12:45
PixelKnot
This is my secret.
18/200
! ? , : ;
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
?123
:-)


12:45
PixelKnot
Cat's Paw
Loading...


12:45
PixelKnot
Share with these trusted apps:
Bluetooth
GMail
NFC

OSTEL

Secure and free phone calls. A defacto standard by which a voice over internet protocol service can be considered end-to-end secured, with verifiable encryption, minimal logging, and a decentralized model of deployment and use.



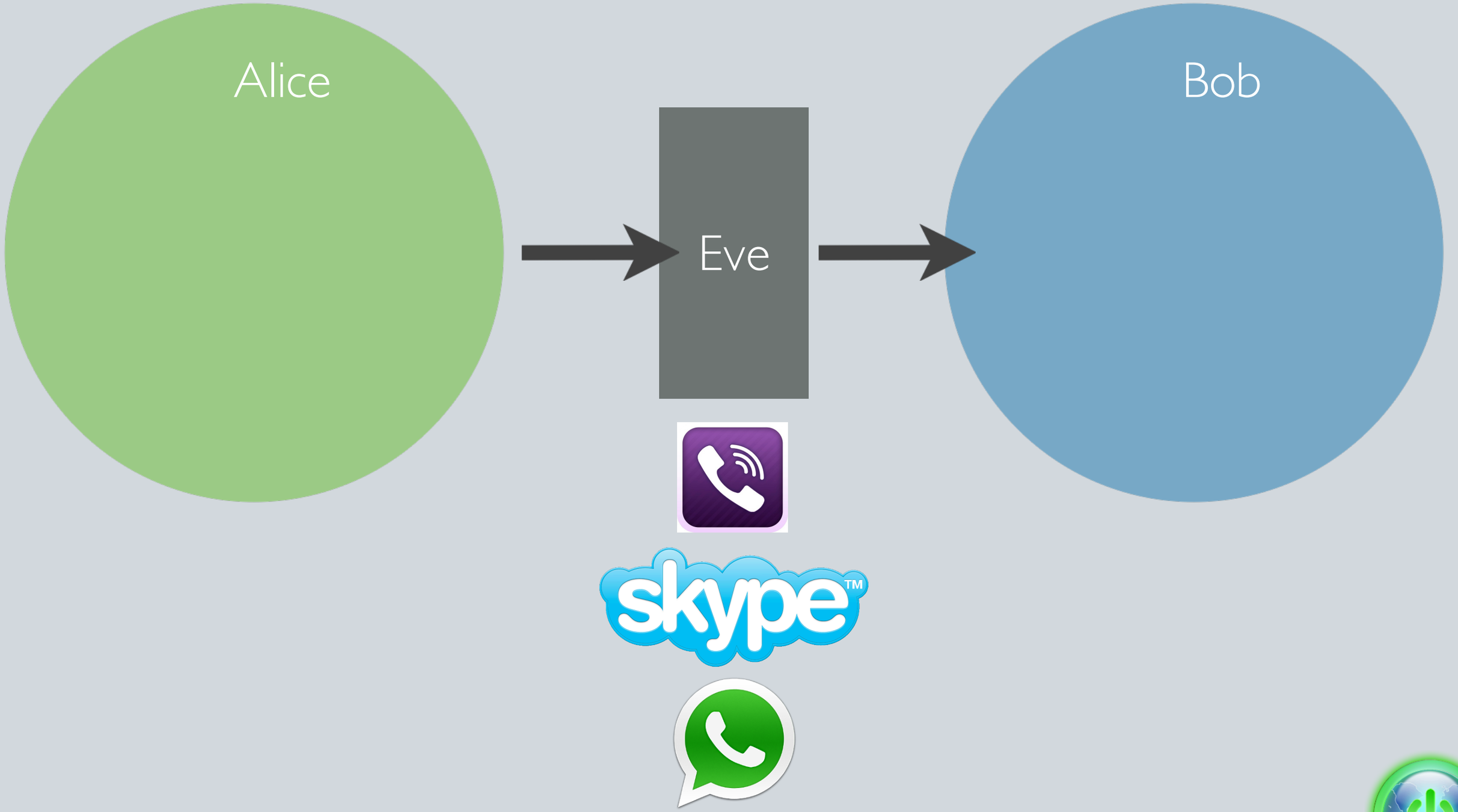
- Built-in public key encryption with ZRTP
- A network of compliant server/service instances
- Client software on mobile and desktop
- Currently functioning on Android, iPhone, Blackberry, PC & Linux
- https://ostel.me

NOKIA

Linux™

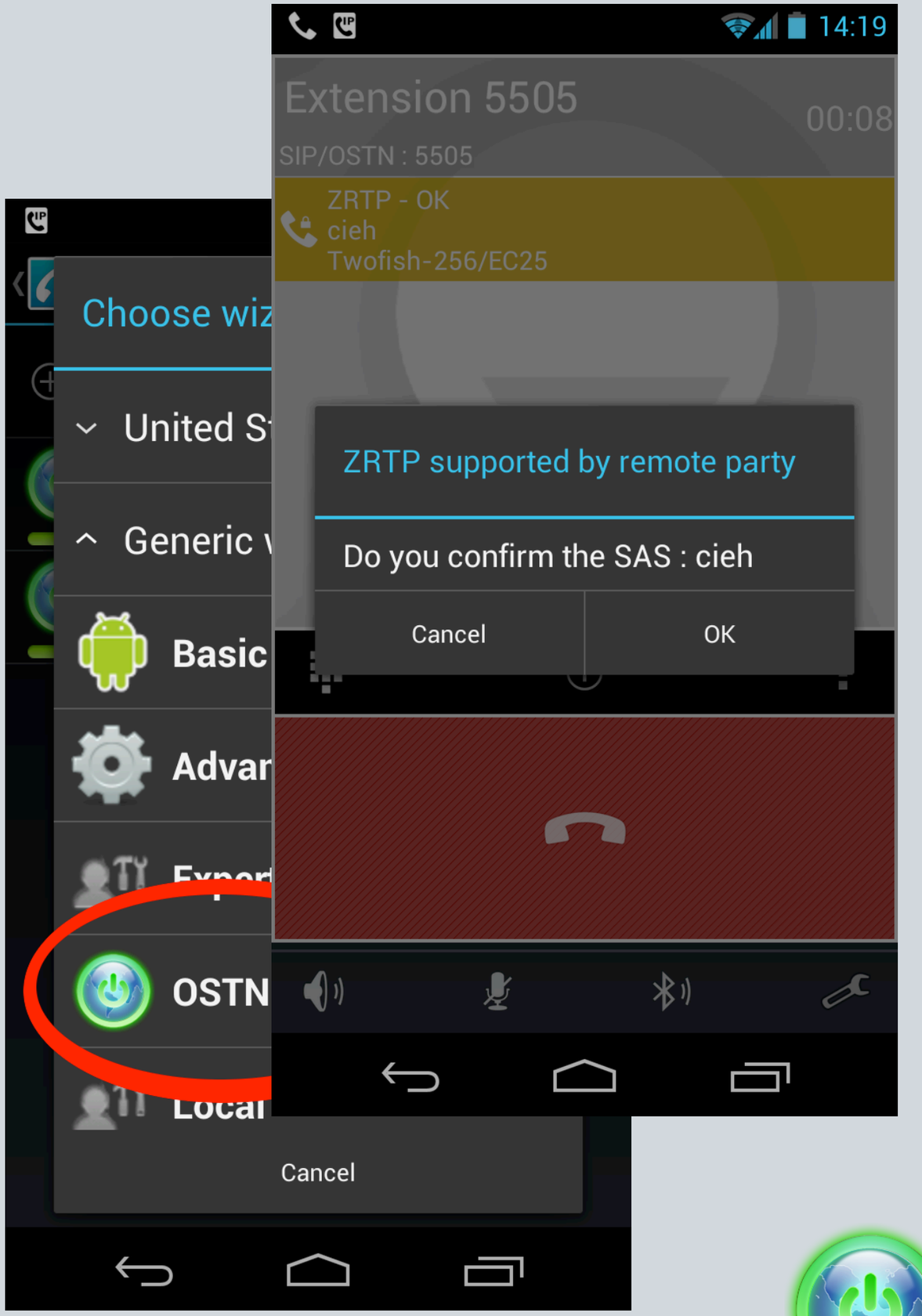
Windows®

END TO END ENCRYPTION?



CSIPSIMPLE

CSipSimple is a program for Android devices that allows for making encrypted calls. Naturally the calling software isn't enough on its own and we need a communication network to enable us to make calls.



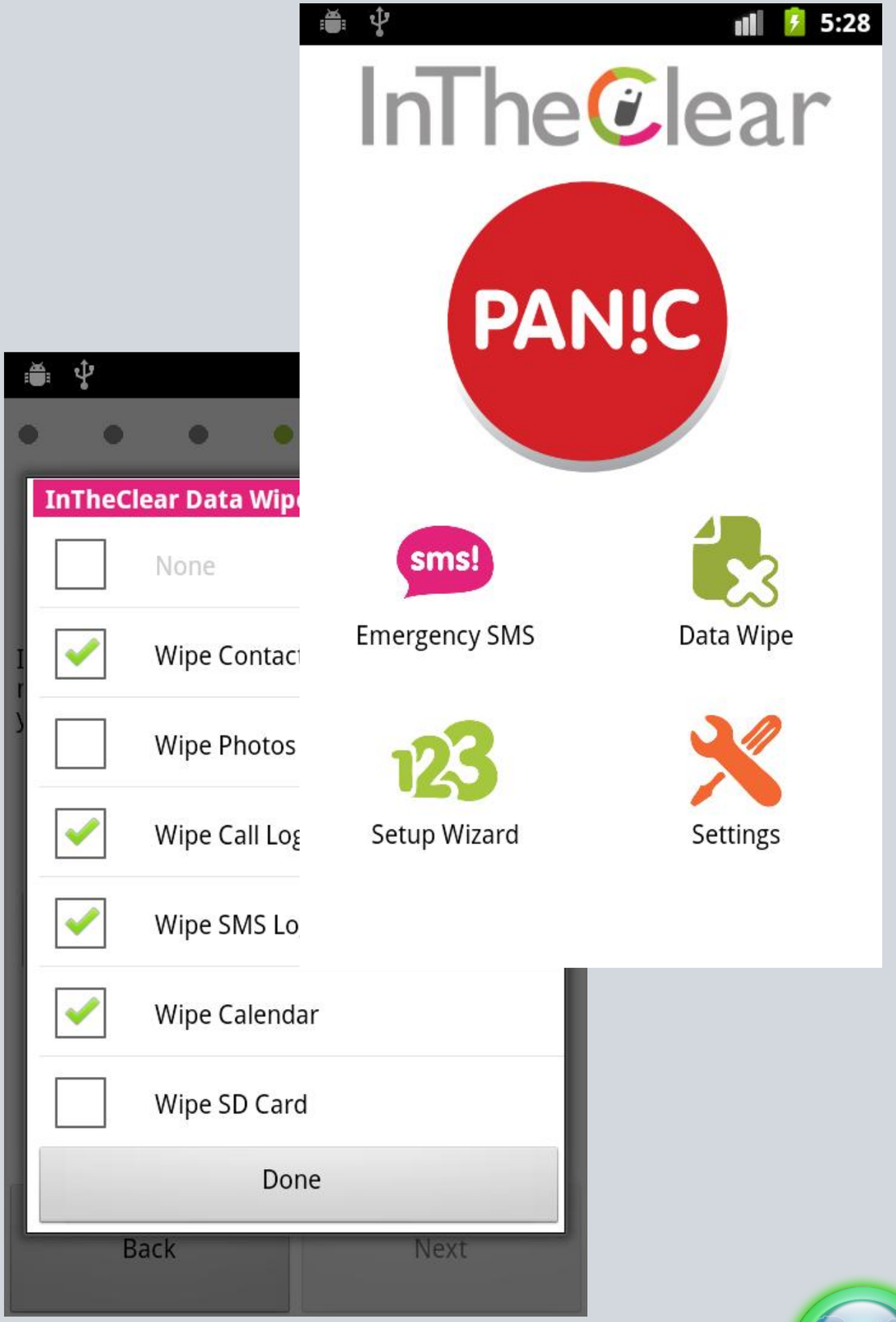
OSTEL.ME

TOR AND OTHER PROBLEMS

IN THE CLEAR

A "poison pill" app data wipe and emergency SMS distress beacon.

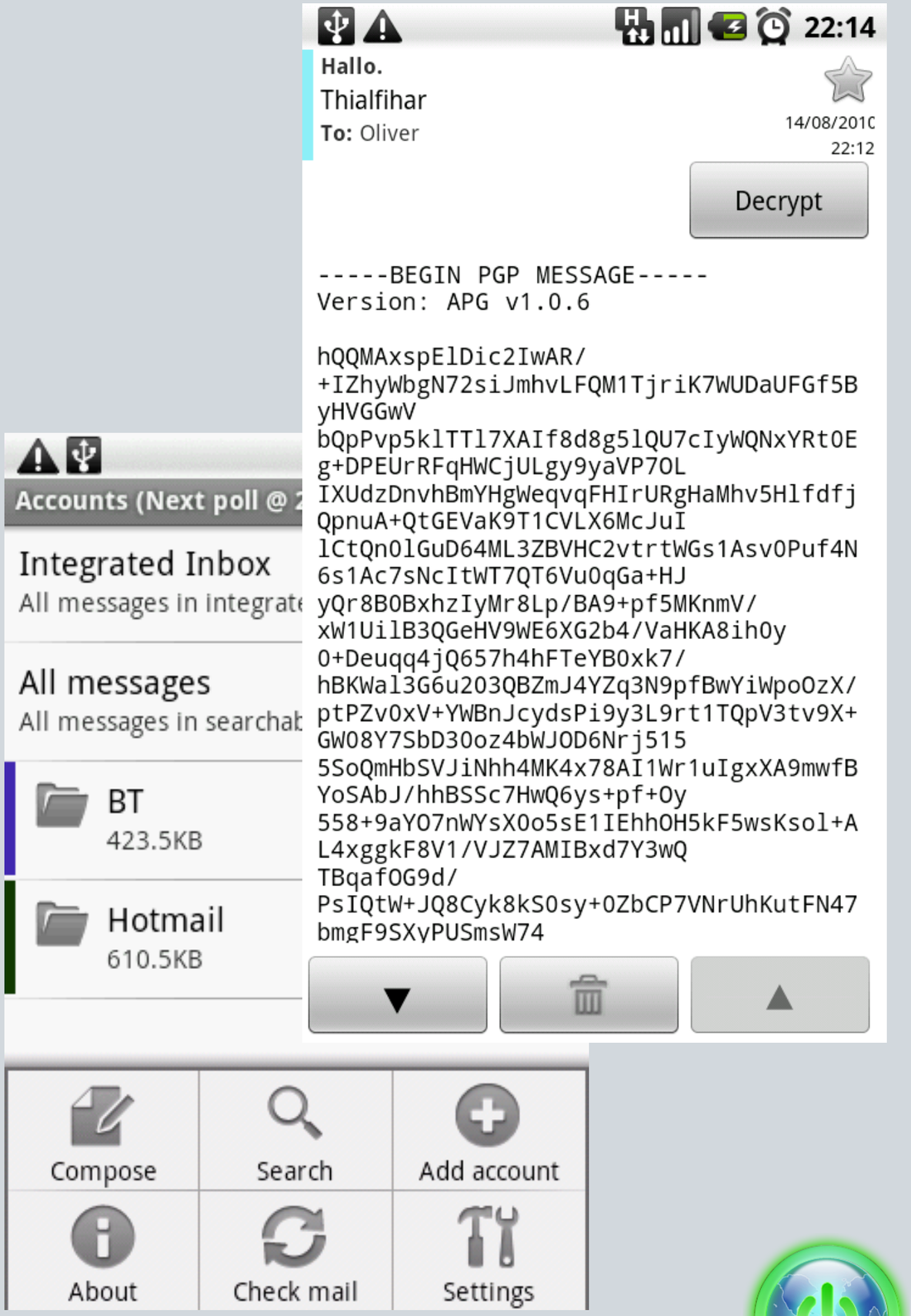
- Quick, one-touch activate
- Wipe data across different Android apps and external storage / SD Card
- Emergency SMS sends in background repeatedly with location and cell network dataAlso available on Blackberry and Java (Nokia, etc) phones

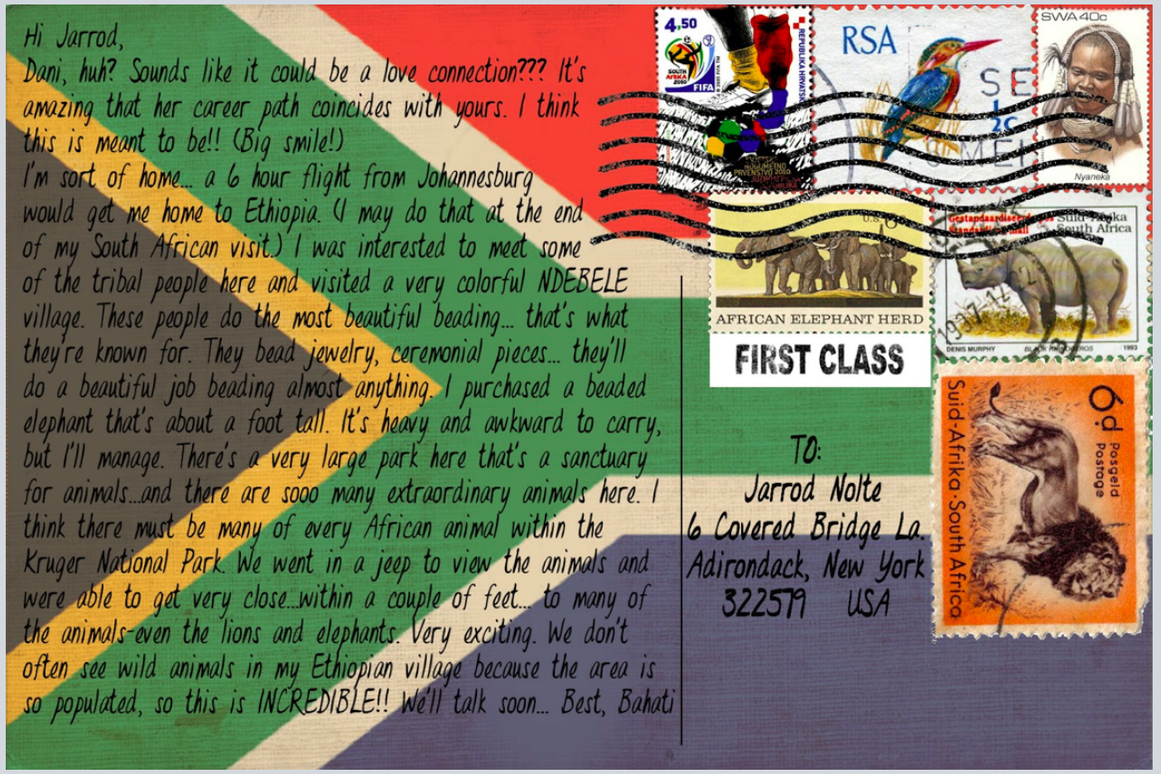


K-9 MAIL

K-9 Mail is an open-source e-mail client with search, IMAP push email, multi-folder sync, flagging, filing, signatures, bcc-self, PGP, mail on SD & more!

- Open Source
- http://k9mail.googlecode.com





POSTCARD Vs. LETTER

POSTCARD Vs. LETTER

WAX SEAL

hello

File Edit View Insert Format Tools Message Help

Send | Cut | Copy | Paste | Undo | Check | Spelling | Attach | Priority | Sign | Encrypt | Offline

To: some@one.com

Cc:

Subject: hello

Arial 10

-----BEGIN PGP MESSAGE-----
Version: GnuPG v1.4.7 (MingW32) - WinPT 1.2.0

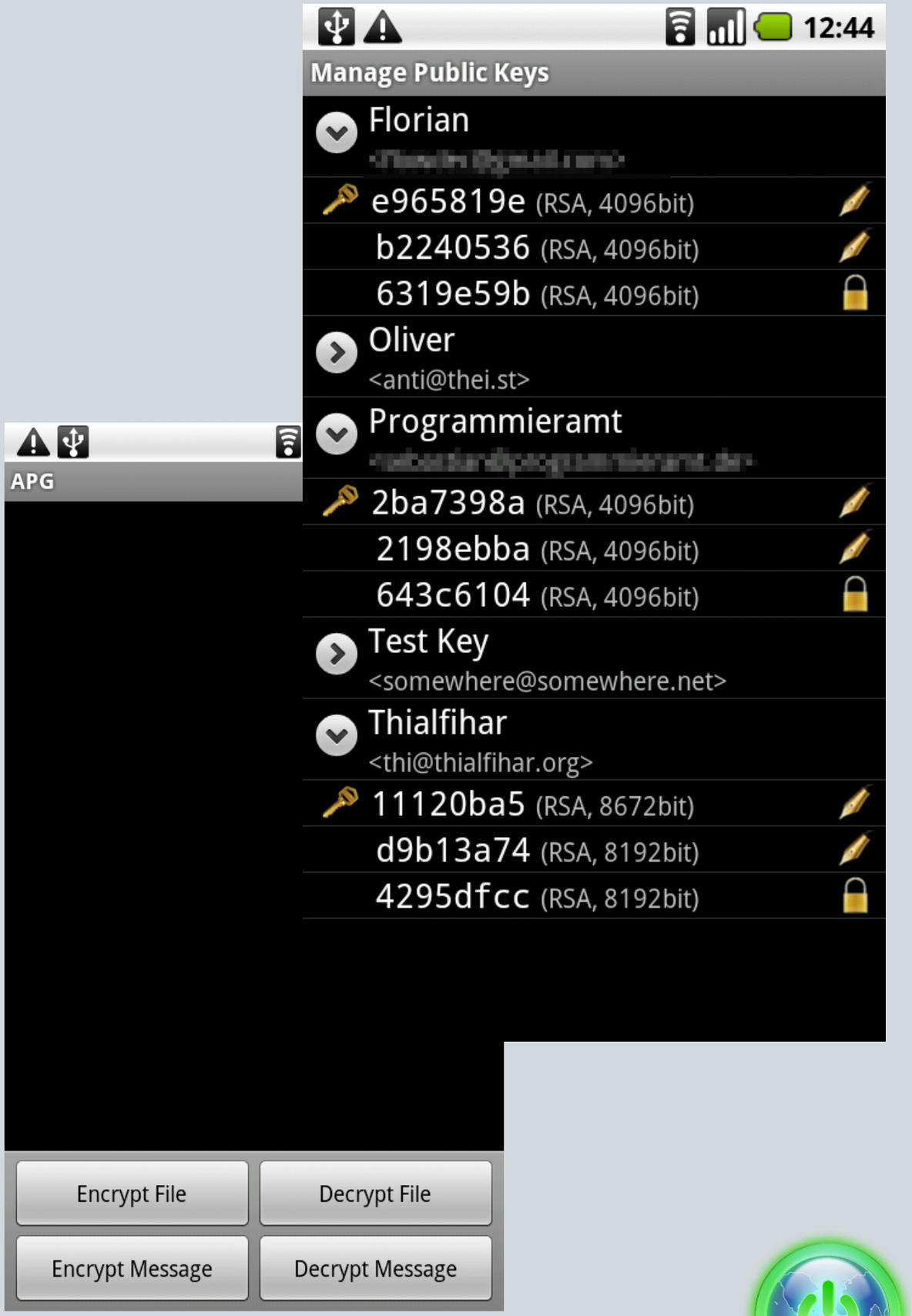
hQEOA76kihKpxmEmEAP9HMUEf8vN7M4i81thj38qTctb15P2jP353UBNippi6K1H
466iArA8UospU3MoVE2WDdNbAfz36QkovArlHdlOODwOsPfVaG7uipWAJpGZ9MsA
Ey/ycMtE+9+rBN/17XpCrg5QG/16jlpasdUFSMx32q0fUdNAOQwo3heLGQ2pqylE
AOsSqhSKQJSOkCWla9fyfH7eD0jDIYZGFJ9by/mXMt5kTsZgtM0+BTNX6gvkE52g
bbVL/man6U2mM+8kyagv6r0d+cmyE52cDPPfkQj6klMNk5ESHM60BwdtKGRkgZmX
nFs4xqMSwTnBlEW4FFVDrYi0iAMV4lk2F9W4clZ9+fWd0lgBuMBNod+V4ga2PAzP
SMdii34Pnqn3ICb7eaz3kYP9o7KVaLxFSYPjE/rYWs1apRKD29O+b4FCosUHZuKo
MmiKYExQulp59RRPETkwF82yNB8VZ0maReBj
=5LFa
-----END PGP MESSAGE-----

WAX SEAL + CYPHER

AGP

Manage OpenPGP keys on mobile to encrypt, sign, decrypt emails and files. Android Privacy Guard tries to fill that void of no public key encryption for Android.

- import/export of GPG key rings and exported keys from/to the SD card
- encrypt and sign messages, then send them via your preferred email app
- decrypt messages and verify signatures
- reply to decrypted messages with quoting and automatic filling of receiver key and signature, based on the keys used to sign/encrypt the received message
- list the most recent emails in the inbox of your Google Mail accounts on the phone
- support file managers for easier file selection where necessary
- file encryption/decryption with asymmetric and symmetric ciphers
- key management (import, create, edit, export)



8 SIMPLE PRIVACY TIPS TO PUT YOUR MIND AT EASE

Here are a few simple things you can do to protect your privacy:

Always create unique passwords.

Set a strong password and frequently change it.

Update your phone and third party application software.

Look for signs of trust and read reviews and ratings of applications before purchase.

Be careful clicking on links within emails, SMS or social networking sites that ask for your personal information.

Only enter your account or credit card information on a site that begins with "https://" or has the lock symbol.

Take a minute to read the application's privacy policy.

Take note of pop-up notices/alerts.

Sources: truste.com | mylookout.com | pewinternet.org | Google Insights Survey | GfK NOP

lookout™
MOBILE SECURITY

HOT OR NOT?

If your phone is hotter than you, you might have a problem.

TRANSLATION

Help us speak your language.
transifex.com

CREATE GAMES

DEVELOPER TOOLS

Software routines and utilities to help programmers understand and code application with security and privacy by default

CIPHER SUITE

A Growing Number Of Tools For Securing Apps & Communication on Android

IOCIPHER

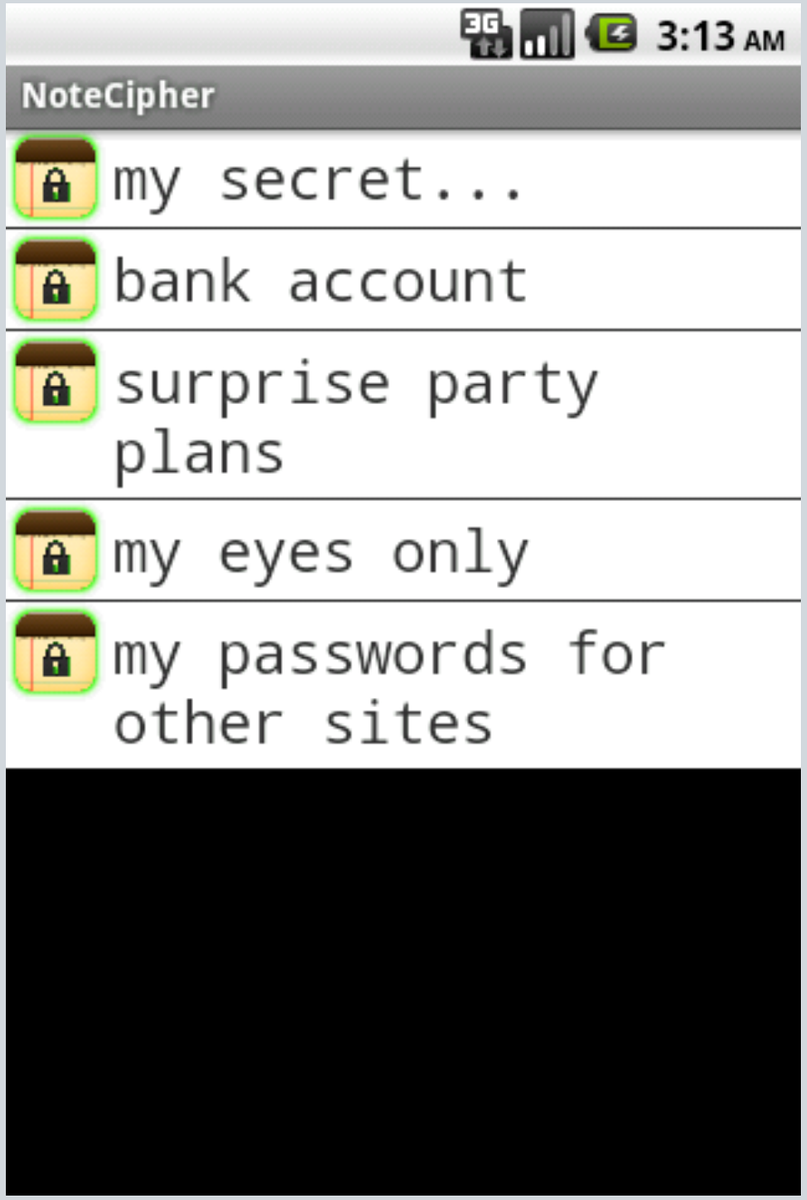
Transparent encrypted virtual disks for Android. This allows Android app developers to use the familiar and well documented android.database.* API to build in encrypted storage into their apps

- libsqlfs+SQLCipher built on top of SQLite, which gives a single, very portable file that is the whole filesystem
- libsqlfs is a FUSE module
- Successful alpha of IOCipherServer/SpotSync app

SQLCIPHER

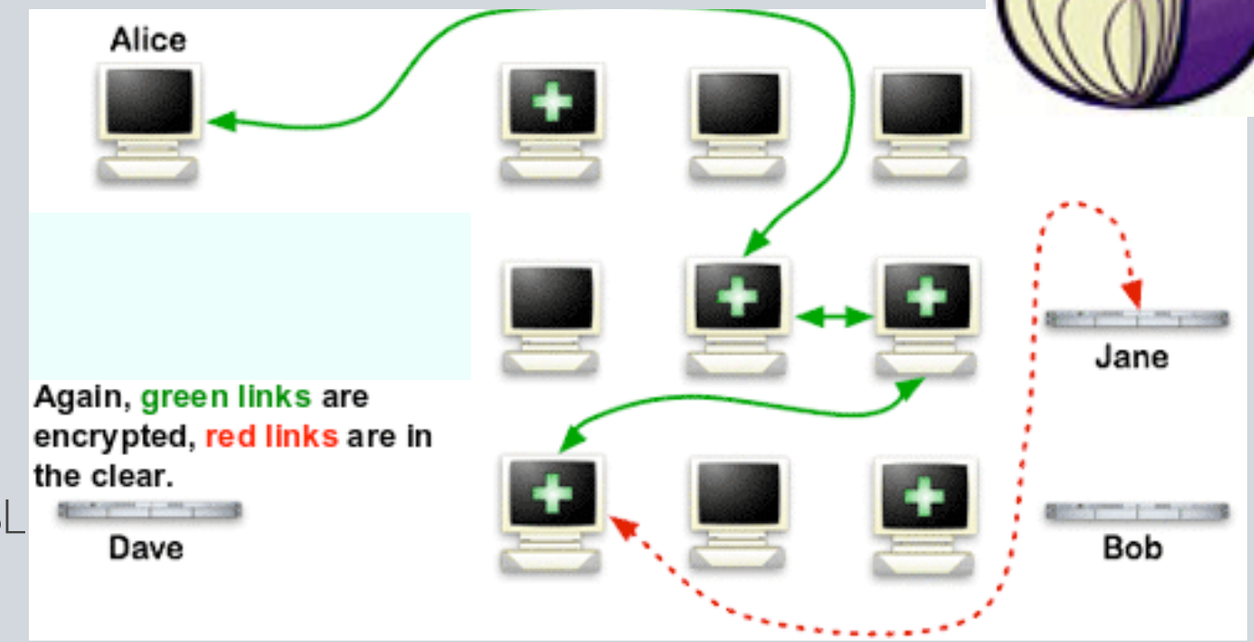
SQLCipher is an SQLite extension that provides encryption of per-app database files.

- Symmetric, 256-bit AES
- Existing open-source project, ported to Android
- Simple process to enable encryption on existing apps
- Cross-device and desktop portable data compatibility
- Robust, tested and performs well on mobile devices



NETCIPHER

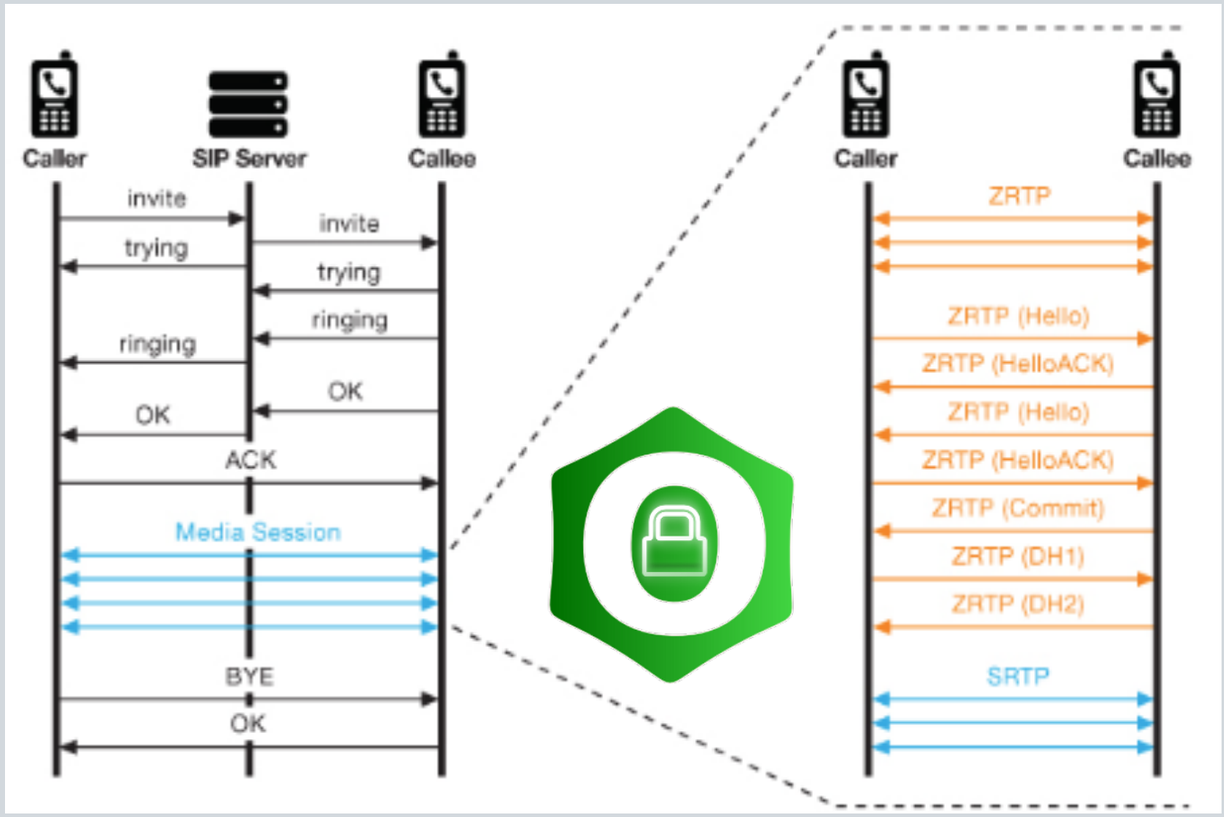
Enabling secure and anonymous network proxying. This is an Android Library for use by any application that wishes to route its network traffic through Orbot/Tor.



- StrongTrustManager: a robust implementation of an TLS/SSL certificate verifier, that can be customized with any set of certificate authorities
- Proxied Connection Support: HTTP and SOCKS proxy connection support for HTTP and HTTP/S traffic through specific configuration of the Apache HTTPClient library
- OrbotHelper: a utility class to support application integration with Orbot: Tor for Android. Check if its installed, running, etc.
- Transparent proxying of application data traffic on rooted devices
- Applications that provide traffic proxying to Orbot's local HTTP and/or SOCKS proxies can access the Tor network on non-rooted devices
- Successful integration with official Twitter app

OPEN SECURE TELEPHONY NETWORK

Secure voice communications schematics featuring an open client and server for a federated network. Standards development for VOIP end-to-end security, with verifiable encryption, minimal logging.



- Built-in public key encryption standards with ZRTP
- Coordinating a network of compliant server/service instances
- Coordinating client software on mobile and desktop, including PrivateWave, Redphone, Groundwire, Keywe, and Debian

CAN WE REPLACE THE TELEPHONE COMPANY?

	Android + Guardian	RIM Blackberry + BES	WinMo / iPhone + ActiveSync / Lotus
Open-Source / Peer Review	Apache and GPL licensed open-source code, extensive public review	Closed-source	Closed-source
Encryption Standards Support	OpenPGP, AES-256, ECC-56 bit (SMS)	FIPS-Certified, AES message encryption	No message encryption. TLS transport encryption.
Anonymity	All data traffic can be routed through Tor anonymity network	User identified by host/IP address of BES	User identified by host/IP of ActiveSync server / VPN
Circumvention	Restrictive FW can be passed using Tor network with bridges	RIM Network / BES may be accessible via restrictive fw	Corporate VPN may be accessible via restrictive fw
Customization	Completely customize down to Android ROM image up to apps	Add on apps / J2ME / Blackberry SDK	Add-on apps / .NET
Device Management	GPS tracking, locking, wiping, backup and ROM update via network download or SDCard	BES support for device authentication, remote erase and more	Remote lockout / auth for ActiveSync / remote erase of Exchange data

CAPABILITY COMPARISON

PARTNERSHIPS & SERVICES

Partner with other organizations for joint research, development and solution creation

Contract to customize and integrate open-source code for specific needs

Provide auditing, review and advice on mobile security architectures and deployments

Plan, purchase, and configure off-the-shelf mobile hardware solutions for a nominal fee

Provide general and specialized mobile security training and curriculum development

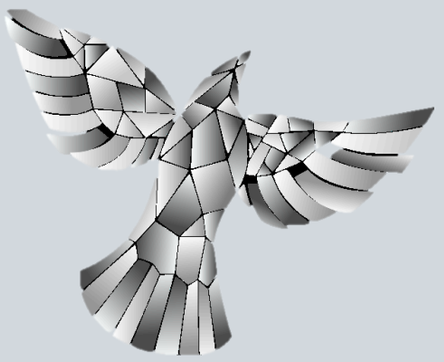
Partner in advocacy and awareness campaigns on mobile security & privacy

The Guardian Project is under active development, with beta stage deployments of software and hardware with partner organizations underway.

Our apps are available through our site, through partners sites and in the Android Market, and in total have been downloaded over 750,000 times.

We are actively seeking developers, designers, users, partners and funders for our work.

Please visit https://guardianproject.info for more information.



THE GUARDIAN PROJECT
https://guardianproject.info

THE GUARDIAN PROJECT

WWW.GUARDIANPROJECT.INFO

INFO@GUARDIANPROJECT.INFO